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Leadership and Organisation in the Aviation Industry

Leadership and Organisation as a function of the different prevailing Professional Cultures

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Abstract

The following research project develops *leadership* and *organisational* structures that are in accordance with the *requirements* created by different professional backgrounds.

In order to do, that the theoretical construct *Professional Culture* is introduced. This construct unites the whole set of values, convictions and behavioural patterns that evolve within a common professional background.

Further, *Professional Culture* is put into relation to its peer constructs of *National* and *Organisational Culture*.

In a subsequent step, the different *Professional Cultures* and their characteristics are identified and appropriate leadership and organisational structures are proposed. This is undertaken with the help of an extensive empirical study and a broad literature review leading to the inclusion of a significant theoretical base into the study. In particular the so-called *GLOBE-Study* proved to be beneficial.

The *methodology* used is based on both a *quantitative* and a *qualitative approach* in order to gain the maximum *amount* and *quality* of *data* possible. This methodology was employed in both a significant pilot study and the main study. The surveyed sample itself is composed of 196 respondents for the pilot study and 507 respondents from various organisations and countries for the main study which gives the study a sound empirical base.

In total, twelve different Professional Cultures are isolated and characterised. These *Professional Cultures* include a vast *variety* of different occupations, stretching from Blue Collar Workers to Executive Management.

An *example* for the differences in requirements encountered is the appropriate leadership style for blue collar workers and the one for executive management. Whereas the former explicitly favour a more *steering* and *guiding* leadership style, the latter prefer and need *freedom* and *inspiration* by their leaders.

Finally, a *cross-evaluation* is undertaken in order to validate the insights gained in the course of the research project.

In summary, the following study gives a comprehensive overview of a number of different *Professional Cultures* and their characteristics, including their corresponding leadership and organisational structures.

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PART A

THE THEORETICAL BASES

1 INTRODUCTION

1.1 *The Research Issue*

The objective of the current research project is the development of appropriate *leadership* and *organisational* structures that can cope with the demands exhibited by different occupational backgrounds. In the current work it is argued that these backgrounds create a genuine cultural system comparable to those of *Organisational* and *National Culture*. The construct introduced to characterise these cultural systems will be called *Professional Culture*.

The question as to how far certain Cultures influence Professional interaction between people has long since been an area of interest to the scientific community. Two different aspects of the term "Culture" have triggered specific research efforts in the past and are still of major importance today (e.g. Dülfer, 1992; Martin, 1995; Redding, 1995).

The first aspect is represented by the different *National Culture*s (e.g. the extensive work of House et al., 1999; House et al., 2004, see also chapter four). This approach has been the focus of a wide variety of interests, both from a theoretical and a practical point of view (e.g. Keller, 1995; Redding, 1995). The second major aspect can be subsumed under the term *Organisational Culture*s (e.g. Schein, 1992, see also chapter four), which has also gained remarkable popularity among scholars and practitioners (Martin, 1995, Schreyögg 1992).

Given these various activities around different theoretical constructs concerning the term "Culture", it is quite amazing that one aspect of "Culture" is almost completely absent from academic research.

This aspect focuses on the above mentioned "*Professional Culture*s". In this context it has to be stated that up to now no broad-occupational study exists, which has further complicated the development of the above mentioned leadership and organisational structures (Hofstede, 2001, p.414).

Hence, two major *research problems* arose that have both a theoretical and an empirical background.

First, a definition of what is to be considered a *Professional Culture* had to be developed. This development will be undertaken in chapter four with an initial definition given below.

In order to define the term *Professional Culture*, we should initially clarify the term "Culture".

House et al. (1999, p. 184[1]) define "Culture" in general as *"shared motives, values, beliefs, identities and interpretations, or meanings of significant events that result from common experiences of members of collectives and are transmitted across age generations"*. *Professional Culture* can therefore be understood as a Culture, which emerges as a consequence of a common occupational background.

The *second* problem was the absence of both sufficiently usable empirical data and appropriate research tools to collect these data. Hence, it was necessary to initially develop a research tool, followed by the collection and evaluation of substantial empirical data as will be pointed out further below.

Hence the presented research project will close the above-mentioned knowledge gap and consequently intends to create a thorough understanding of the construct of *Professional Culture* itself and the way in which leadership and organisation have to be adapted to the different *Professional Cultures* found in reality.

This undertaking is of great importance, as considerable frictions between people with different Professional backgrounds who work on the same projects, departments, etc. can be observed across all hierarchical levels (e.g. Schütz, 2003; van Maanen/Barley, 1984).

Given this evidence for potential inter-professional conflicts, it is hard to understand how it could be possible to develop theories that deal with leadership and organisation without taking into account employee characteristics that evolve due to their different *Professional Culture*s. This lack of research is even more striking if one considers the above-mentioned extensive efforts in connection with *National* and *Organisational Culture*s.

The empirical part of the study was pursued exclusively with companies of the aviation industry. This specific industry was chosen due to three reasons.

First, the highly competitive environment of the aviation industry puts enormous demands on all actors in this industry. Therefore, it is crucial that each actor performs excellently which obviously includes the employees of the different companies. This in turn leads to deficiencies within the leadership and organisational structures surfacing more clearly.

That specific trait is especially advantageous under analytical considerations, as it emphasises the requirements that different *Professional Cultures* have in respect of leadership and organisation, which is obviously a highly favourable trait for the purpose of the current work.

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[1] The following abbreviations will be used: **p.X** = to be found specifically on page X; **pp.Xf.** = to be found on page X and the following *one*; **pp.Xff.** = to be found on page X and the following *ones*.

Furthermore, these demands render the results of the current study highly beneficial for the aviation industry itself. Issues such as safety, labour relations, customer orientation and innovation are of prime importance in the current environment. Therefore, motivational factors play a decisive role for a significant portion of the employees present in this industry. This in turn implies that appropriate leadership and organisational structures represent an important factor in the current environment.

Second, the aviation industry unites a vast variety of different occupations. These occupations include among others technical, administrative, innovation and service oriented occupations of all hierarchical levels. This trait is specifically important for the generalisability of the results developed, since with the Professional Cultures isolated in the current work most functions of any industry can be fulfilled.

Third, the global nature of the aviation industry is highly advantageous. As will be pointed out further below, this trait was necessary in order to compensate for a systematic bias due to possible peculiarities of one or two National Cultures. In this context it has to be mentioned that all nationalities present have a western background which implies the possibility that the study has a "western bias". Nevertheless, the inclusion of ten different National Cultures in the sample should greatly reduce the possibility of an unwanted systematic bias manifesting itself in the results of the current study.

Due to these special traits, the results that could be expected by researching this industry led to the restriction of this research project to the aviation industry only.

In summary it can be stated that the research issue of the present study is highly complex and incorporates a significant portion of genuinely new aspects. The various challenges encountered in the course of this research project are a direct reflection of this complexity and novelty and consequently led to the rather complex layout of the study itself.

1.2 The Methodological Approach

Due to the complexity of the research issue, the methodological base used to derive the empirical data gained is based on a multi-method approach including an extensive pilot study.

The pilot study served to check the research tools used for the main study as regards validity and reliability.

The first decision that had to be made concerned the used method itself. Preference was given to a research procedure, which is referred to as *triangulation*. This term incorporates the use of qualitative and quantitative research to the same degree. The quantitative part used a standardised questionnaire to determine the interconnection between the characteristics of the people questioned and their preferred style of leadership and organisation.
After having collected these data, a slightly structured interview was carried out with a number of employees, to get a better in-depth understanding of the underlying processes, preferences and worries of the employees. This course of action was the most promising for gaining the maximum amount of data available.

The quantitative part of the research programme was carried out with 507 employees from 19 companies/independent subsidiaries. The qualitative part was carried out with 84 employees from 6 companies.

The results of this first part can be found in chapter six and seven, which illustrate the interconnection between Professional characteristics and preferred leadership and organisational styles.

Finally an initial evaluation as to the actual superiority of the developed structures will be undertaken. This evaluation will be based on the quantitative analysis of a set of questions from the standardised questionnaire. Details can be found in chapter eight.

To sum up, the methodological approach used provided a well-founded database, which in turn assured a well-founded and in-depth analysis of the research topic in question.

1.3 The Course of the Research Project

The structure of this thesis is intended to give the reader a thorough understanding of the various aspects of the research topics treated.
That is why chapters two, three and four are dedicated to introducing the *major theoretical constructs* that represent the base of the later stages of the survey, whereas the remaining chapters will illustrate the results of this work.

Chapter *two* will give an overview of the different major *leadership-theories* which exist today, but also of their development. For this reason, the presentation of these theories will follow a chronological order, ending with the most recent approaches to this research area.

Chapter *three* serves the same purpose as chapter two, except for the fact that the focus of this chapter will be *organisational theories*. Here, a chronological approach will also be pursued, ending with the most recent theories of organisational research.

Chapter *four* introduces the term "*Professional Culture*". This chapter is of considerable importance since it guides the reader towards the area of interest which is the main focus of the present work.

Chapter *five* will illustrate the used *methodology* and highlight the need for the chosen course of action.

In chapter *six* and *seven* the different *leadership styles and organisational structures* will be developed which are in accordance with the expectations of the employees surveyed.

Chapter *eight* serves the initial *validation* of these results through the above-mentioned quantitative analysis.

Hence, chapters *six*, *seven* and *eight* are the core of the research project. Their findings will be the result of the link between the theoretical constructs illustrated above and the empirical data gained. They are thus intended to show new, different ways of designing leadership and organisational structures.

Finally, Chapter *nine* will deal with the question as to whether the developed leadership and organisational structures can be *generalised* beyond the boundaries of the industry surveyed. Furthermore, the relevance of this research project, from both a practical and an academic point of view, will be highlighted.

2 ILLUSTRATION OF THE MAJOR LEADERSHIP-THEORIES

In this chapter an introduction to the major leadership theories and models will be given. Starting points will be the two classic branches of leadership research: the *uni-dimensional* (participation-oriented) and *bi-dimensional* (task-/employee-oriented) approaches. This introduction will be followed by the description of more recent theories, which in turn will be used to elaborate an adequate leadership and organisation structure with respect to the developed *Professional Cultures* (Weibler, 2001, pp.292ff.)

One theory quite frequently mentioned in leadership literature is the *Contingency Theory of Leadership*, which goes back to *Fred Fiedler* (1967). This theory can be seen as taking an intermittent position between the two above-mentioned branches.
The problem with this theory is that *Fiedler* used rather "questionable measurement procedures" (Neuberger, 1995, p.181) and that it was impossible to get any kind of independent verification for *Fiedler's* results (Schreyögg, 1995, column 996; Neuberger, 1995, p.180f.; Jago, 1995a, column 629). To make matters worse, *Fiedler* used a variety of different explanations in order to adjust his only empirically based generalisations to a number of different findings (Neuberger, 1995, p.180; Schreyögg, 1995, column 995).
Because of these significant shortcomings, it can be stated that *the Contingency Theory of Leadership* according to *Fiedler* is meanwhile restricted to being interesting in the context of the history of this science only (Neuberger, 1995, p.181). For this reason it will not be treated in more detail below.

2.1 Classical Theoretical Models

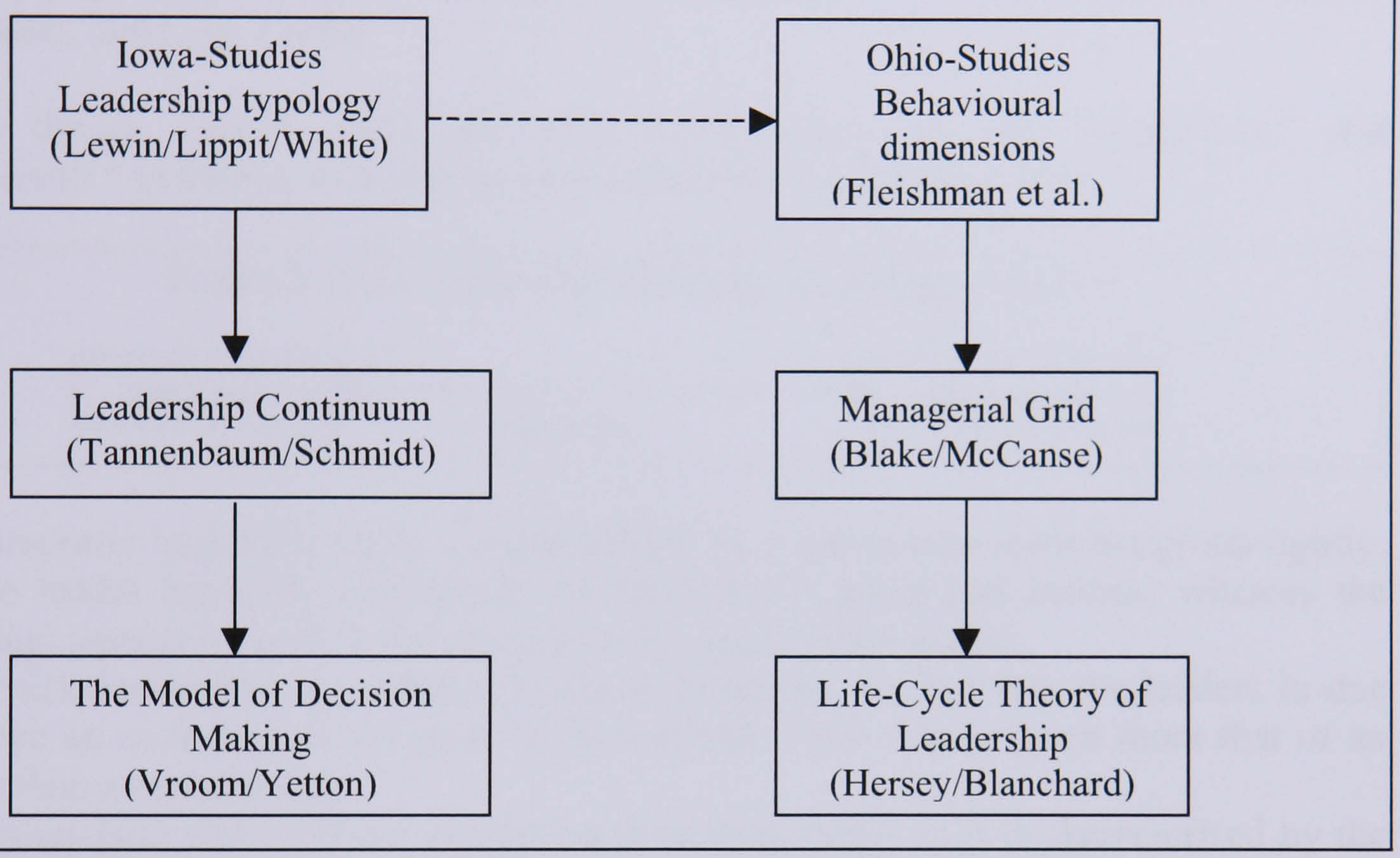
As an introduction, the most widespread leadership typologies will be described as follows:
They can be traced back to the work of *Kurt Lewin* (1948) at the Iowa University Elementary School on the one hand, and to those of *Fleishman* and *Hemphill* at the Ohio-State-University on the other. The former typology characterises a leadership style with the dimension of *"participation-orientation"* whereas the latter characterises leadership with the two dimensions: *"task-orientation"*, and *"employee-orientation"* (Scherm/Süß, 2001, pp.340f.).

The work of Lewin led, inter alia, to reference to the most prominent examples: the leadership continuum of *Tannenbaum/Schmidt* and the approach of *Vroom/Yetton* (Weibler, 2001, p.299).

The research at the Ohio State University also led to the development of a variety of approaches. Here, the most recognised ones are the "*Managerial Grid*" by *Blake/Mouton/McCanse* and the "*Life-Cycle Theory of Leadership*" by *Hersey/Blanchard* (Weibler, 2001, p.315).

In the following, *leadership* will be defined as the *"influence of others on one's own socially accepted behaviour, which indirectly or directly leads to intentional behaviour by one's influenced self"*[2] (Weibler, 2001, p.128).

Figure 1: The Different Development Stages in Classic Leadership Research



2.1.1 The Degree of Participation of Employees as Reference Point

The degree of participation is the first dimension which will be described in the following. Despite significant differences in the explicit operationalisation of this dimension, all the theoretical approaches take as reference point the amount of employee participation in the leadership relationship. The presentation of these approaches will be executed in a chronological order, ending with the most recent of the classic approaches.

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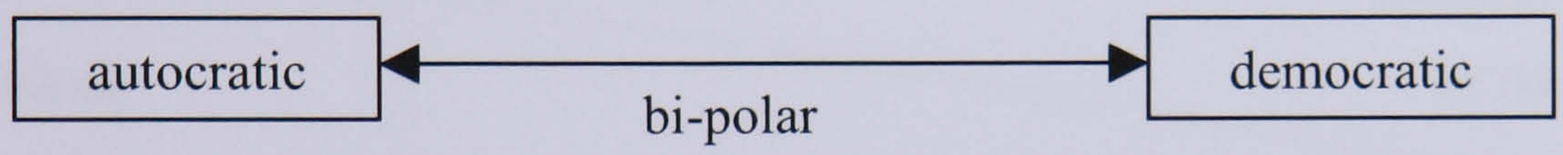
[2] „andere durch eigenes, sozial akzeptiertes Verhalten so zu beeinflussen, dass dies bei den Beeinflussten mittelbar oder unmittelbar ein intendiertes Verhalten auslöst"

2.1.1.1 The Approach of Lewin

The historic roots of leadership research can be seen in the work of *Kurt Lewin* (1948), who examined the consequences of different kinds of leadership on the work results of small groups. The background of this research was that *Lewin* wanted to prove that it is not certain personal traits of a leader that are responsible for leadership success, but rather, that a certain leadership style, which is completely independent from these personal traits, is the decisive factor. With this approach, *Lewin* took a definite counter-position to the then prevailing *"Trait Theory of Leadership"*, which postulates that certain partly congenital traits of the individual leaders are responsible for their success (Wunderer, 2001, pp.274ff.).

In his theory, *Lewin* (1948, pp.71ff.) distinguished the two *"autocratic"* and *"democratic"* extremes, to which he later added the "laissez-faire style".

Figure 2: The Leadership Typology according to *Lewin*



The *autocratic* leadership style is characterised by a leader who leads the group tightly, e.g. the leader explicitly commands the individual's goals and actions; whereas the individual does not clearly know the governing goals of the leader.
Democratic leadership, in contrast, is characterised by the fact that the leaders in due time give an overview of the goals to be reached. Their role is much more that of an adviser than a commander.
The laissez-faire style will not be discussed in more detail as it is characterised by the fact that the leader is not exercising any kind of influence upon the group members. Hence, with reference to the above given definition of leadership, it can be stated that this "leadership style" does not really fulfil the criteria for behaviour to be considered as leadership.

According to *Lewin/Lippit/White* (1939), the *key results* of this work are as follows:
Democratic leadership is, as far as employee satisfaction is concerned, significantly superior to autocratic leadership. However, as far as group efficiency is concerned democratic leadership is only superior when the leader is physically absent.

These results remained controversial as they could only be reproduced with ideologically prejudiced researchers (Seidel/Jung/Redel, 1988, p.117). Furthermore, the significant reduction of possible leadership behaviours, to democratic and autocratic fuelled lively criticism. The consequence of this criticism was the development of so called *leadership continua* characterised by the fact that each leadership style can be localised on a scale limited by the two polar leadership styles (Reber, 1995, column 657).

2.1.1.2 The Approach of Tannenbaum and Schmidt

The most prominent example for a leadership style continuum is the theory of *Tannenbaum/Schmidt* (Weibler, 2001, p.299).

This approach clearly represents further development as compared to the above described, in that it offers a significantly higher amount of different leadership styles on the one hand, and a totally different mechanism for choosing one of these leadership styles on the other.

Tannenbaum/Schmidt differentiate between seven leadership styles, which are distinguished by the degree of the employee participation.

Figure 3: The Leadership Continuum of *Tannenbaum/Schmidt*

Decision taking by the superior ↘ Decision taking by by the employee						
1	2	3	4	5	6	7
Superior decides alone, without consultation of the employees	Superior decides alone, but he tries to convince the employees of the rightness of his decision	Superior decides alone; but he encourages questions concerning his decision, mainly to achieve acceptance	Superior informs employees about intended decisions; employees can give their opinion before the superior takes the decision	Employees /group develop(s) proposals. The superior chooses his preferred alternative	Employees/ group decide(s); after the superior has shown the goals and problems, and has set up the boundary of the decision authority.	Employee/ group decides. The superior serves only as a coordinator to the inside and, mainly, the outside.
authoritarian	patriarchal	informing	consulting	cooperative	delegatory	autonomous

Wunderer, 2001, p.209

Furthermore, they postulate that the superior's behaviour has to be adequate to the situation. Hence they are of the opinion that there is *no perpetually correct leadership style*. The choice of an adequate leadership style has to take into account the three factors (Tannenbaum/Schmidt, 1958, pp.95ff.):

1. *Characteristics of the superiors*
2. *Characteristics of the employees* and
3. *Characteristics of the situation*

Characteristics of the superiors include such factors as personal traits of the superiors, their moral concepts and the trust they give their employees.
Characteristics of the employees can be their abilities, expectations towards the superior, etc.
Characteristics of the situation can be seen as the present problem, specifics of the organisation, and so on.

Hence the theory of *Tannenbaum/Schmidt* can be seen as a decisive step forward, as its progress is two-fold. On the one hand it offers a significantly higher number of leadership styles, which permits a more precise description of possible behavioural patterns of leaders. On the other hand – and that is in the present context even more valuable – it introduces the *situation* as an important factor for determining the appropriate amount of employee participation.

However, according to *Wunderer* (2001, p.210f.), this approach has a number of shortcomings. Firstly, it is not capable of attributing distinct behavioural effects to the different leadership styles. Furthermore, here it is also questionable whether it is possible to create an appropriate leadership model based on a single dimension, i.e. on the degree of participation. The key factor here is that through the sole emphasis of participation it is only possible to examine aspects of *power* in the leadership relationship, whereas social aspects are not examined at all.

2.1.1.3 The Approach of Vroom and Yetton

The approach of *Vroom/Yetton* is intended to give the superiors a tool which permits them to choose an efficient leadership style in every decision situation; efficiency is operationalised through the criteria "quality of the decision", and "acceptance of the decision" (Vroom/Yetton, 1973, p.20). Quality is understood to be the objective rightness of a decision (Jago, 1995b, column 1062).

The model incorporates:

1. a number of leadership style alternatives,
2. a number of leadership situation determinants and
3. a number of decision rules.

The leadership style alternatives are AI, AII, CI, CII, GII (see figure below for details). The leadership situation determinants are A, B, C, D, E, F, G (see again figure below for details).

The assignment of the leadership styles to the different situations is performed by the use of *seven decision rules* (Vroom/Yetton, 1973, pp.32ff.):

1. *Information rule*: If a high quality of the decision is necessary, and the superior does not possess sufficient information; style AI is not to be used.

2. *Trust rule*: If the quality of the decision is to be high, but the employees have diverging goals from those of the organisation, GII is not to be used.

3. *Unstructured problem rule*: If the quality of the decision is to be high, and the superior is not in possession of enough information or knowledge to solve the problem, which is furthermore unstructured, AI, AII, and CI are not to be used.

4. *Acceptance rule*: If acceptance of the decision by the employees is important for the implementation of the decided issue, but not assured with an autocratic decision, AI, and AII are not to be used.

5. *Conflict rule*: If acceptance of the decision by the employees is important for the implementation of the decided issue, but not assured by an autocratic decision, and if, furthermore, diverging opinions within the group of employees are to be expected, AI, AII, and CI are not to be used.

6. *Fairness rule*: If the quality of the decision is not important, but its acceptance by the employees is, and which, furthermore, is not assured by an autocratic decision, AI, AII, CI, and CII are not to be used.

7. *Acceptance-priority rule*: If the acceptance of the decision by the employees is important, but not assured through an autocratic decision, and if it is probable that the goals of the employees and the organisation are congruent, AI, AII, CI, and CII are not to be used.

Figure 4: The Decision Tree

A: Is the decision quality important?

B: Do you have sufficient information to take the decision on your own?

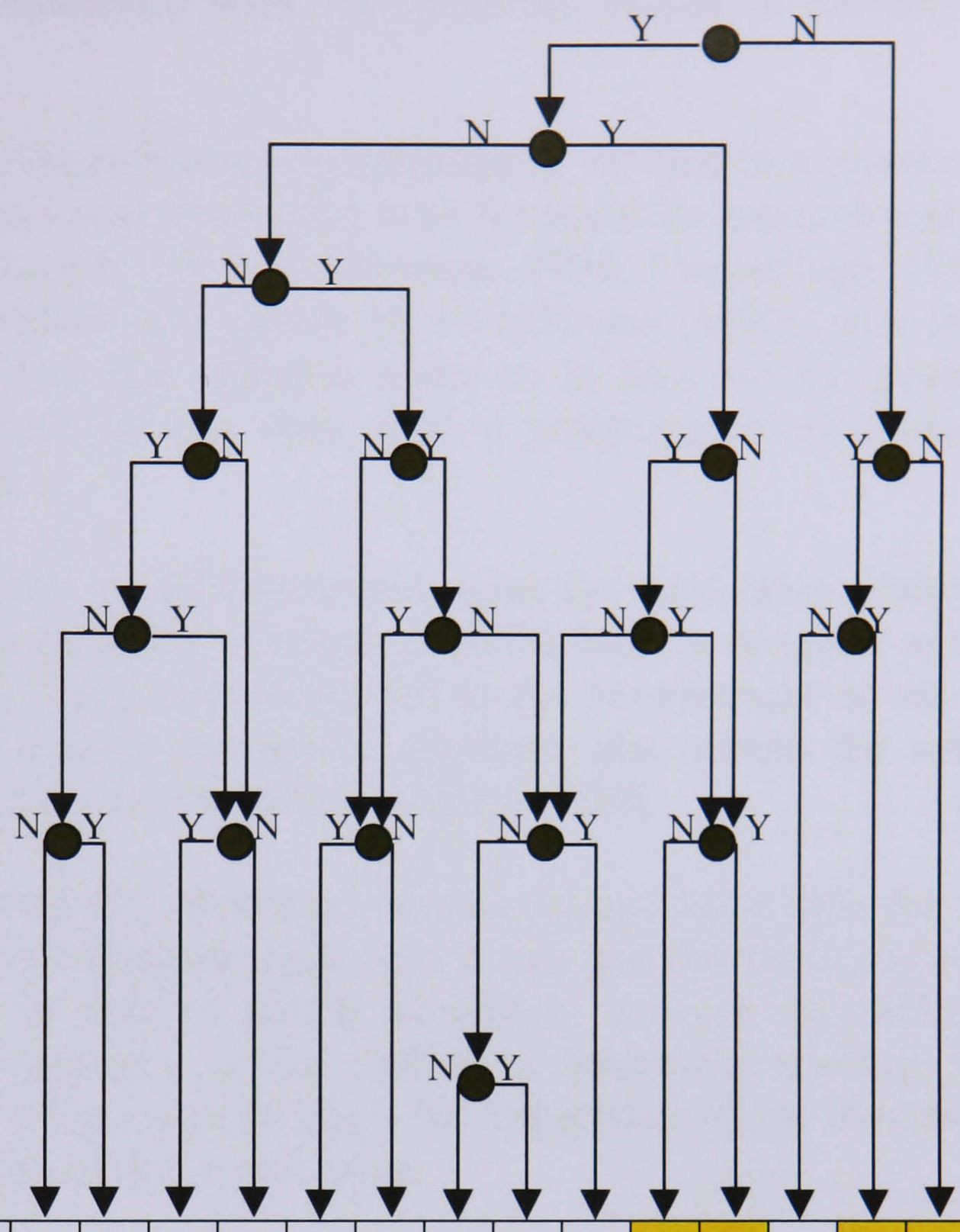
C: Is the problem structured?

D: Is the acceptance of the decision by the subordinates necessary for its effective implementation?

E: Is acceptance assured if you take the decision on your own?

F: Do subordinates share the organisational goals, to be attained in solving this problem?

G: Are conflicts to be expected between the employees, concerning the preferred way to proceed?



AI: Autocratic decision										■	■		■	■
AII: Autocratic decision after information of the employees					■	■				■	■		■	■
CI: Consultative decision after consultation of each employee alone					■	■	■			■	■		■	■
CII: Consultative decision after consultation of the employees on a group level	■		■	■	■	■	■	■		■	■		■	■
GII: Problem solution and decision by the persons/group involved		■	■		■				■		■	■	■	■

Vroom/Jago, 1988, p.62

As the decision rules indicate only what should *not* be done, eight out of the fourteen solutions permit more than one leadership style. So as to come to an unambiguous decision, *Vroom/Yetton* (1973, p.44f.) introduced two more rules, one of which has to be applied. The first is "*speed of decision taking*", which implies short-term leader orientation. The second one is "*promotion of team-spirit*", which is based on a long-term perspective. "*Speed of decision taking*" implies the choice of the solution, which is as high as possible in Figure 4, "*promotion of team-spirit*" implies the choice of the solution which is as low as possible in Figure 4.

It can be stated that *Vroom* and *Yetton* continued in the logic of the above-presented model of *Tannenbaum/Schmidt*. The participation of the employees is once again the decisive variable, which, in conjunction with the situation, serves to choose the appropriate leadership style.

In later studies the approach of *Vroom/Yetton* was empirically verified in a number of surveys with different leaders, and found to be valid, both for scientific research and for practical leadership training (Böhnisch, 1991; Field/House, 1990; Vroom/Jago, 1988). These results could not be reproduced in a survey by *Field/House* (1990), who led a survey among employees. Therefore the question arises as to how far the positive results of the formerly mentioned surveys were only a consequence of a biased perception of the surveyed leaders.

In summary, it can be stated that this model shows once again the same main weakness of all uni-dimensional approaches in that its *sole focus* is on the *balance of power* within the leader-employee relationship. This *shortcoming* led to the development of the bi-dimensional approaches which, besides the power structure, also model the social relationship between leader and employee (Wunderer, 2001, p.210f).

Furthermore, it seems unlikely that the individual leaders always have time for the necessary performance of situation evaluation, and, even if they had this time, it is even more unlikely that they would be able to switch adequately between the different necessary leadership styles. Nevertheless, in the context of leadership training, this approach is valuable in as far as it clearly emphasises the importance of the dimension "employee participation" for the leadership relationship.

2.1.2 The Degree of Task and Employee Orientation as Reference Point

The two main shortcomings of the uni-dimensional theories: the restriction to one leadership dimension and the absence of any explicit link between leadership styles and behavioural effects led to the development of a number of bi-dimensional theories.

Specifically, because of the second characteristic of these approaches, they proved to be especially interesting for leadership development and training.

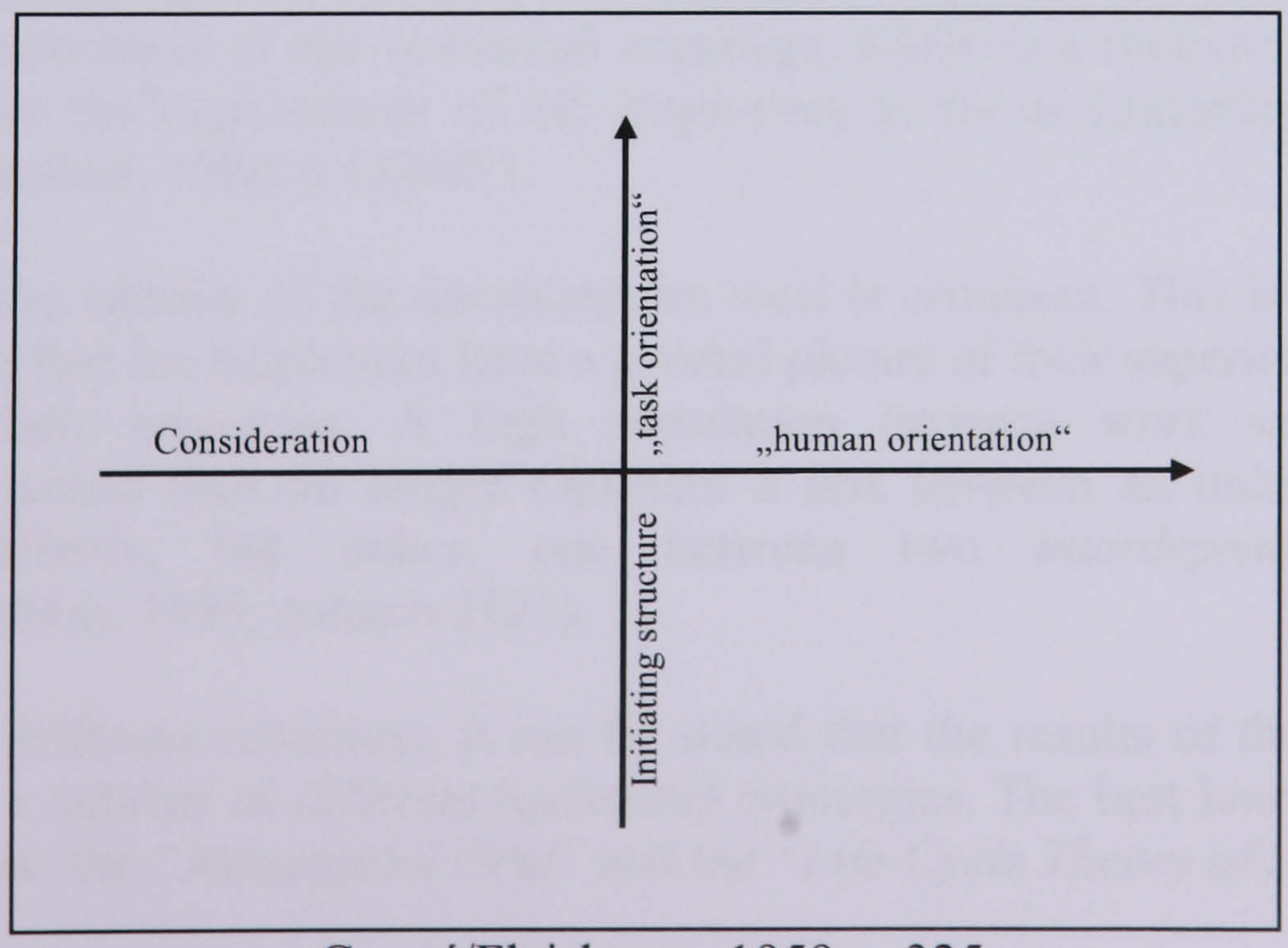
The *three most prominent theories* of the bi-dimensional leadership theories will be introduced in the following and again, the presentation will be in chronological order.

2.1.2.1 The Approach of the Ohio-/Michigan-Studies

The task-/human-oriented approaches had their starting point in the work of *Fleishman et al.*, who defined through the recording of different real behavioural patterns of leaders, different leadership styles. These leadership styles were understood in their model to be the *independent* variable, whereas the effects on employee behaviour were understood to be the *dependant* variables (Weibler, 2001, p.310).

These research projects later called the "Ohio-Studies", led to the isolation of two statistically independent factors which characterise leadership behaviour. This was achieved through a survey in which employees had to rate their superiors on a multi-item scale, which was later subject of a factor analysis (Fleishman/Quaintance, 1984, p.119). These two factors were called "*consideration*", and "*initiating structure*" and they represent human and task orientation respectively

Figure 5: The Two Dimensions of the Ohio-Study



Gagné/Fleishman, 1959, p.325

Figure 6: The Main Contents of the Ohio-Dimensions

Consideration (human orientation)	Initiating Structure (task orientation)
• He takes care of his employees • He endeavours to achieve a good relationship with his employees • He treats all of his employees as equal human beings • He supports his employees at whatever they are actually doing, or at what they have to do • He makes it easy for his employees to talk freely and naturally with him • He works hard for his employees	• He reprimands bad work • He urges slowly working employees to make a greater effort • He puts significant emphasis on the quantity of the work done • He reigns with an iron fist • He makes sure that his employees are making full use of their work capacity • He drives his employees through pressure and manipulation to an even greater effort • He demands from weaker employees that they make more out of themselves

Wunderer, 2001, p.206

Furthermore, the studies of the so-called *Michigan Group*, which were pursued at the same time, also supported the insight that it is possible to make a *distinction* between a *human-oriented* and a *task-oriented leadership style* (Ridder, 1999, p.483).

The main problem with these approaches is that they are nonetheless incapable of creating a clear link between a certain type of leadership behaviour and its effects. *Neuberger* (1995, pp.141ff.) comes to the conclusion that consideration is well correlated with work satisfaction, but that the connection between "consideration" and "initiating structure" on the one hand and efficiency on the other is rather vague. Hence, it seems that *further factors* moderate this connection. For the most part one can quote the actual effectiveness of the individual superiors, which is a function of *their* direct superior, and/or the expectations of the employees as far as leadership behaviour is concerned (Kossbiel, 1988, p.1226ff.).

Furthermore, the validity of the questionnaire used is criticised. This is mainly due to the assumption that the employees have a general picture of their superior to which they then adjust their responses. A high correlation between work satisfaction and consideration would then no longer represent a link between an independent and a dependent variably, but rather, one between two *interdependent* variables (Nachreiner/Müller, 1995, column 2121).

Despite these different criticisms, it can be stated that the results of the Ohio-Studies were used for a number of different leadership typologies. The best known are the two described below: the *"Managerial Grid"* and the *"Life-Cycle Theory of Leadership"*.

2.1.2.2 The Approach of Blake, Mouton and McCanse

The *Managerial Grid* introduces the dimensions of:

- concern for *people* and
- concern for *production*

Each dimension can occur in nine different strengths, which leads to 81 possible combinations or leadership styles. The graphical representation of these combinations, which is in the form of a grid, gave this approach its name (Blake/Mouton, 1985, pp.10ff.).

The five *main leadership styles* identified by the grid are (Blake/Mouton, 1985, pp.13f.):

- *Impoverished Management*
- *Country Club Management*
- *Authority-Obedience Management*
- *Organisation-Man Management*
- *Team Management*

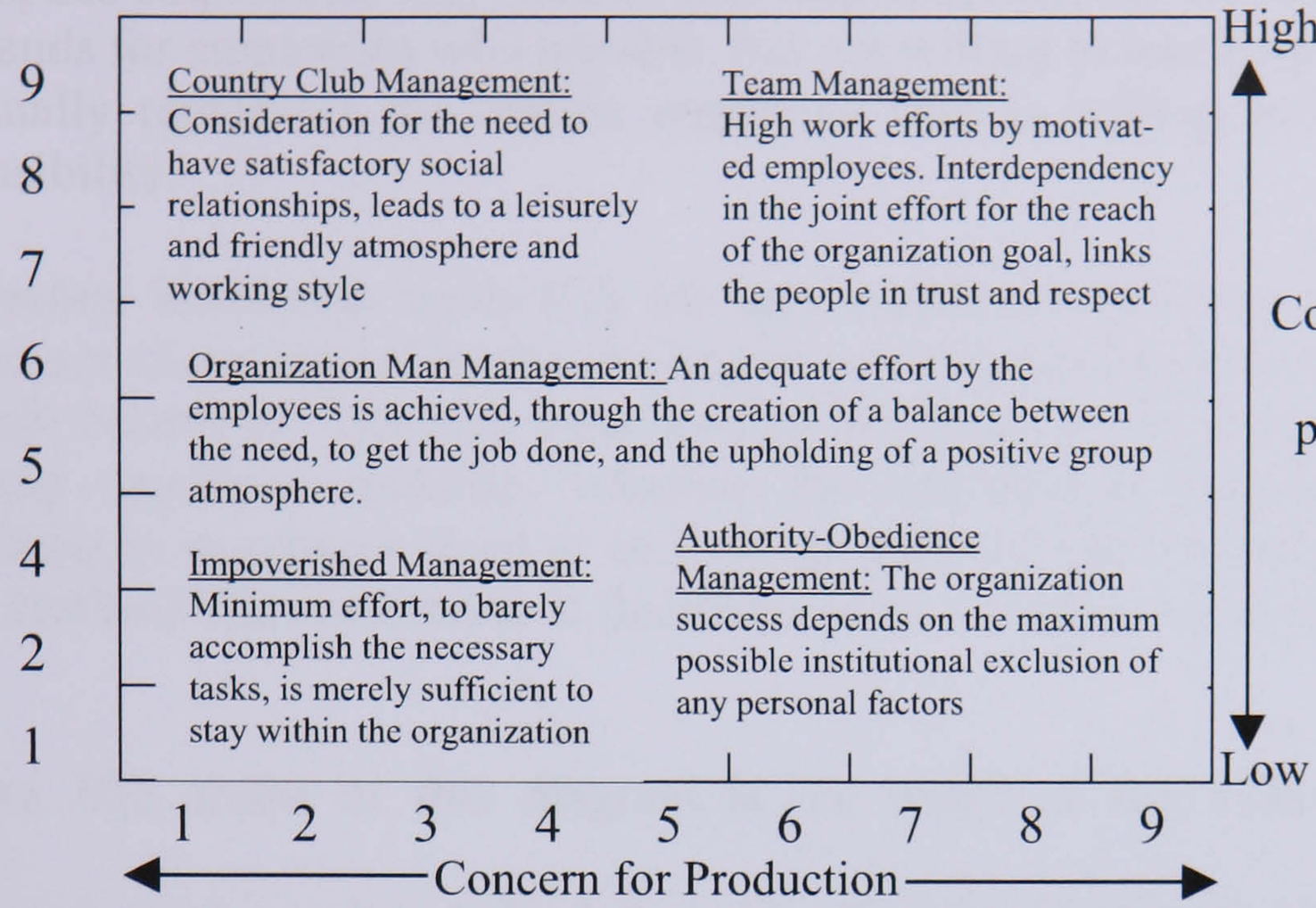
Further, three other leadership styles are mentioned which are a combination of the main leadership styles. These are:

- *Paternalism*, as a combination of the "Country Club Management" and "Authority-Obedience Management"
- *Opportunism*, which combines the different possible leadership styles to achieve the maximum personal advantage
- *Facades*, which implies role-playing at "Team Management" orientation to hide the true motivation.

"Team Management" is perceived as the most positive leadership style (Lux, 1995, column 2128).

As this approach is mainly designed for training purposes, its main focus is, in a first step, to determine the individual leadership behaviour by means of a questionnaire. The second step consists then of the development of an individually optimised behavioural pattern, to achieve, as far as possible, the desired "Team Management".

Figure 7: The Managerial Grid



Blake /Mouton, 1985, p.12

The main problem of this approach is that despite the fact that it was later extended by a *third* dimension, which was supposed to indicate why the superiors do what they do, it is of highly questionable value from an academic point of view (Neuberger, 1995, pp.189f.). This evaluation is mainly due to the operationalisation of the two dimensions, as no instructions are given as to how their measurement should be achieved. The motivation for the specific design of the used questionnaire is therefore *not* clear. Furthermore, the situational factors which led to the development of the *"Life-Cycle Theory of Leadership"* are not taken into consideration.

2.1.2.3 The Approach of Hersey and Blanchard

The *"Life-Cycle Theory of Leadership"* defines three dimensions (Hersey/Blanchard, 1977, pp.159ff). These three dimensions are:

1. *relationship behaviour*,
2. *task behaviour*, thereby taking the situation into account, and
3. the *maturity* of the employee.

Therefore, this approach again utilises the results of the Ohio-Studies, but *augments* them by explicitly incorporating the situation into the theory.

In this theory four different levels of *maturity* of the employees are described, which are to be seen in conjunction with four different *leadership styles* of the leader.

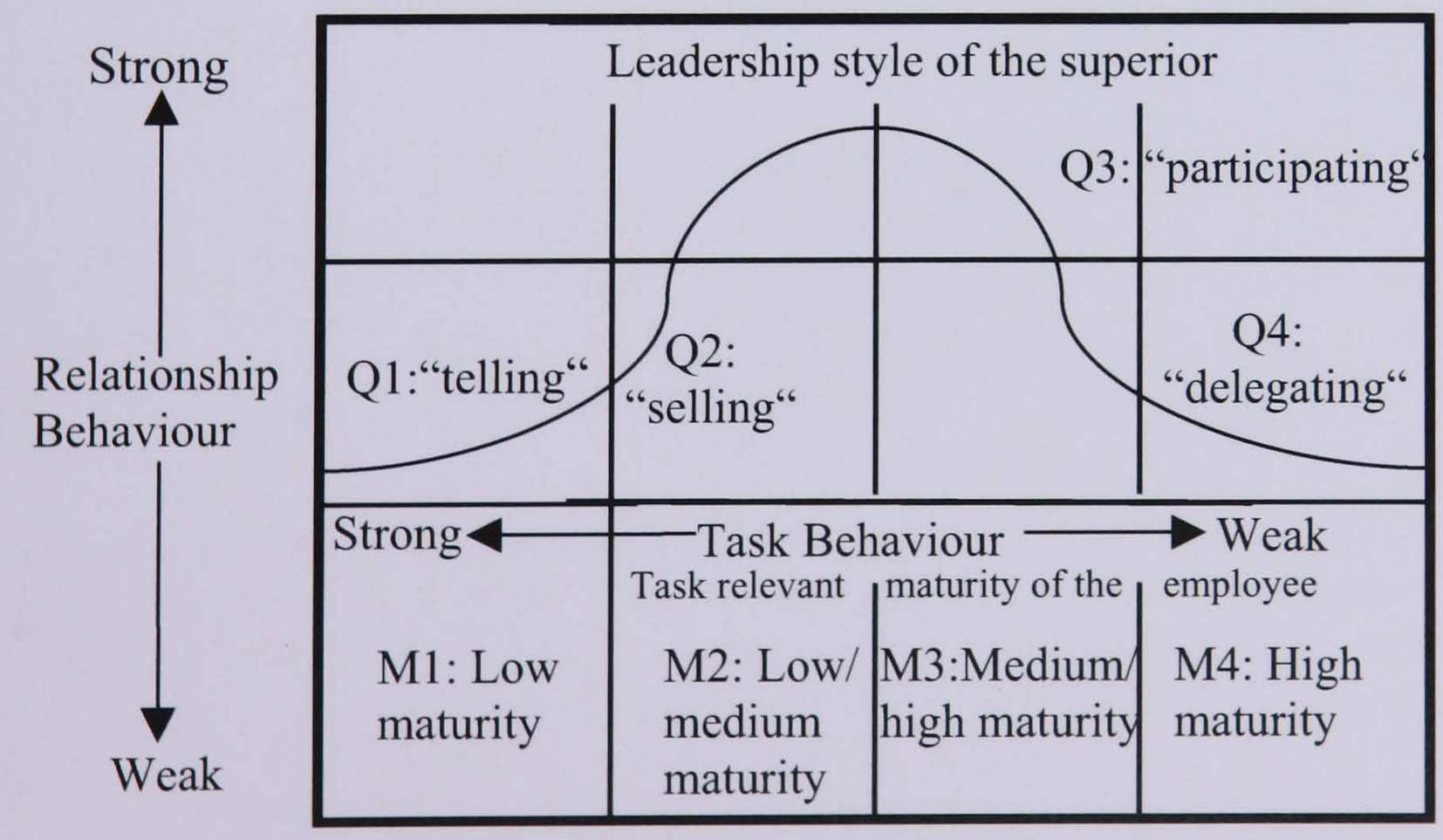
The four levels of *maturity* are M1 through M4, whereas "M" means maturity.

- M1 stands for employees who neither want, nor can take responsibility
- M2 implies employees, who want to take responsibility, but are not able to
- M3 stands for employees who are able, but not willing to take responsibility
- M4 finally represents the mature employee who is willing and able to take responsibility.

The *corresponding* leadership styles (Q), are also numbered from one to four. These different styles are characterised by the shaping of *two* distinct dimensions: the *task* and the *relationship* behaviour. The task behaviour of the superior, for instance, decreases with increasing employee maturity, whereas the relationship behaviour increases initially, reaching its maximum level at an average level of maturity of the employee. After having reached this maximum, it decreases with a further increase of employee maturity.

The bell-curve like shape of this diagram is the result of the following authors' presumptions:
A very immature employee has to be led mostly directly, so that in practice there is neither the need nor the room to give the employee support, respectively an intensive relationship. With increasing maturity, the leadership style becomes increasingly cooperative so that the employee, who is still not overly independent, needs a growing amount of supportive behaviour. But with the crossing of a certain level of maturity, the employee needs ever less support so that the supportive behaviour and therefore the intensity of the relationship between the employee and the superior can be reduced gradually, and tasks are therefore ever increasingly delegated entirely.

Figure 8: The Life-Cycle Theory of Leadership



Hersey/Blanchard, 1977, p.167

This approach claims to be a tool with which a superior is supposed to be able to lead the employees to a state of high maturity.

However, a number of aspects of this view are rather problematical. Firstly, there was no survey not carried out by the authors themselves that was able to support the central assumptions of this model (Blank/Weitzel/Green, 1990, pp.593ff.). Besides that, the restriction to one single situational variable, which is furthermore not undisputed because of its content, has to be seen as rather critical. *Situation*, as it is seen by *Hersey/Blanchard*, places every problem in the responsibility of the employees, who over and above that are not even able to influence the establishment of their degree of maturity. Finally, it has to be stated that this approach implies a questionable understanding of the harmony between the leader and the employees, as really mature employees supposedly do with joy, and without any objection, what they have to do (Neuberger, 1995, p.196).

Despite these deficits, the *"Life-Cycle Theory of Leadership"* gained widespread popularity for leadership training. Furthermore, it can be stated that it is a complete and logical model, though it basically propounds only that a good leader is a leader who chooses a behavioural pattern respectively adjusted to the *situation*.

The important point of this theory is the emphasis it puts on the dimension *"maturity"*, which for the first time represented a clear differentiation of leadership behaviour according to the situation. With this *special focus* on the *situation*, the *"Life-Cycle Theory of Leadership"* goes also well beyond the theory of *Tannenbaum/Schmidt* (Weibler, 2001, p.328).

2.1.3 The Different Classical Approaches in Comparison

As closing remarks concerning the presented approaches, a few aspects have to be kept in mind.

Most *importantly*, it has to be stated that both research branches either neglect the design of the social relationship between leader and employee (participation-oriented approaches), or aspects concerning the balance of power between superior and employee (task-/employee-oriented approaches) (Weibler, 2001, pp.209f.). Furthermore, both assume a given personality structure of the employees, and consider the exercise of influence, though adjusted to the situation, without further analysis hereof, to be normal (Weibler, 2001, p.333).

Concerning the situational component in the approach of *Hersey/Blanchard*, it is important to remember that, in addition, the restriction to one sole variable and the importance and operationalisation of this variable itself led to lively criticism (Wunderer, 2001, pp.310f.).

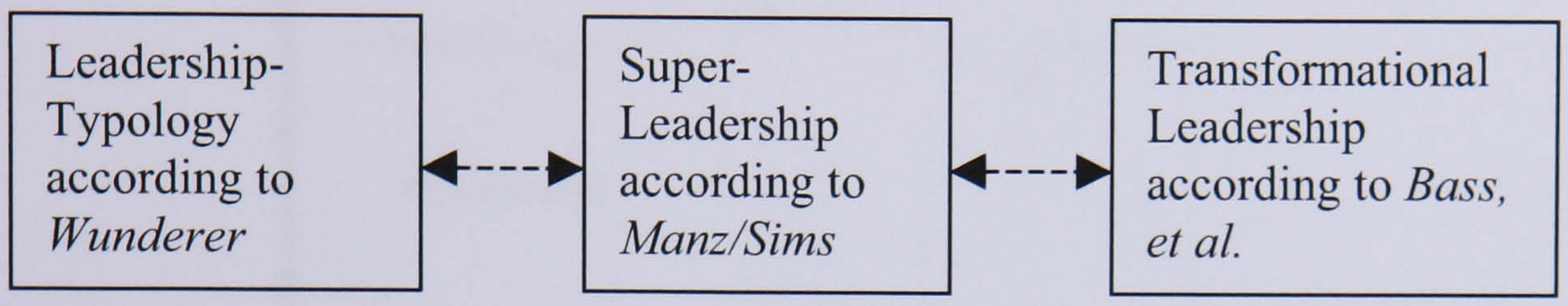
Figure 9: The Central Strengths and Weaknesses of the Classic Approaches

Leadership Styles	**Main strength**	**Main weakness**
Lewin	For the first time questioning of the conviction that superior leadership is a congenital human trait.	Restriction to only two leadership styles.
Tannenbaum/Schmidt	Enlargement of the bi-polar approach of Lewin, to a continuum and initial incorporation of the situation.	Negligence of social aspects within the leadership relationship.
Vroom/Yetton	Valuable for leadership training to emphasise the importance of employee participation	Same as above, and in addition too complicated to be used in practical leadership situations
Fleishman et al.	Integration of social aspects into leadership research.	Link between leadership style and efficiency is not clear. Furthermore, problems with the validity of the questionnaire.
Blake/McCanse	Easily comprehensible realisation of the approach according to Fleishman, et al.	Highly questionable scientific value, as its main focus is leadership training.
Hersey/Blanchard	Explicit consideration of the situation.	The central assumptions could never be independently validated, restriction to one situational variable.

2.2 ***More Recent Leadership Models***

The main branches of recent leadership research can be subdivided into Team-Oriented Leadership as depicted with the example of the *SuperLeadership* Approach, *Transformational Leadership*, and as a transition from the above described theories, the *Leadership-Typology* according to *Wunderer*.

Figure 10: More Recent Theories in Leadership Research



2.2.1 The Leadership-Typology according to Wunderer

The basis of the leadership-Typology according to *Wunderer* (2001, pp.207ff.) is an integrative approach which joins the participation oriented leadership theories and the human-/task-oriented leadership theories.

Wunderer argues that in both theories mentioned, either aspects of the social relationship between superior and subordinate or aspects of the balance of power within that relationship are neglected.

He therefore proposes illustrating the *decision participation* of the employees through a first dimension representing the power distribution in the employee-leader relationship[3].

The *social relationship* is illustrated by a second dimension[4], which is drawn perpendicularly to the first and therefore to be seen as entirely independent.

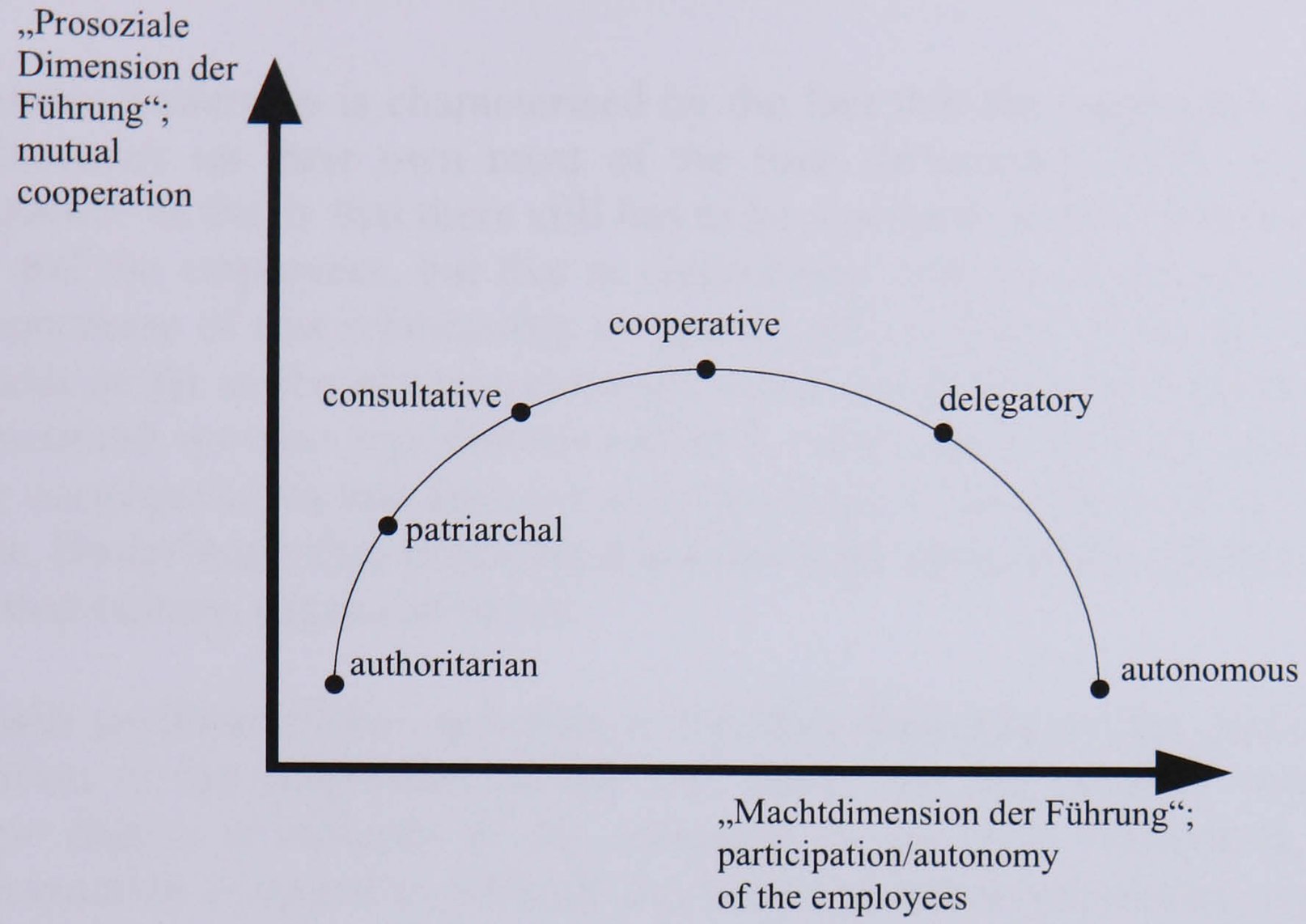
Hence, *Wunderer* explicitly integrates the two aspects of the leadership-employee relationship, which were separately treated in the approaches described above.

The leadership styles themselves are similar to those of *Tannenbaum/Schmidt* (1958; see also section 2.1.1.2 for details).

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[3] Machtdimension der Führung
[4] Prosoziale Dimension der Führung

Figure 11: The Leadership-Typology according to *Wunderer*



Wunderer, 2001, p.210

Wunderer (2001, p.214) focuses on the *consultative*, the *cooperative*, and the *delegatory* leadership style, as he considers these to be of significant relevance.

According to the *consultative leadership style*, the employees act upon the initiative of their superior. They are therefore not merely executing orders, but can participate in the decision process, even though their degree of influence is still rather limited. Consultative leadership seems therefore to be the most promising approach in situations of high stress and/or decision preparation. The main problem with this leadership style is that is does not make full use of the potential of higher qualified and motivated employees. Therefore, it can not be reasonably used beyond a certain degree of complexity of the task (Wunderer, 2001, p.219).

The *cooperative leadership style* is characterised by the enormously high degree of communication between the leader and the subordinates (Wunderer, 2001, pp.220f.). Furthermore, work-planning and control can be designed in an iterative way, due to the intensive interaction between leader and employees. Hence this leadership style is the socially most demanding and most time-consuming concept, since conflict solutions have to be reached through negotiations instead of simple orders. Coaching, staff appraisals, etc. are central elements of this kind of leadership. The main problem of this approach is the fact that only an equal emphasis of the “prosoziale Dimension” and the “Machtdimension” assure really cooperative leadership. Especially the “prosoziale Dimension” will most of the time be the limiting factor, as it requires high levels of social competence from all persons involved, as well as high levels of emotional

intelligence. These two qualities are unfortunately *hardly* learnable, so it is only in special constellations advisable to use this kind of leadership. Furthermore, self control is used to a limited degree only in this leadership style, and therefore it represents mainly an intermediate stage before reaching delegatory leadership (Wunderer, 2001. p.229).

Delegatory leadership is characterised by the fact that the employees are authorised to take decisions on their own most of the time (Wunderer, 2001, p.229). The direct consequence of this is that there still has to be a positive social relationship between the leader and the employees, but that in comparison with the cooperative leadership style the importance of this relationship is significantly reduced. Therefore the demands on the leader as far as the above-mentioned social competence and emotional intelligence are concerned, are also significantly reduced, which eases the leadership relationship. A further consequence is that decision activities have to be performed in a more organised manner. Direct leadership is less used and has to be replaced by different alternatives, as leadership culture, organisation, etc.

The main *problem* of this approach is the high demands on the qualification and the motivation of the employees on the one hand, and the cultural, organisational, and strategic degree of maturity of the company on the other (Wunderer, 2001, p. 240). Implementation is therefore difficult and bound to certain conditions, e.g. the quality of the leadership relationship in connection with the prevailing leadership style, since the pace of development must not be too fast. The organisation structure needs to be adjusted to this kind of leadership and the employees have to be willing to cooperate, as it requires a high degree of self-responsibility.

According to *Wunderer* (2001, p.242), however, delegatory leadership corresponds best to the present developments of the society, and it is therefore to be expected that it will be more often used in the future.

The hereby illustrated approach represents a very interesting summary of the above described leadership typologies. Especially considering it as a transition to the now described *SuperLeadership*, the *Leadership Typology* according to *Wunderer* is highly valuable. This appraisal is due to the fact, that the SuperLeadership is picking up a number of ideas that are very close to the delegatory leadership introduced by *Wunderer*. The main problem is that even this rather progressive integration of the two classic approaches is unable to liberate itself from the basic restrictions found therein. Although a number of new ideas are developed by *Wunderer*, one has to state, that this does not lead to a genuinely new theory. In particular, the approach according to *Wunderer* does not intend to alter the personality structure of the employees. Furthermore, the measures that are taken to influence the employees are not thoroughly analysed, which in turn leads to a leadership relationship in the classic sense (Weibler, 2001, p.333). In the following sections, however, two completely different ways of designing the leadership relationship will be introduced, which propagate a significantly new and highly inventive view of leadership.

2.2.2 Team-Oriented Leadership

The here presented proposal of how to design the leadership relationship represents in various ways a significantly different approach in comparison with the others presented in this work. The only theories showing vaguely analogous traits are those of *Wunderer* and *Tannenbaum/Schmidt*, since *SuperLeadership* can be seen as being positioned between delegatory and the autonomous leadership.

The main idea of this theory is the maximum liberation of the potential of the persons being led. This is to be achieved through an as equal as possible distribution of power between the superior and the subordinates (Manz/Sims, 2001, p.45).

The bases of *SuperLeadership* can be traced back to the *Socio-Technical Approach* and the *Social Cognitive Theory of Learning* (Ridder, 1999, p.524).

The *Social-Technical Approach* postulates that it is necessary to focus the leader's attention as much on the accomplishment of the work task as on the individual satisfaction of the employees. This goal is to be achieved via a shift of the decision competence back into the work group. Therefore, it is a plea for the implementation of *self-governing work groups* (Manz/Sims, 1995, column 1876). Departing from this goal, the *SuperLeader* has to be seen as a leader able to lead the group in such a way as to permit this group and each individual employee to eventually *achieve* a state of *self-leadership* (Manz/Sims, 1995, column 1877).

The leader has three roles in this phase (Manz/Sims, 1995, column 1882):

1. That of a *coach* for the support of the individual professional-learning
2. That of a *referee* for the support of the individual social-learning
3. That of an *entertainer* to create a positive group atmosphere

The *Social Cognitive Theory* according to *Bandura* (1986), postulates among other aspects that *learning through observation* is of significant importance in a learning process. This theory is used within *SuperLeadership* to illustrate the importance of the *leaders as a learning model*. The leaders have to themselves demonstrate the kind of behaviour they want their employees to achieve. Through these constant demonstrations of the desired behavioural patterns, the leaders support the reproduction of these patterns by their employees.

Manz/Sims explicitly describe how the leaders can develop the desired self-control in their employees (Ridder, 1999, p.524).
The first step for the leaders is to optimise their own behaviour with respect to the set goals. Once this is achieved, the leaders have to make their behaviour clearly understandable for their employees. The people being led have to be supported in the achievement of their self set goals through the creation of positive thinking patterns. Leadership should be exercised through rewards rather than punishment. These rewards ought to be the result of *intrinsic motivation* (Ridder, 1999, p.527).

Behaviour is *intrinsically motivating* if it is in itself rewarding, which means that it is not necessary to use e.g. material motivators to create the desired motivation. Intrinsic motivation is considered to be superior to extrinsic motivation, which could for example be the above-mentioned monetary reward (Maslow, 1970; Deci, 1975; Thomae, 1999).

Finally, it is necessary to adjust the organisation structure to this leadership style, as team-work is a necessary prerequisite for its successful implementation. For this process it is vitally important that the top management of the organisation is actively supporting the implementation of the necessary *culture of self-control* within the organisation.

Even after the accomplishment of this leadership structure, the role of the leaders does not become irrelevant, but the focus of their task shifts. These new tasks imply mainly those of a link to other groups and superior organisations, and the integration of individual contributions into a harmonious whole (Alioth, 1995, column 1900). This is again a reference to the above-mentioned roles of a leader as coach, referee, and entertainer. *Wunderer* (2001, p.233) spoke in this context about the evolution of the leadership role from that of an author to that of an editor; the editor chooses the authors, motivates them and integrates the different individual contributions into one monograph.

SuperLeadership has a number of interesting consequences:

Firstly, a *new definition of hierarchy* takes place. Command and control are taken as less important and are replaced by strictly team-oriented work. The decision participation is even greater than it is in *delegatory* leadership according to *Wunderer*. Especially for the integration of very heterogeneously composed work groups, this kind of leadership is very promising, considering the fact that it becomes increasingly unlikely that a single person can possess the knowledge necessary to competently fill out a purely hierarchical leadership position (Yukl, 2002, p.310). Furthermore, it is to be expected that a further positive influence will be exercised upon the employees' motivation, especially with highly motivated and qualified employees.
On the other hand, this feature of the approach places certain restrictions upon the possibility to employ this kind of leadership. Depending on the employee structure, design of the organisation, or timely restrictions of the task, it may not always be possible to make successful use of *SuperLeadership* (Manz/Sims, 1995, column 1888). Furthermore, it has to be stated that the *SuperLeadership* approach is highly demanding for the employees, as it implies that a rational way to solve problems is always possible and seriously wanted by all the employees concerned, which in turn negates the existence of any kind of intra-group concurrence. This implied harmony is in strict *contradiction* with other highly recognised theories, as for example the *Theory of Micro-Politics* (Küpper/Ortmann, 1986), which leads to certain reservation as to the validity of this assumption.

Despite these reservations, it can be stated that for the further development of the present work, *SuperLeadership* represents an interesting, and under consideration of its restrictions also very fruitful, theory to lead efficiently, and in an integrative way work teams.

2.2.3 Charismatic/Transformational Leadership

The term *Transformational Leadership* was used for the first time by the political scientist *Burns* (1978). Later, *Bass* undertook some further research and tried for the first time to validate it empirically (Bass/Steyrer, 1995, column 2053ff.). The best way to understand this approach is by comparing it with the *Transactional Leadership Style*.

The *Transactional Leadership Style* concentrates on the classic interpretation of task- and goal-oriented delegation, which means that the leaders reward employees following their orders (Wunderer, 2001, p.243). Two different kinds of Transactional Leadership Style can be distinguished. The first is called *"Conditional Reinforcement"* and the second is called *"Management by Exception"*. The first leadership style, which could also be called leadership through reward, gives rewards always as close as possible to the triggering situation. The latter implies any action by the superior only if there are non satisfactory results (Bass/Avolio, 1993, p.52).

However, the key factor of this approach is that the superiors do not try to change the preferences, values and convictions of their employees. At best, their intention is to reach the optimum for all parties concerned, within their given traits. That in turn means that in the long run the achievement of the delegatory leadership style, the most demanding leadership style, is the aim (Wunderer, 2001, p.240).

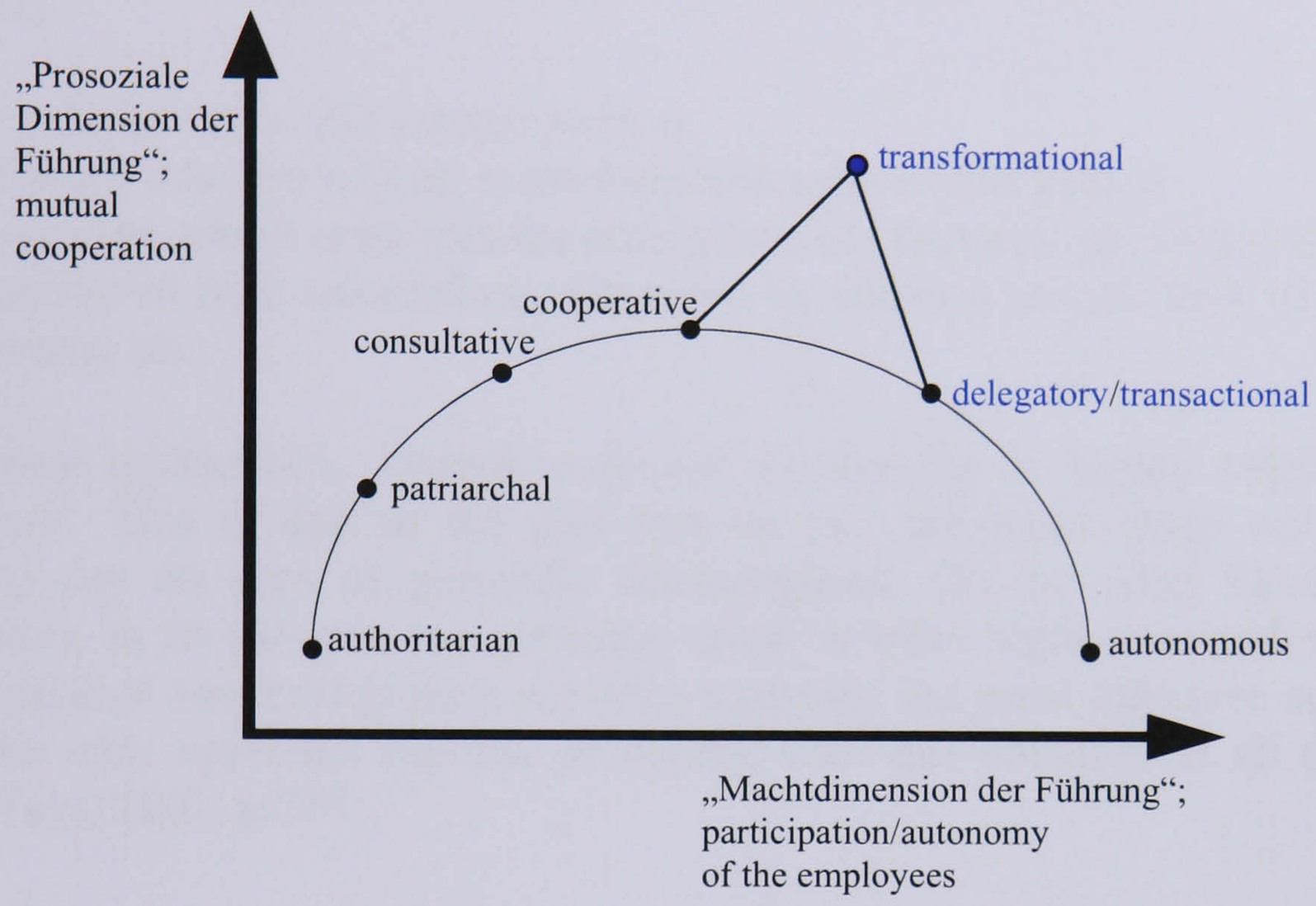
In comparison, the *Transformational Leadership Style* has a completely different approach. The goal of Transformational Leadership is to *modify the values, and motives of the employees*, to raise them to a higher level defined by the superior. (House/Shamir, 1993, pp.89ff.). This transformation can be achieved by the leader through the four behavioural components: *charisma, inspiration, mental stimulation and individual consideration* (Bass/Avolio, 1993, pp.51f.).

According to *Wunderer* (2001, p.244), *charisma* can arise through the conveying of enthusiasm, acting as integrator behaving with integrity.
Inspiration means, e.g., motivating through a captivating vision, or increasing the meaning of tasks and goals.
Mental stimulation is composed of elements such as changing established thinking patterns and passing on new insights.
Finally, *individual consideration* implies, e.g., taking care of employees and supporting employees.

If the superior is able to practice this kind of leadership, a "performance beyond expectations" can be expected, which implies a level of efficiency that can be achieved with no other leadership style (Bass, 1985). Despite this fact, *Transactional Leadership* does *not* become *useless*, but serves to cope with *routine tasks*, whereas *Transformational Leadership* is always to be used when there are *special, unusual, or especially demanding tasks*, to be performed (Weibler, 2001, pp.335f.).

Through a successful combination of these two leadership styles it is therefore possible to have more influence on employees than it would be possible with traditional kinds of leadership. This assumption goes back to the *Augmentation-Theory*, which states that *Transformational Leadership* is a further development of cooperative-delegatory kinds of leadership (Wunderer, 2001, p.245).

Figure 12: Transactional and Transformational Leadership in Comparison



Wunderer, 2001, p.248

The main *problem* with this approach is the component *"charisma"*, as the other three can be considered

1) to be employable by significantly more people, and
2) that it is possible to generalise to a certain degree their advantageous effects (Wunderer, 2001, p.247).

Charisma, in contrast, can be seen as a highly unusual trait. It is therefore only present in very few people, and furthermore, it is learnable only to a very limited degree, if at all. Over and above that, a too far reaching identification with the superior implies seriously dangerous behavioural patterns since following the leader blindly in turn leads to the danger of misuse of employees, and there is also the danger of polarising the employees, which in turn leads to a serious fission within the group of employees (Wunderer, 2001, pp.278f.).

Furthermore; charisma exists only through its attribution by the employees. This leads to charisma being extremely dependent on success and therefore tending to be unstable over time (Weibler, 1997a, pp.30f.). Finally, *Charismatic Leadership* is not compatible with other approaches in leadership research, as for example *SuperLeadership* in particular, or the cooperative leadership styles in general, as all the activities of the group are focused on the leader (Weibler, 1997a, p.31).

To sum up, it can be said that there have to be *three components* for a *Charismatic Leadership relationship* to materialise. These components are (House/Shamir, 1995, column 891):

1. the presence of a *charismatic person*
2. *followers* who are willing to attribute charisma to this person
3. a *situation* which enhances the emergence of charisma; involving for example a situation of high uncertainty, situations in which a serious lack of information prevails, etc.

Despite these restrictions, *Transformational Leadership* is highly relevant for the present work. This is due to the fact that on the one hand, three out of its four components can be seen as generally advantageous. On the other hand, in special circumstances, as for instance in a company crisis, or other highly demanding situations, *Transformational Leadership* may not only represent the most effective approach, but possibly the only approach capable of coping with that situation at all (Bass, 1990, pp.195f.; Yukl, 2002, p.255).

2.3 ***Summarising Evaluation of the Different Leadership Theories***

After the introduction of the different leadership theories, the question arises as to how far they may be useful for the present work.

The first topic to be clarified in this context is whether it is possible for one leadership style, independent of any Cultural influences, to be superior to any other leadership style. The proponents of this voice, who advocate the so called *"culture-free thesis"*, consider *management principles and techniques* to be independent of Culture and employable *always and everywhere in the same way* (Scherm/Süß, 2001, p.27).

This branch of research is *challenged* by the proponents of the so called *"culture bound thesis"*, who consider management principles and techniques to be bound to Culture, which leads them to not be transferable to different Cultural environments. This second approach has in recent years gained increasing support, and will therefore be *preferred* in the following elucidation (Keller, 1995, column 1398). *Keller* (1989, column 238), postulates in this context that certain parts of management, such as planning, production, cost control, or investment calculation, are influenced to only a relatively small amount by Culture, whereas others, *especially motivation and leadership, are indeed highly dependent upon Culture*.

Therefore it can be stated that the aspects of *leadership* researched *in this work*, and in this logic *organisation design* are *Culture bound*, and that it is therefore not possible, for example, to find one leadership style that is superior in all circumstances. Statements such as that of *Wunderer*, who considered the *"delegatory"* leadership style to be superior to any other leadership style, can therefore only be upheld for certain distinct Cultures (Keller, 1995, column 1402f.).

The main question is, however, whether the Cultural influence also extends to the *Professional Culture*s introduced below, as these have not yet been researched in a sufficiently profound manner.

So the response as to how far the individual leadership theories introduced are relevant for the further pursuit of the present work will have to be postponed until the presentation of the results of the empirical survey.

3 ILLUSTRATION OF THE MAJOR ORGANISATIONAL THEORIES

The following chapter is intended to give the reader a thorough understanding of organisational theory and research. In order to achieve this goal, initially a chronological overview of the most important historical organisation theories will be given. This course of action is the most promising way, to introduce the readers into this area of research, and to provide them with the necessary knowledge to fully understand the organisational part of this work (Robbins, 1990, p. 30).

Following this historic introduction, the most important *Modern Organisational Theories* for the research project presented will be described. These theories are the *Neo-Human-Relations Approach*, the *Cognitive-Symbolic Approach* and the *Contingency Theory* (Schreyögg, 1999, pp. 52ff.). To conclude the chronological description of organisational theory, an introduction into *Complexity Theory* will be given (Stacey, et al., 2000). This theory represents an example of *Post-Modern Organisational Theories*, which are the most recent developments within this area of research (Weik/Lang, 1999).

Finally a number of approaches are presented, which are intended to pragmatise certain of the theories presented. The course of action will be the same as above, starting with the classical approaches and finishing with the most recent ones. This part serves mainly to give the reader an idea of how theoretical constructs can be transformed into suggestions for the structuring of organisations. This is specifically important with regard to the development of the different adequate organisational structures in chapter six and seven.

In summary, the present section will give the reader a thorough and well founded knowledge base focussing on the development of the adequate organisational structures described below.

3.1 Classical and Neo-Classical Organisational Theories

In this section, an overview of the historic development of organisation theory, as represented by the so called "*Classical*" and "*Neo-Classical*" theories, will be given. Those two parts are treated together since they trace the historic heredity of this area of research.

3.1.1 Classical Organisational Theories

The very beginnings of organisational research can be traced back to three main basic theories. They evolved in three different countries and from three genuinely different theoretical backgrounds. The first one is American (*Scientific Management*), the second one is French (*Administrative Management*) and the third one goes back to the German sociologist *Weber* (e.g. Mitchell, 1982, pp.17 ff.; Robbins 1990, pp.34ff.).

3.1.1.1 Scientific Management according to Taylor

The basis for this approach, which goes back to the American engineer *Frederick W. Taylor* (1967; initially 1911), is the analysis of specific work routines. The most efficient division and performance of labour was to be developed via this analysis.

According to *Taylor*, work organisation represented a revolution in the way work was performed at that time (Robbins 1990, p.35). This was due to the fact that up to then the prevailing work organisation had been oriented on an integral perspective. In this perspective the individual workers were responsible for the whole task, beginning with the work planning, and ending with the quality control of their work (Schreyögg, 1999, p.40).
Taylor's underlying idea was to achieve significant efficiency gains through specialisation of the workforce. Furthermore, he wanted to assure a tighter control over the workforce, as he considered the regular worker to be unwilling to work more than absolutely necessary (Taylor, 1967, pp.13ff.).

Three main principles can be seen in *Taylor's* theory (Taylor 1967).

The *first principle* is the strict separation of cognitive and manual work. This is to be realised by the implementation of *three different functions* within a company (Taylor, 1967, pp.35ff).

- The first function is performed by a *planning* department, which is composed of specialised engineers.
- The second function is the *production* itself, which is performed by highly specialised workers in a highly standardised manner
- The third function is *quality control*, which is again performed by highly specialised employees.

The first task, which has to be performed in order to implement *Taylor's* theory, is therefore, a thorough survey. This survey determines three different aspects. Firstly, it establishes the maximum possible split-up for each part of any job. Secondly, it optimises the way each of these elementary works is done by eliminating any unnecessary movement. Finally, the exact time for the performance of each task is calculated (Taylor, 1967, pp.115ff.).

These times led to *the second main principle* of this theory, the calculated standard time for the completion of a specific task, or the standard performance in terms of quantities produced (Taylor, 1967, pp.38f.). This second principle had as *consequence* the development of *piece-work-pay* as we know it today (Marr/Hofmann, 1992, column 2147).

The third main principle of *Scientific Management* is a thorough personnel selection process in order to achieve an optimised fit between the position and the worker (Taylor, 1967, p. 61f.).

A further aspect of *Taylor's* theory is that it also wishes to make use of the advantages of specialisation on higher hierarchical levels (Taylor, 1967, pp.122ff.). This means, for example, a superior for maintenance, another for materials management, etc. In contrast to the above-mentioned part of the *Scientific Management*, this part of the theory was rather unsuccessful (Kieser, 1995a, p.76).

The realisation of *Scientific Management* has a number of significant consequences for organisational structures, as the differentiation of tasks reaches an extremely high level with this kind of organisation. Therefore organisational costs also climb significantly due to the increased need for integration and coordination (Kieser, 1995a, p.76).

Despite these negative effects on the organisational cost structure, *Scientific Management* was widely successful, since, as a consequence of the increased specialisation, the positive effects, outweighed the negative ones by far. This was due to an enormous *increase in productivity*, which was noticeable at least until the 1970s (Schreyögg, 1999, p. 41, Kelly, 1995, p.506).

Negative effects of this kind of organisation were observed mainly on the level of the individual workers (Kelly, 1995, p.506), as

- their work became increasingly senseless and monotonous in their perspective
- they were subjected to omnipresent control

Despite these negative side effects, *Scientific Management* was also rather successful among workers, as it very often provided them with a significantly increasing income (Kieser, 1995a, p.77).

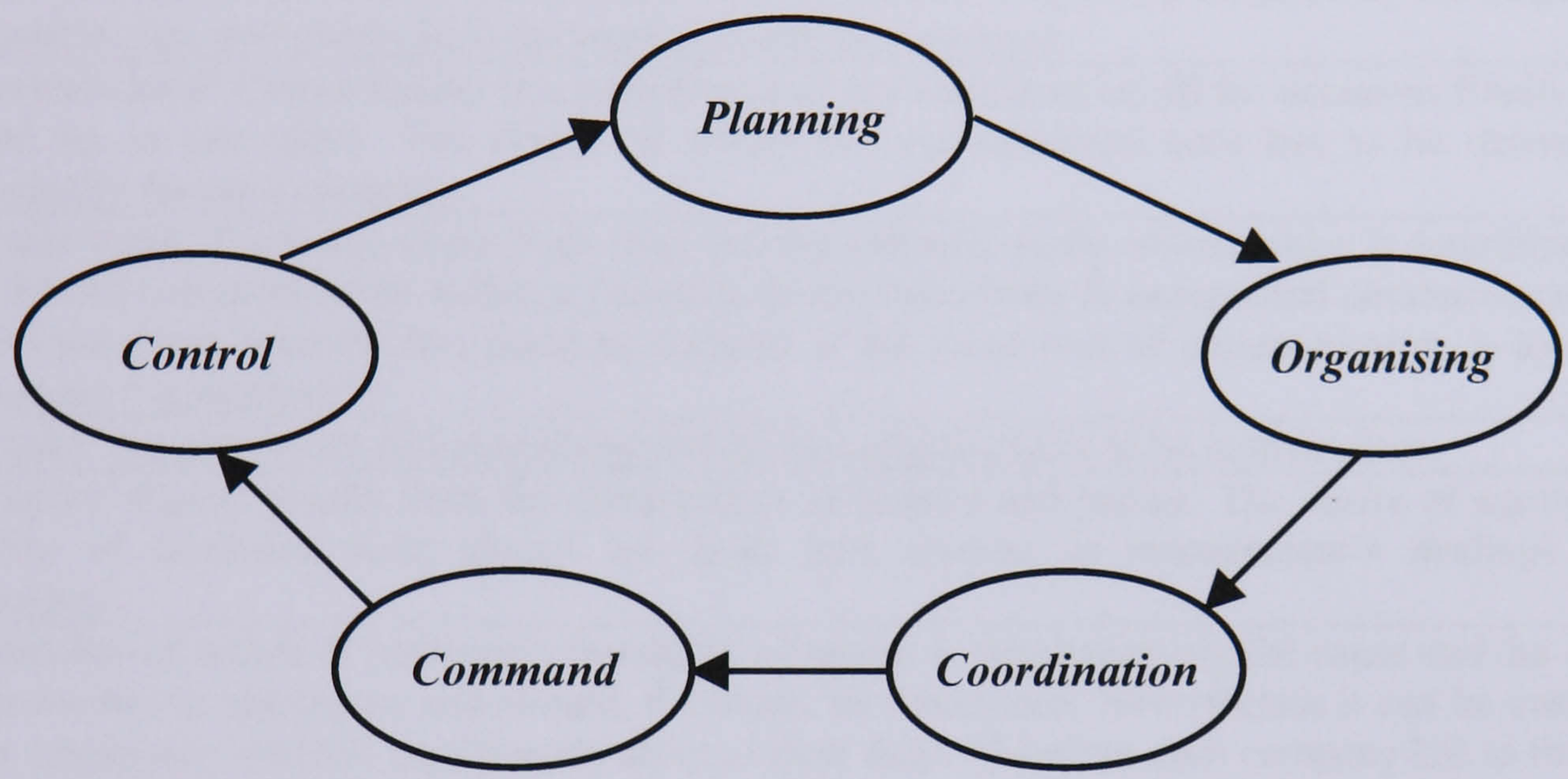
To sum up, *Taylor's* theory was one of the first approaches to formalise organisational structures in a way, which made it possible to reproduce the structures themselves as well as their successes. This aspect also gave this theory its name, because it claimed to be a scientific form of company management (Kieser, 1992, column 1663f.).

3.1.1.2 The Administrative Approach according to Fayol

The second major classic organisational theory goes back to *Henri Fayol*. His theory, which was initially published in 1918, is to be seen more as a list of potentially advantageous ideas and principles, than an explanatory theory, as for example *Weber's* theory described below (Schreyögg, 1999, p.37).

These *"principals of administration"*, as he called them, are (Fayol, 1984, p.13):

Figure 13: *Fayol's* Principles of Administration



The term *planning* describes the development of the long-term orientation of the company. It is basically intended to give the company its general goals for the future (Fayol, 1984, pp.15ff.).

Organising is seen as an engineering task in which the layout and the implementation of the organisational structure are developed. This structure can be viewed as a technical arrangement of posts, initially without taking into account the people who are going to work within this structure. The main focus is the creation of the most efficient organisational machine (Fayol, 1984, pp.27ff.).

Finally, *integration* is performed via *coordination*, *command* and *control* (Fayol, 1984, pp.45ff.). The people who fill the working posts in this engineered structure have to fit into it, not vice versa. The main mean to achieve this is via command.

The *basic guidelines* of the *Fayol* theory can be seen in his *"General Principles of Managing the Body Corporate"*, in which his ideas of how to organise a company are outlined, and to which he refers to as the managerial equivalent of the bible (Fayol, 1984, p.82).

Table 1: *Fayol's* Principles of Managing the Body Corporate

1. Division of work: Division of work facilitates more and better work with the same effort.
2. Authority and responsibility: Authority represents the right to give orders and the power to receive obedience. Responsibility is the natural counterpart of authority; whenever authority is exercised, responsibility has to be present.
3. Discipline: Discipline is shown through obedience to the demands and conventions of the company.
4. Unity of command: Every employee should have only one direct superior.
5. Unity of direction: All the efforts, orders and actions within the company should be aiming towards a common goal.
6. Subordination of the individual's interests to the general interests: In business, individual interests should not prevail over those of the company.
7. Remuneration of personnel: The remuneration is the cost of services rendered by the employee; it should be fair, and satisfy both the employee and the employer.
8. Centralization: Centralization is a natural part of any organisation; all the decisions finally have to end up in one place. The degree to which this centralization goes has to be determined individually for each company.
9. Scalar chain: The scalar chain leads from the top authority to the lowest ranks. It determines the way that all communication within a company has to take. Only in exceptional circumstances can direct interaction between two posts be realized, if the usual way of communication is too time consuming ("gangplank").
10. Order: All employees and everything within the company have to be in their place.
11. Equity: Equity results from the combination of respect and justice. The desire of equity and equality of treatment must always be taken into account in management's dealings with employees.
12. Stability of tenure of personnel: Instability of tenure is simultaneously the cause and the effect of mediocrity in operations and should, therefore, be minimized. Nevertheless it can be costly to retain employees who fall significantly short of their duty. Therefore each company has to find for itself the appropriate amount of personnel turnover.
13. Initiative: Encouraging employees to propose plans and take an active role in their implementation is a substantive task for managers.
14. Esprit de corps: In a company where esprit de corps prevails, each employee is motivated to do his best, to achieve the most positive outcome possible to all his actions, and he is loyal to his company.

Fayol, 1984, pp.61 ff.

The main focus of this work is obviously the way organisations should be structured. This part of *Fayol's* theory also received much attention in the academic world in its time and was subject to a number of further developments in various other countries during the years following (Schreyögg, 1999, p.38).

The problem of this theory is, however, that it is based solely on the above shown principles which *Fayol* had derived from his experience as manager. The almost total lack of empirical evidence for this theory, as well as the unclear meaning of the stated principles within the theory, led to a different orientation of organisational research in subsequent years, as can be seen in the following sections (March/Simon, 1958, pp.30ff.).

3.1.1.3 The Bureaucratic Organisation according to Weber

Max Weber's (1864-1920) *"Wirtschaft und Gesellschaft"* can be seen as one of the most important theoretical works as regards the understanding of the way modern organisations function in state and society. In particular, his explanations concerning *Bureaucratic Rule* were a major step towards the creation of modern organisation theory (Kieser, 1995b, p.31).

The main characteristic of *Weber's* approach is that is does not set up certain principles, as for example *Fayol* did, but that he proceeds to a comparison between the way organisations were structured at his time, and his proposed ideal structures of an organisation. These ideal structures are based solely on the above-mentioned *Bureaucratic Rule* (Kieser, 1995b, pp.38f.).
The starting point of *Weber's* work was the increasing importance of major organisations at that time, and their remarkable success (Kieser, 1995b, p.31).

In his approach, *Weber* develops a theoretical model in which he explains why, according to him, *bureaucratically based rule* is superior to any other kind of rule. He defines rule as *"the possibility to gain for specific (or for all) orders obedience within a specified group of people"* (Weber, 1976, p.122). The base of this rule can be found in the prevailing regulations of the organisation. This definition distinguishes between rule and power, which he defines as "the general possibility to force one's will upon somebody else" (Weber, 1976, p. 542). In this sense, *rule* is a specific regulation-based kind of power. Orders are only followed according to this logic if their base is considered to be *legitimised*. If this legitimisation is missing, then *Weber* is not talking of rule, but of power, as the base of obedience.

Weber distinguishes three different kinds of legitimising rule. These are (Weber, 1976, p.124):

- *Legal Rule*
- *Traditional Rule*
- *Charismatic Rule*

Legal (Bureaucratic) Rule is based on the belief in the legality of the defined structure of the organisation, and the right of those who give orders to do so. The main idea is that obedience is not given to people but to *regulations*, which are equal for everybody within the organisation (Weber, 1976, p.125).

The *Bureaucratic Organisation* is characterised by the following traits (Weber, 1976, pp.125ff.):

The *discharge of office* is based strictly on prevailing regulations. This means that, ideally, every action within the organisation is regulation-based.

Authority and responsibility are strictly separated and can be deduced from the *positions*. These positions are arranged in a clear hierarchy which exactly attributes the importance and competence of each of these positions; this ideally excludes any form of arbitrariness. It also includes total neutrality in the discharge of office, which is assured by the obligation to record, every administrative action taken in writing.
To achieve these goals it is necessary to employ specifically trained and educated people, because only then can it be assured that the developed regulations are correctly used.

Weber considers this type of rule to be ideal: the one which every organisation should aim to achieve, as it is, according to him, "everywhere ceteris paribus, the most rational form [of organisation] from a technical point of view ", and that one has only the choice between "bureaucracy and dilettantism" (Weber, 1976, p.128).

In comparison *Traditional Rule* is not considered, to be based on rationality. The base of this kind of rule is the belief in traditions and people and its authority is derived from these traditions (Weber, 1976, p.130). Therefore, the exact design of this rule depends largely on the underlying traditions and individual approach of each of the beneficiaries of these traditions. This kind of rule is obviously in clear contrast to the above described one, which is based solely on rational regulations.

Charismatic Rule is not based on rational considerations. As was already outlined in section 2.2.3, *Charismatic Rule* is based on the charismatic ruler. *Charisma* is defined by *Weber* (1976, p.140) as *"an outstanding trait of a personality, because of which the person is attributed with supernatural, or superhuman powers, which are not accessible to others than the charismatic leader himself, and which render him to be a natural leader through these exemplary qualities"* (Weber, 1976, p.140).
Here, as well, obedience is obviously owed to the (charismatic) person, which is once again in clear contrast to *Bureaucratic Rule* and therefore, according to *Weber*, to be seen as less desirable.

This unconditional preference of *Bureaucratic Rule* has been the target of a number of critics. These critics are centred round the *dysfunctionalities* of a too strict following of the rules, the too narrow perspective of organisational relationships and the implied uniformity of ensuing tasks (Kieser, 1995b, pp.50ff.).

The *dysfunctionalities* of bureaucracy can be seen mainly in an auto-dynamic process in which bureaucracy focuses more and more on following the regulations, even if they are completely inadequate to the demands of the situation. This behaviour becomes especially apparent in situations of organisational change in which at least part of the regulations become obsolete and have to be altered consequently. This in turn leads to strongly opposing behaviour of the per definition regulation following bureaucracy (Schreyögg, 1999, p.35).

Finally, *Weber* sees social relationships in organisations as purely formal. This perspective excludes any kind of emotionally motivated actions among the employees; at the most these are seen as a disturbing and therefore undesirable phenomenon within the purely rational organisation. In view of the more recent insights gained by organisational research (see also the following sections), this position becomes rather untenable.

Despite the above described shortcomings of *Weber's* theory, it ought still to be considered one of the most important works on organisational theory. Especially the linkage of rule and legitimacy can be seen as a major advance in organisational theory and research. Besides that, it also represents the *first theoretical examination* of the above described *Charismatic Leadership*, and therefore gave birth to one of the most important modern leadership theories, the *Transformational Leadership*.

3.1.2 Neo-Classical Organisational Theories

In the following, the two most important Neo-Classical organisation theories are described. They are characterised by a significant change of focus compared to that of classic research (Robbins, 1990, p.38). Especially the *position of the employee* within the organisation underwent a *significant* change.

3.1.2.1 The Human-Relations Approach

The Human-Relations approach emerged as result of the so-called *Hawthorne experiments* (Roethlisberger/Dickson, 1947). These experiments were intended to examine the interaction between the working environment and the productivity of the workers. The aim was to establish a stable correlation between the factors which determined the working environment as independent variables on the one hand, and productivity as a dependent variable on the other.

The initial experiment was represented by variations in the lighting. The first results were fully as expected; the more light there was, the better productivity became. The interesting part started when the researchers tried to validate these findings and therefore decreased the lighting again. The results now achieved were totally unexpected: productivity increased even more. Even when the lighting reached a level close to that of moonlight, productivity still went on increasing. More striking still was that even in the control group, which did not undergo any change, productivity constantly increased.

After attaining these confusing results, the researchers consulted a second research team from the University of Harvard led by *E. Mayo*. They produced a comparable environment for the workers, but this time they did not vary the lighting, but other variables. The same effect recurred: whatever was done, the productivity increased. Even when the initial working conditions were re-established, a significant productivity gain was still observed.

After thoroughly studying all available results, the researchers came to the conclusion that not the variations of the work environment were themselves responsible for the observed increases in productivity. In their opinion, the *increased attention* each worker was getting and the extensive possibility for *social interactions* within the working group, were triggering the observed behaviour. This was a significant change from a theoretical point of view, compared to e.g. the total neglect of any kind of social interaction within *Weber's* theory. The result of these findings was that in a follow-up survey a number of in depth interviews were carried out. These interviews led to the conclusion that a significant number of employees' problems and complaints did not have their roots within the work process itself, but was the sign of problems not related to their work. Therefore *the social competence of the superiors emerged as a decisive quality*, which questioned another basic principle of the classical theories; the sole focus of order and obedience.

In 1931, a further set of experiments was carried out, this time with the explicit aim of gathering information concerning the importance of informal social relationships. In order to achieve this, three distinct working groups were set up. The results clearly showed the importance of informal social relationships. In particular, the emergence of distinct norms within the groups and the establishment of friendships beyond the boundaries of the different groups, even in violation of clear orders from the management, demonstrated the importance of these relationships for the satisfaction of the employees on the one hand, but also for their productivity on the other.

In summary, these works can be seen as a significant turn in organisational theory (Frese, 1992, column 1723f.). A variety of hitherto unquestioned principles were challenged (Robbins, 1990, p.39). Furthermore, the focus of organisational research changed and increasingly emphasised the view of the employees. Finally, the established importance of informal social relationships can be seen as *a basis of modern team-oriented approaches*, of organisational theory.

As a further remark, it should be mentioned that the above described disturbing influence of unexpected and consequently uncontrolled variables in an experiment, was for the first time explicitly noticed within this research project, which gave this phenomenon its name of the *"Hawthorne effect"*.

3.1.2.2 Theory of Organisational Equilibrium

The main focus of *Chester I. Barnard's* work, which was initially published in 1938 under the title *"Functions of the Executive"*, entailed a significant change of perspective as compared to the Classical Organisation Theories (Barnard, 1971). He saw the organisation as a complex system of actions (Barnard, 1971, pp.65ff) which constantly had to assure its ongoing existence. This could only be achieved through the *maintenance of a number of equilibriums*; formal and informal relationships, external and internal demands on the organisation, incentives and contributions, etc.

Barnard is the first to define organisations as *open systems*, and changes thereby the classical perspective which was solely oriented towards the internal organisation (Schreyögg, 1999, p.48). *Barnard* considers every organisation to be a cooperative system. His definition perceives any *organisation as a "system of consciously coordinated activities or forces of two or more persons"* (Barnard, 1971, p.73).

The central topics around which *Barnard's* theory revolves are the following:

If organisations can only exist in as far as their members are willing to cooperate and therefore to contribute, then the question is vitally important as to which incentives the organisation has to provide to assure this cooperation. From this perspective, the organisational goal achievement takes on the function of fulfilling the expectations of the members of the organisation (Berger/Bernhard-Mehlich, 1995, pp.126ff.).

Compared to the classical approaches, this represents in itself a major shift in the way the relationship between the individual and the organisation is seen, and the consequences of this perspective go well beyond these considerations.

The balance between incentives and contributions is *not restricted* to the direct members of the organisation, but extents to every individual whose contribution is vital for the ongoing existence of the organisation. In the case of a company, this includes e.g. supplier, buyer, stockholder, etc. The consequence of this view is that the limit between an organisation and its environment is vague and subject to constant change (March/Simon, 1958, pp.89f.). Therefore it is highly important, that the organisation takes into account the expectation of every individual related to it. This view of the organisation leads to one *serious implication*:

If an organisation were only based on constantly renewed coalitions, then this would imply a highly instable nature of any kind of organisation. That is why *Barnard* introduces a "zone of indifference". This zone can be understood as an area of acceptance of authority. Every participant of the organisation accepts a certain amount of authority. As long as any order given by the respective authority is within this area of acceptance, it is not necessary to renegotiate existing coalitions (Berger/Bernhard-Mehlich, 1995, pp.128ff.; March/Simon, 1958, p.90). With this mechanism it is possible, to perform to a certain degree the necessary integration of organisational stability into *Barnard's* theory.

Another problem of *Barnard's* theory is the fact that the role of the formal structure of the organisation is not made clear. His main interest is the communication within the informal structure of the organisation. He considers the informal organisation to be *necessary* for the functioning of the formal organisation (Schreyögg, 1999, p.51).

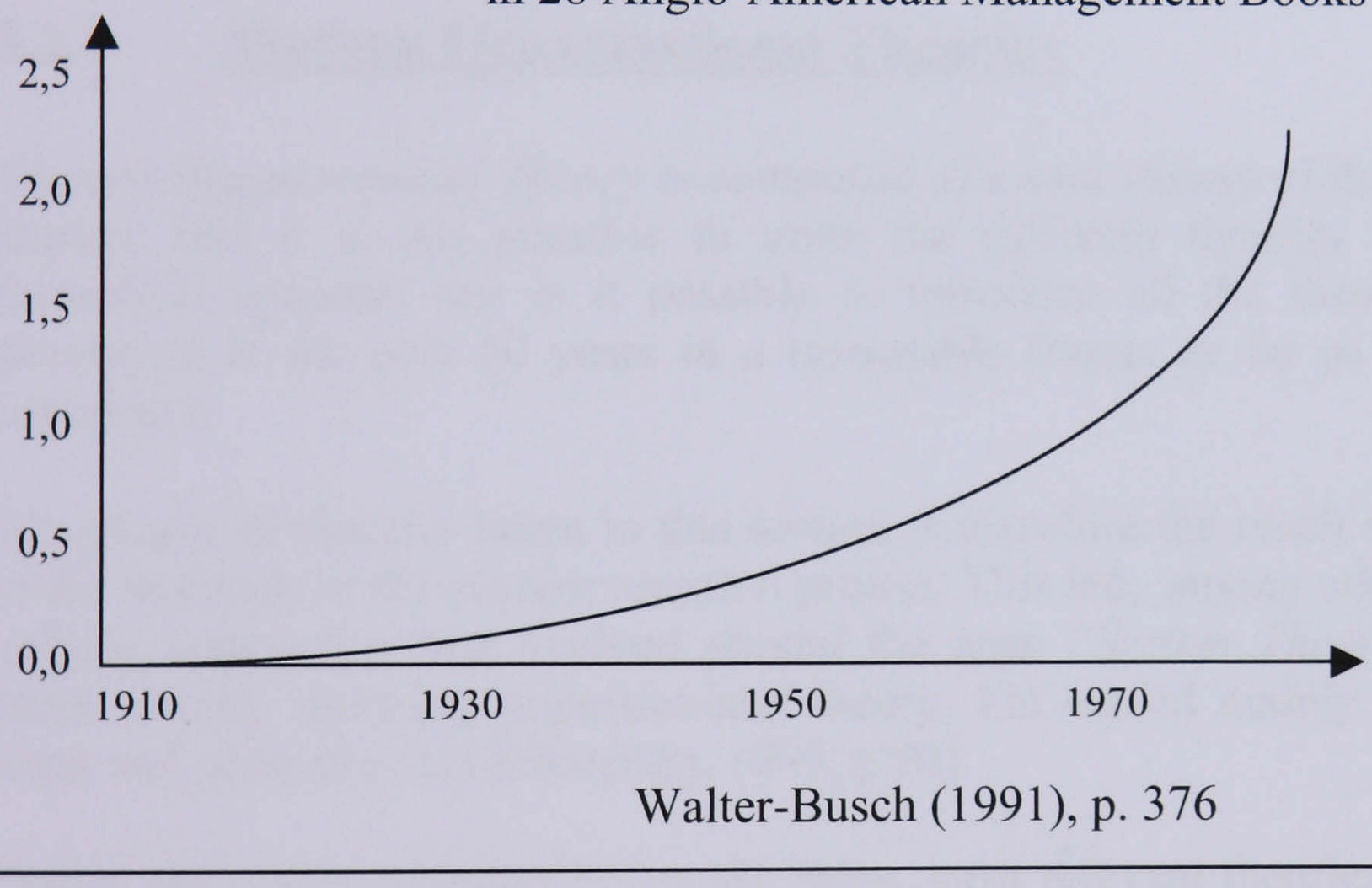
Finally, his view that all the participants of the organisation are equally powerful in the negotiations for the respective contracts seems to be at least problematic (Ortmann, 1976 p.38). Coalitions are often not the result of free negotiations, but merely a sketch of the existing power structures.

In summary, the *Theory of Organisational Equilibrium* represents a significantly different view of the organisation structure from that of classical approaches. In particular, the emphasis of the expectations of the employees can be seen as a highly important development within organisational research. Together with the results of the *"Hawthorne experiments"*, the integration of the individual and the organisation was eventually seen as a distinct problem within organisational theory and research.

3.1.3 Comparative Evaluation of the Classical and Neo-classical Theories

Comparing the different presented approaches, one becomes aware of the shift of focus within that area of research in the first part of the 20th century. In the earliest theories the employee is seen mostly as some sort of biological machine that has to fit into the ideal organisation structure.
This view of the employee underwent a *significant* change in the neoclassical approaches. The relationship between the individual and the organisation became more and more important not only for organisational research, but also for management in general. These changes can be seen clearly in the following graph which illustrates the increased importance of behavioural sciences for organisational research:

Figure 14: Use of Terms per page Originating in Behavioural Sciences in 28 Anglo-American Management Books



Walter-Busch (1991), p. 376

In conclusion, it can be said that organisational theory and research underwent a significant change in the first half of the 20th century, and that these changes paved the way for the more recent theoretical approaches in which the classical understanding of "organising" as an engineering task was completely discarded.

3.2 ***Modern and Post-Modern Organisational Theories***

In the following an introduction of the Modern and Post-Modern theoretical approaches will be given.

"Modern" means in this context those theories developed after the 2nd world war that pursued the different directions in organisational theory and research as described above.

"Post-Modern" are those approaches that have been developed in the very recent past; which point organisational research in a genuinely new direction compared to the previously described approaches (Weik/Lang, 1999).

Observing a chronological order, we will begin with the *"Modern"* organisational theories.

3.2.1 Modern Organisational Theories

Modern Organisational Theory is composed of a vast variety of different theories. This implies that it is not possible to unite the different theories under one coherent theoretical concept; nor is it possible to introduce all the theories that have been developed in the past 50 years in a reasonable frame, as far as the present work is concerned.

The choice of theories taken in this section is therefore the result of a strict orientation to the demands of the present research project. This led, among others, to the discard of various approaches that evolved around the term *"System Theory"*, since they were never strictly speaking organisational theory, but served mainly as a supply of new ideas and perspectives (Schreyögg, 1999, p.90).

Hence, the reader will find below the three, most relevant theories within this context, with the *Neo-Human-Relations Approach* being the bridge between the *Neo-Classical* and the *modern approaches* on the one hand, and representing the base for every team-oriented approach on the other. The second theory is specifically important in conjunction with the above described charismatic leadership approach, whereas the third emphasises the importance of external variables for the organisational structure. This aspect will prove to be especially useful in the context of the discussion of the *Professional Cultures* described below.

3.2.1.1 The Neo-Human-Relations Approach

As already stated, this theory is basically a further development of the Human-Relations Approach. But this further development enlarged that theory significantly, as it included as main research focus the organisational structure.

According to the proponents of this theory, the organisational structures were, to be redesigned to match the motivational demands of employees (Vahs, 2001, p.31f.). According to this theory, traditional organisational structures, with their emphasis on obedience, suppress, any kind of initiative and responsibility and lead to dependency and a lethargic following of regulations (Schreyögg, 1999, p.53).

A number of researchers led these critics, while at the same time developing possible solutions to the problems mentioned. The best known of them are *McGregor* (see section 3.3.1.1), *Argyris* (see section 3.3.1.2) and *Likert* (see section 3.3.1.3), who based their propositions on motivational considerations that went well beyond the mere social relationships of the classic Human-Relations movement. Their goal was to develop structural models that achieved a significantly better satisfaction of individual needs on the one hand and the economical considerations of the organisation on the other (Scott/Mitchell, 1972, pp.27ff.). These structures were to be designed in such a way as to reach a maximum level of individual *self-realisation*. In this theory, the way the human being is seen is based on the ideas developed by *humanistic psychology*, in which man is seen as having the need to develop personal growth (Völker, 1980).

The idea behind this approach is to design the organisation in such a way that the individual can, through the pursuit of his own personal goals, reach the organisational goals as well. According to this theory, work should no longer be a necessary evil, but on the contrary, source of *joy and self-fulfilment*.

Furthermore, it should be noted that a special offshoot of this theory led to the research of organisational development and change (Thom, 1995, column 1478). This was due to the fact that the implementation of the concepts of the Neo-Human-Relations school was faced with enormous problems, especially within bureaucratic organisations.

In summary, it can be said that the Neo-Human-Relations research represents a significant enlargement of the Human-Relations school. Especially its focus on the development and maintenance of motivation is of significant importance; on the one hand, the motivation of the employees was recognised to be highly important and on the other it was seen that this motivation could and had to be cultivated by the organisation and its leaders.

3.2.1.2 The Cognitive-Symbolic Approach

The underlying considerations of this approach are mainly based on criticisms of rationality in the classical, objective sense. These critics claim that rationality is only one of a number of *myths* created and used by organisations to give themselves meaning, and that therefore a relativised and enlarged view of reality is necessary (Luhmann 1973, Peters/Waterman 1982, Quinn 1988).

These myths are intended to give the individual orientation and support through organisational significance. They are genuinely irrational, as they consider the organisational world to be entirely constituted through symbols. The complete set of these myths is combined in the term *Organisational Culture* (see chapter four).

The theoretical base for this view is taken from a number of different theories; symbolic interactionism, symbolic realism, French symbolism, etc. (Czarniawska-Joerges, 1997). The symbolic constitution of the organisation is seen as a generic process (Morgan, et al., 1983, p.5) in order to emphasis that not only the most apparent parts of the organisation such as the company logo, but that the whole organisation is represented by symbols. Symbols are characterised by the fact that they possess a meaning which goes *beyond* their pure *appearance* (Weibler, 2001, p.381).

The transfer of this theory into practical use came to be defined as *symbolic management*. It intends to create symbols and symbolic actions that can be exploited to increase organisational efficiency (Pfeffer, 1981). This use of symbols has, on the other hand, been in the centre of a great deal of criticism, as the danger of an ethically unwanted manipulation of the employees is evident (Ulrich, 1984).

In summary, the *Cognitive-Symbolic Theory* represents a genuinely different theoretical approach to describe organisations and their structures; it led to the intensively pursued research of *Organisational Culture*s. Furthermore, through the above-mentioned symbolic management, it represents a potentially powerful tool to structure organisations in a highly efficient manner.

3.2.1.3 Contingency Theory

The main focus of this theory is the empirical determination of organisational structures and their differences on the one hand, and the explanation of these differences on the other. As a starting point the theory of *Weber* was usually chosen, out of which measurement scales were developed. These scales served to determine and describe the different types of organisation. Furthermore, for the first time in organisational research, the measurement device had to be objective, reliable and valid (Schreyögg, 1999, p.55).

The traits of the *Bureaucratic Organisation* found during these research projects were interpreted as independently varying dimensions, with which it was possible to develop different structural profiles. These results led to further empirical research, through

which the reasons for these differences were to be developed. One of the most important research projects in this context was the one pursued by the so-called "*Ashton-Group*", that wanted to design a measurement tool, which permitted the definition of the differences between the various types of organisations in a coherent manner (Pugh/Hickson, 1976).

Starting point of their analysis was the six primary dimensions of organisation structure, of which five were operationalised (Pugh/Hickson, 1976, pp.43ff.). These five are *specialisation*, *standardisation*, *formalisation*, *centralisation*, and *configuration*.

Table 2: Dimensions and Scales of the Ashton Research Project

Specialization: The degree, to which work differentiation is pursued.
Standardization: The degree, to which organisational activities are pre-programmed in routine processes.
Formalization: The degree, to which regulations, orders, etc. are laid down in written form
Centralization: The degree, to which the authority to take decisions is concentrated at the top of the organisation
Configuration: The design of the organisational structure i.e. the number of hierarchical levels, percentage part of administrative posts, span of control, etc.

Pugh/Hickson, 1976, p.47

The empirical part of the research project was done with a random sample of 46 organisations of different sizes and business sectors (Pugh/Hickson, 1976, p.79). The survey was realised through the construction and use of 64 component scales (Pugh/Hickson, 1976, pp.46f.).

With the help of a factor-analysis, three factors were extracted from these 64 scales for further use (Pugh/Hickson, 1976, pp.103ff.). These factors are:

- *structuring of activities*
- *concentration of workflow*
- *line control of workflow*

They served to generate the *seven* organisation structures of the *Ashton-Group* (Pugh/Hickson, 1976, pp.120ff.):

1. *full bureaucracy*,
2. *nascent full bureaucracy*,
3. *workflow bureaucracy*,
4. *nascent workflow bureaucracy*,
5. *pre-workflow bureaucracy*,
6. *personal bureaucracy*, and
7. *implicitly structured organisation*

Table 3: Taxonomy of Organisations

Full bureaucracy: Highly structured activities, centralized decision-taking, little line control of work flow.
Nascent full bureaucracy: Possesses the same characteristics as above, but to a lesser degree.
Workflow bureaucracy: Highly structured activities, but also highly decentralized, intensive use of impersonal control mechanisms.
Nascent workflow bureaucracy: Possesses the same characteristics as above, but to a lesser degree.
Pre-workflow bureaucracy: Same characteristics as the nascent workflow bureaucracy, but with considerably less structured activities.
Personal bureaucracy: Only a small amount of structured activities, centralized decision processes and highly line controlled.
Implicitly structured organisation: Same characteristics as personal bureaucracy, but decentralized decision-taking.

Pugh/Hickson, 1976, pp.120ff.

The base of this taxonomy is a reflection of the development of organisations (Pugh/Hickson, 1976, pp.124ff.).

Firstly, the implicitly structured organisations are relatively small in comparison to the fully developed bureaucracies. Therefore, the researchers argue, that with growing size, the structuring of the organisation increases.

Secondly, the researchers stated that with increasing decentralisation of authority, the intensity of personal ("line") control decreases, and the intensity of impersonal control mechanisms increases.

The logical consequence of these findings was to ask which the influencing factors were that had led to these results. This branch of research was later called *"Contingency Theory"* (Schreyögg, 1999, p.59).

The three main influencing factors that were given by *Contingency Theory* were *environment*, *technology* and *size* (Freeman, 1995, p.105).

The *main* results are:

With increasing *size*, specialisation, formalisation, and decentralisation as well as the use of plans, increase (Kieser, 1995c, pp.162ff.).

In *stable environments* bureaucratic structures prevail, while in unstable environments, one can expect to find a more flexible organisation based on fewer written regulations, less direct supervision, better trained personnel, etc. (Freeman, 1995, p.105/Kieser, 1995c, p.165).

The influence of *technology* is a lot less clear than that of the two others. Only for older production technologies was it possible to establish stable correlations between technology and organisation structures (Kieser, 1995c, p.162).

A further development of the environmental branch of *Contingency Theory*, considered not complexity and dynamism to be the main influencing factors for organisation structures, but also *National Culture* (Schreyögg, 1999, p.61). According to this approach (e.g. House, 1999) it is vitally important for an organisation to create a *Culture-Organisation-Fit*.
In connection with these results it becomes clear why this theoretical approach was discussed in more depth. The present work will investigate the putative interconnection between prevailing *Professional Culture*s and efficient organisation structures which would also represent a kind of environmental influence.

Nevertheless, it has to be stated that the initial results of *Contingency Theory* were rather restricted, and that furthermore the results have not been overly consistent as far as environmental factors and technology are concerned (Schoonhoven, 1981). Moreover, the approach was seen as too deterministic, since the role of the organisation designer was reduced to a mere execution of external demands.

As a response to these critics, it will be mentioned that recently a major survey, the so called "*GLOBE-Study*", established a clear link between *National Culture* and required organisation structure (e.g. House, et al., 1999; Jesuino, et al., 2002; Ashkanasy, et al., 2002; Szabo, et al., 2002). This indicates that environmental factors do in fact exercise an influence upon the organisation structure, which in turn supports the findings, of *Contingency Theory*.

In summary, it has to be stated that, despite various critics, *Contingency Theory* contributed one major aspect to organisational research (and to this work). This aspect, is the relevance of the environment in general and *Culture* in particular, for the organisation and its structure.

3.2.2 Complexity Theory as an Example for a Post-Modern Theory

Complexity Theory represents a radically different approach to organisation theory, in comparison to the above presented.
This is due to the fact that it relies on a distinctively new *teleological base* which will be described below.

For the purpose of this section, the differing teleological frameworks define *two elements* (Stacey, et al., 2000, p.14).
The *first* one concerns the kind of future which is to be reached ultimately and which can either be towards a *known* or an *unknown state*.
The *second* one deals with the *purpose* of this movement.

Four different *goals* can be distinguished according to *Stacey, et al.* (2000, p.14f.). These are:

1. *some optimal arrangement*
2. *a chosen goal*
3. *a mature form of itself*
4. *continuity and transformation of its identity*

Five *causal frameworks* are then proposed; these are:

1. *secular Natural Law Teleology*
2. *Formative Teleology*
3. *Rationalist Teleology*
4. *Adaptionist Teleology*
5. *Transformative Teleology*

The main *difference* between these approaches is that the *first three* assume a movement *towards a known future*, whereas the *last two* assume a movement towards an *unknown future*.

The characteristics of the approaches which assume a *known future* can be described with reference to the work of *Kant*, who distinguishes between mechanisms and organisms (Stacey, et al., 2000, pp.25ff.). Mechanisms follow linear cause and effect links based on *Natural Law Teleology*, whereas organisms follow a pattern based on *Formative Teleology*.

The main idea of *Natural Law Teleology* is that the past, the present, and the future are all only *repetitions* of the same pattern, and that stability and change is registered through careful observation and by the subsequent formulation of "if-then" structures. Time is irrelevant in this teleology, as is self-organisation. Change is predetermined and therefore entirely predictable. The non-conformity between this view and organisations in reality is evident.

Formative Teleology implies two main aspects. The first is that the final state is already pre-given in an enfolded form and that any kind of novelty and change is therefore only able to cause the unfolding of this enfolded state. Consequently, there can be no true novelty in the change processes. The second aspect concerns the nature of change itself that being the way the final (mature) state unfolds, is dependant on the interactions between the concerned parts. Hence, variations are possible, but only within limits that are pre-assigned by the final, enfolded form.
The main problem of this approach is the *pre-determination* of the future, as this excludes the possibility of humans following autonomous choices.

Kant therefore introduced *Rationalist Teleology*, which, according to his argument, permits autonomous human action so that stability and change are the consequence of these choices. True novelty is possible in this approach, but self-organisation is not, which represents one of the main weaknesses of this Teleology.

Adaptionist and Transformative Teleology consider the future to be *unknown*. They are based on the works of *Darwin* (Adaptionist Teleology) and *Hegel*, whose views can be seen as an *antipode* to those of *Kant* (Stacey, et al., 2000, pp.30ff.).

Adaptionist Teleology sees change as a process of chance change, sifted through natural selection, which leads to the survival of the most-adapted variations.
This adaptive process can best be described through so-called "fitness landscapes" or *"Evolutionary Stable States/Strategies"* (ESS).

The notion of fitness landscapes, which goes back to *Wright* (1940), sees evolution as the movement across a landscape consisting of peaks and valleys. In this view, the peaks represent a fit and hence well adapted collection of genes, whereas a valley represents the contrary. The higher the peak and the lower the valley, the more distinctive the respective trait is. In this process, nature is responsible for weeding out the downward moves, thereby keeping evolution (i.e. the chance movement in the landscape) moving towards new, unknown peaks.

According to the idea of ESS (Maynard Smith, 1976), change is based on *chance* variation in the genes and subsequently on a competitive selection. This selection takes place through the search for an ESS. *ESS is the biological application of the concept of Nash equilibria* (Nash, 1996); a Nash equilibrium *being a state in which no participant of an interaction is able to increase his expected benefit by unilaterally changing his strategy*. An ESS can therefore be seen as a state in which the individual agents' strategies are collectively stable. Hence, an ESS is present if no chance variation is able to produce a higher pay-off than the existing strategy in the interaction of the individual agents.

The main problem of this approach is the fact that it is to a certain extent of the *Formative* kind, as reference is given to some highest peak or optimum ESS which incorporates a certain pre-given best form reached through evolution. Although the *Formative* frame is always determined by the changing environment, this approach *cannot* be considered as representing a truly new teleology in comparison to the above described.

This is why a truly new and radical approach to organisation theory can, according to *Stacey, et al.* (2000, p.55), only be achieved through the *"Transformative Teleology"* described below, which avoids the risk of only re-presenting currently dominating explanations in a new terminology.

The main idea of *Transformative Teleology*, which goes back to *Hegel's* thinking, is that of a so called whole, which is under *perpetual construction*, and which therefore never exists in any kind of final state. It is formed by its parts, with which it has a mutual relationship, in so far as it is formed by the parts, and also forms these very parts. The absent whole is therefore in the parts, but also emerges from the parts. The underlying idea of these thoughts is *self-reference*; a phenomenon creating itself. Thus the identity incorporates the potential for continuity as well as that for change, this being due to *two different aspects*.

The *first aspect* is the known-unknown quality of interaction, which means that each interaction has the potential to create something genuinely new as well as just repeating the same thing. This is due to the iterative nature of communication which can be seen as "a movement from and toward an as yet unrecognised position that comes to be recognised (known) in the act of communication itself" (Stacey, et al., 2000, p.34).

The *second aspect* relates to time. In the above described *Kantian* approaches time was only related to the macro sweep of time, which consists of the (macro-) past, the (macro-) present, and the (macro-) future, with the present only representing a point in that sweep. In contrast, *Hegel* focuses on the present and renders it accessible to a living experience which he splits up into a *micro temporal structure*.

This *micro temporal structure* can be subdivided into *a micro-past, a micro-present and a micro-future*. The micro temporal structure can be seen as a given set of interactions, so that a gesture takes its meaning from the response (micro-future), which only possesses meaning in relation to the gesture (micro-past), and the response potentially leads to a change in the gesture (micro-past). As a result, a circular temporal structure evolves in which the past changes the future and the future changes the past, which allows for the experience of meaning in the micro-present, as well as that of presentness.

Through these thoughts, self-organisation goes beyond the process of unfolding an enfolded, pre-determined final state.

The source of change can be seen in this logic as lying in the detail of interactive movement in the living present which leads to a kind of self-organisation that can be considered to be an iterative process of communication facilitating the emergence of true novelty. This is also the main strength of the concept of *Transformative Teleology*, as it permits the evolvement of the previously unknown.

Table 4: Comparison of Frameworks for Thinking about Causality

	Secular Natural Law Teleology	Rationalist Teleology	Formative Teleology	Adaptionist Teleology	Transformative Teleology
Movement towards a future that is	A repetition of the past	A goal chosen by reasoning autonomous humans	A mature form implied at the start of the movement. Implies a final state that can be known in advance	A stable state adapted to an environment that may change in unknowable ways	Under perpetual construction by the movement itself. No mature or final state, only perpetual iteration of identity and difference, continuity and transformation, the known and unknown, at the same time. The future is unknowable but yet recognizable: the known-unknown
Movement for the sake of/in order to	Reveal or discover hidden order, realize or sustain an optimal state	Realize chosen goals	Reveal, realize or sustain a mature or final form of identity, of self. This is actualisation of form or self that is already there in some sense	Survive as an individual entity	Expressing continuity and transformation of individual and collective identity and difference at the same time. This is the creation of the novel, variations that have never existed before
The process of movement or construction, that is, the cause is	Universal, timeless laws or rules of an "if-then" kind, that is, efficient cause	Rational process of human reason, within ethical universals, that is, human values. Cause is human motivation	Process of unfolding a whole already enfolded in the nature, principles or rules of interaction. A macro process of iteration, that is formative cause	A process of random variation in individual entities, sifted out for survival by natural selection. This is formative cause	Process of micro interactions in the living present forming and being formed by themselves. The iterative process sustains continuity with potential transformation at the same time. Variation arises in micro diversity of interaction, transformative cause
Meaning	Has no time dimension	Lies in the future goal	Lies in the past enfolded form and/or unfolded future	Lies in future selected adapted state	Arises in the present, as does choice and intention
Kind of self-organisation implied is	None	None	Repetitive unfolding of macro pattern already enfolded in micro interaction	Competitive struggle	Diverse micro interaction of a paradoxical kind that sustains identity and potentially transform it
Nature and origin of variation/ change	Corrective, getting it right, fitting, aligning	Designed change through rational exercise of human freedom to get it right in terms of universals	Shift from one given form to another due to sensitivity to context. Stages of development	Gradual change due to small chance variations at the individual level	Gradual or abrupt changes in identity or no change, depending on the spontaneity and diversity of micro interactions
Origin of freedom and nature of constraints	Freedom understood as conforming to natural laws	Human freedom finds concrete expression on the basis of reason and ethical universals	No intrinsic freedom, constrained by given forms	Freedom arising by chance, constrained by competition	Both freedom and constraint arise in spontaneity and diversity of micro interactions; conflicting constraints

Stacey, et al., 2000, pp.52-54.

Considering the above given characteristics of *Transformative Teleology*, it can be stated that this approach represents a radically *different* view from that of the *dominant management discourse* that is mainly based on *Rational and Formative Teleology*, for the understanding of complex adaptive systems[5], i.e. organisations, for the purpose of this work (Stacey, et al., 2000, pp.106ff.; Lewin/Regine, 2000, p.6). According to *Stacey, et al.* (2000, pp.123ff.) this is due to the following *six aspects*:
It has to be stated that:

1. There are severe *limitations* as far as the predictability of the evolution of complex organisational processes is concerned. This means that creativity and uncertainty are inextricably linked, which represents a significantly differing role of managers in comparison to classic approaches, in which their role consists mainly of reducing uncertainty rather than living it creatively.
2. *Self-organising interaction* is central as the transformative cause of emergent new developments of organisations. This also implies conflicts possibly being the source of creative new developments. This also represents a difference from the managers' classic role in which they are supposed to reduce any kind of ambiguity and conflict as much as possible.
3. *Individual choice is limited* in complex systems according to the considerations presented here. Accepting the view that novelty emerges in relations between people, and that these are largely unpredictable, the idea that a small group can significantly alter or invent future developments becomes untenable. This is also in stark contrast to the currently prevailing management discourse.
4. The *source of stability* is seen in *Transformative Teleology* to be emerging through the *relationships* of different agents rather than through somebody being in control. This also means that creative development cannot be controlled and that successful organisations have to combine stability and instability. The notion of the *"edge of chaos"* is often used in this context. This is once more not conform to the classic view on management.
5. *Difference* is seen as highly important, as complex systems only evolve when there is micro diversity, or fluctuations; therefore, differences between people are also highly important. This, as well, is not fitting the classic view of management in which harmony and consensus are considered to be the goal for any manager.
6. The movement of stability and change in an organisation is a function of the human need to express individual and collective identity, rendering the *expression of identity and difference central*. In prevailing management understanding, the central role lies in performance as the main motivating factor.

The main question, which will be treated now in the following, is how the ideas of *Transformative Teleology* in connection with the notion of organisations as complex adaptive systems, can be put into reality.

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[5] "A complex adaptive system consists of a large number of agents, each of which behaves according to its own principles of local interaction. No individual agent, or group of agents, determines the patterns of behavio[u]r that the system as a whole displays, or how those patterns evolve, and neither does anything outside the system" (Stacey, et al., 2000, p.106).

The notion of an organisation as a complex adaptive system leads to a *non-mechanistic behaviour* of organisations, which mainly implies unpredictable patterns, mostly developing in a non-linear way (Lewin/Regine, 2000, pp.40ff). This is due to the fact that, as shown above, mutually interacting agents affect each other, and every interaction might represent a possibly genuinely new, unforeseeable way. That is why a management guided by the principles of complexity science "recognises [...] that relationships are the bottom line of business", and is therefore highly focused on establishing a good and reliable base for relationships (Lewin/Regine, 2000, p.45).

According to *Lewin/Regine* (2000, pp.263ff), the way this can be achieved is as follows:

The *first step* for the individual leaders would be to accept that they have neither full autonomy nor control, and that they are neither supposed, nor able to always possess the required knowledge, to cope with every situation on their own. Therefore, in order to be successful, the leader has to develop into someones who works with and for the people, one who finds gratification in cultivating others; this is very much in line with the leader as learning model in the above described *SuperLeadership Approach*. Thus, the leader's role on the macro level is to recognise patterns, anticipate future developments and to be aware of external influences. On the micro level, the leaders have to see the connections and disconnections within the system and their task is to cultivate strong relationships and connections within but also beyond the system.

A successful leader in a complex adaptive system, one who practices what *Lewin/Regine* (2000, pp.271ff.) call paradoxical leadership, has to be

1. *allowing*, 2. *accessible* and 3. *attuned.*

1. *Allowing* means in this context allowing things to emerge, i.e. not pushing too hard for a possibly premature solution to emerge, allowing paradox, ambiguity, contradiction, uncertainty and redundancies, and finally allowing experimentations, failure and mistakes. This in turn leads to the "paradox of allowing: direction without directives; freedom with guidance; authority without control" (Lewin/Regine, 2000, p.276).
2. A*ccessible* means being accessible both physically and emotionally. Especially the second point is highly important, as care is at the hub of building strong relationships, and genuine care demands that all parties concerned are emotionally open. The leader creates, e.g., opportunities for people to learn, participate and contribute by allowing people to autonomously select the tasks in which they wish to participate (self-control, self-selection). Thus, according to *Lewin/Regine* (2000, p.277), the paradox of accessibility consists of being visible, when needed and invisible, when not; of being mutual, being one of the people, but not equal in power.
3. To be *attuned*, leaders have to empathise, listen and respond, be intuitive (not solely relying on facts), discriminative, and deliberate, and they have to have faith and trust in their people, which also means that information is shared without restrictions within the organisation. The paradox of attunement can therefore be seen as "knowing through hunches, intuition, senses and not knowing all the facts" (Lewin/Regine, 2000, p.278).

According to *Lewin/Regine* (2000, p.281ff.), a *second decisive base* for the organisation of complex adaptive systems is the *creation of genuine teams*. This can be achieved through an organisational design that is initially based on a *participational* structure. Out of this structure, a fluctuating authority in the sense of a *heterarchy* (e.g. Reihlen, 1999) develops, which ultimately leads to collective steering; to teams guiding and controlling themselves. The advantage of a structure based on such teams is that they are more flexible, improvisational and resourceful than hierarchically structured systems, and therefore significantly more appropriate for the organisation of complex adaptive systems (Lewin/Regine, 2000, p.299).

Through the achievement of the above stated goals, an organisation built on mutual care is created. This care is present among the people concerned, but also within each participant in the organisation for the common cause, as each and every one of them, including suppliers, customers, etc., feels valued and therefore important for the success of the organisation. This is particularly important, as because of the nature of complex adaptive systems, it is necessary for the adaptivity of this system that each person concerned is a real participant and not a mere member. This becomes especially clear with reference to the above stated bases of *Transformative Teleology*.

Hence, assuming that organisations are in fact complex adaptive systems and that *Transformative Teleology* is the superior theoretical framework for them, it can be stated that a kind of organisation which enhances teamwork, participation, and self-control, is the most adapted organisational design for the success of modern organisations.

As the above given assumptions are both rather reasonable within the content of this section, it becomes clear, why this theoretical approach was introduced in such length. *Complexity Theory* is, for the first time in organisational research, able to give a theoretical foundation for the human-oriented organisational "theories" described in this chapter, and offer propositions for their realisation, as introduced below. Or, as *Lewin/Regine* (2000, p.10) put it: "But it is only now, and for the first time that there is a science [complexity science] behind this way of thinking that gives a realm of human-centred management".

Furthermore, *Complexity Theory* is paving the way for an integrative view of *Visionary* and *Team-Oriented Leadership*, as it relies heavily on a leader giving the organisation guidance and the "reason why", as well as on a *Team-Oriented, Participative Approach*.

In addition, the notions of self-steering, self-control, differences within the organisation, etc., and their described superiority support the thesis that it is necessary to adjust both organisational structures and leadership styles to the prevailing *Professional Cultures* and thus the present intra-organisational differences. Especially this second aspect renders this approach extremely valuable for the further pursuit of the presented research project.

3.2.3 The Different Modern/Post-Modern Organisational Theories in Comparison

Considering the different *Modern/Post-Modern Organisational Theories*, it becomes apparent that the most important aspect is the further distancing of organisational theories from any form of scientific management. Although the theories presented emphasise to varying degrees the importance of the individual human being, it is clear that the understanding of the "human being" as some kind of biological machine has vanished from all theoretical approaches.

As far as the differences among the theories presented in this section are concerned, a very interesting development can be observed. As incoherent as the findings of the varying *Modern Organisation Theories* seem to be, when emphasis is placed on human motivation, symbols or external influencing factors, *coherent* these findings become, once considering them under light of *Complexity Theory*.

Complexity Theory is, in fact, able to integrate these different theories, as brief reference to the previous section proves. Although the creation of human motivation is indeed central to this theory, it does also incorporate the importance of symbols through the emphasis on "creating meaning", on the one hand, whilst on the other, external influencing factors are also taken into account, since the organisation, the complex adaptive system, is not seen to be a closed system, but as of necessity incorporating every individual who comes in contact with the organisation. Thus the thoughts of *Contingency Theory* are also taken up in *Complexity Theory*.

Hence, it can be said in summary, that the differences between the modern organisation theories, though viewed initially as significant, are in fact not what they seem to be. Considering the findings of *Complexity Theory*, they seem more to be shedding more light on different parts of the same phenomenon than on the behaviour of complex adaptive systems as a whole. This in turn leads to the conclusion that a real comparison between the *Modern Theories* is rather pointless as this comes down to a comparison between things that simply cannot be compared.

This again shows the central importance of the findings of *Complexity Theory* for organisation research and in this respect for the present work.

3.3 ***Examples of the Integration of the Individual and the Organisation***

In the following section a variety of approaches of the integration of the individual and the organisation will be described, that go beyond the classic way of performing this integration through order and obedience.

Here again, a chronological order will be pursued. *Starting point* will be those approaches that were a direct result of the insights gained in the course of the *Neo-Human-Relations School*. These theories are regrouped in the section *"Classical Approaches"*.

The *three modern approaches* described are of a rather different nature, as their bases are a little more diverse. They nevertheless represent a number of highly interesting insights for the further development of the present research project.

3.3.1 Classical Approaches

As already stated, the integration models described here are a direct result of the Neo-Human-Relations researches. The main focus of these approaches is the above elucidated inadequacies of order and obedience as main tool for the integration of the individual and the organisation.

The way this problem is tackled varies according to the approach.
McGregor focuses on the individual need of growth, while *Argyris* sees the main importance as fulfilling one's desire to achieve personal maturity, whereas *Likert's* goal is to establish what he calls "supportive relationships" throughout the organisation.

Hence, the way these authors want to achieve their aim varies, but the main question for all of them is how to create and sustain preferably *intrinsic motivation*.

3.3.1.1 Theory Y according to McGregor

One of the first researchers to put the insights gained by *Maslow* (1970, initially 1954) into a concept for organisation structure was *D. McGregor* (1960, pp.33ff.).

His starting point is the observation that the design of organisational structures is significantly influenced by the prevailing way employees are seen within a company by their employer. *McGregor* extracts two ideal types of theories that govern action within a company; *Theory "X"* representing the traditional organisation, *Theory "Y"* representing its antipode (McGregor, 1960, pp.47f).

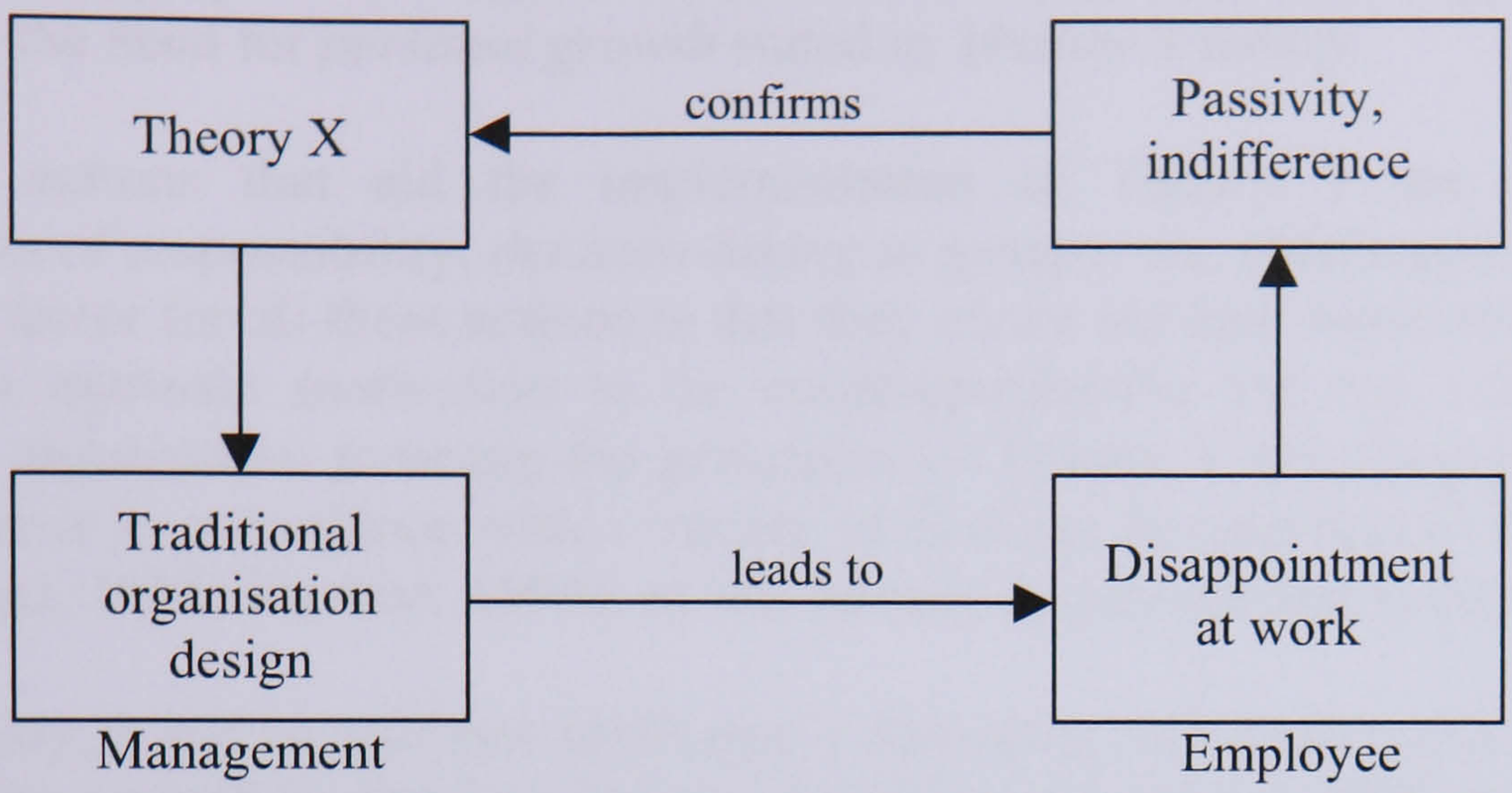
Table 5: Organisation Action Theories according to *McGregor*

Theory X	Theory Y
1. Man has a innate dislike of work, and tries to avoid it whenever possible.	1. Working mentally or physically is as natural, as play or rest.
2. Because of this innate dislike of work, man (the employee) has to be led in a tight manner.	2. To achieve goals that are self-set and that are considered to be reasonable, people are able to exercise self-direction and self-control.
3. The dislike of work is that distinctive, that even monetary motivation is not sufficient to overcome it. One will accept the pay, but still demand more. Therefore money alone can not sufficiently motivate the employee; only the threat of punishment in case of non-compliance to the rules is able to achieve the necessary employee motivation.	3. The degree to which people feel themselves committed to pursue organisation goals is depending on the degree to which the achievement of these goals is helping to achieve personal goals at the same time.
4. The average employee prefers to perform routine tasks, has relatively little ambition, and is mainly interested in security.	4. The ability to actively participate in the solution of organisation problems is wide spread within the population, and not only restricted to minorities. The conditions of modern work are only making very restrictive use of the abilities of the average employee.
5. Most people do not want to take responsibility.	5. If the conditions are right, people are not only accepting to take over responsibility, but are even actively seeking for it.

McGregor, 1960

McGregor postulates that people do not want to be treated according to *Theory X*. If nevertheless they are, it is probable that an *auto-dynamic process* will be initiated which will lead to the employees behaving in a defensive manner - according to Theory X. This behaviour is then interpreted by the organisational authorities as the rightness of them treating the employees according to Theory X. As a consequence, this treatment is pursued yet more intensively which then leads to a stronger reaction of the employees and so on (McGregor, 1960, pp.38ff.); the above-mentioned auto-dynamic process is activated.

Figure 15: The Negative Auto-Dynamic Process

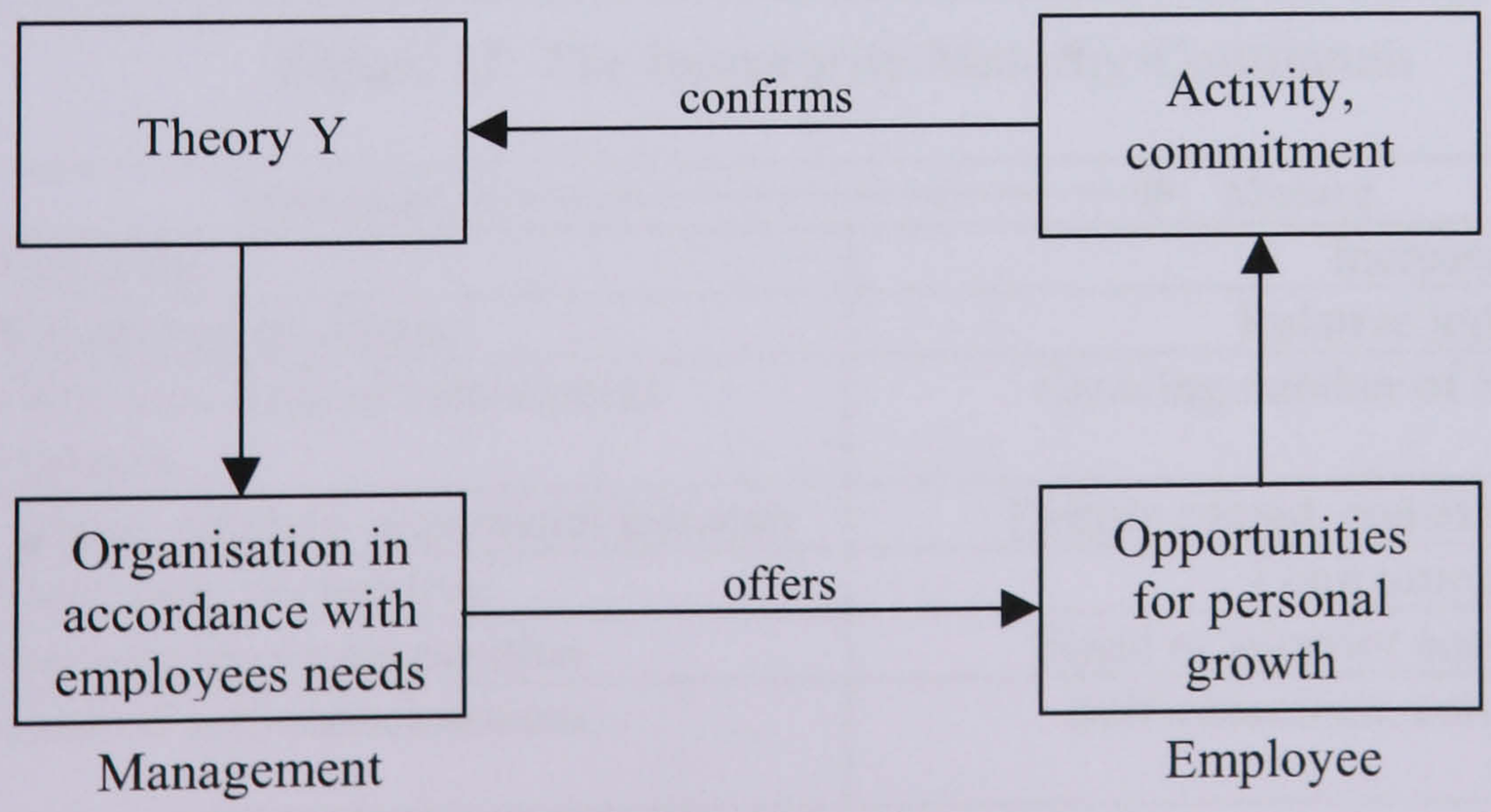


Schreyögg, 1999, p.223

The solution to this problem is therefore, according to *McGregor* (1960) that the organisational authorities work on consciously dropping any mental link with a conception of man resembling that of Theory X. Also *McGregor* does not restrict his approach to stating what one should not do, but develops a *counterproposal*, which he calls *Theory Y* (McGregor, 1960, pp.45ff.).

Theory Y is also intended to create an *auto-dynamic process*, but this time a *positive* one. This can be achieved through the creation of an organisational design that allows the employees to reach their individual goals by pursuing those of the company. *McGregor* postulates that organisations become more effective if they are able to integrate organisational and individual goals (McGregor, 1960, p.50).

Figure 16: The Positive Auto-Dynamic Process



Schreyögg, 1999, p.226

McGregor does not specify how organisations should be designed, but, as shown, puts emphasis on any action which enhances *self-control* and the integration of the individual employee into organisational decision processes. This approach is well in line with the need for *personal growth* stated in *Maslow's* theory.

Possible actions that aid the implementation of Theory Y are *decentralisation*, *delegation* of responsibility, *decision-taking in groups*, etc. (McGregor, 1960, pp.61ff.). The key factor for all these actions is that they create *intrinsic motivation*, as *McGregor* considers extrinsic motivation to be counterproductive for the achievement of an efficient organisation pursuing the principles of Theory Y (McGregor, 1960, pp.56f.). This view is in accordance with a variety of findings in motivation research (Maslow, 1970; Deci, 1975; Thomae, 1999), as was already mentioned previously.

In summary, it can be said that *McGregor's* concept is a first attempt at the utilisation of the insights gained by the Neo-Human-Relations movement. Although it does not yet give a complete model of how an organisation should be structured, it does give a first idea of what the Neo-Human-Relations movement considers to be important in organisational design.

3.3.1.2 Immaturity/Maturity-Theory according to Argyris

A more specific proposal for the design of organisations is the *Immaturity/Maturity-Theory according to Argyris* (1964). He bases his theory not on a need for personal growth, but on a *striving for maturity*, which is part of the human development from childhood to adulthood (Scott/Mitchell, 1972, p.263).

This striving for maturity is seen by *Argyris* as psychological energy focused on the achievement of expectations, goals, and wishes (Argyris, 1964, pp.20ff). The striving for maturity is modelled by *Argyris* on the basis of *seven* dimensions:

Figure 17: The Immaturity/Maturity-Continuum

Immature ⟶ Mature	
a. Passivity	Increasing activity
b. Dependent on others	Relative independency
c. Only very limited behavioural patterns	Growing number of behavioural patterns
d. Erratic, shallow, superficial interests	Deeply rooted, consistent interest
e. Short time perspective	Long time perspective
f. Subordinate social position	Equal or superior social position
g. Lack of self-consciousness	Self-conscious, control of own personality

Argyris, 1960, pp.8f.

These dimensions can be seen as a specification of the *human need of growth*. The concept of maturity itself is based on *Humanistic Psychology*, in which man is seen as aspiring to have a fulfilled and meaningful life (Völker, 1980).

As regards the importance of the maturity concept for organisation design, it is important to understand that the *striving for maturity* springs not from intrinsic motivation, but is *also a function of external factors*. For instance, the development of self-consciousness, is obviously only possible in a social environment (Argyris, 1960, p.10). Therefore the *organisation plays a major role* in the process of maturing. *Maturing* can be interpreted as a latent trait that is activated only in specific situations. Furthermore, *Argyris* views maturing as a process which can not reach a maximum level. The parallels to the theory of *Maslow* are evident (Argyris, 1960, pp.9f).

In a further step, *Argyris* checks on how far the traditional organisation is able to fulfil the need for employees' maturity (Argyris, 1960). In order to do that, he uses a model of the *traditional organisation*, which is represented by the following four traits (Argyris, 1960, pp.12f.):

1. *task specialisation*
2. *chain of command*
3. *unity of direction*
4. *limited control span*

Comparing these traits with the above described striving for maturity, it becomes clear, that they are highly *incongruent*. *Task specialisation*, for example, leaves little room for the use and development of individual competences, whereas the *chain of command* is mainly intended to keep employees in a passive and subordinate state. The *line control* of workflow stops the employees from developing and pursuing individual goals, and the *limited control span* finally leads to the employees staying dependant and relying on external control of their activities.

The traditional *bureaucratic organisation* therefore *inhibits the process of maturing*, as it leads to a passive and submissive state of mind, dependency, a very limited behavioural pattern, a short term perspective, extrinsic motivation, and only minimum self-control of the daily work routines (Argyris, 1960, p.14).

The result of this incongruency between the individual needs and the requirements of the organisation is frustration, apathy or even open aggression (Argyris, 1960, p.15). The symptoms hereof are that the employees leave the organisation if possible, or that they exercise passive resistance, concentrating all their energy on the fight for remuneration as the only means of achieving some kind of satisfaction (Argyris, 1960, pp.16f.).

The organisation, on the other hand, tends to react to this with an increasing "degree of directive leadership", an increasing degree of "management controls", and an increasing number of "pseudo human relations programs". But this only leads to a worsening of the overall situation, as the employees usually react to this with an intensification of the above described negative behavioural patterns, and so on (Argyris, 1960, p.18).

Argyris proposes the following *solution* to this problem, which is very much in line with the approaches of his fellows of the *Neo-Human-Relations school*: The organisation design has to be such that individual and company goals can be integrated (Argyris, 1964, pp.272ff.). Specifically, *Argyris* proposes more individual responsibility, more variety of individual tasks, and more individual control for the individual working environment (Argyris, 1964, pp.228ff.).

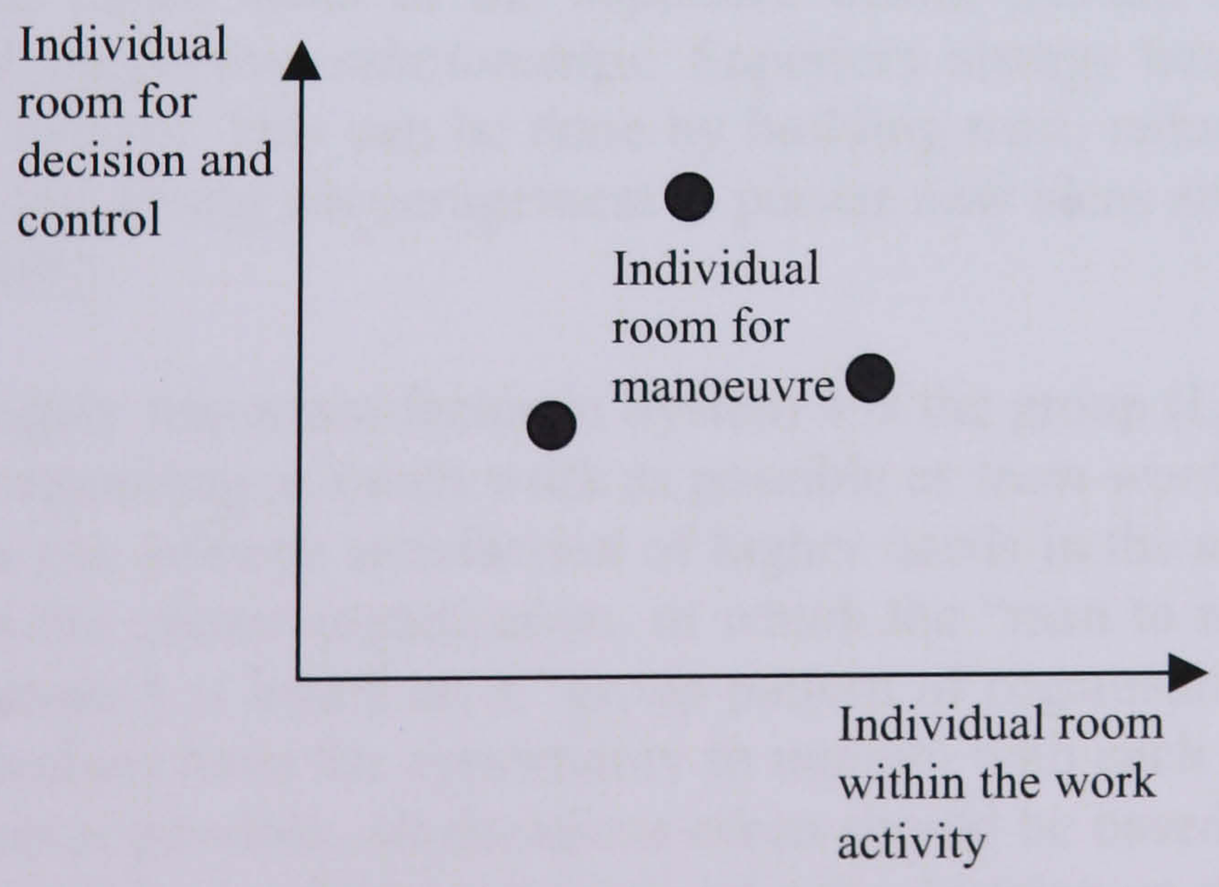
As far as concrete measures are concerned, he differentiates between the *organisational* and the *individual level*.

On the *organisational level*, a decentralised, participation-oriented organisation structure should be designed. According to *Argyris*, the degree to which these characteristics are developed is dependant on the situation (Argyris, 1964, pp.197ff.). He does not become more specific on this level, as his main focus is on the individual level.

Concerning the *individual level Argyris* emphasises in his theory, the need for an enrichment of the individual work (Argyris, 1964, pp.228ff.). This is understood as counterpoint to the way work is organised in Scientific Management. The so called *"Two-Factor-Theory"* of *Herzberg* (1959) represents the base for this approach.

The key-factor here is the "*individual room for manoeuvre"*, which is determined by the *"individual room for decision and control"*, and the "*individual room within the work activity"*. The former can be interpreted as the degree of authority for planning, organisation, and control, whereas the latter can be interpreted as the diversity of the work itself (Schreyögg, 1999, 238).

Figure 18: The Individual Room of Manoeuvre



Schreyögg, 1999, p.239

In summary, it can be said that the theory of *Argyris* is already *more specific* and precise *than* the one proposed by *McGregor*. Nevertheless, a certain lack of specific proposals for the organisational design has to be acknowledged. This specific topic will be dealt with in the now following illustration of *Likert's System 4*.

3.3.1.3 Network-Structures illustrated by Likert's System 4

The approach of *Likert* is based on *three* guiding principles (Likert, 1967, pp.47ff.):

1. the principle of supportive relationships
2. the principle of team-work, -decision, and -control
3. the principle of a multiple, overlapping group structure

These three principles are aiming at three different *levels* of the organisation:

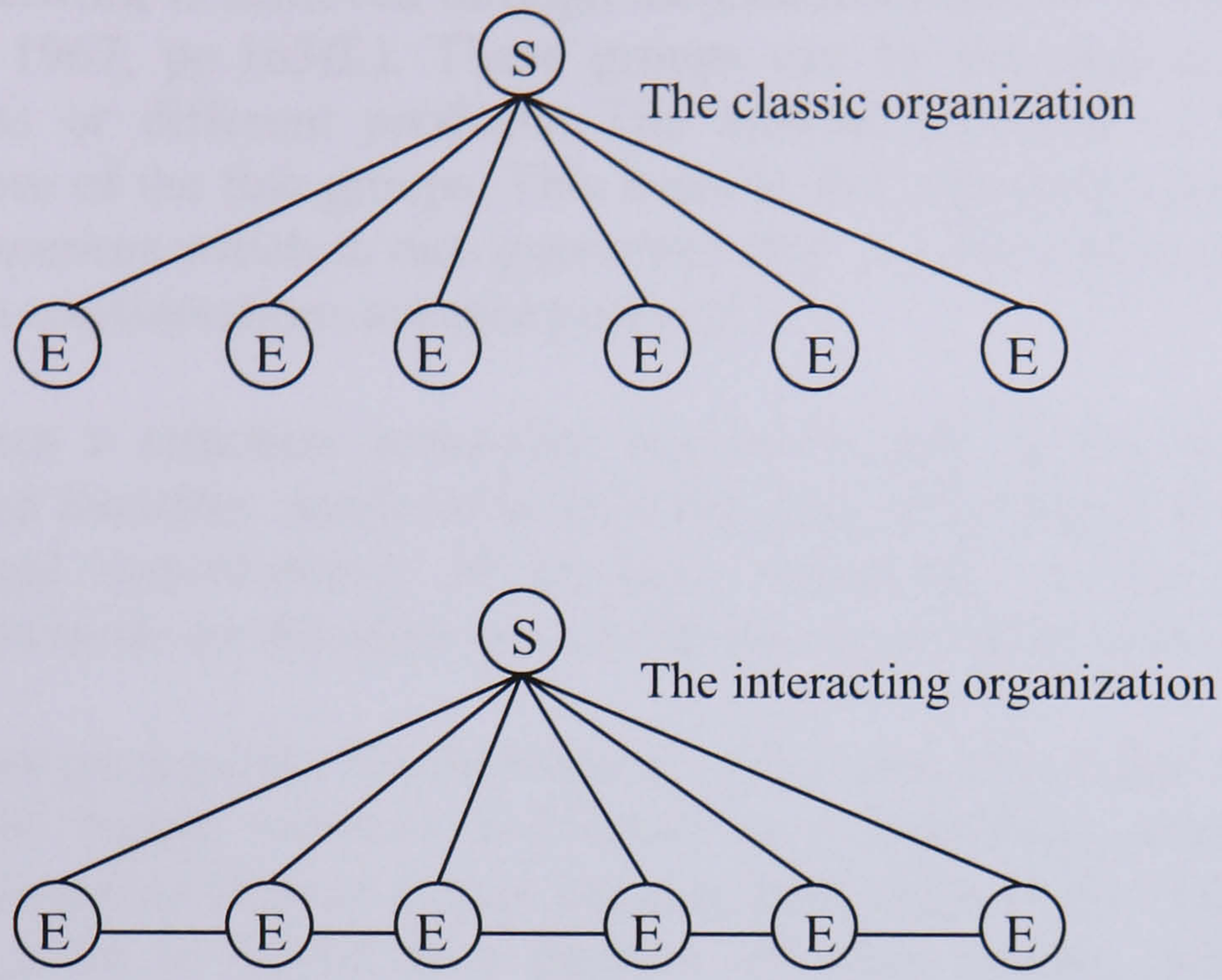
- the first principle aims at the *individual*
- the second at the *group*
- the third at the *organisation as a whole*

The main goal of the theory is, to develop the organisation into a highly cooperative, highly coordinated and highly motivated social system, which is able, under the full use of its technical resources, to integrate into the processes of the organisation, the needs and wishes of the employees (Likert, 1967, p.76). Therefore, once again, it is intended to make it possible that the employees can achieve, through the pursuit of *organisational goals, at the same time their personal goals* (Likert, 1967, p.47). *Likert* sees this type of organisation in contrast to the traditional organisation, which he calls System 1 (Likert, 1967, p.50).

One of the major tasks of the superiors within System 4 is, to achieve the above-mentioned *supportive relationships*. Superiors always have to give the employees a feeling of esteem. This can be done by building trust, reducing any kind of distance to the group and giving encouragement to pursue new ideas and possible solutions (Likert, 1967, pp.48f.).

Another highly important factor in System 4 is the group (Likert, 1967, pp.49ff.). *Likert proposes* organising as much work as possible as *team-work*. He argues that through the group, one can achieve satisfaction of higher needs in the sense of *Maslow's* theory. In contrast to the classic organisation, in which the "man to man pattern of organisation" reigns, System 4 is based on a "group pattern of organisation", which basically means that all members have the opportunity to interact with each other. The basic principle is that, whenever possible, all decisions taken should be based on a consensus; only when this is impossible should the superiors take the decision on their own.

Figure 19: The Classic and the Interacting Organisation in Comparison

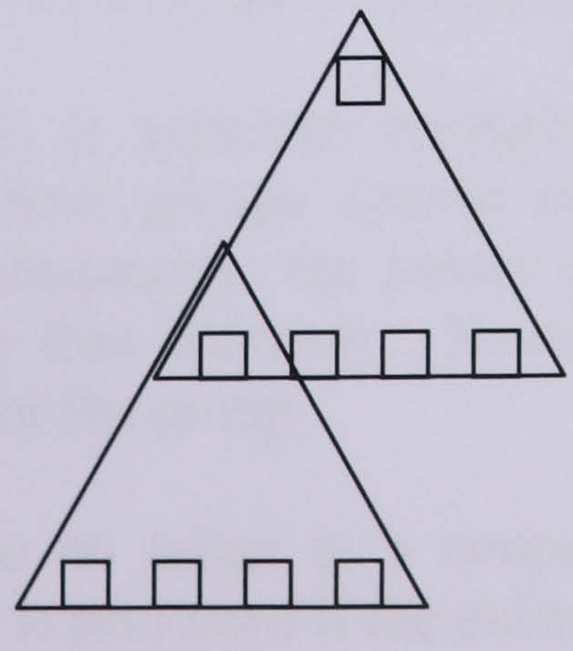


Likert, 1967, p.49

What is more, the organisation is to be designed as a network of interacting groups, this being achieved through the principle of the *"multiple overlapping group structure"*. This principle is realised through the establishment of a *vertical*, a *horizontal*, and a *lateral network* (Likert, 1967, p.50).

The **vertical** network is build with the help of the so called *"linking pins"*. As the whole organisation is structured in groups, there are groups on every hierarchical level. Therefore, the superior of one group is member of another group, which consists of the superiors of this level, and so on (Likert, 1967, p.50).

Figure 20: The Linking Pin Principle



Likert, 1967, p.50

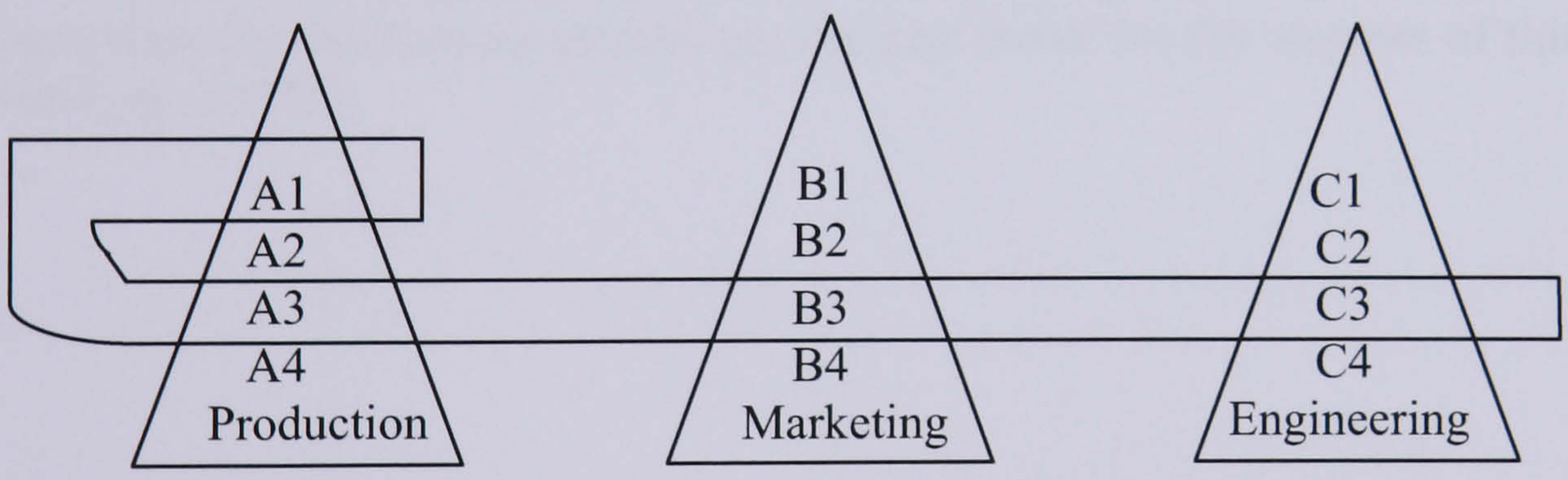
This mechanism is intended to assure that communication also takes place from bottom to top.

The **horizontal** network is achieved through the establishment of *"cross function work groups"* (Likert, 1967, pp.163ff.). These groups can be designed e.g. according to geographical areas or different products. The internal structure of these groups is comparable to those of the line groups. This leads to the individual employee having at least *two* direct superiors which in turn guarantees that in every decision taken both line and cross function considerations are taken care of.

This design creates a structure somewhat similar to that of the so-called *"Matrix Organisation"*, and therefore tends to develop the same advantages and disadvantages, for example, equal consideration of all parts concerned on the one hand, and strangulation of decisions on the other (see for further details Davis/Lawrence, 1977).

The most important prerequisite for the success of this structure is that all the groups in an organisation are highly cohesive and based on a significant amount of trust, as otherwise the intra-group friction would become extremely costly. This is due to the fact, that every group is linked to a number of other groups, which causes one ineffective group to be a problem for the organisation as a whole (Likert, 1967, pp.167ff.).

Figure 21: The Cross Function Group

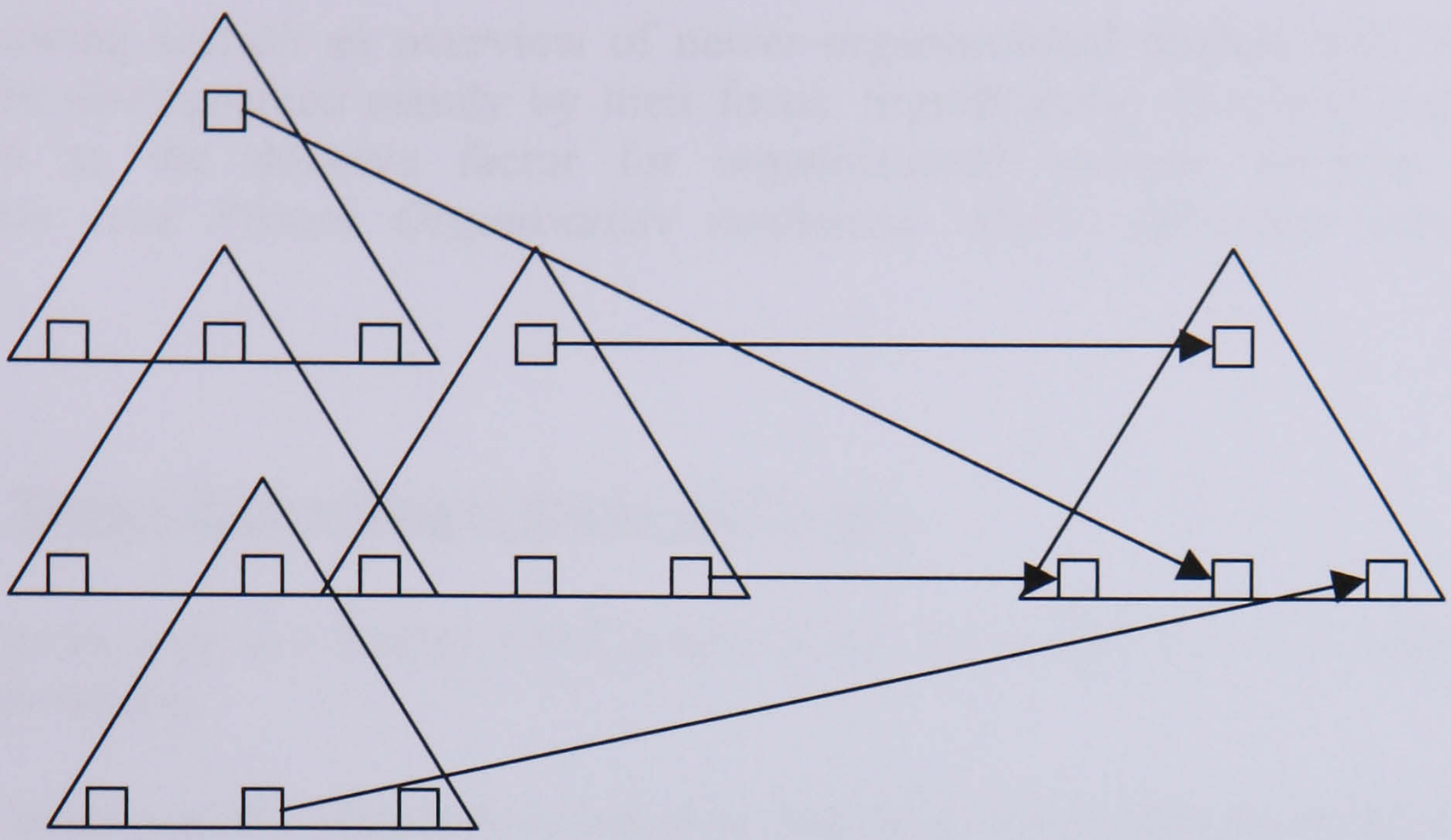


Likert, 1967, p.175

Finally, the **lateral** network, is achieved through so-called *"cross linking groups"* (Likert, 1967, pp.170ff.). These groups consist of members of various hierarchical levels and departments. Consequently, the power structure within the group is based mainly on knowledge rather than hierarchy. Nevertheless, the groups have a formal superior who is responsible for the group.

Here again, decisions are to be taken in a cooperative manner by the group. The establishment of such groups is projected if the existing communication and information routes are inadequate, and if the requirements of the problem ask for a rather unconventional competence profile.

Figure 22: The Cross Linking Group



Likert, 1967, pp.168f.

In summary, *System 4* proposes an organisation design which permits vertical, horizontal and lateral coordination. The principle way decisions are taken within such an organisation is through the group, and therefore in consensus. Hence, the integration of the individual and the organisation is achieved by the group, which in turn leads to the fact that properly functioning groups are the key factor for the success of this design (Likert, 1967, pp.167ff.).

3.3.2 Modern Approaches

In the following section an overview of newer organisational models will be given. They can be distinguished mainly by their focus. Significantly, *Theory Z* emphasises *team spirit* as the decisive factor for organisational success, whereas *Lateral Organisation and Virtual Organisation* emphasise *auto-coordination* among the employees.

3.3.2.1 Theory Z according to Ouchi and Jaeger

Theory Z can be seen as a further development of the above described motivation based organisation models.

Its starting point was the observation that most Japanese run companies in the U.S. had been highly successful, whereas most U.S. companies, trying to implement their structures in Japan failed (Ouchi, 1981, p.14f.). Therefore, the question arose as to what the reason for this divergent success was. In a further survey it was discovered that the most successful Japanese companies in the U.S. had adopted a hybrid style between the pure Japanese (Theory J) and the pure U.S. (Theory A) model, which made the Japanese approach compatible with western societies (Ouchi/Jaeger, 1978, pp.306f.; Daft, 1989, p.558). This hybrid model was called Theory Z.

Figure 23: Characteristics of Theory A, Theory J and Theory Z

Theory A	Theory J
Short-term employment	Lifetime employment
Individual decision making	Consensual decision-making
Individual responsibility	Collective responsibility
Rapid evaluation and promotion	Slow evaluation and promotion
Explicit, formalized control	Implicit, informal control
Specialized career path	Non-specialized career path
Segmented concern	Holistic concern

Theory Z
Long term employment
Consensual decision-making
Individual responsibility
Slow evaluation and promotion
Implicit, informal control with explicit, formalized measures
Moderately specialized career path
Holistic concern, including family

Ouchi/Jaeger, 1978

Theory Z is therefore an approach which aims at achieving the attainment of *individual motivation* and *responsibility* coupled with *team-oriented* decision-making.

Because employment is based on a *long term perspective*, appraisals are carried out a lot less frequently as in an A-type organisation. Although the appraisals also contain formalised elements, they are mainly informal and personalised. Therefore, mutual trust and cooperation are the base for work relationships. As far as individual qualifications are concerned, career paths are between those of Theory A and those of Theory J, as they are in principle specialised. But this specialisation is intended to be relatively wide so as to prevent the individual employee from being as narrowly oriented as in type A-organisations. Furthermore, the long term orientation of the professional relationship, combined with the clear orientation towards common values, leads to strong bonds between the employees, their superiors and the company (Ouchi/Jaeger, 1978, p.311).

Theory Z therefore has most traits in *common* with the other approaches of the *Neo-Human-Relations School*. The main difference is, however, that the Z-Organisation is designed to create a very strong *esprit de corps*, which in turn creates a highly cohesive group. According to *Ouchi/Jaeger* (1978, p.312) this is achieved via the fulfilment of basic human needs, such as affiliation, belongingness, and love (see again Maslow, 1970). Hence, *Theory Z* proposes to integrate the whole organisation into one, highly cohesive group, which, according to this logic, evolves into a sort of clan, i.e. "an organic association, which resembles a kin network but may not include blood relations" (Ouchi, 1980, p.132).

In summary, it can be said that *Theory Z* represents an interesting further development of the classic approaches to organisation design. In particular, the emphasis of the *esprit de corps* in conjunction with a strong *Organisational Culture* can represent a powerful tool for the efficient integration of the individual and the organisation, and thus for creating a highly efficient organisation (Daft, 1989, p.560). *Ouchi* himself favoured the use of his theory, or to be more precise, the use of a *"clan organisation"* in circumstances of high uncertainty or complexity, in which measures of external control of the employees are not practicable (Ouchi, 1980, pp.137ff.).

3.3.2.2 Integration through Lateral Organisation

The different approaches to achieving integration via *Lateral Organisation* are of a highly varying nature, but nevertheless *all* have as characteristic traits, individual motivation, and independently acting teams. The core of all of these approaches is the employee seen as entrepreneur (Peters, 1993, pp.226ff.). The aim is to reduce the need for hierarchical coordination and instead implement an organisation based on lateral cooperation; lateral cooperation being defined by *Wunderer*[6] (2001, p.468,) as *a goal and consensus oriented cooperation fulfilling tasks that go beyond the boundaries of*

[6] „Laterale Koordination wird als ziel- und konsensorientierte Zusammenarbeit zur arbeitsteiligen Erfüllung von stellenübergreifenden Aufgaben in und mit einer strukturierten Arbeitssituation durch hierarchisch formal etwa gleichgestellte Organisationsmitglieder verstanden".

single posts and which are fulfilled within a structured work-situation, as a rule by hierarchically and formally equal employees.

The *two main components* of this approach are therefore:

- employees who are willing, and able to lead themselves
- independently acting teams.

This should ideally lead to a high degree of self-control by the employees. *Wunderer* (2001, p.489) considers *self-control* to be the most effective concept for achieving lateral cooperation.

A first step towards the achievement of a functioning *Lateral Organisation* is measures to reduce the power difference between the employees and their superiors. Typical key-terms in this context are *empowerment* and *self-organisation.*

Empowerment is to be understood as providing the employee with the tools, resources, and discretion to be capable of and motivated to further the interest of the organisation (Fenton-O'Creevy, 1995, p.155). The individual motivation of the employee is of major importance for the concept of empowerment. Its intention is to achieve an integration of the individual motivation and the goals of the company; the parallels to the above described motivation based models are evident.

Self-organisation, as an independent coordination of different work-groups, is, on the other hand, to be seen as a consequence of successful self-control. The main prerequisite for achieving this successful self-control is adequate room for decision-making, action, and manoeuvrability coupled with extensive qualification of the employees (Wunderer, 2001, p.617). That is also why empowerment and self-organisation/self-control can hardly be dissociated.

Examples of this organisation design are the above described *SuperLeadership* of *Manz/Sims* (2001; see also section 2.2.2), the *"network structure of project groups"* (Peters, 1993), and the concept of *"Loosely Coupled Systems"* (Orton/Weick, 1990; Perrow, 1984, pp.89ff.).

From the perspective of *Loosely Coupled Systems*, the organisation can be seen as a network of relatively autonomous entities (individual, subunits, hierarchical levels, etc.) whose interactions are neither predetermined nor formalised. Interaction takes place through self-organisation as to how to find the best possible answer to the present task. Because of this extreme flexibility of the organisation structure it is hoped that the flexibility of the whole organisation and its ability to assimilate complexity can be increased significantly.

As individual demands on each employee also increase thanks to this increased flexibility, it can be assumed that individual motivation is also being influenced positively. This consideration is due to the fact that motivational variables such as self-control, task variety, etc. are directly positively influenced by this kind of organisation.

In summary, it can be said that the concept of *Lateral Organisation* is an interesting further development of the above described *motivation based approaches*. It uses them to develop a number of theories that are fairly well adapted to the demands of modern organisations. In particular, the emphasis on teamwork, independent interaction within the workforce, and *Loosely Coupled Systems* led to the development of highly recognised theoretical models such as the above described *SuperLeadership* (see section 2.2.2 for details), or the theory of *Virtual Organisation* described below.

3.3.2.3 Virtual Organisation

The *Virtual Organisation* is a rather new development in organisational theory. The beginnings of this approach can be traced back to the beginning of the 1980s.
This theory can be seen as a further development of the above described *Loosely Coupled Systems*. A *Virtual Organisation* is basically a network of independently acting entities, relying mainly on self-organisation (Faucheux, 1997, p.51). These entities can be individuals, parts of organisations, or complete organisations (Shao, et al., 1998, p.305).

The characteristics of a *Virtual Organisation* can be illustrated by the following model, which was developed by *Saabeel, et al.* (2002, pp.9ff.). It consists of the three elements:

1. *universe of modules*
2. *dynamic web*
3. *dynamic organisation*

The **universe of modules** can be seen as the set of all entities. This can be for example all automobile industry organisations including the supplier, the car producers, the customers and so on, in other words, every entity which is in touch with that specific industry (Venkatraman/Henderson, 1998). This universe is characterised by *uncertainty*, *complexity* and *interdependence* (Scott, 1998, p.229f.). To reduce these unwanted features of the "universe of modules", the entities (the modules) can organise themselves into a "dynamic web".

The **dynamic web** is defined as all entities having a predisposition to work together (Goldman, et al., 1995, pp.220ff.). It is therefore not really a closed system, as new entities may join and others may leave. The base for the *"dynamic web"* can be already existing business contacts, realised partnerships, expectations for the realisation of synergies, etc. Hence, these entities have some *common ground*, which leads to the expectation that cooperation could be beneficial to them in the future.

This *common ground* is characterised by *Shao, et al.* (1998, pp.309ff.) as:

- *purpose*
- *connectivity*
- *boundary*
- *information technology*

The **purpose** is a result of a common view of the market and the expected beneficial consequences of sharing the different resources and competencies of the participants.

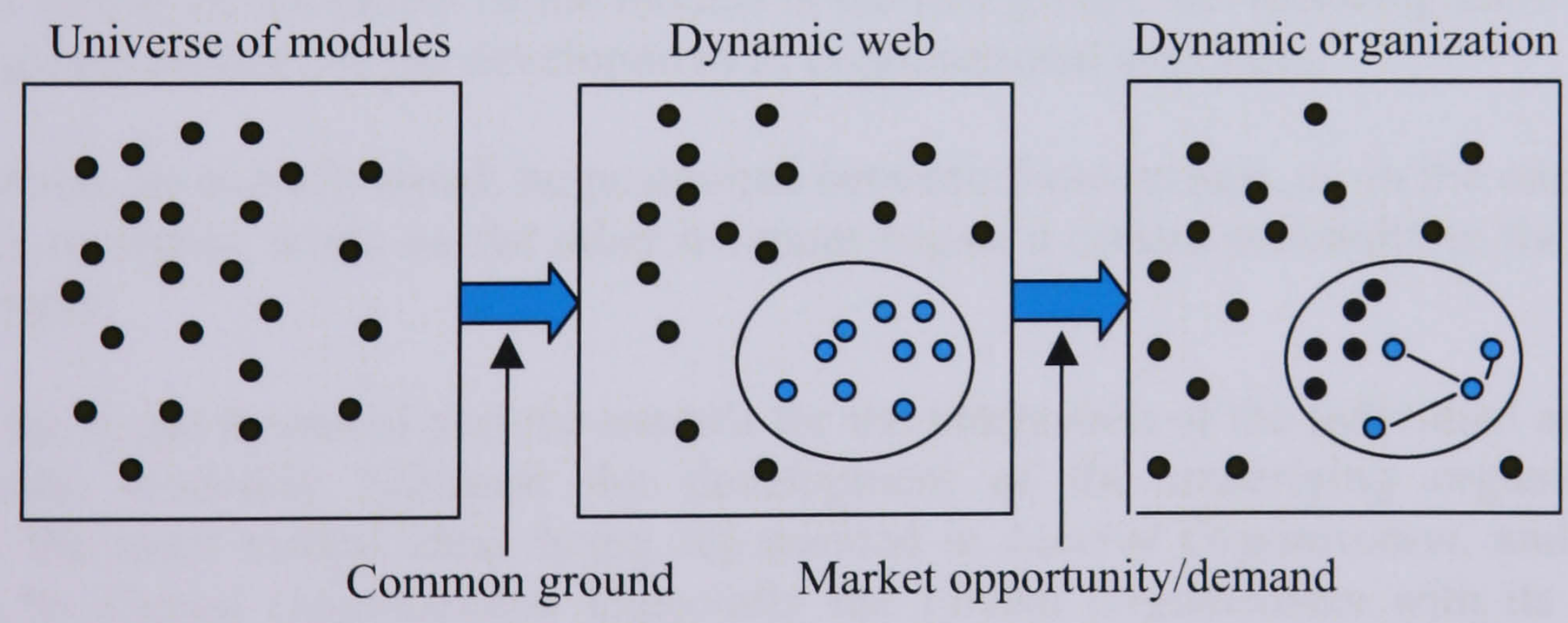
The motivation to exploit those identified benefits is the **connectivity**.

The **boundary** of the *"dynamic web"* is defined by the mutually agreed purpose. The key task of the *"dynamic web"* is the *pre-selection* of new members. It has to assure that a new member actually strengthens the web, but also that it fits into the web. In principle, a new entity can be seen as having a high chance of qualifying for this web if it possesses new, partly overlapping competencies (Saabeel, et al., 2002, p.10f.).

Finally, it is important that the members are able to bridge even wide geographical gaps. That is why a coherent and highly powerful **information technology** in each entity is essential (Venkatraman/Henderson, 1998, pp.34f.; Shao, et al., 1998, p.310).

If then, at a certain point, the expectation of a beneficial cooperation becomes a real possibility, for example, thanks to a market opportunity, the *Virtual Organisation* can be realised (Hardwick/Bolton, 1997, p.59); thus the *"dynamic organisation"* is born. The *Virtual Organisation* is consequently *a cooperation between a part of the "dynamic web"* and furthermore, it is strictly *goal oriented* (Faucheux, 1997, p.51, Mowshowitz, 1997, pp.33ff.). That means that after the beneficial outcome of the market opportunity/demand is achieved, or after it has ceased to exist, the cooperation ceases, and all entities concerned return into the *"dynamic web"* (Goldman, et al., 1995, p.172).

Figure 24: The Genesis of the Virtual Organisation



Saabeel, et al., 2002, p.9

In summary, it can be said that the *Virtual Organisation* is a highly interesting development in organisation theory and research. This is especially true, considering the significant problems with the management of complexity as described in section 3.2.2. The *Virtual Organisation* can be seen as a possible solution to the problems stated in that section, and is therefore a highly promising theoretical approach for the future.

3.3.3 Summarising Evaluation of the Different Approaches

The different integration models can be subdivided into two groups. The first group has as its main focus the *human beings* and their *motivation*, whereas the second group focuses on *auto-coordination*.

Regarding the *first group*, it should be mentioned that both the approach of *McGregor* and that of *Argyris* are lacking in sufficient focus on the organisational structures themselves, as they almost exclusively deal with the *motivational base* of the individual human being. This shortcoming can be seen as a direct effect of these models being developed with the help of the *(Neo-) Human-Relations School*, which admittedly explains it, but does not justify it. *Likert* apparently recognised this problem and developed a distinct organisation model, through which he hoped to achieve the intended effects on the individual's motivation. It can be said that this trait of *Likert's* approach represents a significant further development of the approaches of *McGregor* and *Argyris*.

The *second group* of organisation models, which consists of the concepts *of Lateral Organisation* and *Virtual Organisation*, is distinctively different from the first. Evidently, these equally want to achieve an increased motivation of the employees, but their *focus* is not solely on this mission, but on a genuinely different way of designing the organisation. This revolves around the idea of *team based organisation*, which intends to make the best possible use of each employee, through higher flexibility, less line control, increased importance of competence in lieu of hierarchy, etc. That these measures also tend to increase the individual's motivation is of course a welcome by-product, but only part of the global goal of these models. From this aspect they can be seen as a further development of the models in the first group, incorporating them into a broader global picture for the development of organisational structures.

Theory Z can, as already stated, be positioned between these groups, as on the one hand it focuses on teams, while on the other it cannot negate a certain proximity to the ideas of *McGregor*.

To sum up, it can be stated that the models for the integration of the individual and the organisation evidently followed the development of the underlying organisation theories, the most radical ideas being represented in *Lateral Organisation*, and even more so in *Virtual Organisation*. Especially the *Virtual Organisation* with its small entities and its self-organising modus operandi can be seen as an interesting approach for incorporating the insights gained within *Complexity Theory*, not only on a micro level (different individuals participating in one organisation), but also on a macro level (different organisations interacting with each other).

4 PROFESSIONAL CULTURES

In this chapter the theoretical construct *Professional Culture* will be introduced. It will be shown why the existing concepts of Culture in dominant research as being either *National* or *Organisational Cultures* are not sufficient.

In order to do this, the term *Professional Culture* will first be defined: What are its characteristics and in what aspects it is distinct from concurring Cultural concepts?
Also a short overview of the traditional perspectives of perceiving *Cultures* will be given, in order to allow a comparison between the different *Cultural concepts*.

Furthermore, it will be assumed that the approach of *analytically* exploring and thus explaining Cultures in general is a viable way to understand this phenomenon. This also entails discarding voices that reject such a way of thinking altogether as being too "reductionist" or too deeply rooted in standard western ways of thinking (e.g. Lowe, 2002).

Thus, it will be demonstrated in this chapter that it is necessary to include *Professional Cultures* in Cultural research in general, and in organisational and leadership research in particular, in order to obtain a more accurate understanding of the inter-subjective and intra-subjective processes within organisations.

4.1 Introduction of the Concept "Professional Culture"

In order to elucidate the concept of *Professional Culture* and its importance for organisational and leadership theory and research, the term itself must first be defined.

This will be achieved by examining the components of this concept. Following these introductory definitions, we will proceed to the description of the theoretical construct *Professional Culture* as it will be used throughout this work.

Finally, a short evaluation of the results of this section will be given, to provide for a seamless transition to the following section.

4.1.1 The Components of the Term "Professional Culture"

The term *Professional Culture* comprises two distinct parts: *Profession* and *Culture.* These should be seen separately if they are to be fully understood.

The term *Culture* has already been defined in section 1.1 *"as shared motives, values, believes, identities, and interpretations, or meanings of significant events that result from common experiences of members of collectives and are transmitted across age generations"*. This definition is not tied to a specific understanding of *Culture* as national or organisational and will therefore also be used in respect to *Professional Cultures.*

However, the term *Profession* needs some further clarification.
Theories of Professionalisation and the derivative term *Profession* can be traced back to *four* different basic views (Abbott, 1991, p.356f.):

1. the relations to the state view
2. the functionalist view
3. the power view
4. the importance of knowledge view

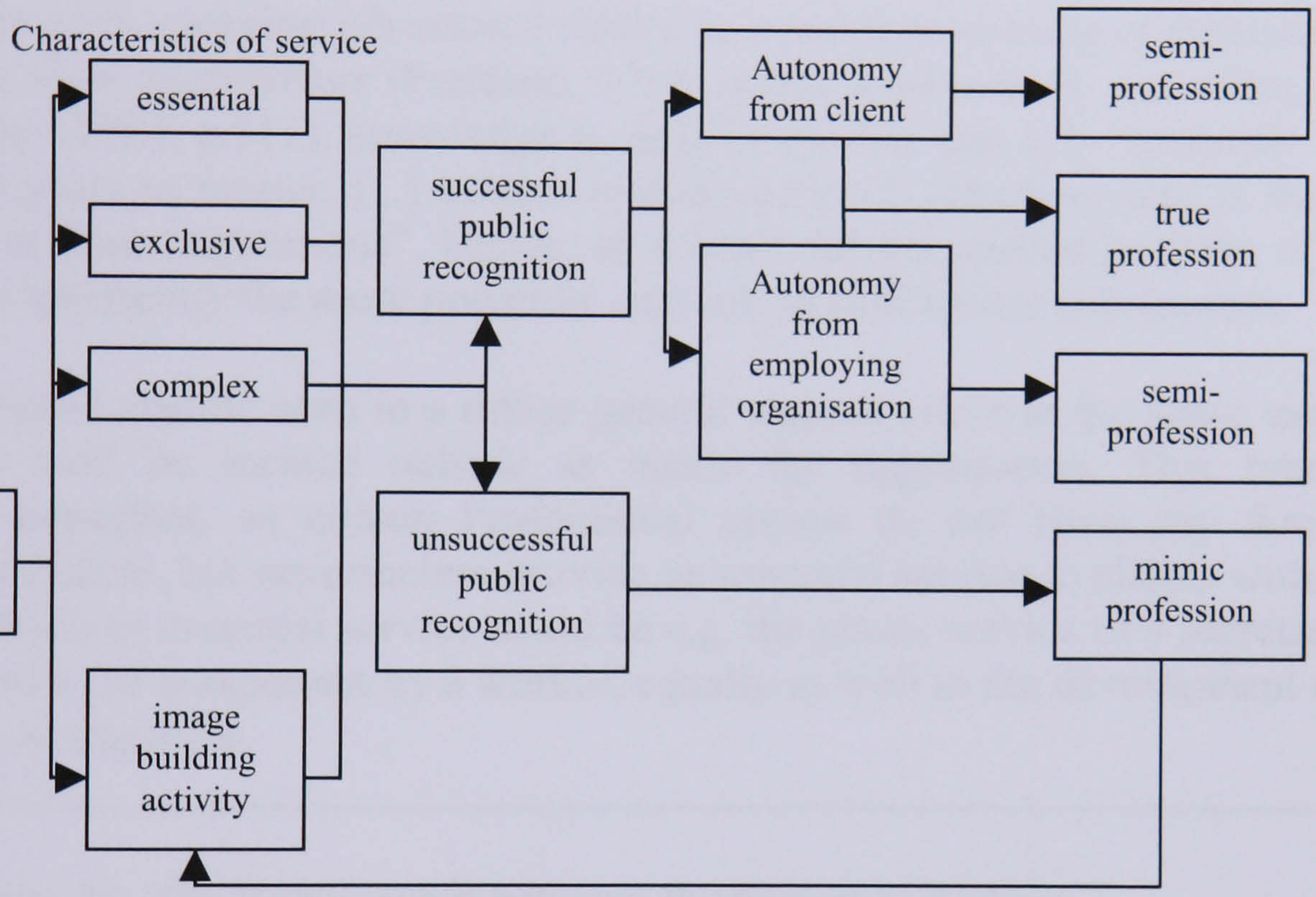
The first approach sees **relations to the state** as decisive for a Profession and goes mainly back to continental European theorists (Abbott, 1991, p.357). The role of the state in this view is to regulate the Profession and therefore limit outsider's access to it. Hence, the distinctive characteristics of the Profession are established and protected by the state (e.g. Freidson 1986, pp.63ff.; Georg, 1993; Dingwall, 1999). This limited access is, then, the base for the special importance the occupation may gain for the respective clients, depending on its actual importance for them.

The **functionalist view** sees a Profession as the product of "a special relationship between client and *Professional*" (Abbott, 1991, p.356). This relationship is based on specific norms involving, for instance, expertise, competences, social standards and ethics, which guarantee this relationship and the identification of each member with the Profession (e.g. Raelin, 1985, p.9; Brien, 1998, pp. 396f.). Expertise and competence are understood to be the product of extensive and prolonged specialised education in abstract knowledge. Social standards, on the other hand, lead to the *Professionals* committing themselves to helping to police the conduct of fellow *Professionals*, whereas "ethics" implies an almost altruistic orientation of the *Professional* in rendering the expected service.
Hence, the *Professional* is seen here as practicing an occupation which requires highly sophisticated education or training with the sole goal of producing the expected service.

The **power view** (e.g. Forsyth/Danisiewicz, 1985) basically considers the same aspects, but from a different angle. Power, as it is understood in this theory, is based on the above-mentioned characteristics. It can either be seen as exercised by Professional organisations, or as exercised by individual *Professionals*. Either way, it sees the purpose of the exercise of this power as being the maximisation of the social and

economic benefit of the individual *Professional* in the labour market. This maximisation is intended to be achieved in the labour market through the use of the resulting monopolistic structure (Raelin, 1985, p.10).
According to *Forsyth/Daniesiewicz* (1985), the degree of power and thus the degree of *Professionalisation* of an occupation can be deduced with regard to *both* the clients *and* the employing organisation through the degree of autonomy an occupation has. A true *Profession* is autonomous on *both* dimensions, whereas occupations which are only autonomous on one are called semi-professions and those which are autonomous on none are referred to as mimic professions.

Figure 25: The Power View of Professionalisation



Forsyth/Daniesiewicz, 1985, p.63 (slightly modified)

It is important to note the significance of *public recognition* for the establishment of a *Profession*. This is the reason why image building, by which means an occupation tries to persuade the public that it has the traits of a *Profession*, is as crucial as the actual characteristics of the task in the above shown process.

The fourth view considers **knowledge** to be the base of Professionalism (Freidson, 1986, p.1ff.; Abbott, 1991, p.357). This knowledge gives the *Profession* a potential for differentiation and power over those not in possession of this specialised, or formal knowledge. Therefore, similarly to the *functionalist view*, knowledge serves to develop an exclusive and essential relationship between the client and the Profession (Bloor/Dawson, 1994, p.282). The decisive difference from the *functionalist view* is the sole emphasis on knowledge as the common base and distinctive force of the *Profession*.

For the purpose of *this work*, *a Profession will be understood as a mixture between the knowledge based view and the functionalist view*. The main aspect, however, is *knowledge*, taking into account the fact that from the functionalist view common norms will evolve within the *Profession*, in one way or another. This will be especially important when the subject of the existence of a *Professional Culture* is discussed.

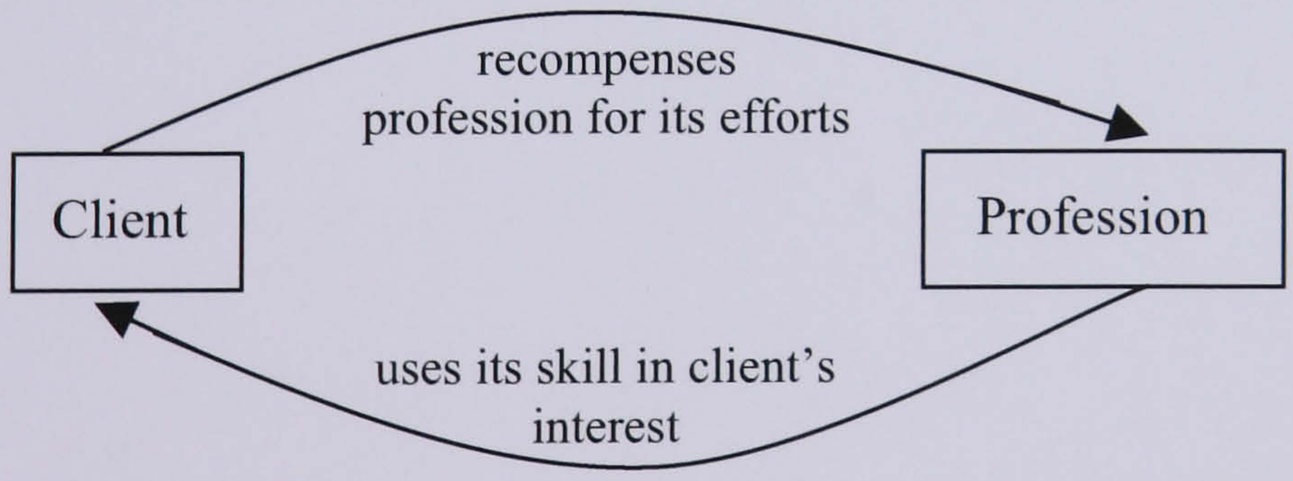
A *Profession* can therefore be seen as an occupational group which is able to provide an essential *client* service due to its specialised *knowledge*.

The term knowledge, however, has to be seen in a broad way, as it is not intended to be limited to the theoretically highly qualified knowledge of an engineer or an IT-specialist, but should also be the know-how of a blue-collar worker or a clerk.

Therefore, *the term skill*, meaning job-related ability as a result of training or education would seem to be *more appropriate* (Freidson, 1986, p.24). Furthermore, according to *van Maanen/Barley* (1984, p.311), knowledge is, despite the fact that it is "scientific in origin and take[s] years to master, [...] subject to codification [, whereas] skill is fluid and, to outsiders at least, mysterious". Hence, as a basis for the special position of a Profession, skill is apparently the more powerful concept, as *skill* resists codification.

The term *client* should also be seen in a rather general way. A client in the sense used here can just as well be located outside as inside the organisation. This broad understanding is important, as certain Professional groups do not have any direct contact to external clients, but nevertheless provide an essential service to clients within the organisation. Such an essential service could be e.g. the phone service of a secretary or the production of a car component by a worker, equally as well as the development of a new machine by an engineer.

Figure 26: The Relationship between Profession and Client



The here presented understanding of a Profession (Trice, 1993; van Maanen/Barley, 1984) is significantly less restrictive than that of dominating research in which more common occupations are either excluded by definition, or implicitly excluded by simply not taking them into consideration as relevant research entities (e.g. Raelin, 1985; Bloor/Dawson, 1994; Larson, 1977; Davidson, et al., 2001; Carayannis/Sagi, 2001; Sheer/Chen, 2003; Ulijn, et al., 2001, Brockhoff, 1989).

Under consideration of the goal of the present work, which is the development of appropriate leadership and organisational structures for the whole organisation, this restrictive approach would be unacceptable, as it would necessarily lead to the exclusion of large areas of most organisations.

Therefore, the idea of differentiating between *Profession* and *Occupation*, which is quite common in dominating research, will *not* be followed in this work; instead, the terms will be regarded as being synonymous.

Hence, a Profession will be defined as an occupational group which is able to create a special client service due to its occupational skills; this in turn leads to a profound relationship between both, based on mutual needs.

4.1.2 The Theoretical Construct "Professional Culture"

In this section a complete presentation of *Professional Culture*, as an analytical tool and an indispensable part of research into Culture will be given.

Initially it is important to understand how a *Professional Culture* can evolve.

The above given definition of Culture refers to members of collectives. These collectives can be nations, organisations, or, as it is argued here, *Professions* (Trice, 1993; Schein, 1996; Hyland, et al., 2001). Hence, the first distinctive trait of a collective forming a *Professional Culture* is that its members belong to a Profession in the above defined sense.

Furthermore, Culture is based on shared motives, values, believes, identities, interpretation, or meanings of significant events that result from common experiences of members of *collectives*, i.e. in this case *Professions*.

The crucial point lies in what aspects may generate common experiences for the members of a *Profession*, that can lead to these shared motives, values, identities, or meanings of significant events. Here again, the problem arises that major research excludes a large variety of *Professions* as already stated (van Maanen/Barley, 1984). Nevertheless, it seems appropriate to include part of these findings, on condition that it is remembered that in crossing the boundaries of this research not all the mentioned characteristics have to fit each and every *Profession*.

This is also true of the extensive work of *Raelin* (1985), who focused his understanding of members of a *Profession* on university graduates and other highly educated occupations. Nevertheless, by allowing a certain flexibility to adapt the given characteristics of his view to all *Professionals* according to our understanding, *Raelin's* (1985, pp. 85ff.) work gives important insights into the evolvement of a *Professional Culture* as regards the individual.

To describe this evolvement comprehensively, one has to refer as far back as the educational background of each *Professional*, as he "begins to identify with his *Profession* and takes on some of the personal attributes associated with it" (Raelin, 1985, p.89). This identification is enhanced by peer groups, as well as, depending on the *Profession*, titles, dress codes etc. Furthermore, a common language evolves, friendships are made, and again, depending on the *Profession*, identification with great figures in the field develops. These aspects of Professionalisation tend to be reinforced during the *Professional's* periods of education or training.

An example shows the importance of a common educational background in the behaviour of PhD engineers who "place greater importance than those with bachelor's degrees on [...] belonging to a professional community, on contributing to knowledge in the field, and on challenges that are intrinsic to engineering work" (Raelin, 1985, p.95).

After the *Professionals* have finished their education or training, the development of "their" *Professional Culture* and hence, their socialisation and acculturation continues through the influences exercised by their job environment (Gottschalch, 1999, pp.703ff.; Mann, 1969, pp.5ff).

Subsequent steps in this development include, according to *Raelin* (1985, pp. 96ff.):

- *finding a niche*
- *digging in*
- *entrenchment.*

Finding a personal niche represents the first step of *Professionals* in their career. They try to find their spot within the organisation, but most importantly within their Professional environment. The chances at that time are that they are still changing employers because of a discrepancy between their expectations and their actual situation in the respective company. Hence, at this stage the *Professionals'* main focus will be their *Profession* and their search for a job that fulfils their aspirations. Consequently, the commitment to their *Profession* increases even more resulting in further strengthening of the value and believe system of the *Profession.*
Here again, it should be noted that the degree to which this process takes place may vary according to the *Profession*, but it is in no doubt that a main reference system for every young *Professional* is his or her environment, which is significantly shaped by the *Profession.*

The part of a *Professionals'* development called by *Raelin: digging in*, takes place when the *Professionals* are in their thirties to mid-forties. In this phase their Professional ability is at its peak. They will seek close contact to their fellow *Professionals* and still have the *Profession* as main reference system for their personal development. At the end of this phase, however, the *Professionals* have to decide whether they want to become further specialised, develop their abilities towards a more general qualification, or whether they want to stay in their present Professional situation.

It has to be kept in mind, though, that not all *occupations* provide the scope for all of these possible developments. For example, consider factory workers who may only have the choice of specialising further in their *job* or simply continue in their current position.

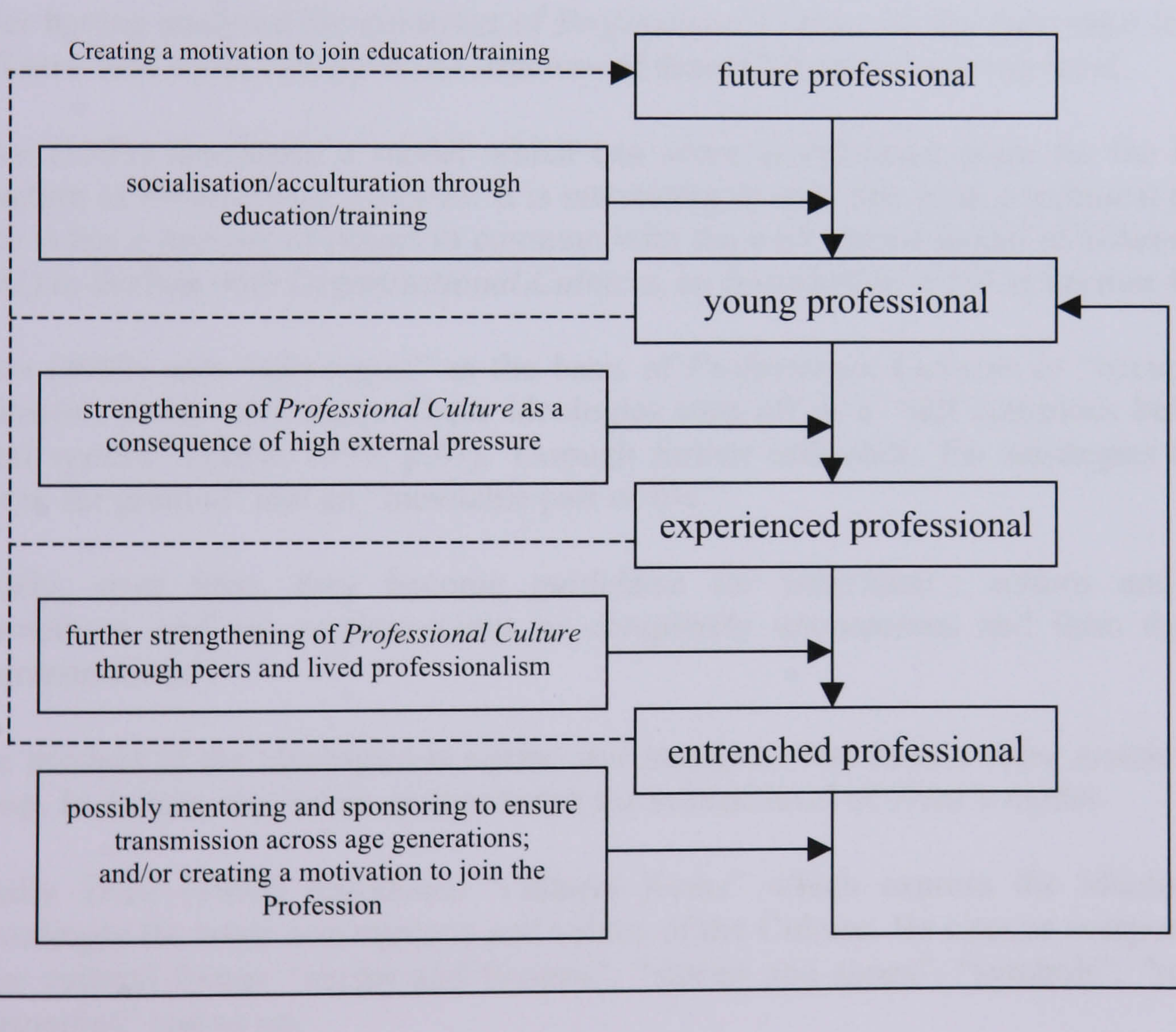
Nevertheless, it should be noted that the Professional environment is still a major influence; even at this rather late stage of the *Professionals'* personal development. Therefore, their identity is still significantly shaped by their Professional reference system, which is largely composed of *Professionals* having the same occupation as them.

The last stage in the *Professionals'* development is called by *Raelin* the *entrenchment.* This phase can be seen either as the phase of decline of the *Professionals'* ability, and a consequence of them preparing themselves to leave their Profession and retire, which is the more common case, or as them taking a more active role in mentoring and/or sponsoring young *Professionals.*

Either way, the process of *acculturation* has finished with the attainment of this stage. Furthermore, due to the entrenchment in their *Professional Culture,* the *Professionals* may become more inclined to accept certain given facts of the organisation.

Again considering the above given definition of Culture, it can now be seen that the *Professional development process has the typical traits of a process of acculturation, respectively socialisation*. Furthermore, this statement is independent from the *Profession* involved. *Professionals* live through common experiences throughout their individual careers (van Maanen/Barley, 1984). These experiences start with their training or education, and continue with them having a common environment, often a common (technical) language and dealing with the same Professional problems. All this leads to them having their peers as their main Professional focus, which often influences their private lives, leading to an even strongly enhancement of the importance of the *Profession* in a *Professional's* life.

Figure 27: The Development of the Individual's Professional Culture



Therefore, it can be stated that the *Professionals* live through common experiences as members of a collective group, which potentially leads to the development of shared motives, values, believes, interpretations, or meanings of significant events. Furthermore it can be stated that, because of the nature of these processes, they are transmitted across age generations (van Maanen/Barley, 1984).

Thus, the following Hypothesis 1 will be formulated at this point:

Hypothesis 1:

Every Profession leads to its members developing a genuine Professional Culture

After having analysed the construct of *Professional Culture* on the individual level, we will now look more closely at the structure of these Cultures on a group level.

Trice (1993) developed a model which can serve as reference point for the internal structure of *Professional Cultures*. It is interesting to note that from a technical point of view it has a number of points in common with the well known model of *Schein* (1984, 1992) in dealing with *Organisational Cultures*, as described in detail in Section 4.2.2.

Trice (1993) sees "*ideologies*" as the basis of *Professional Cultures* or "occupational Cultures", as he calls them. These ideologies start off as a "self conscious belief and ritual system" (Trice, 1993, p.47). Through further utilisation, the ideologies become "taken for granted" and an "inevitable part of life".

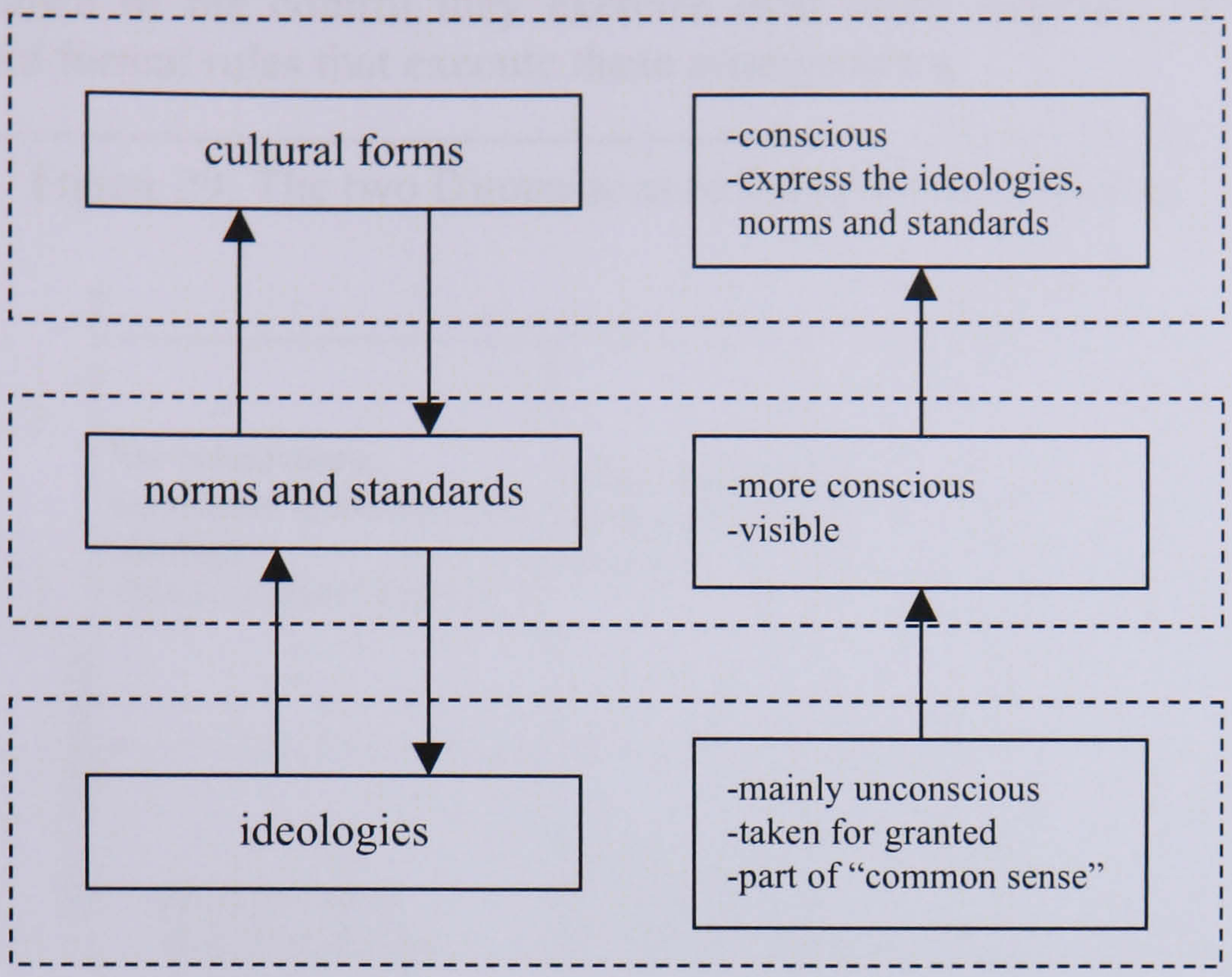
Finally, over time, they become *guidelines* for individual's actions and moral convictions, and are semiconscious or completely unconscious and form therefore, "common sense".

One product of the ideologies is *norms and standards* that form a *value system* for the group. In its turn, this value system forms the second level of *Trice's* model.

Finally *Trice* (1993) introduces "*cultural forms*" which express the ideology and accordingly the basic assumptions and values of the Culture. He cites as components of these cultural forms: "myths and fictions", "stories and songs", "symbols", "rites and ceremonies" and so on.

These cultural forms represent the third Cultural level in *Trice's* model. In addition, they are the visible level of a *Professional Culture*.

Figure 28: Levels of Professional Culture and their Interaction



Building upon this understanding of *Professional Culture, Trice* (1993) develops a *two-dimensional classification* scheme for *Professional Cultures*. These two dimensions are the *group* and the *grid* dimension which go back to the work of *Douglas* (e.g. 1982) (Douglas Caulkins, 1999).

The *group dimension* defines how strong the cohesive forces are within a Professional group (Douglas Caulkins, 1999). Its main determinants are according to *Trice* (1993, p.26):

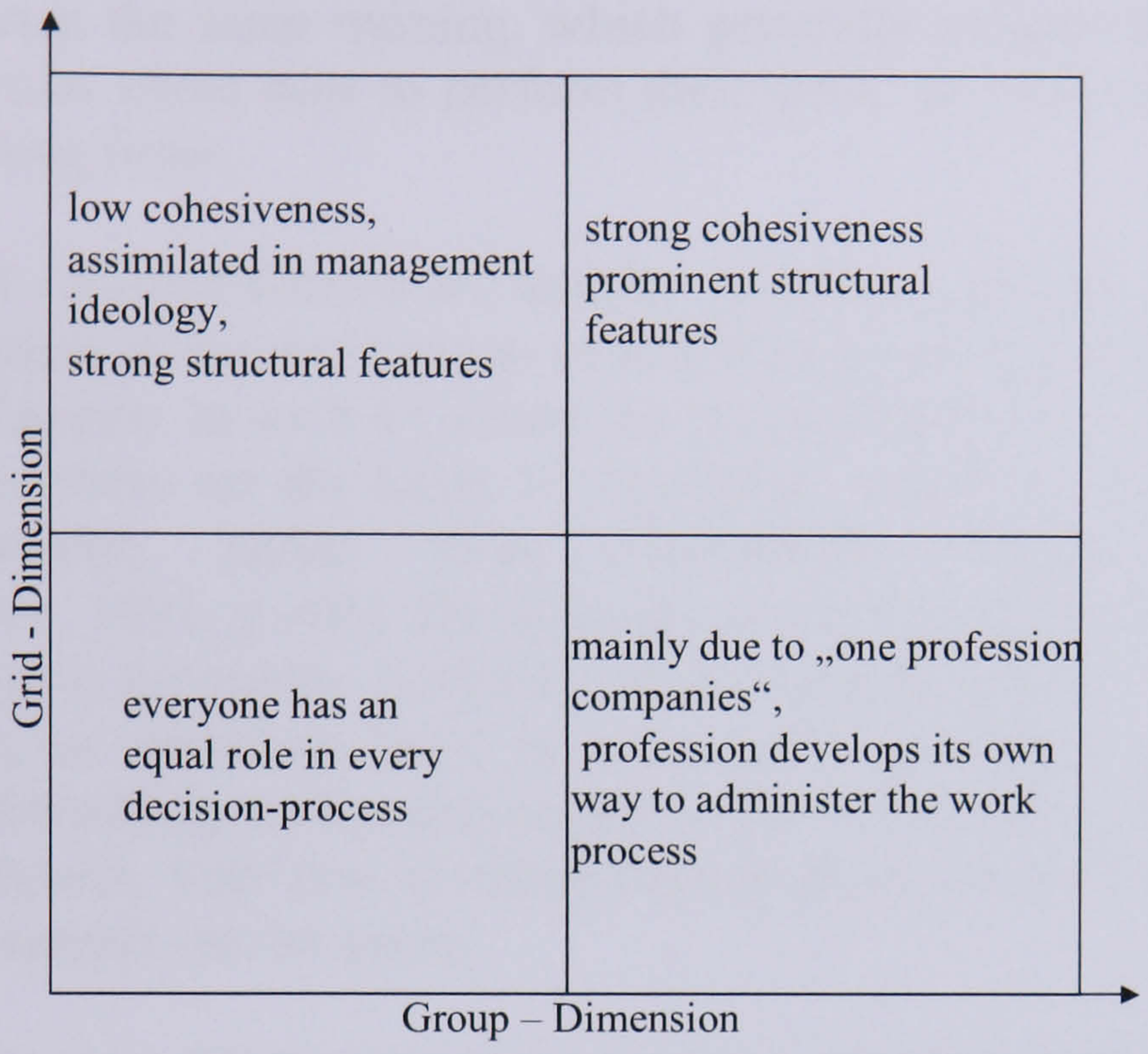
- *esoteric knowledge*
- *extreme or unusual demands*
- *consciousness of kind*
- *pervasiveness*
- *ideologies that confer favourable self-images and social value to the task*
- *the extent to which members of the occupation are members' primary reference group*
- *the abundance of consistent cultural forms*

The *grid dimension* defines the importance of (Trice, 1993, p.42):

- *hierarchical authority*
- *formal rules*
- *impersonal relations*
- *differential rewards*
- *division of labour within the occupation*

The three main aspects of this dimension include ranking members' autonomy and the importance of the control they exercise over other workers, and further, the imposed and formal rules that execute these arrangements.

Figure 29: The two Dimensions of Professional Cultures



In the following, an outline will be given as to how these different Cultural clusters deal with exterior influences, especially those of the managerial administration (Trice, 1993, pp.160ff.). The distinction presented here is also in accordance with *Hofstede* (2001, p.414), who indicates that identification with the occupation and integration into the organisation depend largely on the job.

Strong Grid/Strong Group Cultures are accommodative, meaning that they try to reach a compromise between the definitions of their Cultures and the demands of the organisations. The compromise itself will, however, always ensure that the Culture will not be overly diluted by it; an example for such a Culture would be corporate physicians, or corporate law.

Strong Grid/Weak Group Cultures tend to be assimilated into the organisation. This is usually either due to a relatively good compatibility of the ideology of the Culture with the organisation, or as a consequence of successful efforts of management to discern the idiosyncrasies of the respective jobs . This could be achieved, e.g., by a redistribution of knowledge bases through implementation of computerised systems, or by a redistribution of tasks. An example for this kind of Culture would be engineering, as its ideology is relatively compatible with the demands of management.

Weak Grid/Strong Group Cultures tend to dominate organisational demands. Members of this Culture try tenaciously to keep control not only over their work; but also over the way it is administered. Furthermore, they believe "they must be vigilant about defending the boundaries of their occupation so as to prevent the uninitiated from performing their distinctive tasks" (Trice, 1993, p.171). In addition, the *Profession* develops its own hierarchy, which is usually rather flat. This is due to the fact that all members underwent the same training, which generally assures that all members have internalised the rules about how to perform their work; an example would be members of law or accounting firms.

Weak Grid/Weak Group Cultures are usually relatively egalitarian. In such a Culture everyone participates in the decisions as to which tasks are to be undertaken and in what way this should happen. In such a Culture the boundaries of the *Profession* are weak, as they employ "members on the basis of friendship, political attitudes and informally acquired knowledge rather than membership within the occupations" (Sonnenstuhl/Trice, 1991, p.308). Furthermore, in the absence of hierarchical means of channelling decision processes, members of the organisation have significant control over each other, as decisions have to be reached through consensus. Due to the difficulties of maintaining such a democratic organisation as a consequence of internal and external demands, very few of these organisations exist (Trice, 1993, pp.177ff.), and no general example can be given.

In summary, it can be said that the present section provides thorough insights into the concept of *Professional Culture*.

These insights are initially given with a set of definitions concerning this area of research. In addition, *Professional Culture* has been examined both from an individual point of view in the first part, and from an organisational/group point of view in the second.

Finally, a first classification of a number of *Professional Culture*s has been depicted, which already gives an initial idea of the possible differentiating factors to be found in the context of this Cultural construct.

Therefore, it can be stated that this section gives a sound foundation for the understanding of the theoretical concept *Professional Culture*, which in turn serves as an important base for the present work.

4.1.3 Summary of the Concept "Professional Culture"

The *concept Professional Culture* as it has been described in this section represents a significantly differing view from current major research. This differing view is a consequence of a significantly different understanding of the term *Profession* on the one hand, and on the other, it is a consequence of the assumption expressed in Hypothesis 1 that *Professions* can and will develop genuine Cultures.

The second aspect has already found its way into research (e.g. Raelin, 1985; Bloor/Dawson, 1994; Schein, 1996; Davidson, et al., 2001; Hyland, et al., 2001), but unfortunately, frequently with a very restrictive differentiation between occupations and *Professions*.

This approach is sustainable as long as the focus is concentrated on specific problems arising between specific occupations or between specific occupations and management. These specific problems usually also happen to be the most conspicuous ones, partly due to the strength of the underlying *Professional Culture* of the Professions concerned (Schütz, 2003). Nevertheless, such an understanding of *Professional Culture* is only able to explain a faction of the problems and frictions that arise in organisations, owing to the different *Professional Culture*s.

With the decision to include in this approach any kind of occupation which can be found in an organisation this problem should be avoidable. It will facilitate the analysis of a large variety of inter-occupational and intra-occupational processes. The analysis of these processes is a necessary prerequisite for the development of appropriate leadership and organisational structures.

To sum up, it can be propounded that the rather unusual approach to *Professions* and their *Cultures* chosen here is arguably the most appropriate way of achieving the goal of the present work: the enhancement of both understanding and efficiency within organisations.

4.2 ***Professional vs. Organisational and National Culture***

In this section, an introduction to the dominant Cultural constructs will be given. This is of considerable importance for fully understanding the already stated necessity for the development of a third Cultural construct.

Initially, the approach of *National Culture* will be presented, followed by that of *Organisational Culture*. Both understandings of Culture have been thoroughly researched in the past and are still being researched today. Furthermore, they are widely accepted as playing a major part in any organisation.

Consequently, an evaluation will be undertaken not only of the theories themselves, but also of their differences and similarities.
This comparison is extremely important for an understanding of the shortcomings the restriction has on *National* and *Organisational Culture*, and in which aspects these shortcomings can be overcome by the introduction of a third theoretical construct, i.e. that of *Professional Culture*.

Hence this section serves to embed the idea of *Professional Culture* into current research and to point to the potential it has for the enhancement of organisational and leadership research.

4.2.1 National Culture

To start the overview of the two traditional ways of perceiving and analysing Culture, in this section *National Culture* will be presented with reference to the two most important projects in this field: those carried out initially by *Hofstede* (2001; 1980), and later within the context of the *GLOBE-Study* (House et al., 2004).

The above given definition of Culture (section 1.1) will continue to be valid throughout this section.
The term *National* is not necessarily meant in a strictly *political* sense. The GLOBE-Study, for instance, has identified various Cultural entities which did not match with political borders, but include a number of strong subcultures within one country (e.g. House, 1999, pp.207ff; Ashkanasy, 2002; Szabo, 2002)

Initially, an introduction of the study carried out by *Hofstede* (2001) will be given, since a number of results hereof are also utilised within the GLOBE-Study.

Hofstede's study is based on data collected from 116000 IBM employees. These employees had all kinds of hierarchical backgrounds and came from 40 different countries. The goal of this study was the development of a tool that could be used to compare different *National Cultures* in an identical and objective way across all cultural borders.

The results showed that four *interculturally valid* dimensions could be isolated.

Hofstede called them

- *Power Distance*
- *Uncertainty Avoidance*
- *Individualism*
- *Masculinity*.

Power Distance indicates how far a society considers inequalities between its members in respect to power, prestige, status, etc. to be normal and worthwhile being stabilised. Low *Power Distance* leads among other things to a more consultative and caring leadership style, which employees reward with cooperative behaviour. Hierarchy is not seen as a means in itself, but in a rather functional way, and power is not usually overt (Hofstede, 2001, pp.79ff.).

Uncertainty Avoidance shows to what extent members of a society feel threatened by uncertainty and are trying to avoid it through rules, laws, etc. In societies with low *Uncertainty Avoidance* change is easily accepted, seniority is rather unimportant, general rules are less valued, etc. (Hofstede, 2001, pp.145ff.).

Individualism can be seen as the antipode to collectivism, therefore as dealing with the social structures within a society. In a collectivistic society, for instance, group decisions are preferred, an emotional bond to the employing organisation exists, individual power is not highly valued, etc. (Hofstede, 2001, pp.209ff.).

Masculinity, finally, describes the degree to which a society is marked by stereotypically masculine traits. In a highly masculine society, e.g. more income is preferred over more leisure time, decisiveness and independency are highly valued, managers strive intentionally for commanding positions, etc. (Hofstede, 2001, pp.279ff.).

In a further work, *Hofstede and Bond* (1988) (see also Hofstede, 2001, pp.351ff.) added a *fifth* dimension, which was labelled *Confucian Work Dynamic*. This dimension was a consequence of a survey which had been deliberately structured with respect to the Chinese value system, to correct a possible western bias in *Hofstede's* initial work. It could be shown that the dimensions *Power Distance*, *Individualism*, and *Masculinity* correlated to the dimensions *moral discipline*, *integration*, and *human orientation*. *Uncertainty Avoidance*, on the other hand, could not be found; instead, the above-mentioned fifth dimension was isolated. This dimension shows whether the society is mainly living on a long-term or a short-term orientation, or, in other words, if it is more oriented towards the future (long-term orientation) or the past and the present (short-term orientation).

To summarise, it can be said that the work of *Hofstede* and its subsequent refinement by *Bond* represents the first study that was able to give fundamental answers as to the character of different *National Cultures* in an objective and interculturally comparable

way. This led to *Hofstede's* work being the base for a vast variety of different works in this area, including the GLOBE-Study, which is introduced in the following.

The GLOBE-Study is of significant interest, as parts of its methodology and results are used for the empirical part of the research project presented here (House, et al., 2004; 1999).

The works on the GLOBE-Study can be traced back to the year 1991, in which the idea of a cross-cultural research project of greater magnitude was conceived. The beginning of the actual work on this study was in 1993 with the recruitment of 170 scientists from around the world representing 62 Cultures, and the development of an initial pool of questionnaire items. Up to today more than 17000 members of 951 organisations and 62 Cultures have been surveyed, both quantitatively and qualitatively. Furthermore, unobtrusive measures have been developed and used to locate each Culture on the *Societal Dimensions* described below (House, et al., 2004; 1999, pp.199ff).

The Societal Dimensions isolated by the GLOBE-Study are:

- *Uncertainty Avoidance*
- *Power Distance*
- *Collectivism I*
- *Collectivism II*
- *Gender Egalitarianism*
- *Assertiveness*
- *Human Orientation*
- *Performance Orientation*
- *Future Orientation*

The first *seven* dimensions have their roots in the above-mentioned work of *Hofstede* (2001) the *eighth* in that of *Hofstede/Bond* (1988)/*Hofstede* (2001). This is also the obvious reason why these works are described at relative length in this section.

Uncertainty Avoidance (Sully de Luque/Javidan, 2004) and **Power Distance** (Carl, et al., 2004) are seen as analogous to the dimensions developed by Hofstede.

The dimension labelled *Individualism* by *Hofstede* needed to be split up into the two dimensions **Collectivism I**, and **Collectivism II**, corresponding to the results of *Gelfand, et al.* (2004). *Collectivism I* "reflects the degree to which organisational and societal institutional norms and practices encourage and reward collective distribution of resources and collective action", whereas *Collectivism II* reflects "the degree to which individuals express pride, loyalty, and cohesiveness in their organisations or families" (House, et al., 1999, p.192).

Hofstede's dimension *Masculinity* also needed to be split up, leading to the GLOBE dimensions *Gender Egalitarianism* (Emrich/Denmark/den Hartog, 2004), *Assertiveness* (den Hartog, 2004), *Human Orientation* (Kabasakal/Bodur, 2004) and also partly *Performance Orientation* (Javidan, 2004) .

Gender Egalitarianism "is the extent to which an organisation or a society minimises gender role differences" whereas **Assertiveness** is "the degree to which individuals in organisations or societies are assertive, confrontational, and aggressive in social relationships" (House, et al., 1999, p.192).

Human Orientation "is the degree to which individuals in organisations or societies encourage and reward individuals for being fair, altruistic, friendly, [...]" (House, et al., 1999, p.192). This dimension can be traced back among others to the work of *Hofstede* (1980) *Hofstede/Bond* (1988) and that of *McClelland* (1985, pp.333ff.), where it is labelled *Kind Heartedness* and *Affiliative-Oriented Behaviour* respectively.

Performance Orientation (Javidan, 2004) goes back to the work of *McClelland* (1985, pp.223ff.) concerning the individual's need for achievement, and is represented by the dimension *Confucian Work Dynamism* in the work of *Hofstede/Bond* (1988). It "refers to the extent to which an organisation or society encourages and rewards group members for performance improvement and excellence" (House, et al., 1999, p.192).

Future Orientation (Ashkanasy, et al., 2004) has its roots in *Kluckhohn and Strotbeck's* (1961) work, in which a distinction is drawn between the past, present and future orientation of a society. It indicates "the degree to which individuals in organisations or societies engage in future orientated behavio[u]rs [...]" (House, et al., 1999, p.192).

In summary, it can be said that the GLOBE-Study represents the most important essay in cross-cultural research, resulting in extremely valuable findings in various areas. More details of the GLOBE-Study will be given later in this work. For the moment, the characterisation of a *National Culture* by the nine GLOBE Dimensions is the important point to retain in order to gather a sound knowledge of the construct *National Culture*.

Interestingly the Dimensions isolated, are also valid on *both* the *National* ("societal") and the *Organisational* level. Hence, an *Organisation Culture* can be characterised and described using the Core Cultural Dimensions described in this section (Hanges/Dickson, 2004; House/Javidan, 2004). This trait of the GLOBE-Study is of significant importance for the present work, as will be shown in the following.

To sum up, the term *National Culture* therefore defines a Culture, which can be described by the above given Dimensions and which relies primarily on a geographical definition. As already mentioned, this does not necessarily mean that each *National Culture* is defined by one country, as there may, for example, be more than one "*national*" *Culture* in one country (e.g. Szabo, et al., 2002, Ashkanasy, et al., 2002). Accordingly, political boundaries are only the decisive factor to a certain extent for establishing a *National Culture* in our sense. This is also the reason why the GLOBE-Study uses the term *Societal Culture* instead of *National Culture*.

Nevertheless, the term *National Culture* will be retained throughout this work to give a clearer impression of the different Cultural constructs treated, whilst keeping in mind the restrictions arising from the difference in the meaning of the term *national* in common language and in this specific context.

4.2.2 Organisational Culture

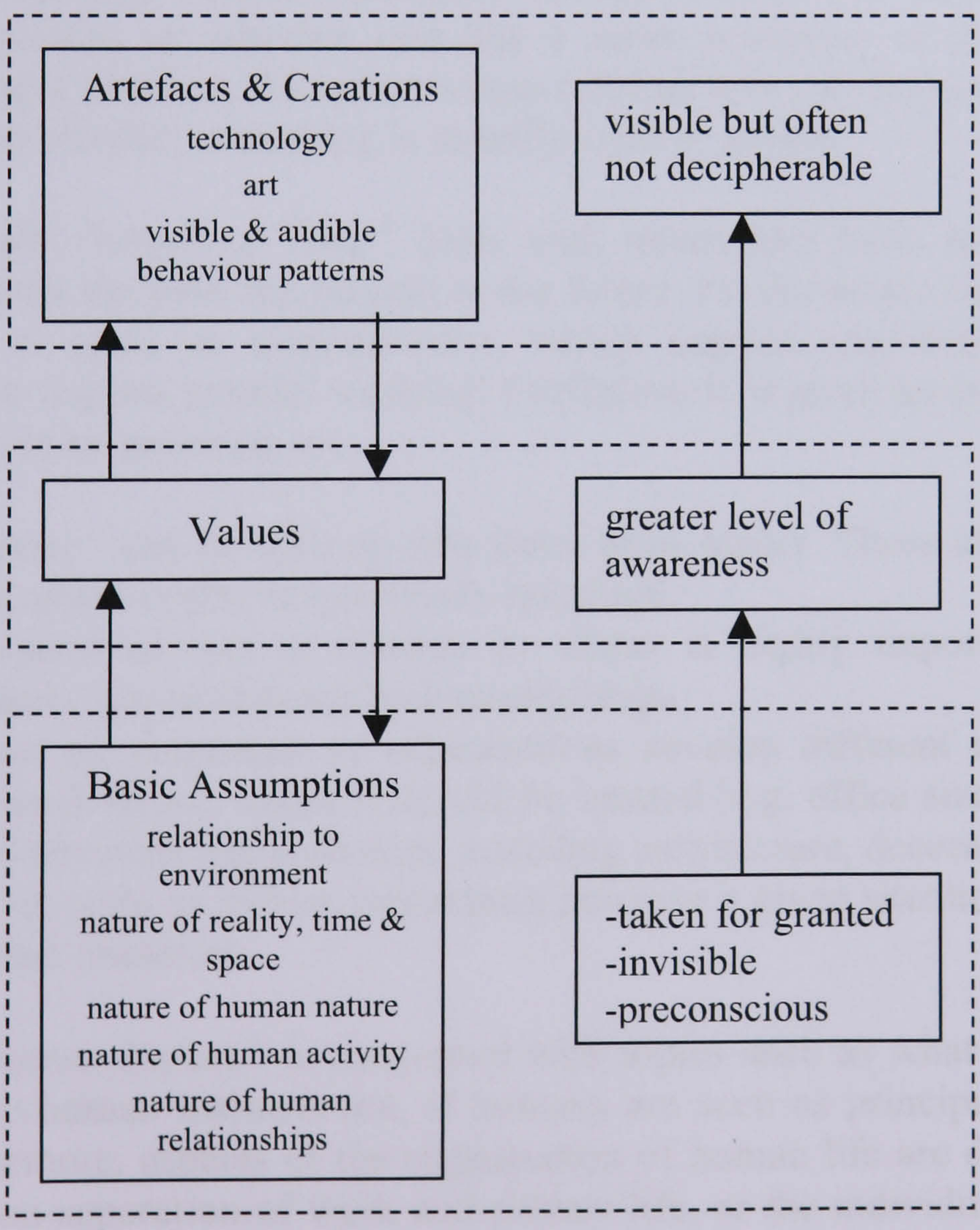
In this section *Organisational Culture,* as a second traditional understanding of Culture, will be described with reference to one of the most important models of *Organisational Culture*, which was developed by *Schein* (1992, 1984).

Here, the basic definition of Culture given in section 1.1 will also be used. This is well founded thanks to the findings of the GLOBE-Study (House, et al., 2004), and also thanks to the definition of Culture *Schein* (1992, p.12) himself evolved, which is highly similar to the definition used in the present work.

Despite these similarities, the construct *Organisation Culture* has a number of specific characteristics which clearly distinct it from *National* and *Professional Culture*.

In order to be able to illustrate these differences, a detailed description of *Organisational Culture* will first be given.

Figure 30: Levels of Organisational Culture and their Interaction according to *Schein*



Schein, 1984, p.4

Hence, *Schein* (1984) sees the internal structure of *Organisational Culture* as consisting of three different levels which vary according to their level of individual awareness and visibility to both insiders and outsiders of the group, respectively the organisation.

Basic Assumptions consist of a number of orientations and patterns of understanding in individuals. Referring to *Kluckhohn/Strotbeck* (1961), *Schein* (1992, pp.94ff.) identifies *six basic topics* of human existence, which form the basis for Cultural paradigms, which in turn formed the basis for the endeavours to build Cultural typologies.

These six dimensions are

1. *The Nature of Reality and Truth*
2. *The Nature of Time*
3. *The Nature of Space*
4. *The Nature of Human Nature*
5. *The Nature of Human Activity*
6. *The Nature of Human Relationships*.

"The Nature of Reality and Truth" defines what is real and how it is possible to discover what is real. This concerns questions such as whether one relies more on facts or more on authorities, or whether one has a more academic or more pragmatic approach to solving a problem. Morality is also relevant here, as the question arises as to how it is decided whether something is morally right or wrong.

The dimension *"The Nature of Time"* deals with topics like basic time orientation, which can be towards the past, the present or the future. Furthermore, it says something about how time is seen; as monochromic, which implies sequential working, or polychronic, which implies parallel working. Furthermore, it gives an understanding of what is considered to be punctual, etc.

"The Nature of Space" can be split up into three basic topics. These are distance and relative placement, space symbolics and body language.
The correct placement of one in relation to others is highly important, as it has implications for status, social distance and membership.
Symbolics of space are important as organisations develop different norms for who should have how much space, where it should be located (e.g. office size and location), what kind of visual environment is chosen, including architecture, decorations, etc.
Body language gives clues as to how individuals perceive a given situation, or how they relate to others in that situation.

"The Nature of Human Nature" is concerned with topics such as what it means to be human, what basic human instincts are, if humans are seen as principally good, evil, neutral etc. Furthermore, aspects of the organisation of human life are dealt with, such as separation or non-separation of work and private life, or the individual's orientation towards a more individual or a more collective approach to life.

"The Nature of Human Activity" deals with aspects of the interaction of the individuals and their environment. This also defines the way a group should relate itself to the environment.

Schein (1992) distinguishes three basic orientations: that of

1. *Doing*
2. *Being*
3. *Being-In-Becoming*

The *"Doing"* orientation sees no insurmountable obstacles; every problem is merely a question of effort rather than feasibility. The *"Being"* orientation is the opposite in that it generally tries to adapt to the environment and finds its niche, whereas the *"Being-In-Becoming"* orientation is located between the other two.

Another important aspect concerning human interaction with the environment is the relationship between work, family, and personal concerns, and the importance each of these has. In addition, the way the environment is seen is of relevance. It can be seen e.g. as controllable, demanding, threatening, invincible, etc.

Finally, *"The Nature of Human Relationships"* incorporates expectations concerning individuals' behaviour in relation to their peers, in order to maximise the well being of the group. According to *Schein* (1992, p.132), these expectations include (1) *"power, influence, and hierarchy"* and (2) *"intimacy, love and peer relationships"*. In this context, *Schein* (1992) mentions aspects such as individualism, groupism, participation, involvement, and characteristics of role relationships.

It is important to notice at this point that these basic assumptions are not to be seen as standing in an unrelated manner next to each other, but that they together form part of the *gestalt* represented by *Organisational Cultures* (Hofstede, et al, 1990, p.313). Their importance for the organisation can best be understood in reference to the concept of *Argyris/Schön* (1978, pp.10ff.; Argyris, 1976) in which *"Espoused Theories"* and *"Theories-in-Use"* are differentiated. The difference between these two is that the former are merely officially prescribed action patterns, whereas the latter are those which actually guide individuals' behaviour. Therefore, it can be stated that *Basic Assumptions* are similar to what *Argyris* has identified as *Theories-in-Use* (Schein, 1992, p. 22).

Furthermore, the definition *Trice* gave of *ideologies* has to be recalled within this context (see section 4.1.2). He considers them to be semi- or completely unconscious and thus forming "common sense". This represents a significant resemblance to the definition of basic assumptions given here.

According to *Schein* (1991, pp. 19ff.), the next higher level of *Organisational Culture* is formed by the (Espoused) *Values*. These values and beliefs usually go back to founders, or leaders, and they serve to reduce uncertainty in critical areas. They are a precursor for the above described basic assumptions, provided they are functioning satisfactorily on a continuous basis, leading to their ultimate transformation into basic assumptions.

The **Values** remain conscious in that they serve to guide group members' behaviour in important situations by providing normative and moral standards (Wiener, 1988). Furthermore, they play an important role in the *socialisation* of new group members.

The condition for them actually being lived, is, however, that they are based on prior learning, as otherwise they function merely as *Espoused Theories* in the sense of *Argyris/Schön* (1978, pp.10ff.; Argyris, 1976). This in turn results in these *Values* only predicting what people say, but not what they actually think and do. An example for such behaviour would be a company officially pursuing a participative approach for the integration of the individual and the organisation, whilst the actual approach is a rather authoritarian one, based on hierarchy.

Here again, it must be pointed out that this Cultural level is also present in *Trice's* model of *Professional Culture* under the definition of norms and standards forming the *"Value System"* of a *Professional Culture* (see again section 4.1.2).

Artefacts & Creations, finally, are all visible phenomena. They can be, e.g. symbols, myths and stories, published values, rites and ceremonies (Trice/Beyer, 1984). It should however be noted that here again this level can not be seen independently from the other levels. Above all, it is not possible to decipher the true meaning of this level of Culture without referring to the other levels, as any kind of interpretation of a single part of an *Organisational Culture* alone would be a reflection of one's own Cultural system. Therefore, once more, it has to be emphasised that Cultures are *gestalts* and therefore only understandable as a whole.

In addition, this third Cultural level is already known from the model of *Professional Culture* as "*Cultural Forms*" and has a very similar function in both models.

As far as the consequences of strong *Organisational Culture*s are concerned, it is noteworthy that they can be both functional and dysfunctional; the traits of a strong Culture are e.g. that it is homogenous, stable, widely shared, cohesive, fully articulated, etc. (Saffold, 1988).

The most important positive and negative consequences of a strong Culture will be given below (Saffold, 1988; Wiener, 1988; Trice/Beyer, 1984; Deal/Kennedy, 1982; Gussmann, 1988, 207ff.):

Positive consequences of strong *Organisational Culture*s can be:

- guidance for individual's actions
- fast decisions-taking
- effective communication
- swift implementation
- little need for control
- stability
- high individual motivation and good team-spirit

Negative consequences on the other hand are e.g.:

- barriers to organisational change
- barriers to the recognition of external demands on the organisation
- development of a somewhat totalitarian way of dealing with individual's opinions

The important thing to remember is that the general statement that a strong *Organisational Culture* is necessarily good (e.g. Peters/Waterman, 1982) cannot be upheld. The beneficial consequences of a strong *Organisational Culture* always have to be weighed up against their costs.

In summary, it can be stated that *Schein's* model is the most important approach to the understanding of the internal structure of *Organisational Cultures* (Schreyögg, 1999, pp.439ff.). Furthermore, this approach is also highly valuable for the research into *Professional Culture*s, due to its significant resemblance to the model developed by *Trice,* as outlined in section 4.1.2. This high resemblance of the internal structure of the two Cultural models leads to the following highly interesting option for research into *Professional Culture*.

In accordance with *Trice* (1993; section 4.1.2), because of these close similarities, the results and methodology developed in the context of *Organisational Culture* will be used for the research into *Professional Culture*.

This in turn brings up the GLOBE-Study again, as the nine Core Cultural Dimensions developed in its context are, as stated, also viable for the identification of *National Cultures* and *Organisational Cultures* (House, et al., 1999). This allows parts of the GLOBE-Study methodology and some of its results to be used for the research into *Professional Culture*. This underlines once more the great importance that the GLOBE-Study has for cross-cultural research in general, and for the research into *Professional Culture* undertaken here in particular. Therefore, Hypothesis 2 is formulated as follows:

Hypothesis 2:

After due adaptation methodology and results of the GLOBE-Study can be used successfully for the research into Professional Cultures

Hence, *Schein's* work provides a large variety of highly interesting insights, which will be an integral part of the present work.

The link between *Organisation* and *Professional Culture* is of such importance for the empirical part of this work, that this alone justifies the prominent position this model has been given in the present section.

4.2.3 Differences Between and Similarities of Professional, Organisational and National Cultures

In this section the relationship between the three different Cultural approaches will be treated in detail. This is highly important, as these three approaches have a number of similarities, but also a number of differences.

The most striking similarity is that, as has been shown, it is possible to use one single definition of Culture for all three approaches. This already indicates that the distinction made in research between the different constructs of Culture is based to a lesser degree on a difference in principle, but mainly on a *difference in perspective*.

Furthermore, the internal structures of *Professional* and *Organisational Cultures* are highly similar, as has already been demonstrated in this chapter. They both reside on an unconscious and invisible, yet highly important base, form common values, norms, etc. and find their expression in rites, symbols, stories, etc. In addition, due to the fact that *National Cultures* and *Organisational Cultures* share the same operational definition and in accordance with *Hofstede* (2001, pp.391ff.) it can be stated that the internal structure of *National Culture* is very similar to that of *Organisational Culture* and thus to that of *Professional Culture*.

Therefore, it can be recorded at this point that the *internal structure of all three Cultural concepts is essentially the same.* However, this does not mean that the importance of its components i.e. the three levels of *Schein's* and *Trice's* model (Figure 28) is always the same. As for instance *Hofstede* (2001, pp.393ff.) already pointed out, the importance of values is significantly higher in *National Cultures* than in *Organisational Cultures*. Nevertheless, the components are present in all three approaches and they therefore represent three different kinds of one species rather than three different species altogether.

The question now arises as to where those differences lie, if there are so many fundamental similarities.

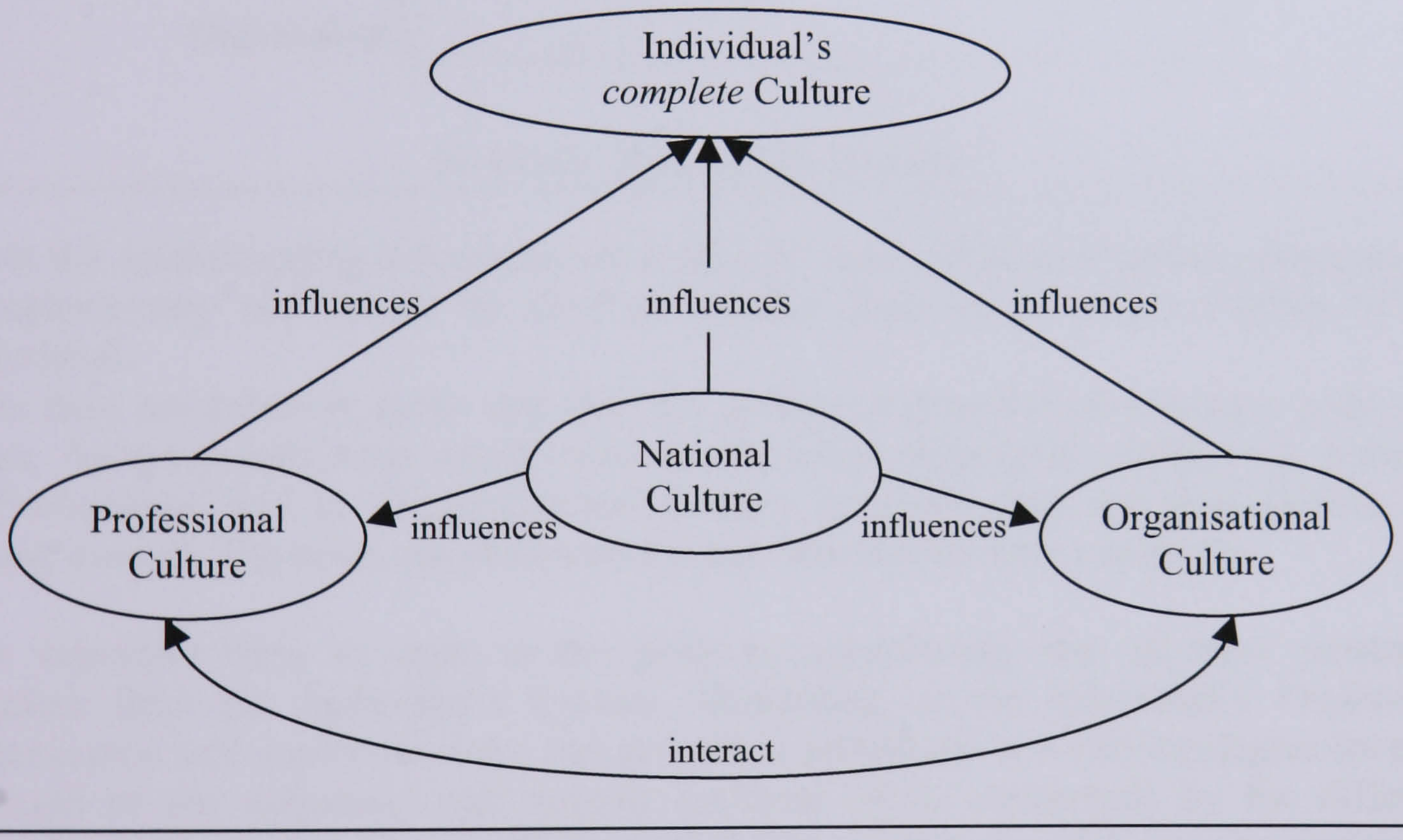
As already indicated above, the differences are on the level of the respective perspective. This difference in perspective is, however, highly important for analytical reasons, to enable Cultural research to properly identify the influencing factors for the *Culture each individual actually possesses*. From that aspect, the different theoretical approaches to *Culture* are complementary to the overall understanding of this phenomenon (Hofstede, 2001, p.391).

This complementarity is due to the different entities that are researched in each of the Cultural approaches, and which, according to the findings depicted, represent the most important influencing factors for the *individual's Culture*. This is due to the fact that each Cultural entity socialises the individuals in a distinct area and also at different times of their life (also Hofstede, 2001, pp.391ff.).

Socialisation into *National Culture*, for instance, begins with the individuals' birth and, significantly, takes place outside of their work place.
Socialisation into *Professional Culture,* in contrast, starts later in life depending on when the initial contact with the Profession takes place, but still at a relatively young age. Furthermore, this socialisation happens partly outside, partly inside the work organisation.
Socialisation into *Organisational Culture,* finally, may take place at any time of one's life between the first job and retirement and happens mainly inside the work organisation.

Culture, as it is showed in this chapter, represents an overarching construct composed of different influencing factors that can be *subdivided analytically* into three distinct "sub constructs". These "sub constructs" are the *National*, the *Organisational* and the *Professional perspective*, and they have to be researched together to obtain a complete picture of the *individual's Culture*.

Figure 31: The Components of Culture and their Interrelationship

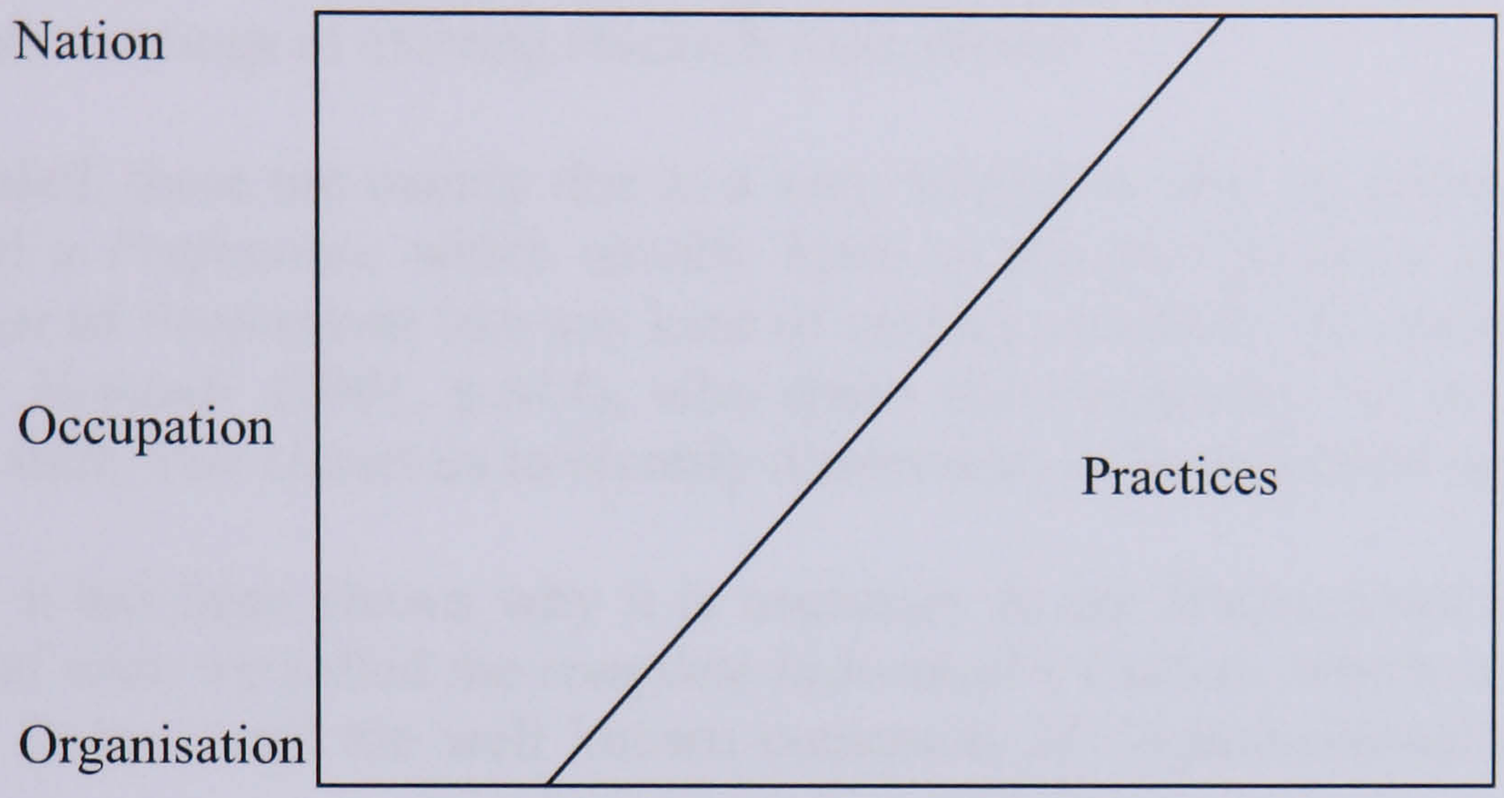


The idea of a *complete* Culture introduced here has to be understood from the individual level, as indicated in Figure 31, which in turn brings us back to the above stated point that the split into three different Cultural constructs is mainly analytical.

This becomes especially apparent with reference to *Hofstede* (2001)/*Hofstede, et al.* (1990) where it is stated that each of the three approaches has its main focus on a different Cultural level. Although *Hofstede* uses a less detailed internal structure of Culture with only two levels in comparison to the here preferred model of *Schein* respectively *Trice* that are composed of three, his classification is nevertheless useful.
The following statements are in reference to the model of *Schein*; though their content is equally valid in regard to the model of *Trice*.

The second and the third dimension of *Schein's* model can be produced by a split up of *Hofstede's* (2001) level *Values* into *Values* and *Basic Assumptions*. Furthermore, the second *Hofstede* level, *Practices*, is highly similar to what *Schein* defined to be *Artefacts & Creations*, as *Hofstede* sees *Practices* to be the "Manifestations of Culture" in the form of *Symbols*, *Heroes*, and *Rituals* (Hofstede, 2001, pp.9ff.).

Figure 32: The Balance of Values vs. Practices



Hofstede, 2001, p.394, modified

With this understanding it becomes clear why the three different Cultural constructs are complementary and should be seen as together forming the *whole Culture* of the individual.
This does not however mean that they are always in peaceful co-existence with each other. As has already been stated, there may be rather significant conflicts e.g. between a *Professional* and an *Organisational Culture,* provided they are incompatible and strong enough. The same can obviously be true between all three constructs.

The important thing to retain at this point is, nevertheless, that all three constructs together form the *Individual's Culture*. Depending on the individual's *Profession*, *organisation* and *nation (society),* this process is influenced to a varying degree (overall strength of the influence) and manner (cultural levels concerned) by the different cultural constructs, but a basic influence of all three constructs can always be perceived.

Hypothesis 3:

Professional Culture, Organisational Culture, and National Culture together form the complete Culture of the individual

To sum up this section, the similarities of the three Cultural constructs are their common structural base and, following *Hypothesis Three*, their together forming the Individual's Culture, whereas their differences are to be found on the Cultural level focused by them, as well as the time and place of the individual's socialisation.

4.3 ***Summarising Evaluation of the Necessity to Include "Professional Cultures" into Cultural Research***

In this chapter the importance of the *Professional Culture* construct for Cultural research has been examined.

In order to do that, initially the meaning of this construct was derived. Also the *significant* shortcomings of existing research were shown.

As demonstrated, these are mainly due to a very restrictive way of defining what is to be considered a *Profession*, which usually leads to the incorporation of only a very limited number of *Professions* into any kind of existing research. This problem was also identified by *Hofstede* (2001, p.414), who states that he knows "of no broad cross-occupational study that allows us to identify dimensions of occupational cultures".

Furthermore, it has been shown why it is necessary to see *Professional Culture* as an integral part of what we called the *complete Individual's Culture*, which is composed of *Professional Culture* and the well known constructs of *Organisational* and *National Culture*.

This understanding of *Culture* as being composed of a number of different influencing factors also clarifies why it is of such importance to include all relevant factors into Cultural research if the intention is to obtain as extensive as possible an understanding of a given *Culture*. The inclusion of *Professional Culture* into the base that forms *Culture*, at least enhances the chances of achieving this.

Hence, in summary, it can be stated that the inclusion of the construct *Professional Culture,* as it is defined in this chapter, into Cultural research, will contribute to a deeper understanding of *Culture* as a whole and therefore close a substantial knowledge gap in Cultural research.
This will, of course, in turn be highly beneficial to a wide variety of leadership and organisational tasks, as will be pointed out further down in this study.

So, in addition to being of significant academic interest, the introduction of *Professional Culture* is also highly valuable from a practical view point.

PART B

THE EMPIRICAL SURVEY AND ITS RESULTS

5 THE DEVELOPMENT OF THE RESEARCH METHODOLOGY OF THE EMPIRICAL SURVEY

In this chapter, the methodology for the empirical phase will be described. Due to the complexity of the research issue, a *multi-method approach* was chosen. This multi-method approach is composed of a *quantitative* and *qualitative* part.

In addition, a *pilot study* was performed, which served the validation of the questionnaire, the checking of the questionnaire's reliability and the generation of a number of demographical questions.

The pilot study including its results is described in section 5.1.1.

The methodology of the main survey is described in section 5.1.2.
The quantitative part is represented by standardised questionnaires as already mentioned. This questionnaire is described in section 5.1.2.1
The qualitative part consists of open interviews that are treated in further detail in section 5.1.2.2.

Further, the nature of the research sample is described in section 5.2, followed by a final evaluation of the empirical methodology employed.

Thus, this chapter will give a *complete overview* of the *methodology* of the empiricals with all its implications for the survey itself and, in addition, an outlook to the expected insights gained in chapter six and seven.

5.1 The Structure of the Empirical Survey

As already mentioned, the empirical study is subdivided into a *pilot study* and the *main study*.

This separation is necessary both for analytical reasons and for aspects concerning the content of the survey.

The analytical reasons come down to the fact that it is not advisable to carry out a major empirical survey without a prior guarantee of the soundness of the chosen empirical tool so as to avoid problems ranging from general understanding of the questionnaire items by the respondents to the validity and reliability of the questionnaire itself (van Teijlingen/Hundley, 2001).

As far as the content of the survey is concerned, a pilot study is advisable, as it has the potential to be an explorative precursor of the main study, thus enhancing the overall results of the survey (van Teijlingen/Hundley, 2001).

Therefore, the structure of the empirical study was arranged so as to initially carry out an extensive pilot study, to be followed by the main survey in order to make the maximum use of the available research sample.

5.1.1 The Pilot Study

In the following the contents and the results of the pilot study will be described.

The structure of the study is based on two approaches, as is that of the main survey. On the one hand a number of focus interviews was carried out, while on the other the standardised questionnaire was tested on a significant number of individuals.

The results of the pilot study can be traced back to this approach.

These results were the validation of the survey questionnaire, with only a few minor changes and the generation of demographical questions for the main survey.

In addition, a high degree of reliability of the questionnaire could be demonstrated, further showing the high overall quality of this instrument.

Thus, the pilot study can be seen as the base for the main survey and its results which are described later in this chapter and in chapter six, seven and eight.

5.1.1.1 The Structure of the Pilot Study

The *structure* of the pilot study is, as already mentioned, *two-fold.*

The initial part was composed of a number of *focus interviews*. These interviews were intended to create a first impression of the research entities and thereby collect preliminary data. A qualitative exploration of preliminary data is one of the fields in which a pilot study is highly useful (van Teijlingen/Hundley, 2001).

The goal of this data collection was to *generate demographical questions* and check for their relevancy.

Therefore, the first goal of the pilot study was to narrow down and focus the research design in an explorative manner to enhance the quality of the survey with regard to its content.
This goal was pursued with 12 focus interviews carried out with engineers, marketing representatives, buyers, sellers and with operatives from airlines.

The second part of the pilot study consisted of the *evaluation* of the quality of the *developed questionnaire*. As will be pointed out in section 5.1.2.1 a previously validated tool was used for this part of the research project. Nevertheless this tool had to undergo significant adaptive changes to render it adequate to the present survey. A thorough evaluation of the questionnaire had to be carried out to make sure the questionnaire itself was clearly understandable on the one hand, and valid and reliable on the other. Such an evaluation was necessary to ensure that the empirical research tool was able to adequately reflect the dimensions developed in the context of the GLOBE-Study. Such an evaluation necessitates the carrying out of an extensive pilot study (Black, 1999, pp.188ff.).

This second part of the pilot study was carried out with *a sample of 184 students* from various disciplines. In detail, the sample consisted of *44 MBA* students, *59 students in industrial engineering*, *50 students in IT engineering* and *31 students in human medicine*.

This *choice* was based on *three considerations*.

The first one was that it is advisable not to include participants of a potential pilot study in the following main survey so as to avoid problems in connection with contamination of the main sample with pre-exposed respondents (van Teijlingen/Hundley, 2001). Therefore, the participants of the pilot study were not to be included in the main survey.

This decision led to *the second consideration*.

The number of possible respondents for a survey – especially in cooperation with the industry – is obviously rather limited. The problem herein is that even for a pilot study to be able to produce meaningful results, it is necessary to incorporate quite a substantial number of participants if one wants to work quantitatively with the collected data. Hence, the decision was taken to choose a completely different population for the pilot study, which led to *the third consideration*.

The population which was to be chosen had to fulfil two criterions. The first one was that it had to show the traits of a *Professional Culture* with a reasonable degree of probability if the questionnaire were to be properly tested.
The very limited research results as regards *Professional Cultures* indicate that, among others, medical doctors and engineers possess a proper *Professional Culture*.
The second criterion was that the population had to be reasonably accessible for such a study.
These two criterions together led to the above described composition of the sample for the pilot study. The MBA students were included because of the fact that these specific students are specialised in accountancy, which gives them a highly mathematical and technical and thus engineering-like approach to the knowledge field of business administration.

The questionnaire used was the questionnaire intended for the main study, except for the fact that some demographical questions which did not make sense in a student environment were replaced with questions relating to important aspects for the pilot study, such as how far the individual student is advanced in his or her studies.

To sum up, it can be said that the design of the pilot study and the way it was carried out permitted a thorough and appropriate test of the employed empirical tool. Furthermore, a number of highly interesting insights were gained in the course of the pilot study, as will be pointed out in the subsequent section.

5.1.1.2 The Results of the Pilot Study

The results of the pilot study are both of a technical nature as far as the fitness for use of the questionnaire is concerned, and of a content oriented nature as far as the generation of demographical questions is concerned.

Reliability was checked using *Cronbach's Alpha* (Cronbach, 1990, pp.190ff.; Black 1999, pp.279ff.). Cronbach`s Alpha represents a measurement to check for internal consistency of a given test, or - as in the present situation - a given dimension. It is a means of comparing the variances of the individual items of a dimension with the variance of the whole dimension.

- $\alpha = \frac{m}{m-1} * \left[1 - \frac{\Sigma s_j^2}{s_x^2} \right]$;m=number of items, s_j^2=variance of the individual items, s_x^2=variance of the dimension

Therefore, the closer Cronbach`s Alpha gets to 1.00, the higher the reliability of the checked test/dimension.

For the purpose of the current study it was necessary to individually check the reliability of each Core Cultural Dimension. As each dimension is composed of a number of different items, the values given in Table 6 represent the above mentioned comparison between the variance of the items of one dimension and that of the whole dimension.

It was noted that this coefficient from the beginning showed a rather remarkably high value. Only slight adjustments had to be made to the *initially developed* questionnaire, the most important one being the addition of one further item for the Human Orientation Dimension.

The results of the last sample of the pilot study, which consisted of future medical doctors using the final questionnaire, showed the following figures for Cronbach's Alpha:

Table 6: Reliability of the Questionnaire according to the Pilot Study

Dimension	**Cronbach's α**
Uncertainty Avoidance	0.7733
Assertiveness	0.7344
Future Orientation	0.6600
Power Distance	0.7327
Collectivism I	0.7166
Collectivism II	0.7087
Performance Orientation	0.6885
Gender Egalitarianism	0.8530
Human Orientation	0.6512

According to these results, also in comparison with those of the original GLOBE questionnaire, the reliability of the final questionnaire could be considered *satisfactory* (Black 1999; House, et al., 2004; Kopalle/Lehman, 1997).

Further analysis was aimed at the possibility of recreating the original GLOBE Dimensions with the collected data.

In order to do that, initially a "*Bivariate Correlations*" analysis was carried out with the most reliable items of the *complete* sample of 184 respondents, as shown above. Only the Human Orientation Dimension had to be tested using the corrected questionnaire with just 31 respondents. Results pointed strongly to the items of each Dimension being *correlated* to each other.

Furthermore, a factor analysis was carried out which strongly indicated that the different items do in fact create the nine Core Cultural Dimensions in the same way as in the GLOBE-Study.

Therefore, a further *"Linear Regression"* analysis was carried out with these items, to check that they actually create the respective dimensions.

This course of action was chosen, as results of a factor analysis are never unambiguous, which is a consequence of the non-uniqueness of the factor loadings (Mardia, et al., 2003). This in turn implies a certain arbitrariness in the results of any factor analysis. Hence, a statistically more meaningful measurement technique was chosen: the Linear Regression Analysis.

The Linear Regression Analysis has the advantage of being able to attribute a statistical significance level to a linear correlation. As a linear correlation between the items of each Core Cultural Dimension was to be expected, this measurement technique provided the statistically strongest statement about the items of one dimension actually creating that dimension.

The values given in Table 7 were calculated in the following way:

For each Core Cultural Dimension a Linear Regression Analysis was carried out with one of the items of that dimension being the independent variable, whereas the others of that dimension were the dependent ones. This procedure was repeated until each item of each dimension had been checked as an independent variable. The table below indicates the weakest value for all possible combinations of the items of one dimension as an independent and dependent variable.

Table 7: The Results of the Linear Regression Analysis

	Significance
Uncertainty Avoidance	0,000
Assertiveness	0,000
Future Orientation	0,028
Power Distance	0,035
Collectivism I	0,135
Collectivism II	0,000
Performance Orientation	0,000
Gender Egalitarianism	0,000
Human Orientation (1,3) N=31	0,050
Human Orientation (2,3) N=31	0,066
Human Orientation (1,2) N=31	0,344

It can be seen that for most items of the respective Dimensions a strong correlation exists, clearly suggesting that they in fact re-create the various Core Cultural Dimensions of the GLOBE-Study. The items that did not match the .000 significance criterion will be discussed later in this section. It can be retained, however, that these go back to the specific traits of the used sample.

The different results depicted in this section also show that from a purely technical point of view a number of items did not necessarily have to be included in the main questionnaire (e.g. Human Orientation 2).

From a content-based point of view, however retaining some of these questions was advisable as they focus on specific traits of the respective Dimensions. As the total length of the questionnaire still remained within the reasonable frame of 30 questions, it was therefore advisable to use the slightly longer questionnaire in order to gather the maximum amount of data possible (Kopalle/Lehman, 1997).

In considering those items that led to inconclusive results within the analysis undertaken above, a closer look has to be taken at the items themselves in connection with the used sample.

It has to be kept in mind that the sample is composed of students. Although students do share a number of traits with their counterparts from the Professional world they will be joining after their studies, certain differences apparently exist. These differences surfaced in the responses to the items of the *Collectivism I, the Human Orientation* and to a certain degree in the *Power Distance* and the *Future Orientation Dimension*.

The ambiguities within the *Collectivism I* Dimension can be traced back to the fact that one of the items retained for the analysis of the pilot study asks for the degree of teamwork within the future Profession. The responses to these questions are thus, for most students, based solely on apparently varying assumptions of a future situation.

Regarding the *Human Orientation* Dimension, it has to be pointed out that from a technical point of view the second item should have been excluded from the main survey. It was nevertheless retained, as its focus is somewhat different from that of the other two items, thus providing some highly interesting insights from a content based point of view. This different focus is also at the source of the unsatisfactory results for the second item. The second question deals with the tolerance of mistakes whereas the others deal with human values such as warmth and generosity. Obviously, students do not see the link between Human Oriented behaviour and a tolerance for mistakes, a link seen *clearly* by the respondents of the main sample, as could be confirmed in various interviews and by the results of the standardised questionnaire.

The results of the eighth Dimension (*Power Distance*) point to a similar direction, as its content created some confusion, especially in the non-medical sample. This is due to the fact that at the present point (about 2-3 years time of studying vs. about 5 for the medical doctors) it is not yet totally clear to the students whether they consider themselves as belonging to the future general management or to be part of a special Professional group. Therefore results of this Dimension vary.

Furthermore, it has to be noted that the *Power Distance* Dimension deals with an aspect of the students' life that they will not experience as such until they are actually in the job. The only power distance a student usually feels is towards the teaching body – a relation which can hardly be compared to that encountered in Professional life after finishing university.

Finally, one item of the ninth Dimension (*Future Orientation*) deals with meetings. As most students will not have a clear grasp of how meetings are generally organised in their future Profession, it seems reasonable to attribute the non-conclusive results of this Dimension to the lack of experience of the respondents therein.

Therefore, it can be said that the results of the pilot study were highly important and promising for the main study both from a quantitative and a qualitative point of view indicating a *high validity and reliability of the employed research tool*.

Reliability was checked - as indicated above - with Cronbach's Alpha.

The necessary validity was achieved with the help of the above mentioned focus interviews and the described Linear Regression Analysis.

In particular the Linear Regression Analysis was of a key importance for the validation of the questionnaire. As it could be shown, the Core Cultural Dimensions of the original GLOBE-Study could be recreated with the data gathered in the course of the Pilot Study. Therefore, the psychometric properties of that original questionnaire could be conserved with the newly developed questionnaire. As the main area of interest of the quantitative questionnaire was these very Core Cultural Dimensions and their valuation by the respondents, the highly satisfying results of the Linear Regression Analysis as depicted above clearly demonstrate the validity of the questionnaire.

This result is supported by that of the focus interviews, as respondents clearly confirmed the interconnection between the different items of each Core Cultural Dimension.

The demographical questions (see appendix 2 for details) were developed on the basis of theoretical considerations and the above mentioned twelve focus interviews.

Theoretical considerations included e.g. the necessity to know which respondents belong to which organisations (organisational culture), their nationalities (national culture), their gender (possible gender based bias), etc. The relevance of these questions was then cross-checked in the course of the mentioned focus interviews.

Hence, to sum up, it can be retained at this point that in connection with the results depicted in the following chapters, **Hypothesis 2** can thus be considered to be confirmed (for details see section 4.2.2) which supports the course of action undertaken for the development of the quantitative questionnaire.

5.1.1.3 Summarising Evaluation of the Pilot Study

The pilot study, as described in this section, was a highly helpful tool in the development process of the questionnaire used for the main survey of this research project.

The three main goals:

- the generation of demographical questions
- the verification of the questionnaire's validity
- the verification of the questionnaire's reliability

were achieved.

Especially reliability and validity as the two most important factors indicating the overall quality of a questionnaire were assured with the help of a variety of different techniques appropriate to the demands of this specific questionnaire (The American Educational Research Association, et al., 1999, pp.9ff.).

Therefore, it can be said that the pilot study was, together with the underlying theoretical work, able to provide the main study with a highly valuable tool to achieve the goals set out with the empirical study presented.

In particular, the results of the pilot study strongly point to the possibility already mentioned in the previews chapter, that it is possible to use a tool developed in the context of *Organisational Culture* research for research into *Professional Cultures*. Obviously, significant adaptations had to be carried out both on the level of the formulation of the items and on the level of the overall design of the questionnaire, but the basic psychometric properties of the questionnaire developed on the basis of the questionnaire of the GLOBE-Study remained unchanged in this new environment.

With regard to the following main study this finding is probably the most important one, as the successful recreation of the GLOBE Dimensions is a necessary prerequisite for the subsequent development of appropriate leadership and organisational structures.

Therefore, it can be stated at this point that *the pilot study fully achieved its goals* within the development process of the questionnaire for the main study.

It confirmed both the theoretical assumptions concerning the transferability of a tool originating in the context of *Organisational Culture* research and the quality of the newly developed questionnaire with reference to the tool used for the purpose of the GLOBE-Study.

Hence, in summary, the fitness for use of the questionnaire for the main study could be reached and subsequently demonstrated with the pilot study presented here.

5.1.2 The Main Study

The structural approach of the empiricals of the main study is, as already mentioned, twofold.

The *standardised questionnaire* which represents the first part is aimed at creating an objective overview of the number and traits of the *Professional Cultures* present in the companies researched. Their role is therefore to group the different *Professional Cultures* into *Clusters*. Hence, the standardised questionnaire serves as base for the following open interviews.

The *open interviews* represent the second part of this first empirical phase. Their objective is to deepen the understanding of the *Cultural Clusters* identified with the help of the standardised questionnaires. The main objective is to get a better understanding of the Intra- and Inter-Professional processes that take place within the identified *Cultural Clusters*.

Hence, the structure of the empiricals is aimed at combining the advantages of both, quantitative and qualitative research, while avoiding the shortcomings each of these has. Consequently, this course of action leads to a significantly higher overall quality of the insights and results gained with the empirical work.

5.1.2.1 Illustration of the Standardised Questionnaire

In this section, a detailed description of the standardised questionnaire used for the empirical part of the exploratory study will be given, starting with the underlying logic of the development of the questionnaire.

Two guiding principles governed the development of this questionnaire.

The first one was to correctly reflect the organisational Dimensions isolated with the help of the GLOBE-Study. As already shown in the previous chapter, a tool developed for the use within an environment of *Organisational Culture* can also be successfully implemented to answer the same questions within an environment of *Professional Culture*. Therefore, the adaptation and subsequent use of the methodology of the GLOBE-Study (Hanges/Dickson, 2004, pp.122ff.) was the most appropriate course of action for the research undertaken into *Professional Culture*.

However, it was not sufficient to merely adjust the original questionnaire to the new task, but also it was necessary to shorten it. Originally it comprises 39 items, which was not acceptable for the companies participating in the survey, due to the excessive amount of time answering such a high number of questions would have taken. Consequently, in the final version of the questionnaire the number of questions treating the Core Cultural Dimensions was reduced to 30 items.

The validity of this course of action was assured with the help of the above described pilot study. Therefore, the qualities of the GLOBE Study (House, et al., 2004), namely the identification of the nine Core Cultural Dimensions, could be maintained despite the necessary adaptation to the demands of the current survey.

The second guiding principle was to render the collected data well interpretable. Therefore, a number of demographical questions had to be developed, which were to allow for a meaningful interpretation of these data. Here again, the problem arose that the final questionnaire was not to be excessively long. So 9 of the most important demographical items were retained.

Thus, it can be stated that considerable work was carried out on the original GLOBE questionnaire to render it compatible with the demands of the current survey without, however, altering its core qualities.

This work led to a questionnaire which combined reasonable length with a maximum amount and quality of data collected.
The questionnaire itself is subdivided into two parts. This division is, on the one hand, due to the differing contents of the demographical and the Culture related questions. On the other it is due to an intended easier handling and improved visual impression of the questionnaire.

The demographical items which are with a single exception to be found in the second part, are composed of one open question asking for the individual's Profession and eight multiple choice questions. The decision to identify the individual's Profession with the help of an open question was taken because of the intention to create Professional groups as late as possible in the process of data analysis.

The first part, on the other hand, uses a seven point *Likert* (1932) scale. On this scale the respondents were to indicate how they considered the Cultural characteristics mentioned *should be*. In accordance with the GLOBE-Study (House, et al., 2004) it was thus possible to measure Cultural *values* as they are internalised by the respondents. These values were then used to extract the underlying Core Cultural Dimensions of *Professional Culture* of each respondent and thus isolate the different *Professional Cultures*.

Another consideration regarding the questionnaire was the intention to render its handling as easy as possible for the respondents. Therefore, an online solution was favoured which permitted the questionnaire to be filled in online, or printed out, filled in offline and returned by fax or mail. The latter paper-based solution was intended for those respondents who either did not wish to work on the questionnaires online or who did not have access to the internet at their work places.

Especially for the second group, the paper-based version was highly important as it was the only possible way to reach the substantial number of shop-floor workers present in the sample. The distribution and subsequent collection of the questionnaires for this group was always carried out by a person who was trusted by the members of the group, so as to respect guaranteed privacy (e.g. member of work council etc.).

Furthermore, the *questionnaire* was available in the *five languages* most likely to be encountered within the research sample. The different versions of the questionnaire were easily accessible via the use of self-explanatory symbols (national flags) on the start page of the questionnaire.

The need for this approach has been raised on various occasions when carrying out research in different linguistic backgrounds. This is due to the fact that respondents tend to have a systematic bias in their responses if they have to respond to a questionnaire which is not in their native language (The American Educational Research Association, et al. 1999, pp.91ff.).

The translations of the questionnaire were carried out with the help of two groups of people who are fluent in both the language of the original version of the questionnaire (English), and native speakers of the language into which the questionnaire was to be translated.

The first group was responsible of the translation from English to the respective languages (French, German, Italian, Spanish). The second group independently carried out a back translation into English to assure that within the translation process no bias in the meaning of the questions occurred.

To avoid such an unwanted bias in the meaning of questionnaire items due to their translation, an identical course of action was followed within the GLOBE-Study, strongly supporting the soundness of this approach (Hanges/Dickson, 2004, p.126; Brislin, 1976).

To sum up, it can be said that the questionnaire used can be seen as the most appropriate approach for the measurement of the different *Professional Cultures* present within the surveyed companies. This assessment is due to its proven high reliability and validity in *Organisational Culture* research in combination with the demonstrated possibility to use *Organisational Culture* research tools for the purpose of *Professional Culture* research in accordance with the undertaken extensive pilot study.

Furthermore the high flexibility in the way the questionnaire could be filled out in combination with the availability of the questionnaire in five different languages assured not only a high return rate of the questionnaire, but also a high accuracy as to the agreement between the actual attitudes of the respondents and the collected responses.

5.1.2.2 Illustration of the Open Interviews

The goal of the open interviews was to create a *deeper understanding* of the different aspects identified with the help *of the standardised questionnaire*.

The main interest in this context was focused on the identification of possible problems between the different *Professions* and to sharpen the characteristic traits of the different *Professional Cultures* identified. Also, possible consequences as to the interaction between these Cultures and organisational and leadership structures were treated in support of the development of appropriate leadership and organisational structures carried out in chapter six and seven.

Due to these specific demands, a course of action was chosen which favoured an interview only slightly structured by a number of guidelines, leading to an informal atmosphere.

This informal atmosphere then permitted not only a smooth adaptation to the evaluation of the interview, but allowed the interviewees to open up much more willingly than in a more formal setting. This in turn led to the intended better understanding of the underlying perceptions, wishes and attitudes of the interviewees.

The course of action undertaken was as follows:

Initially the content of each Core Cultural Dimension was explained to the interviewees. Subsequently, the interviewees were asked to locate their professional peer group on each dimension including their reason for this placing. Finally, the interpretations based on the results of the quantitative part of the study were discussed with the interviewees to get as complete as possible a picture of the various Core Cultural Dimensions for the different *Professional Cultures*.

Audio recording of the interviews was unfortunately not possible. Although this is in contradiction to the recommendations given for qualitative research (Lamnek 1995b, pp. 97ff.) a different course of action was impossible. This was due to the fact that for the interviewees a precondition for taking part in the interview process was that the interviews would not be taped. Therefore, notes were taken during the interview, followed by the compiling of an interview protocol immediately after the respective interviews.

A total number of 84 interviews with employees from 6 companies representing each *Professional Culture* isolated within the quantitative survey was carried out. This number was sufficient enough to achieve the intended goal with the interviews and gave a variety of highly interesting insights, as shown in chapter six and seven.

To sum up, it can be said that the employed interview process was the most appropriate way to complete the results given by the standardised questionnaire. In particular, through its highly informal design it made sure that the interviewees were willing to openly disclose their views, feelings and wishes, which in turn permitted a truly deeper understanding of the underlying processes within the different Professional groups.

5.1.2.3 Summarising Evaluation of the Main Study

The present survey was carried out using a combination of empirical methods. These different approaches were highly complementary for the intended measurement of Cultural characteristics of different Professions.

The standardised questionnaire served to measure quickly and objectively the different *Professional Cultures* present within the sample. Especially due to the size of the sample – 507 persons – this task could only be carried out with a standardised quantitative tool. A meaningful interpretation of the data gathered was, however, only possible with the help of a qualitative tool (Lamnek, 1995b, pp.51ff.).

The *combination of methods* pursued in this survey, known as *triangulation*, was necessary owing to the complexity and novelty of the researched entities. This assessment follows the assumption that through a combination of qualitative and quantitative research methods it is possible to avoid, or at least control, the weaknesses inherent to each of these techniques (Lamnek, 1995a, pp.250f.). Furthermore it is expected that a significantly deeper understanding of the researched entity is possible (Lamnek, 1995a, p.257).

Therefore, despite the significantly increased efforts required by the inclusion of interviews into the research process, this approach was nevertheless followed as it was the only one guaranteeing a satisfactory level of quality for the data gathered.

5.1.3 Closing Remarks concerning the Empirical Methodology Used

To finish this illustration of the development process and the subsequent use of the methodology of this research project, some central points have to be kept in mind.

To begin with, the specifically high demands of this research project led to the necessity of choosing a rather complex course of action both for the development process of the methodology and for its subsequent implementation.

Initially, it was necessary to develop an empirical research tool which is able to measure the phenomenon researched in this work. Owing to the fact that the special focus of this work required a specialised research tool, it was necessary to develop a new tool which could match these specific demands. Consequently the development itself had to encompass significant theoretical work as well as extensive practical research to reach an adequate research tool for the presented survey.

Subsequently, it was imperative to test this newly developed research device in order to make sure it is valid and reliable. This step added significantly more complexity to the development process, but was nevertheless necessary to check for the quality of the newly developed research device.

These considerations led to the above described pilot study.

Furthermore, it was necessary to split the main study into a qualitative and a quantitative part. This necessity was once more a direct consequence of the complexity and novelty of the research topic.

As was pointed out, only a mixture between a quantitative and a qualitative approach, known as triangulation, provides the necessary insights which are required to adequately understand a research topic under the given conditions.

Therefore, it was necessary to choose the rather complicated method of first administering a standardised questionnaire followed by a subsequent phase of qualitative interviews, in order to be able to reach a sufficiently deep understanding of the research questions raised in this work.

As will be shown in chapter six and seven, however, this complex approach did in fact produce highly satisfying results. In particular, a limitation to only quantitative or qualitative research would not have been able to provide comparable results, as each kind of research provided different and highly complementary insights into the research topic, creating a deep understanding of the phenomenon of *Professional Culture*.

Therefore, to sum up, it can be stated that the complexity of the development process of the research methodology, as well as that of its subsequent use, are a direct reflection of the complexity of the research topic itself.

5.2 ***The Implementation of the Empirical Tools Developed***

In this section, the way in which the above described research tools were used will be described.

In order to do that, initially the course of action for choosing the companies sampled will be described. For this reason, the governing principles leading to the inclusion or rejection of a specific company will be illustrated.

Subsequently, the way in which the sampled Professional groups were selected will be described. Here again, the underlying logic for the specific composition of the sample of Professional groups will be given.

Hence, in summary, the present chapter illustrates the profile of the research sample and the reason that led to this specific profile.

5.2.1 The Course of Action to Choose the Sample of Companies Researched

The course of action for the *choice of the sampled companies* followed a number of different aspects.

The **main aspect** was to include the *complete* value creation chain of the aviation industry. This led to the necessity of *sampling suppliers, producers* and customers represented by the *airlines*. This aspect alone created considerable complexity as far as the organisation of the sampling process was concerned.
Due to a total time of about one year spent on the recruitment of the different companies, however, it was possible to gather five suppliers, nine producers and five airlines. Therefore, the main goal was well achieved as far as the composition of the sample is concerned.

The companies participating in the research project were:

- BAE
- Airbus France
- Airbus UK
- EasyJet
- Virgin
- America West Airlines*[7]
- American Airlines*
- Southwest Airlines*
- Goodrich Hella*
- BGT
- Le Bozec
- EADS Holding*
- Rolls Royce
- Rolls Royce Germany
- Hamilton Sundstrand
- Eurocopter France
- Eurocopter Germany
- Europrop International (EPI)*
- Smith Industry

[7] * = Company participated also in the qualitative part of the research project.

A second goal was to include not only major companies into the sample, but also a number of smaller ones, employing less than 1000 people. Out of the 19 companies/independent subsidiaries sampled, three have less than 1000 employees. Therefore, also the second objective was reached.

A third aspect concerned the composition of the pool of airlines sampled. This pool was to consist of *network carriers and low cost carriers*. This is due to the significant differences between the business models of network carriers on the one hand and low cost carriers on the other. Charter airlines could be discarded, as their business model is increasingly leaning towards the low cost airline's business model.

Out of the five airlines sampled, two were network carriers and three were low cost carriers. Therefore, the third objective could also be attained with the sampled companies.

The fourth objective concerned the national origins of the people sampled. To avoid a national bias in the sample it was necessary to gather companies originating from different national backgrounds. Therefore, considerable attention was paid to the goal, which was to have a nationally heterogeneous sample. An objective also achieved with the representation of ten nationalities from Europe, North and Central America.

To sum up, it can be said that the sample used shows the necessary traits to successfully pursue the above described survey. *All objectives identified* as relevant for the selection of the research sample *were reached.* Furthermore, the sample not only satisfies the necessary qualitative demands, but it is also highly satisfying in quantitative terms as will be shown in the following section.

5.2.2 The Course of Action to Choose the Sample of the Researched Professionals

The sample of the researched Professionals followed a fairly straightforward logic described further down.

The reason for doing this was to avoid unwanted biases, namely those of *Organisational* and *National Cultures*. Basically there are two possible approaches to avoid these biases.

The first one would be to thoroughly sample only one single company from one country. Assuming that the characteristics of the relevant *National Culture* were known and assuming further that the characteristics of the relevant *Organisational Culture* were also known, it would most likely be possible to isolate a number of different *Professional Cultures* present within that company. Therefore, this seems to be a feasible approach.

The main problem with this research design is, however, its serious lack of generalisability, not to mention the practical difficulty in finding a sufficiently large company that would participate in such a research design. Assuming again that a number of different *Professional Cultures* were found pursuing this approach, a significant danger would exist that these "Cultures" were only an artefact due to some peculiarity of the surveyed company, leading to serious reservations as to the possibility of transferring the results gained to other companies.

Therefore the opposite approach was chosen. The goal for the *composition of the pool of people* surveyed was to achieve *a maximum degree of heterogeneity*. This aspect was already raised in the context of the choice of the companies surveyed. The logic of this approach is to *neutralise* the different uncontrollable and for a large part unknown biases by using a sample which is as diverse as possible.

By pursuing this approach, the Clusters isolated within the survey, being empirically based on different Professional backgrounds, would be exposed to the least possible degree to unwanted systematic biasing influences.

To sum up, it can be said that the composition of the sample of the researched Professionals allows for a largely unbiased and therefore *highly suitable* research sample for the purpose of the present study. The logic followed may seem slightly unusual at first glance, but it is the only feasible way to gather data that allows the insights gained with the present survey to reach beyond the boundaries of a single company.

5.2.3 The Identification of the Different Clusters

The first question to be answered in the context of the identification of the different Professional Clusters concerned the basic way in which these were to be isolated, as two possible approaches existed to achieve this goal.

The first one would have been to theoretically identify the Professional groups that would most likely be formed by the Professions present within the sample. Subsequently it would have been possible to check for the differences that exist between these different groups and to create with these data the different *Professional Culture* Clusters. This course of action would have had the significant advantage of being relatively easy to handle and would have produced results quite quickly.

The disadvantage would have been that this could not have exactly matched the demands of the study. This is due to the fact that by limiting the number of Professional groups in the questionnaire, already a pre-selection is being carried out before knowing any results of the actual study. This course of action can hardly be regarded as compatible with the explorative nature of the study.

Therefore, the first decision as to the identification of the different Clusters had already to be taken at the level of the development of the questionnaire. At this stage it was *opted against a pre-classification of different Professions* and in favour of every respondent filling in an open question asking him or her what his or her Profession is.

Although this way of carrying out the survey significantly increased the complexity of its analysis, it had *a number of significant advantages*.

First of all the Clusters were constructed independently from the underlying *Professions* and based solely on the responses to the answers of the Core Cultural Items of the questionnaire. This has the significant advantage of grouping the different respondents together as a consequence of their *relative position* towards each other on the *nine Core Cultural Dimensions only*.

Furthermore, it was possible to gain a broader picture of the different Professions present within the sample. Only after having analysed the sample were these Professions grouped into Clusters. The main advantage of this course of action was the total openness of the research process to completely unexpected combinations of Professions in the different Clusters. This thus prevented the results of the study from being biased by misleading assumptions about the resemblance of different Professions.

Technically, this was achieved with a *Hierarchical cluster analysis* using "*between-groups linkage*" and by calculating the "*squared Euclidian Distance*" (Everitt, 1993; Bühl/Zöfel, 2002; Fahrmeier 1996; Bacher, 2002).

A *Hierarchical cluster analysis* was chosen due to the fact that it represents the most appropriate method available in the area of cluster analysis for the present purpose.

Other possible approaches would have been a *"Two-Step"* or a *"K-Means"* cluster analysis. Both approaches were discarded on theoretical grounds.

For a *K-Means* cluster analysis it is necessary to pre-specify the number of final clusters. Obviously this information was not available before running the cluster analysis, which leads to the K-Means cluster analysis not being employable in the current environment.

Two-Step cluster analysis, on the other hand, is used if computer calculation power is critical at the expense of analytical accuracy. As for the present study accuracy was more important than computational restraints, a Two-Step cluster analysis was also discarded.

The choice of the *squared Euclidian Distance* is based on the following logic:

The *Euclidian Distance,* for instance, is the shortest spatial distance between two points in a two or three dimensional space: distance(x,y)=$[\sum_i(x_i-y_i)^2]^{1/2}$.
This distance can also be calculated in the n-dimensional space and is therefore, also appropriate for the present case with nine dimensions. Using the *squared Euclidian Distance* has the advantage of taking larger distances more into account than smaller ones, which in turn provides clearer separations between the different clusters.

Other possible approaches would have been the *City Block* (Manhattan), the *Chebychev* or the *Minkowski Distance*.

The *Chebychev Distance* takes the distance between the two furthest distanced elements of two cases as the distance between these cases: distance(x,y)=Maximum $|x_i-y_i|$.
This has the advantage of being relatively economical as far as computational demands are concerned. The problem is, however, that this technique implies a significant loss in accuracy as "outliers" become unproportionally important for the actual clustering.

The *Manhattan Distance* ("Block distance") is comparable to the Euclidian Distance with the exception that it does not calculate the direct distance between two points, but the distance as it is encountered in American city blocks: distance(x,y)=$\sum_i |x_i-y_i|$.
The disadvantage this technique exhibits is among others that it does not emphasise larger distances at the expense of smaller ones, therefore, leading to a less clear cluster solution in comparison to the *squared Euclidian Distance*. As the main advantage of the *Manhattan Distance* is simply that it saves computation time, it could be discarded at the benefit of the *squared Euclidian Distance*.

The *Minkowski Distance* finally, is the general form of the above given distances (for Chebichev set m=∞): distance(x,y)=$[\sum_i(x_i-y_i)^m]^{1/m}$. Therefore, the Minkowski Distance was used in the form of the Euclidian Distance.

By comparing the different possible approaches it becomes clear that the *squared Euclidian Distance* represents the most exact and appropriate measurement technique for the current environment, as it calculates the actual distances in an n-dimensional space. Furthermore, it incorporates a slightly increased weighting of greater distances which provides clearer results in the clustering process, without, however, overemphasising them as e.g. would be the case with the *Chebychev Distance*. Finally, no standardisation was necessary, as the scales of the standardised questionnaire are the same for every dimension.

The logic that led to the selection of the *"between-groups linkage"* was the following:

The *"between-groups linkage"* method calculates the average between all possible pairs of items belonging to two clusters to determine the distance between these two clusters. Therefore, it takes into consideration all inter-cluster pairs, thus providing a very high degree of accuracy. The peer technique to *between-groups linkage* is *within-groups linkage*. In the current context, *within-groups linkage* has the disadvantage of producing clusters that are too tight and was therefore discarded.

Alternative techniques would have been *"nearest"* and *"furthest neighbour"*, *"centroid"* and *"median clustering"* and *"Ward's method"*.

Nearest and *furthest neighbour* have the disadvantage that either the closest (nearest neighbour) or the furthest elements (furthest neighbour) exclusively determine the distance between two clusters. This obviously implies a significant loss in accuracy for the final solution as compared to *between-groups linkage*.

Centroid and *median clustering* both determine the distance between two clusters as the (Euclidian) distance between the respective cluster means. Whereas centroid clustering takes into consideration cluster size when e.g. two clusters are merged, median clustering does not take into account size differences when joining clusters. The loss of accuracy when working with averages instead of raw data led to these techniques being discarded as well.

Finally, *Ward's method* calculates the total sum of squared deviations for a given cluster and tries to minimise the increase of this value when adding elements. When two clusters have to be joined, those that produce the smallest increase in the total sum of squared deviations are joined. It was checked for the appropriateness of this approach, but unfortunately it produced less satisfying results than the finally retained *between-groups linkage* method.

By comparing the different possible approaches it now becomes clear that the most appropriate one for the current environment is the above described *"between-groups linkage"* method, as it is theoretically well adapted to the demands of the current study and produced the best overall results when actually employed.

The cluster analysis led to the *identification of 12 Clusters*. The number of Clusters was determined based on *two different aspects*.

The *first one* was the above described *statistical cluster analysis*, which provides any number of Clusters between 507 (the number of responses) and one single Cluster where all cases are united in this one Clusters. As both of these results obviously do not make sense, a meaningful number of Clusters had to be identified.

This goal was pursued with *a content based approach which represents the second aspect*. This approach was favoured, as no clearly significant point regarding the distance coefficients could be observed within the cluster analysis. Furthermore, considering the nature of the current study, it was more advisable to focus on the actual content of a key question of the questionnaire as pointed out below than to base the clustering results on a mere technical figure.

Hence, the occupations of the respective respondents were used as reference point (see also Appendix 2 for details). A level of aggregation (i.e. number of Clusters) was chosen on which the maximum number of similar occupations could be united in the minimum number of Clusters. This course of action led to the above mentioned 12 Clusters; any further aggregation would have led to a significant loss of accuracy in the results, whereas any lesser aggregation would have counteracted the goal of this research to identify Professional groups which form *Cultures* instead of just defining the characteristics of certain occupations.

The different characteristics of these Clusters will be described in the following chapter. It can, however, be taken that at this point the clear extraction of 12 Clusters represents a strong support for the thesis of the existence of the construct of *Professional Cultures*.

5.3 ***Final Assessment of the Development and Management of the Exploratory Study***

The development and the management of the exploratory study followed the logic of providing the data necessary for a successful accomplishment of this study.

This goal encompassed *two main objectives*.

The *first objective* was the development of a tool which possesses the necessary qualities to provide useful data of a sufficiently high quality for the subsequent analysis. This goal was pursued and achieved with the efforts described concerning the development of the questionnaire on the one hand and the design of the study on the other. Especially the design of the study, being divided into a quantitative and a qualitative part, played a major role in the achievement of this goal.

The *second objective* consisted of the kind and amount of data fulfilling certain requirements. The amount of data required is a direct consequence of the quantitative analysis undertaken, which requires a certain minimum amount of respondents. This goal could clearly be achieved, although the difficulties of reaching a sufficiently large sample in the industry should not be underestimated. Even more complicated was the kind of data necessary for the study. The data had to fulfil the various demands described in this chapter, ranging from the avoidance of any bias to the adequate representation of various countries, companies and possibly all Professions present in this industry.

Notwithstanding these challenges, *both objectives were achieved.*

The questionnaire used in the survey fulfilled the necessary criterions mentioned due to the highly complex nature of the present study. Furthermore, as well the amount of data collected was highly satisfying with 507 respondents. Finally, the composition of the sample and therefore the kind of data collected also fulfilled all requirements with the representation of the *whole value creation chain* of the aviation industry and that of a *large variety* of different Professions.

Hence, it can be said in summary, that the presented exploratory study is able to generate insights into the area of *Professional Culture* research that are of a remarkable high quality and which open the door to a new and significantly deeper understanding of this highly important field of research.

6 ILLUSTRATION OF THE RESULTS OF THE EMPIRICAL SURVEY I

In this chapter the results of the empirical survey will be described. These results are arranged around the Clusters that could be isolated within this part of the research project. After the detailed description of the characteristics of the different *Professional Cultures* an appropriate leadership style and organisation design will be developed for each *Professional Culture* identified.

As mentioned, it was possible to *isolate 12 Clusters*. These Clusters were determined with the help of the above described Cluster analysis.

As pointed out in chapter 5.2.2, a maximum degree of heterogeneity of the sample was aimed for so as to neutralise the influences which different systematic biases may exercise. Three possible influencing factors were accounted for with the standardised questionnaire: national origin (determining National Culture), organisational origin (determining Organisational Culture) and gender. National and organisational heterogeneity were achieved for all Professional Cultures isolated. Gender related heterogeneity is scrutinised within the analysis of the different Professional Cultures where appropriate.

Hence the intended composition of the research sample was achieved, leading to the results of the current study being rather well protected against a systematic influence of the three factors mentioned above.

The Clusters themselves unite 340 responses, which represents nearly 70% of all responses present in the sample.

Unfortunately, due to the nature of the survey, no statement as to the return rate of the questionnaire can be given.

As already mentioned the questionnaires were sent out in the form of an e-mail containing a link to the website of the survey. Technically, it was not possible to track the responses back to every individual respondent as this would have required a direct contact to each possible respondent with an individual key.

This course of action was *not acceptable* for the participating companies, *for two reasons*.

One reason was the necessary choice with which the respective contact persons within the companies would have been confronted, to either publish internal e-mail distribution channels or to face an incredible amount of work to carry out the distribution of the questionnaires themselves. Neither of these choices was accepted.

Beyond that aspect though, *a second highly important reason* led to the rejection of this course of action altogether. That aspect concerned the *possible violation of privacy* the distribution of individual access keys would have entailed for the surveyed employees. This clear possibility would have dramatically reduced the participation rate and most likely as well the quality of the collected data.

Therefore, it was opted against this course of action leading to the unavailability of any firm figures concerning the return rate. Based on existing literature, however, it can be estimated that with a distribution system such as that used for the current study under consideration of the specific traits of the present situation, a return rate of about 15% to 30% can be expected, leading to an overall size of the sample of 1700 to 3400 persons (e.g. Meffert, 2000; Scharf/Schubert, 2001; Preißner/Engel, 1997; Ott, 1972).

As far as the *technical quality* of the collected data is concerned it can be stated that it is *highly satisfying*. In accordance with the course of action of the pilot study, *reliability* of the main study was verified with the calculation of *Cronbach's Alpha* for every Core Cultural Dimension. The exact results are given in the table below.

Table 8: Reliability of the Main Survey

Core Cultural Dimension	Cronbach's Alpha
Uncertainty Avoidance	0.7213
Assertiveness	0.8272
Future Orientation	0.7879
Power Distance	0.6732
Collectivism I	0.6639
Performance Orientation	0.7702
Gender Egalitarianism	0.6886
Human Orientation	0.7542
Collectivism II	0.7321

The results are presented by joining the quantitative and the qualitative part of the research project. This part of the analysis serves the identification of the different *Professional Cultures* represented by the various Clusters isolated.

The actual interpretation of the differences between the various Clusters was carried out with the help of the so-called *Test Banding* (Saltstone/Skinner/Tremblay, 2001; Murphy, 1994; Cascio et al, 1991).

Initially, this technique goes back, among others, to personnel selection and was used to *determine a range of scores that can not be distinguished from the top score present in the given sample*.

In accordance with the course of action pursued in the GLOBE-Study, it is used in this work to *determine* a point at which the difference between *two test scores is actually statistically meaningfully different* (Hanges/Dickson/Sipe, 2004). The underlying assumption for this course of action is that an imperfect relationship exists between the measured scale score for a Cultural Cluster and the actual score if all members of that Cluster had filled in the questionnaire.

The *main source* for this imperfect relationship is *random error*. Therefore, the idea of Test Banding is to determine values beginning at which the difference between two Cultures on a given Cultural scale are to be considered *statistically significantly* different.

These values are determined with the use of a confidence level the researcher wants to achieve and the *standard error of measurement (SED).*

According to *Gulliksen* (1987) the SED can be calculated with the following formula:

- $SED = S_x\sqrt{2}\sqrt{(1-r_{xx'})}$

Here S_x is the standard deviation of all the Cultures on a given core Cultural scale and $r_{xx'}$ represents the reliability that scale expressed by the aforementioned Cronbach's Alpha.

In order to determine the actual *band width,* the SED has to be multiplied by a factor C depending on the confidence level aimed for. Here it is opted for a 95% confidence leading to a factor of C = 1.96.

Hence the band width is calculated in the present work with the formula:

- $\boxed{1.96 \times S_x\sqrt{2}\sqrt{(1-r_{xx'})}}$

This led to the identification of either two or three distinguishable Cultural groups for each Core Cultural Dimension. The cut-off scores of these groups are given in the table below. The top score given for each Core Cultural Dimension is the highest score observed in the present survey for that Culture; e.g. the score of 4.76 for the Power Distance Dimension is the score of the Project Leaders' Culture for that Dimension and represents the highest score for that Dimension out of all Cultures present in the survey.

Table 9: The Band Width Values of the different Core Cultural Dimensions

Dimension	Band Width Values**		
UA	$6.45 \geq 1^{st}$ group ≥ 4.77	$4.77 > 2^{nd}$ group ≥ 3.11	$3.11 > 3^{rd}$ group ≥ 1.43
ASS	$5.87 \geq 1^{st}$ group ≥ 4.46	$4.46 > 2^{nd}$ group ≥ 3.05	$3.05 > 3^{rd}$ group ≥ 1.64
FO	$6.23 \geq 1^{st}$ group ≥ 4.67	$4.67 > 2^{nd}$ group ≥ 3.10	$3.10 > 3^{rd}$ group ≥ 1.53
PD	$4.67 \geq 1^{st}$ group ≥ 3.40	$3.40 > 2^{nd}$ group ≥ 2.14	$2.14 > 3^{rd}$ group ≥ 0.87
CI*	$6.24 \geq 1^{st}$ group ≥ 5.16	$5.16 > 2^{nd}$ group ≥ 4.08	$4.08 > 3^{rd}$ group ≥ 3.00
PO	$6.75 \geq 1^{st}$ group ≥ 5.50	$5.50 > 2^{nd}$ group ≥ 4.26	$4.26 > 3^{rd}$ group ≥ 3.01
GE	$6.52 \geq 1^{st}$ group ≥ 5.45	$5.45 > 2^{nd}$ group ≥ 4.39	$4.39 > 3^{rd}$ group ≥ 3.33
HO	$5.59 \geq 1^{st}$ group ≥ 4.42	$4.42 > 2^{nd}$ group ≥ 3.25	$3.25 > 3^{rd}$ group ≥ 2.08
CII	$6.60 \geq 1^{st}$ group ≥ 5.57	$5.57 > 2^{nd}$ group ≥ 4.54	$4.54 > 3^{rd}$ group ≥ 3.51

UA: Uncertainty Avoidance; ASS: Assertiveness; FO: Future Orientation; PD: Power Distance; CI: Collectivism I; PO: Performance Orientation; GE: Gender Egalitarianism; HO: Human Orientation; CII: Collectivism II

*: 3rd group not occupied

** : 1st group represents "HIGH", 2nd group "MEDIUM" and 3rd group "LOW" scores for the purpose of the following work

The graphical display of the relative position each *Professional Culture* has on the different dimensions will be depicted as follows:

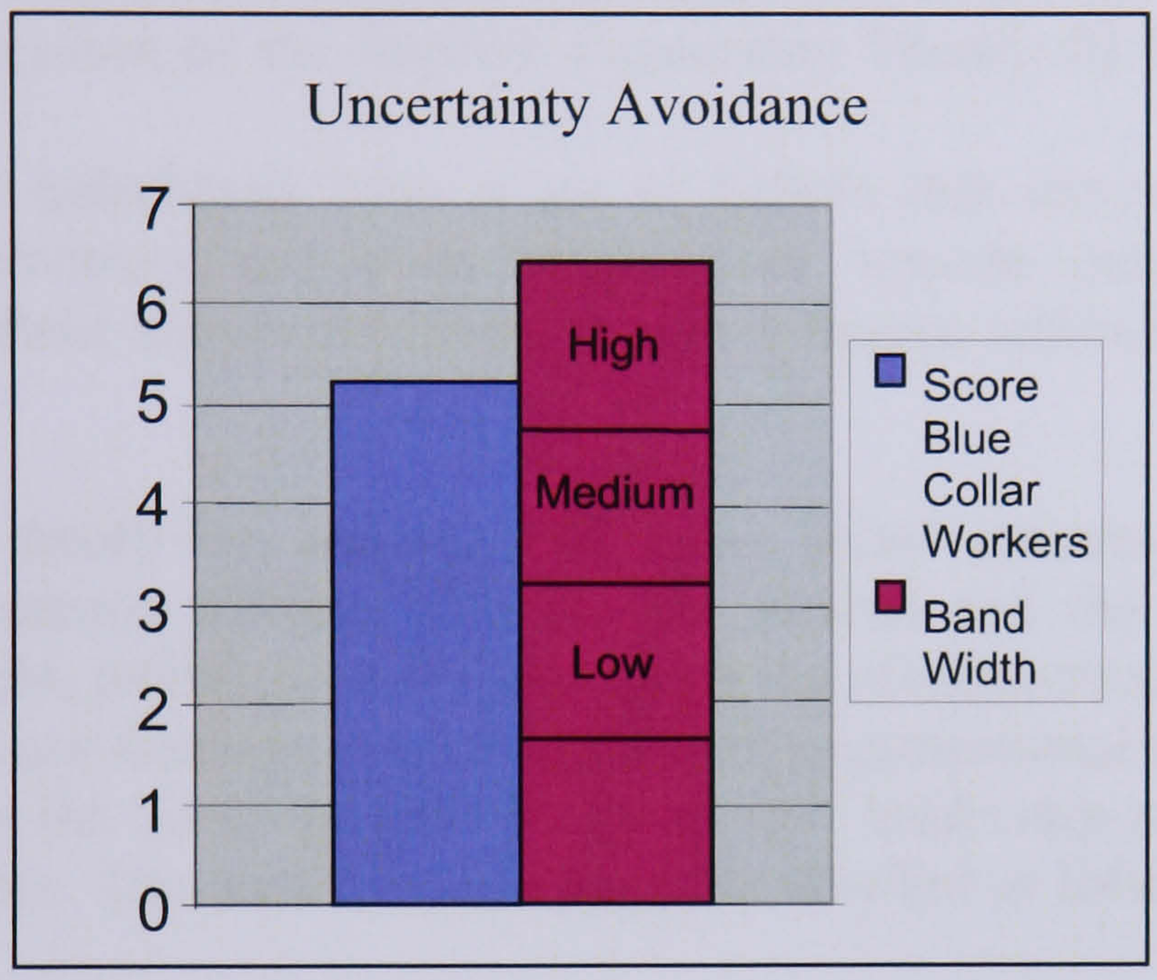
The *title* of the graphic always indicates the *name* of the *Core Cultural Dimension concerned.*

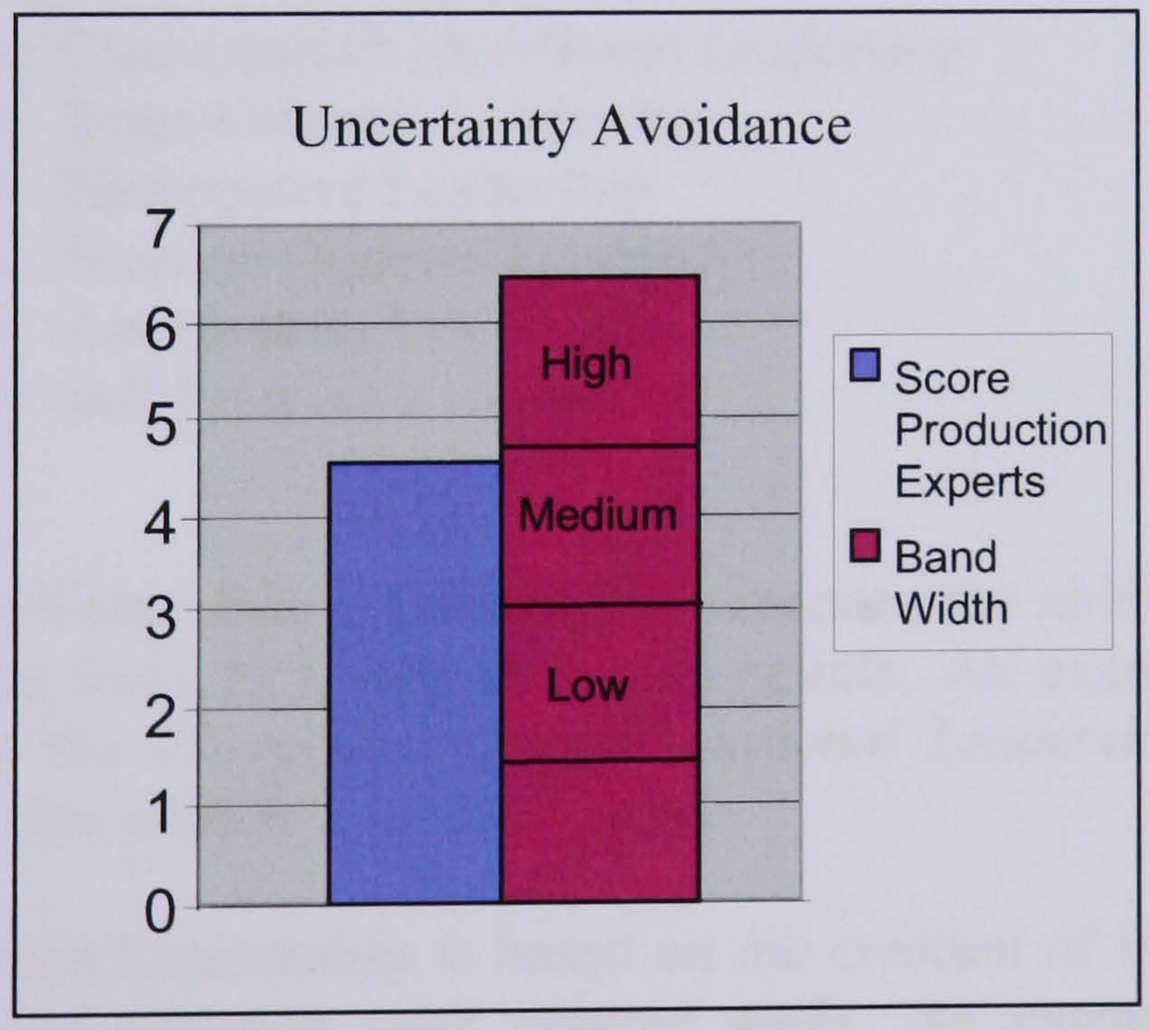
The *legend* next to the graphic indicates the *name* of the *Professional Culture* and its corresponding bar (*in blue*) with the respective *band widths* of that *Core Cultural Dimension* and their corresponding bar (*in red*) as calculated above.

With the help of these graphics it is possible to immediately locate the different *Professional Cultures* in relation to all other *Professional Cultures* in a statistically significant way.

In the current example, the Blue Collar Workers group has with a confidence of 95% a higher "Uncertainty Avoidance" than the Specially Qualified Production Experts.

Figure 33: The Relative Positioning of the different Professional Cultures





After having given a thorough description of the characteristics of the different Cultural Clusters, appropriate leadership and organisational styles will be developed for each Cluster. These leadership and organisational styles constitute the base for the remaining research project.

The *leadership styles* themselves *go back* to the findings of the GLOBE-study, as six globally valid *leadership dimensions* could be identified in the course of this research project (House et al., 2004).

These leadership dimensions referred to as *Culturally Endorsed Implicit Leadership Theories* are an extension of the Implicit Leadership Theory (ILT) of *Lord & Maher* (1991).
ILT postulates that individuals have a set of beliefs that determine which kind of characteristics, behaviours and traits enhance or impede outstanding leadership. According to ILT, these beliefs determine to which degree individuals accept someone as a leader.

CLT extends this theory by arguing that these belief systems are shared among individuals of a common Culture both on the societal and the organisational level (Dorfman, et al., 2004, p.669). In accordance with the aforementioned line of argument, that it is feasible to use findings originating within organisational research, *these CLTs will be the base for* the development of *appropriate leadership styles* in the research project presented here. The *six CLTs* identified are labelled as follows (Dorfman, et al., 2004, pp.674f.):

- Charismatic/Value-Based Leadership
- Team-Oriented Leadership
- Participative Leadership
- Humane Oriented Leadership
- Autonomous Leadership
- Self-Protective Leadership

Charismatic/Value-Based Leadership expresses the ability of a leader to lead people on the basis of firmly held core beliefs. An example for this kind of leadership is the *Charismatic/Transformational Leadership* (e.g. Bass, 1985; Burns, 1978; see section 2.2.3 for details).

Team-Oriented Leadership is based on the creation of functioning teams and the creation of common team centred goals. An example for this kind of leadership is the *SuperLeadership* approach presented in section 2.2.2 (Manz/Sims, 2001).

Participative leadership is focused on the degree to which the leaders involve their employees in the decision-taking and implementation process (e.g. Lewin 1948; Tannenbaum/Schmidt, 1958). Examples for this dimension can be found in section 2.1.1. in which the degree of employee participation is the reference point for the leadership relationship.

Human Oriented Leadership is centred around the question of how supportive and considerate leaders are of their employees and includes aspects such as generosity and compassion (e.g. Gagné/Fleishman, 1959; Fleishman/Quaintance, 1984; Blake/Mouton, 1985; see section 2.1.2 for details).

Autonomous Leadership focuses on the degree of autonomy and individualism leaders show in the exercise of their function. Previously this dimension had not been identified as relevant in leadership research.

Self Protective Leadership is based on securing safety and security of the individual or the group member. In the context of the GLOBE-Study this dimension was also newly defined and incorporates key traits of a leader such as being self-centred, status conscious, a face saver or procedural.

The organisational styles will be developed on the base of the findings of chapter 3 and obviously the results of the empiricals described in this chapter.

The appropriate leadership style for each group will be developed on the base of chapter 2, the leadership styles isolated within the GLOBE-Study and the empirical results described in this chapter.

These results are focused on isolating the Core Cultural Dimensions developed in the course of the GLOBE-Study as described above. On the basis of these Core Cultural Dimensions, though, it is possible to explicitly develop appropriate leadership styles. To do that the following key was used which is an adaptation of the original GLOBE key to the needs of the present study.

Following the logic that empirical tools developed for the use in the context of *Organisational Culture research* can be used in the current environment, only those in relation to *Organisational Cultures* were retained. For further details concerning the development of these keys refer to *Dorfman, et al.* (2004).

Charismatic/Value-Based Leadership follows if there is a "High" rating of

- Performance Orientation
- Collectivism II
- Future Orientation
- Human Orientation

Team-Oriented Leadership is a consequence of a "High" rating of

- Uncertainty Avoidance
- Collectivism II
- Human Orientation
- Performance Orientation
- Future Orientation

Participative Leadership is the appropriate leadership style in the presence of a "High" rating of

- Performance Orientation
- Gender Egalitarianism

and a "Low" rating of

- Uncertainty Avoidance
- Assertiveness

Human-Oriented Leadership should be preferred if there is a "High" rating of

- Human Orientation
- Uncertainty Avoidance
- Performance Orientation
- Future Orientation

Autonomous Leadership follows in case of a "High" rating of

- Performance Orientation

and a "Low" rating of

- Collectivism I

Self-Protective Leadership should be employed if there is a "High" rating of

- Power Distance
- Uncertainty Avoidance

and a "Low" rating of

- Performance Orientation

Initially these leadership and organisational styles serve to develop an approach as to how to lead effectively and organise each *Professional Culture* isolated in this work. Subsequently an integrative approach will be developed which is focused on some of those *Professional Cultures* that are rather likely to work together. This is especially important to illustrate the *enormous* beneficial consequences the results of the present study have for cross cultural work environments.

Furthermore, the developed leadership and organisational styles form the base for chapter eight in which the validity of these results will be scrutinised.

Therefore, it can be retained at this point that the present chapter in connection with chapters seven and eight is one of the core chapters of this work. It will unite all previous chapters around the results gained with the empiricals of this survey. Therefore, at various occasions, this chapter will be referenced to previous chapters in order to point to the underlying theoretical links.

Finally, it has to be noted that the present chapter is not limited to uniting the empirical results gained in the course of this study with existing theories, but that it will also *combine*, *alter* and *newly present* existing theories of organisational and leadership research according to the specific traits of the different Cultural Clusters isolated.

Therefore, it can be said that the present chapter will be a highly interesting illustration of joining organisational and leadership theory with empirically gained insights in order to create a number of completely new approaches to this area of research.

6.1 ***Cluster 1: The Blue Collar Workers***

The first Cluster comprises Blue Collar Workers. According to the results of the survey these are employees such as mechanics with a lower qualification, storehouse workers, or individuals ensuring the company's internal transport of goods (e.g. fork-lift drivers, truck drivers on company ground etc.).

In general, the *Blue Collar Workers* group comprises employees who are working in *directly production related, auxiliary and/or supportive parts of the production process*. Typically, these jobs require none, or only relatively little training and are therefore positioned in the lower levels of the hierarchy of a company.

The Blue Collar Worker usually only has superiors, but no subordinates and depending on the specific job can either work alone or in groups.

These characteristics of the work environment of the Blue Collar Worker are reflected in the following results of the quantitative and the qualitative research carried out.

6.1.1 The Empirical Survey

As mentioned, the results of the empirical survey are based on a *quantitative* and a *qualitative* part.

For this group the quantitative part already delivered very clear results. Only people of the above mentioned qualification could be found within this group. The group itself consists of 25 people originating from various countries and organisations. The only restriction as to the intended diversity of each sample has to be stated on the level of the gender composition as primarily male respondents are present in this group.

The findings of the quantitative part were enhanced by those of the qualitative. Out of the seven interviewees four were women in order to correct a potential bias occurring due to the composition of the quantitative sample. No such bias could be determined, however, which confirmed the results of the quantitative part.

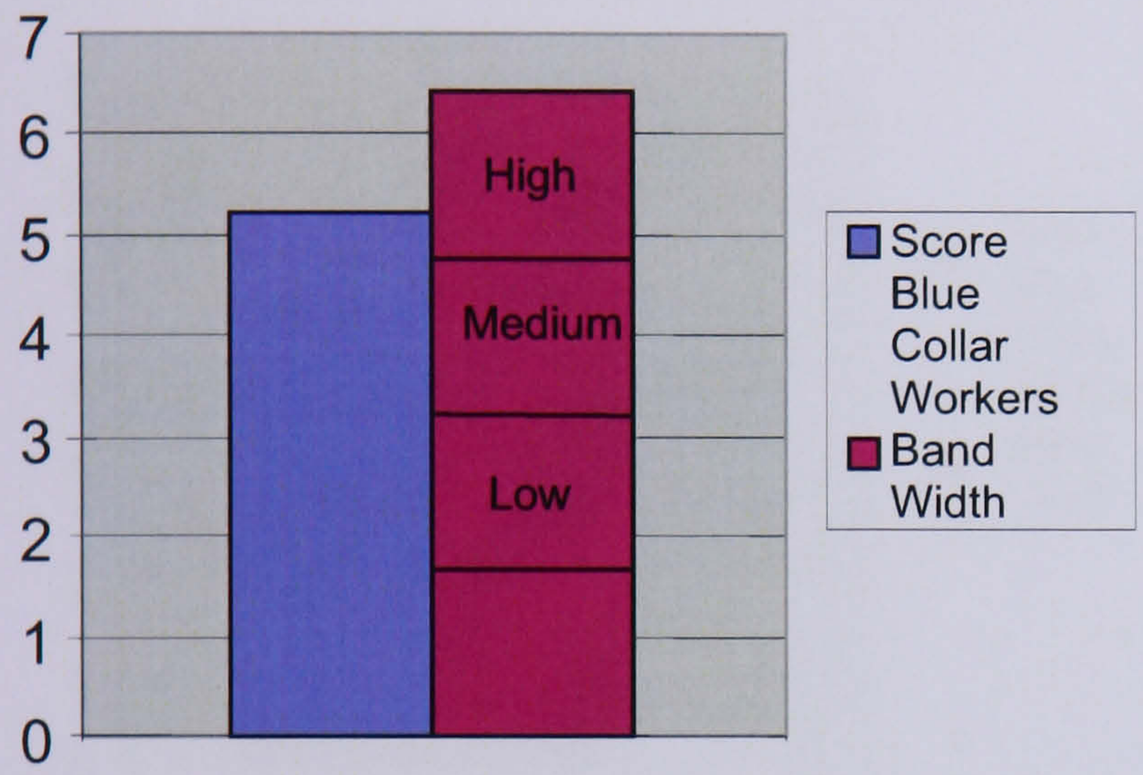
Therefore, it can be retained that *the empirical results* for the Blue Collar Workers' group *were highly coherent and satisfying*.

6.1.1.1 The Results of the Quantitative Part

The results of the quantitative part are centred round the Dimensions of the GLOBE-Study as introduced in previous chapters.

The **Uncertainty Avoidance** Dimension is rated relatively high in this group with a score of 5.23.

Figure 34: Uncertainty Avoidance



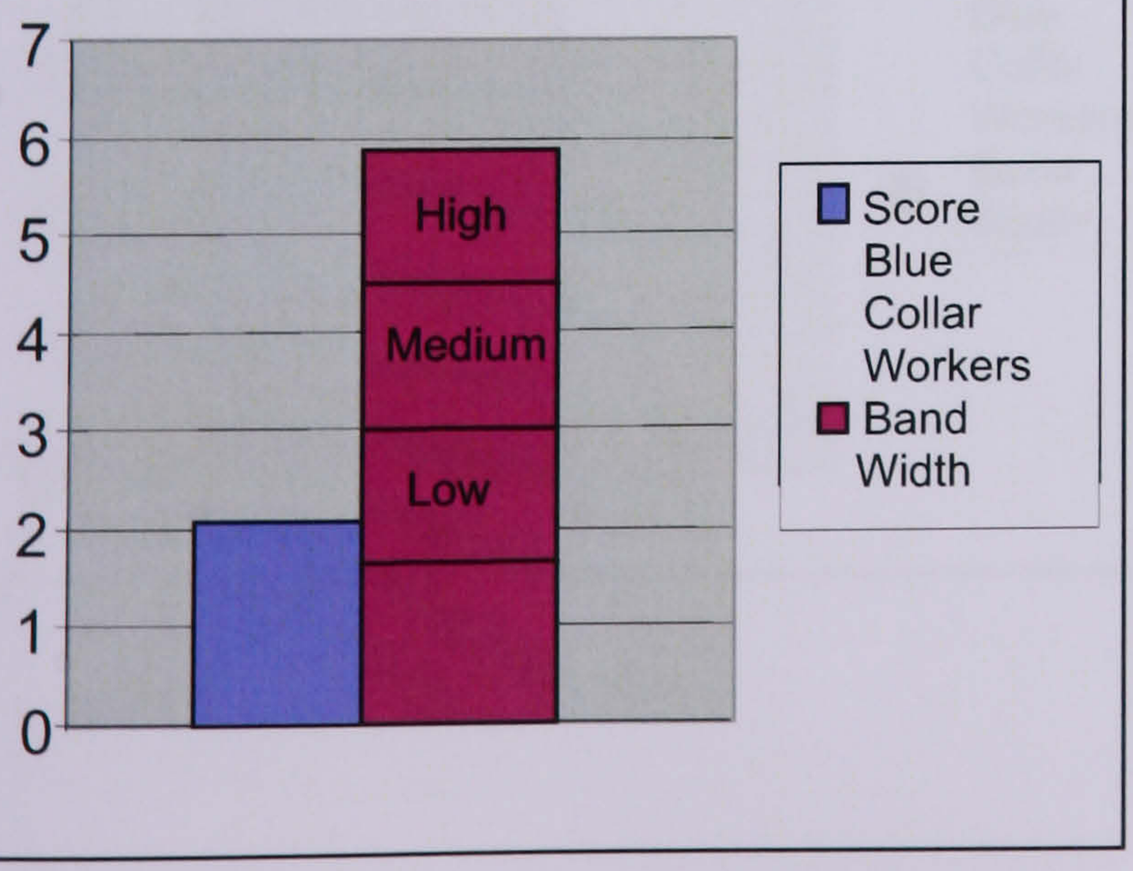
One reason for this can be seen in the relatively limited possibilities for the individual workers to influence their immediate work environment. They therefore prefer to live in a stable environment in which they are not constantly forced to adapt to changes they cannot influence.

A further reason is to be seen in relation to the way the individual workers see their work and the importance this work has in their life. Usually work is seen by members of this group as a means to earn the money necessary for a living and not as a means in itself. Therefore, stable environments are preferred which do not put too much pressure on the individual worker.

These aspects will be discussed further in section 6.1.1.2 as this relatively strong score on the Uncertainty Avoidance scale was one of the major topics in a number of the interviews.

Related to the above mentioned limitations as to the possibility to influence one's immediate work environment, the score on the **Assertiveness** scale (2.07) has to be seen positioned at the lower end.

Figure 35: Assertiveness



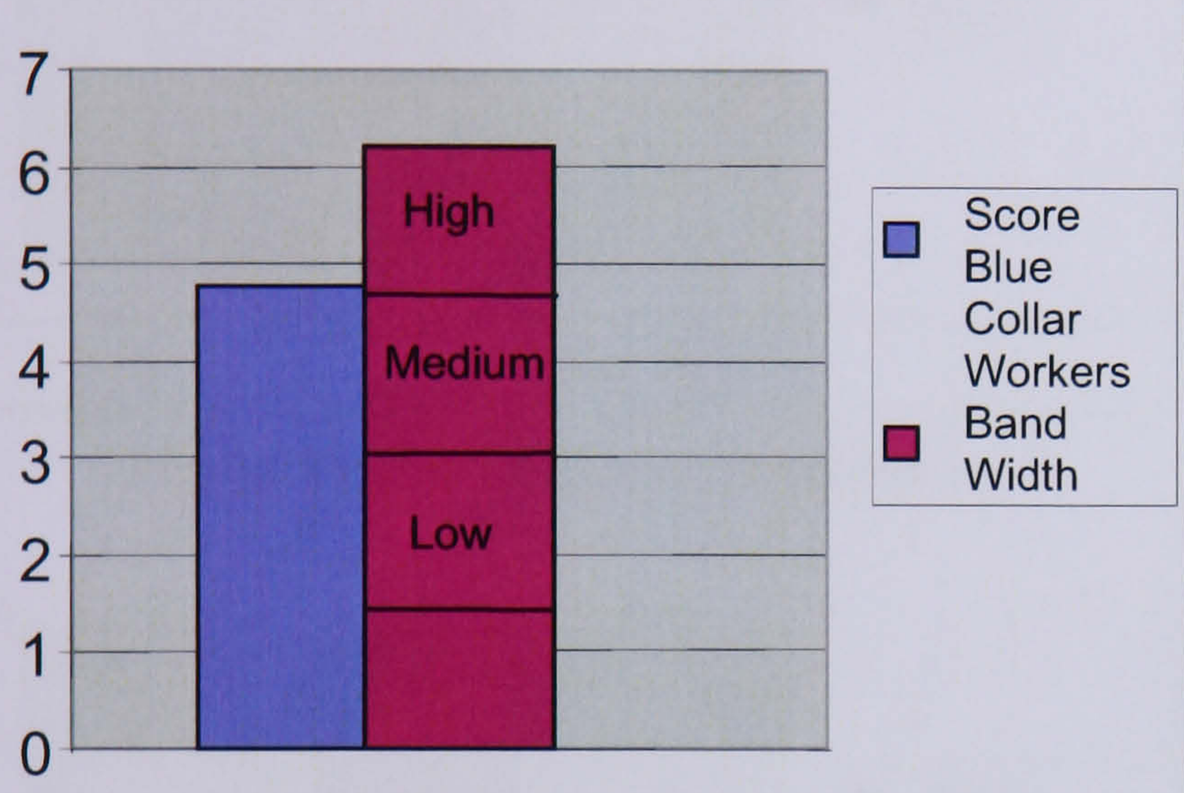
In comparison to the other *Professional Cultures* identified, the score of the Blue Collar Worker group *is in fact the lowest score* of the whole sample.

To characterise this as an expression of fatalism would probably be exaggerated, but a certain indifference as to the work environment itself can certainly be deduced from this result.

This assessment is due to the fact that non-assertive behaviour is usually the safest way to live a life in which one does not have the possibility to directly alter the demands that one is subject to and can "just do one's job".
Here again, a number of interesting insights were gained in the course of the interviews.

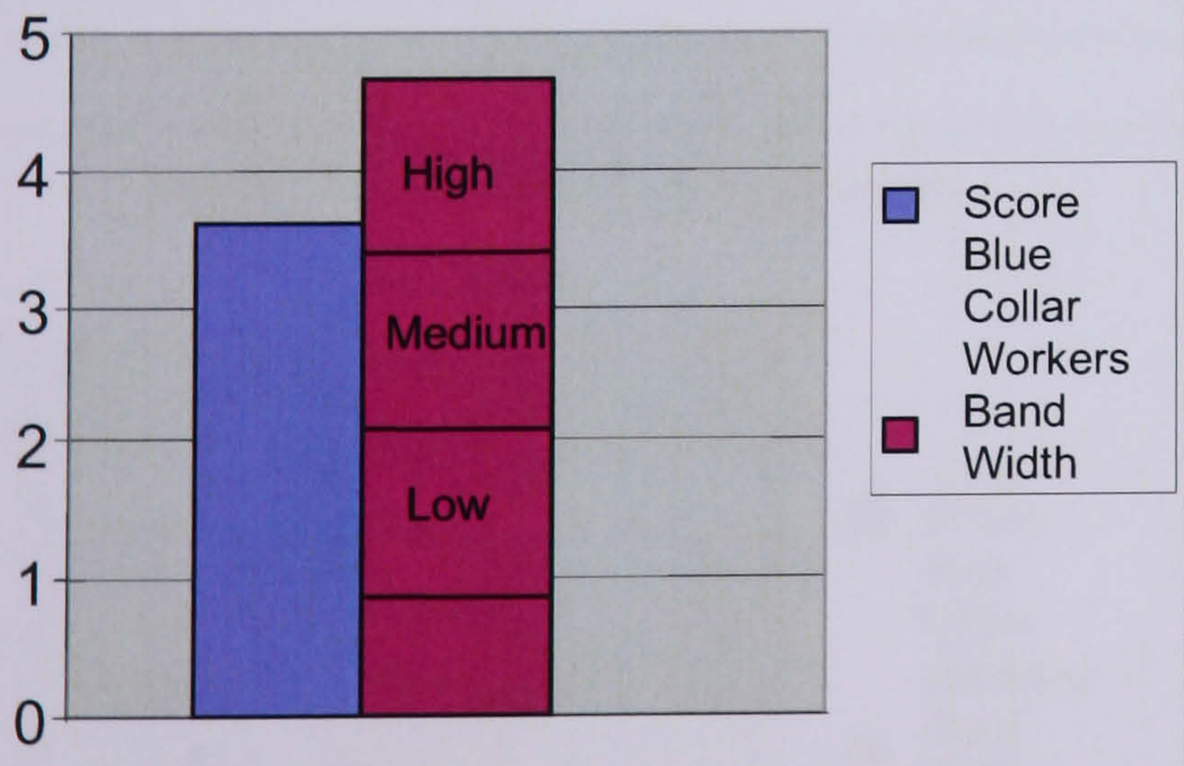
Future Orientation is positioned just at the border between the medium and the high band (4.76). This is a direct consequence of the job environment of this group.

Figure 36: Future Orientation



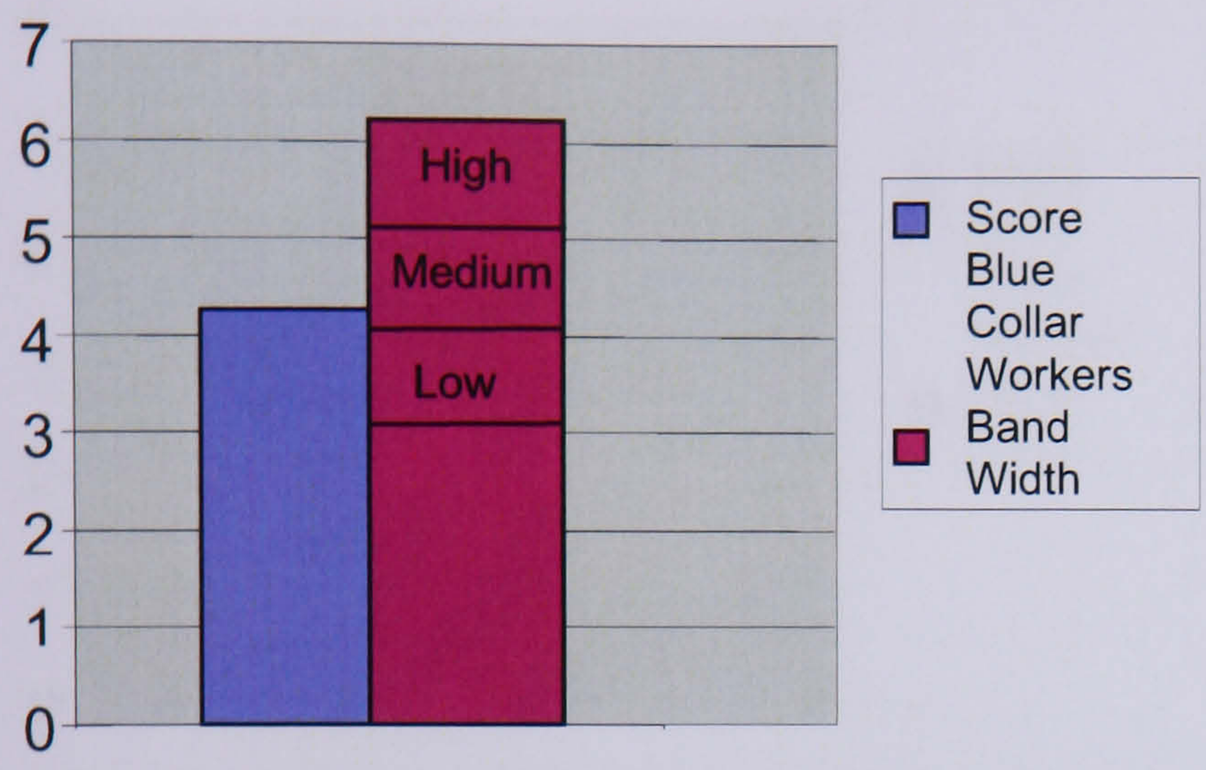
Typically, "Blue Collar jobs" do not require the people who do them to have a particularly long term horizon, as they usually get a certain piece of work which needs to be done in a certain time. On the other hand, they still need to have a clear concept of time as they have to make sure that they keep to their time schedules. These counteracting influences moderate each other to a certain extent, which leads to this Dimension being at the rating shown.

Figure 37: Power Distance



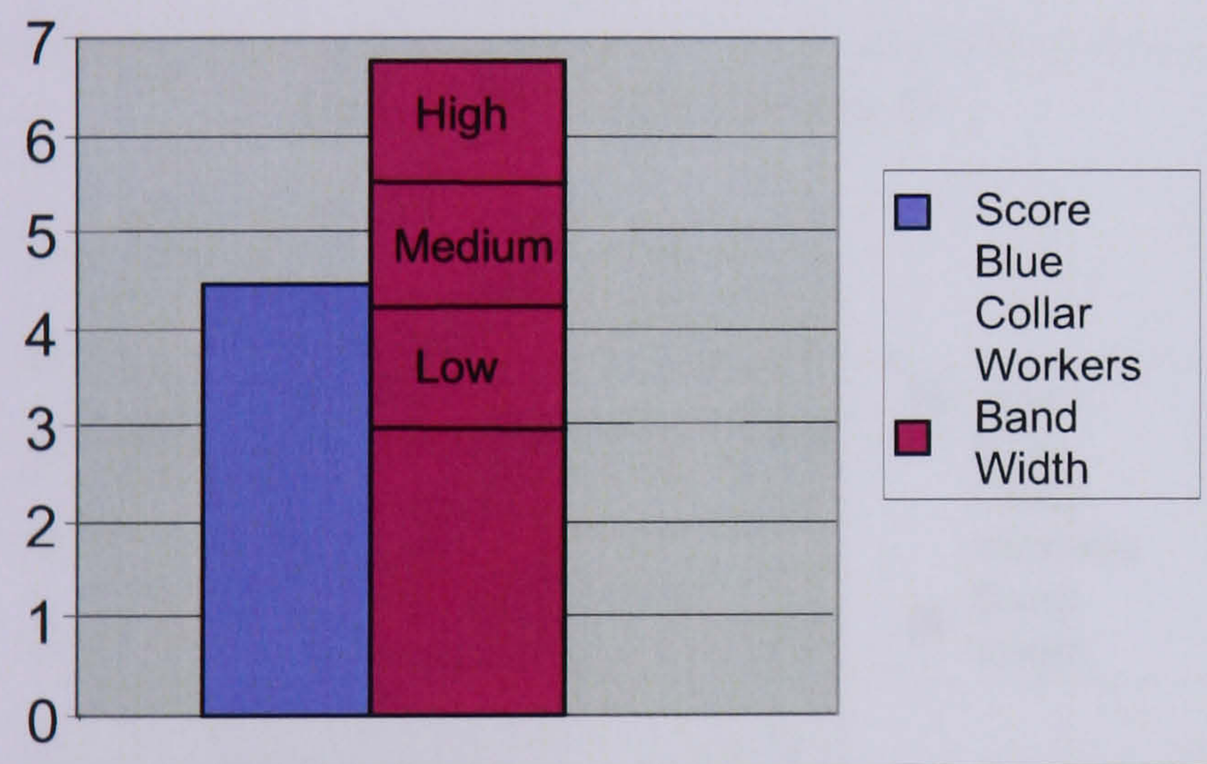
The **Power Distance** Dimension is, in comparison to the other Professional groups, rated in the very moderately positive area (3.6).
A possible explanation, which will be pointed out further down in the following section, can be seen in the area of tension between the individual's need for self governance and independence which every human being has to varying degrees and the need for guidance and security exhibited

Figure 38: Collectivism I



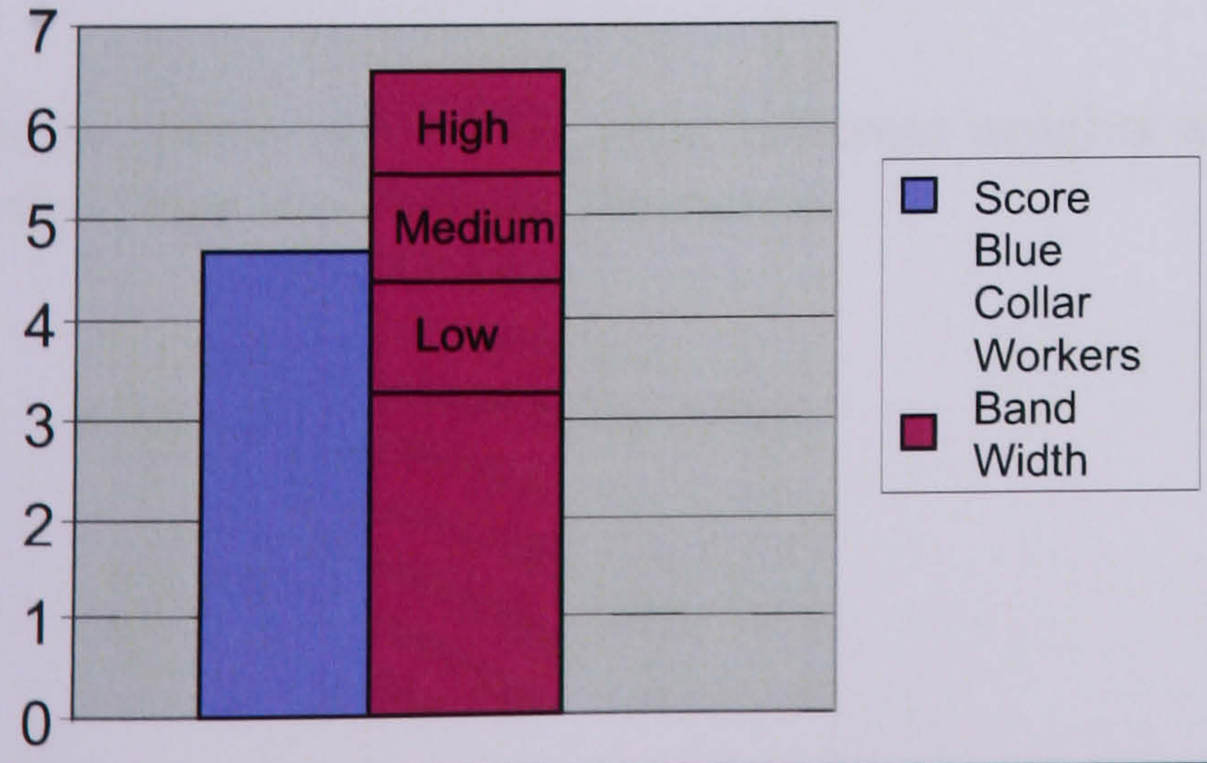
The **Collectivism I** Dimension is rated in the very low medium area (4.27). Furthermore, this rating represents the *lowest score* in comparison to any other Cultural Cluster (the Collectivism I Dimension does not have any Culture in the low area).
This result can be seen as a consequence of the fact that the members of this group often do not really see the need for extensive team work. This will be further investigated in the following section

Figure 39: Performance Orientation



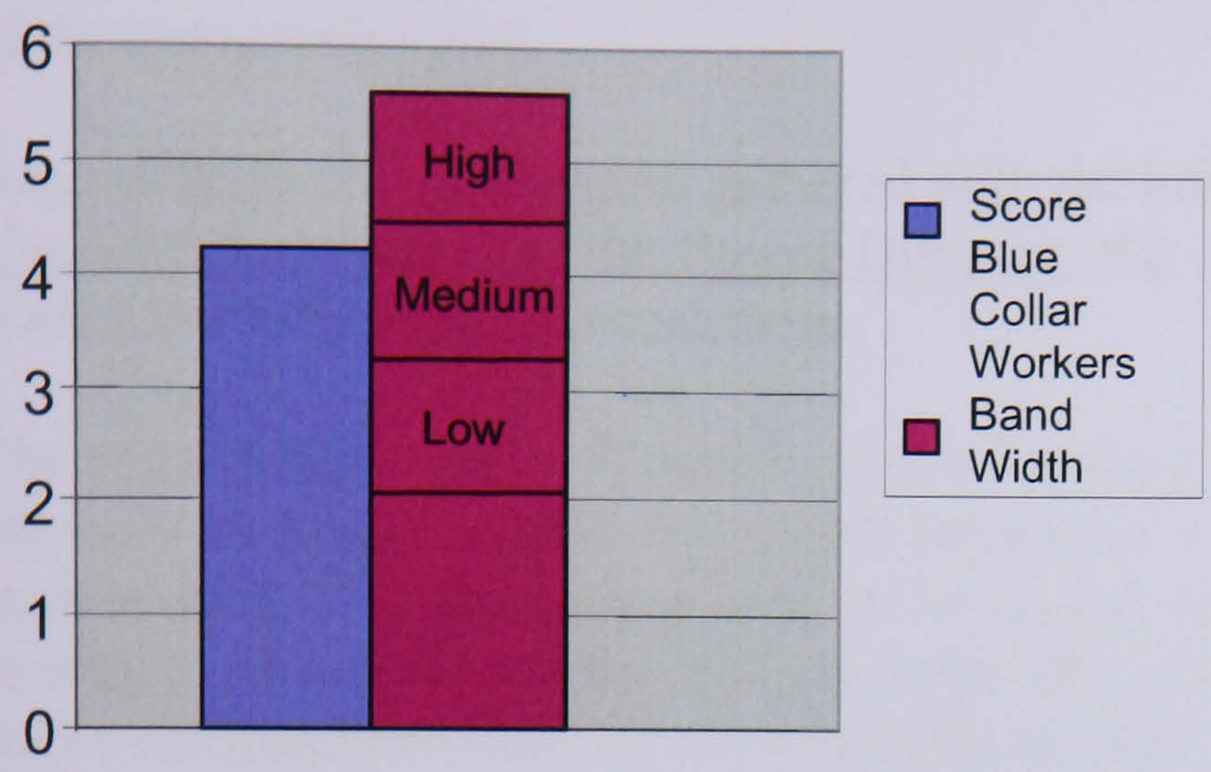
The **Performance Orientation** Dimension is likewise rated in the very low medium area (4.45), representing *the second lowest value* for this Dimension out of all Cultural Clusters.
This has to be seen in relation with the already mentioned importance that work has in the life of the members of this group.

Figure 40: Gender Egalitarianism



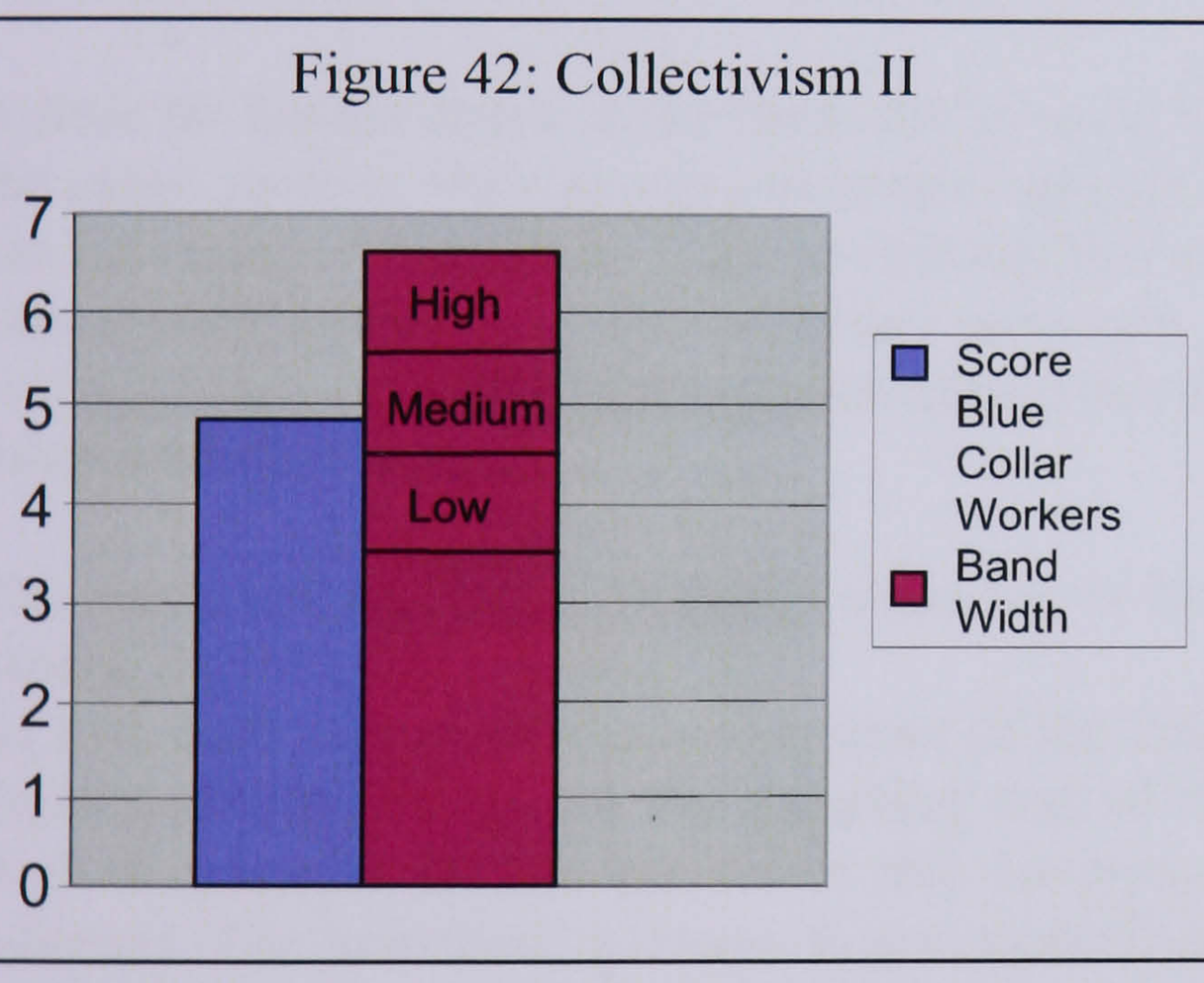
Gender Egalitarianism is valued in the lower medium area (4.72) which represents *the second lowest* absolute value out of all groups. This rating may be seen as an artefact of the fact that predominantly men are present in this group and the relative indifference that Blue Collar Workers have towards matters that are not directly work related.

Figure 41: Human Orientation



Human Orientation is scored in the higher neutral area (4.21). This can be seen as a consequence of the fact that apparently this Dimension has no significant meaning to the members of this group. The reasons for that will be pointed out below.

Figure 42: Collectivism II



The **Collectivism II** Dimension finally is valued in the lower medium area (4.85). This represents again *the second lowest rating* out of all *Professional Cultures*.

As this Dimension is an indicator for pride in the group and the Profession, these results have to be seen once more as a consequence of the place and importance that work has for the members of this group.

In the following section, these different insights will be deepened and clarified with the help of the results of the interviews.

6.1.1.2 The Results of the Qualitative Part

The results of the qualitative part described in this section are *largely in line* with those of the quantitative part.

According to the information gathered with the help of the interviews, the ratings on the Uncertainty Avoidance, the Power Distance, the Assertiveness and the Collectivism II scale have to be seen in correlation.

The regular Blue Collar Workers do not see the job to be a source of pleasure in itself, but only as a way to earn the means necessary to fulfil their wishes outside the work environment. Therefore, their interest in the job is mainly to have a stable environment in which it is perfectly clear to them what they are supposed to do. The preference for a stable environment finds its expression in the high rating on the Uncertainty Avoidance scale and was clearly confirmed by the interviewees. The most important thing for the members of this group is to *have a safe job which stays stable over time*. Any change in work routines or organisational structures is normally rejected. Very often, the initially stated reason for that is that existing structures are the best and that new structures are "developed by people who don't know anything about the demands of the actual job".

A little bit further down in the interview process it became clear though, that this is not the entire picture. Very *strong resentment against any kind of change* related processes can be stated of this group. This resentment has to be seen in connection with the very strong emphasis on the *value of leisure activities*. The job itself is seen as a necessary evil only. Any activity which requires extra work and/or time of the individual worker is therefore rejected.

The rating on the Power Distance scale has to be seen in *direct correlation* with this aspect.
At first view, the slightly positive score of the Power Distance scale by a group which finds itself exclusively on the receiving end of the chain of command may surprise. With the results of the interviews this becomes significantly more understandable, however. The individual workers *do not* necessarily *consider* a stronger *hierarchy* to be a means *of oppressing them*. If implemented and lived in a moderate way, *it is seen as a relief* instead. The leader gives guidance, help and structure to the workers' environment and therefore relieves them from the burden of having to worry about anything else except the occupational activity itself.

In this context, the low rating on the Assertiveness scale also becomes clearer, as it can be seen as an expression of the lack of ability and motivation to influence things which are not in direct connection with the individual's work. According to the interviews, the most appropriate course of action in this setting is to simply fulfil the job and behave in a friendly and cautious manner, particularly towards management.

This self-image of the individual workers, in which they see their job as nothing special or worth mentioning, is obviously reflected in the rating of the Collectivism II scale and could be confirmed by the interviews. Pride on the job only exists to a very limited degree in this group. This statement is hardly surprising for members of a group who explicitly do not attribute any deeper meaning to their jobs.

Yet that view can not be seen as an expression of bitterness, but instead as a rational weighing of the possible satisfaction which can be extracted from the job on the one hand and of that which can be extracted from the individual's leisure time on the other.

A clear connection between the above results and the score on the Performance Orientation scale could be confirmed in the interviews. As already stated, the job has no further meaning beyond the income that can be earned with it, which is clearly *extrinsic motivation* (Maslow, 1970; Deci, 1975; Thomae, 1999). In accordance with current motivational research, this leads to somewhat *limited motivation to perform in an extraordinary manner on the job*. Instead the individual worker's goal is to maximise revenue while minimising effort. This obviously does not mean that they do not perform their task properly, but it does mean that their motivation to do more than what is expected is rather limited.

The medium to high rating on the Future Orientation scale can be explained by the nature of the job. On the one hand most jobs in this group are of a quite simple structure, which implies that no particularly long term horizon is needed in order to do the job properly. On the other hand, short term time schedules do exist in most of the jobs present in this Cultural group. This is due to the fact that obviously in most production processes a clear sequence of activities needs to be kept to. According to the results of the interviews, these two factors moderate each other, which leads to the rating on the Future Orientation scale.

The rating on the Collectivism I and the Human Orientation scale are also a direct consequence of the nature of the jobs in this group. Usually, no real teamwork exists in this group. Even if people do not work completely alone, they work predominantly next to each other instead of actually working together. According to the interviews, this statement of fact is not seen overly negatively, as apparently most interviewees are rather satisfied with this kind of organisation. Even when explicitly asked, an organisation which is structured on the base of real work teams was not considered to be necessarily more compelling than present organisational structures.

Human Orientation seems to be of lesser importance in this highly technical environment. According to the interviews, it is important for the workers to get along with each other well and to have a good and warm relationship with their direct leader. The interpersonal relationships do not really get beyond that point, though. This is possibly enhanced by the fact that the quantitative sample is composed predominantly of men, which does not overly favour the values that are expressed by the Human Orientation scale. Nevertheless, the neutral esteem for Human Orientation was confirmed by the female respondents of the interviews. In effect, these mutually influencial factors moderate each other, which led to the neutral rating in the quantitative part.

Finally, the lower medium rating of the Gender Egalitarianism scale can be seen as a direct consequence of the composition of this group, the relative position work has in the Blue Collar Workers' life and the work environment. All of which favour the evolvement of a Culture which is rather indifferent to criticism about gender egalitarianism and its values.

6.1.1.3 Summarising Illustration of the Empirical Results

The empirical results for this Cluster give a coherent and highly interesting illustration of the characteristics of Blue Collar Workers in the aviation industry.

The most interesting aspect for this Cluster is without any doubt the very clear *separation between the Professional activities* of the individual workers *and their private life*. Apparently, *life* for this Cluster is exclusively centred round leisure activities.

Work itself has no intrinsically motivating quality for this Cluster. At this point the question arises as to how far it is possible to change that situation. The answer to this will not be given here, as the main question is whether this situation *should* be changed at all.

It has to be kept in mind that the leadership style and the organisational structure that will be developed in the following are based on the opinion of the members of this group of "how things *should* be". Therefore, the data is a direct reflection of how Blue Collar Workers want their work environment to be structured.

According to the results of the quantitative and the qualitative part, members of this Cultural group *are not overly interested in investing any more or any different energy into their work.* The unambiguous emphasis on private life is a clear peculiarity of the members of the Blue Collar Workers Culture.

The consequences of that for the appropriate leadership style and organisational structure are quite far-reaching, as will be shown in the following. However, it is important not to misinterpret the results presented up to now as an expression of a lack of understanding and motivation by the members of this Cultural group.

The statements made in the interviews clearly show that the relative importance given to private and Professional life is the direct consequence of a rational process in which work in general has a significantly different meaning in comparison to most other Cultural groups. Furthermore, this interpretation is *strongly* supported by the results of the quantitative part.

In summary, it can be stated that the empirical results gave very interesting though somewhat surprising results which represent an extremely valuable base for the now following development of an appropriate leadership style and organisational structure.

6.1.2 An Integrative Solution to the Found Characteristics

An integrative solution has to take into account the very special characteristics of this *Professional Culture*.

Especially for members of this group, the place the job has in their lives needs to be considered when developing leadership and organisational structures.

As will be shown in the following, it is necessary to create an environment in which the respective workers feel well without putting too much strain upon to them as far as demands that are not directly related to their job are concerned.

In summary, it can be said that this *Professional Culture* has a number of highly interesting and surprising traits that demand very special treatment of these employees in the Professional world.

6.1.2.1 The Appropriate Leadership Style

According to the results of the empirical part and in connection with those of the GLOBE-Study (House, et al., 2004), the following leadership style characteristics should be applied when working with members of the Blue Collar Workers group.

The base of the leadership style should be centred round the *Self-Protective Leadership Style* (House, et al., 2004). This self-protection is, however, not to be seen as self-protection of the leader, but as a self-protection of the group. As the main interest of the members of the Blue Collar Workers group is to do their job without having to worry about other things, it is important for the leaders to take that burden off their subordinates. While doing that, they have to make sure that their subordinates are protected as far as possible from any negative external influence. Obviously they will have to keep in mind the greater company interest, but it is vitally important that they give "their people" the feeling that they are there for them, to protect and help them.

For that reason it is furthermore necessary that the appropriate leadership style includes some elements of the *Human-Oriented Leadership Style* (e.g. Gagné/Fleishman, 1959; Fleishman/Quaintance, 1984; Blake/Mouton, 1985; House, et al., 2004; see also section 2.1.2). By adding some warmth and care to the leadership relationship the above described group protection is rounded off on the group internal level.

In addition, the appropriate leadership style should incorporate elements of the *Autonomous Leadership Style* (House, et al., 2004). This is necessary, as workers expect their leaders to do what is necessary in order to achieve the above given leadership relationship. Furthermore, workers are conscious of the fact that this kind of leadership is not entirely usual for leaders on that leadership level.

In summary, an appropriate leadership style for the Blue Collar Workers group should be as follows.

The leader should use a rather *straight forward leadership* style in which the individual workers always *know what they are supposed to do*. Furthermore, the leader has to make sure that the *respective workers are shielded* as well as possible from any further external influences that go beyond the boundaries of their immediate work environment. In that context, it is extremely important that the leader keeps up a *good interpersonal relationship* with the subordinates.

But this good interpersonal relationship does not mean that the leaders are supposed to integrate their subordinates into each and every decision-taking process. It only means that they have to enhance the above mentioned protection by giving their subordinates the feeling that they actually *care* about them and their well being.

This behaviour, however, is of such importance to the members of the Blue Collar Workers group that they even expect their leaders to deviate from leadership behaviour that is usually seen and accepted in order to achieve the leadership style described here. In consequence, they grant them the freedom to behave rather individualistically if at least part of that individualism is focused on the realisation of that warm, protective, but rather strict and detailed leadership style.

In summary, the leadership style favoured by the members of the Blue Collar Workers group goes in the direction of the *Patriarchal Leadership* according to *Wunderer* (2001; see also section 2.2.1 and 2.1.1.2). For leaders of this Cultural group it is, on the one hand, of the utmost importance to give *sufficient guidance* their subordinates, which obviously excludes any overly participative leadership style.

On the other hand, it is equally important to make sure that the individual workers always know that the leaders are actually giving the orders they give in order to help them, or if not to help an individual worker directly then at least the goal of the group. This should be achieved through the creation of a relationship in which the role of the leader *is mutually perceived as such that there is usually no discussion if a certain measure or decision is actually to be carried out*.

Nevertheless, the leaders have to demonstrate clearly that they *understand the worries and problems of their subordinates* and that they stand up for them if necessary. This means that they may have to oppose the implementation of certain measures if they see that they are clearly inappropriate for their subordinates.

Therefore, the term *Patriarchal Leadership* is rather appropriate in this context, as the role of the leader is very much like that of a benevolent Patriarch who makes sure that everybody does what he or she is supposed to do *by ruling gently but firmly on the internal level, and by protecting everybody on the external level*.

6.1.2.2 The Appropriate Organisational Structure

The appropriate organisational structure for this Cultural Cluster is somewhat in *contradiction to the newer models* described in chapter three.

Empirically, it has to be stated that *the motivations* of the members of the present group *are not in line* with a number of different assumptions of the above described theoretical approaches. Instead, a more classical route has to be taken in order to match the expectations, wishes and needs of the members of the Blue Collar Workers group.

The empirical results clearly point to a *hierarchical solution* in the sense of *Fayol's Administrative Approach* as the base of an appropriate organisational structure (Fayol, 1984; see also section 3.1.1.2). But this hierarchical solution has to be adapted to the above described needs of the present group. In order to achieve the necessary close relationship between the leaders and their subordinates it is necessary to opt for an organisation in which the *different work entities are not too big*. The actual size depends obviously on varying factors such as the nature of the task, the nature of the work space, etc. The *decisive factor* though is that a *personal contact* between the direct leaders and their subordinates *is possible*, in order to allow for the above described leadership relationship.

According to the results gained in the empirical part a *Team-Oriented* organisation, which actually deserves this term in the sense given in previous chapters, is not necessarily advisable in this environment.

This conclusion may be somewhat unexpected as it is in contradiction to significant parts of organisational theory and research, but the results of the empirical part *do not* allow for any other conclusion.

The appropriate organisation structure according to the results of this study is the following:

The Blue Collar Workers are organised in relatively small groups. It is *not necessary* to artificially create a team based work flow. Instead, it is important to have clearly responsible leaders as the hierarchical head of the group. These leaders need to be given the ability to actually lead their group. Therefore, it is necessary to give them the *organisational freedom* to actually take decisions for their group.

A *holistic task structure* should be striven for, in which the individual workers are able to actually see what they are building. This aspect is also in accordance with existing research which postulates that giving responsibility to the employees significantly increases motivation and therefore efficiency (e.g. Hackman/Oldham, 1975; Hackman/Oldham, 1980).

Control mechanisms should be used in a very cautious manner only. Mostly, "control" should be exercised through the close and trustful relationship the leaders are supposed to build up with their subordinates in order to achieve a state in which there is no need for formalised control in the work group (see for the relevance of trust e.g. Weibler, 2001).

In summary, it can be stated that the Blue Collar Workers group *needs a rather classical organisational structure* in which direct leadership is relatively important in comparison to indirect leadership. Furthermore, the *task structure* should be as close as possible to that of a tradesman, as this significantly enhances the individual motivation.

6.1.2.3 Summary of the Possible Solution

The appropriate organisational structure for this Cluster is based on a very personal way of leading people.

The role of the direct leader is of *significant importance*. This is due to the fact that the members of the Blue Collar Workers group want and need a strong leader who is able to guide and help them. This renders it extremely important that the individual leader actually understands and uses the concept described above.

The organisational structure is of a *more supportive nature* in the present environment. It only gives the framework for the leaders in which they create the leadership relationship with their subordinates. This role of the organisation is not without importance, but significantly less important than in a number of other Cultural groups (see e.g. section 6.2 "The Flight Attendants" or 6.4 "The Pilots").

Finally, the way members of this Cultural group want their work to be structured has to be taken into consideration. It is not advisable to proceed to a too fragmented work process in which e.g. the individual worker exclusively tightens 50,000 screws a day. In general it can be stated that *the more holistic* the work process is organised, *the better it is* from an organisational point of view.

In summary, it can be stated that the approach presented here is somewhat different from a number of other theoretical approaches. Especially the low importance of *Participative* and *Team-Oriented* elements for the members of this Cluster is remarkable. According to the empirical results of this survey, the consideration that these elements are appropriate in virtually any environment *has to be rejected*.

This result clearly shows again the importance of a culturally adjusted leadership and organisation structure for the success of any company, as no structure which is appropriate in all circumstances exists.

6.1.3 Global Assessment of the Results for Cluster 1

The results for the first Cluster give a number of highly interesting and rather surprising insights into both the characteristics of the Cluster itself and leadership and organisational theory altogether.

According to these results, it is indeed necessary to adjust *both leadership and organisational design* specifically to this *Professional Culture*. Furthermore, the characteristics of this group somewhat *contradict* the idea that some elements such as teamwork or the non-existence of a hierarchy are virtually always advantageous.

The quality of the empirical data gathered also suggests that these results are not the consequence of just some randomly influencing factors within the sample.

The composition of the group is very coherent, as it consists only of employees with a rather low qualification who work in jobs according to this qualification in directly production related parts of the companies surveyed.

Furthermore, as stated, these employees originate from a number of different companies and countries, which renders it highly unlikely that the results demonstrated are due to some national or company specifics.

In addition, the above demonstrated quality of the data itself as far as reliability and validity are concerned clearly shows the existence of different Cultural Clusters which are a consequence of the respective *Professional Cultures*.

In summary, it can be stated that the empirical results of this first *Professional Culture* clearly indicate that not only do *Professional Cultures* exist, but also that it is vitally important for a company to take their characteristics into consideration.

Especially when dealing with *Professional Cultures* that strongly deviate from a number of standard assumptions in organisation and leadership theory and research, not taking the peculiarities of these Cultures into consideration leaves significant parts of the potential of a company unused.

6.2 ***Cluster 2: The Flight Attendants***

The second Cluster is exclusively composed of Flight Attendants. Nevertheless, not all Flight Attendants are present in this group. A smaller, but significant portion of the Flight Attendants have such differing views from the here represented majority group, that they form a Cluster with a number of other occupations (see section 6.8 "The Service Providers").

This separation into *two* groups within the Flight Attendants' occupation is quite significant, especially considering the results for the two groups. Apparently a highly differing view concerning the various aspects of the way this occupation should be exercised is present within this group.

The decision to call this group "The Flight Attendants" was taken due to the fact that a very *clear majority* of the Flight Attendants present in the sample are found in the Cluster presented here (about 75%) and because of the fact that this Cluster is *exclusively* composed of Flight Attendants.

6.2.1 The Empirical Survey

Both the quantitative and the qualitative parts of the survey generated a number of highly interesting results.

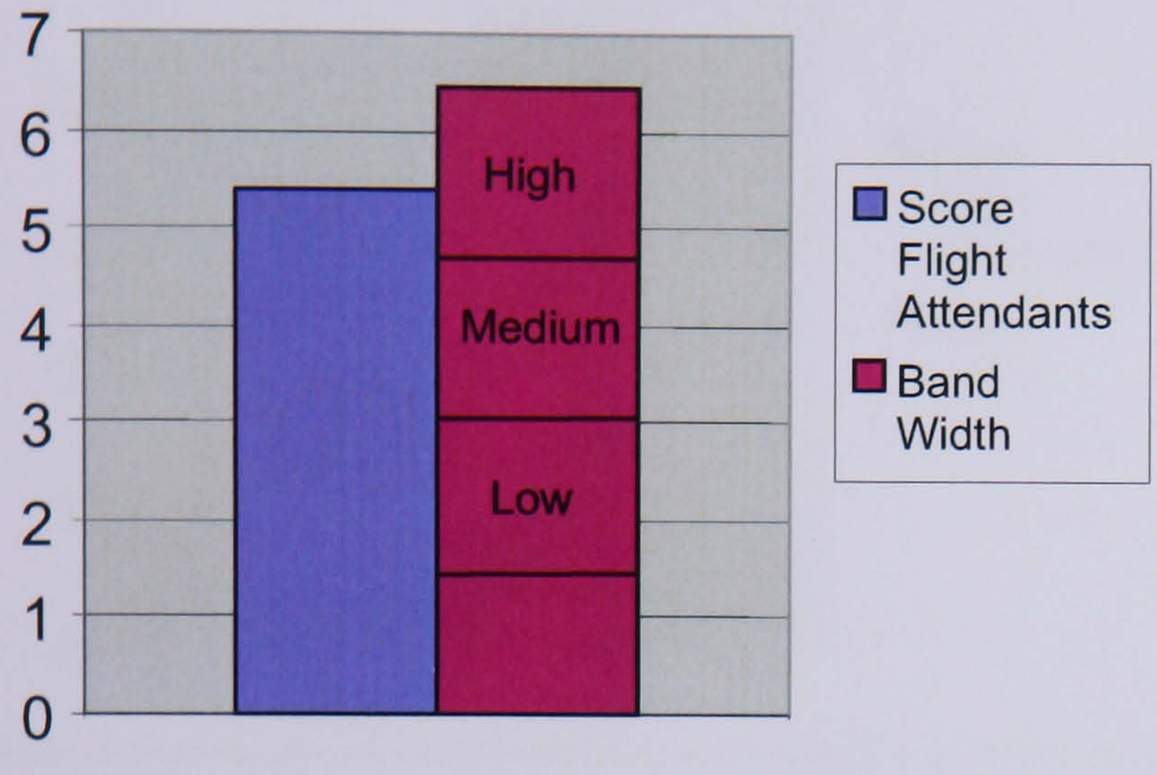
In this specific group, the quantitative part taken alone already produced a very clear picture of the characteristics of the Flight Attendant's Cluster. Its results are based on a sample of 50 respondents, originating from various countries and organisations. A majority of women can be stated in the sample which is in accordance with the majority held by women for this specific occupation industry wide. Therefore, the overall composition of this sample is as intended.

The qualitative part of the survey, which was carried out with seven Flight Attendants, generated a number of interesting results as to why the Core Cultural Dimensions were rated the way they were by the members of this Cultural group.

Finally, it can be retained at this point that the extremely homogeneous occupational structure of this group is only rivalled by that of the Pilots' Cluster (see section 6.4). This indicates that the flight crews' environment exercises a very unique influence upon the people working within it.

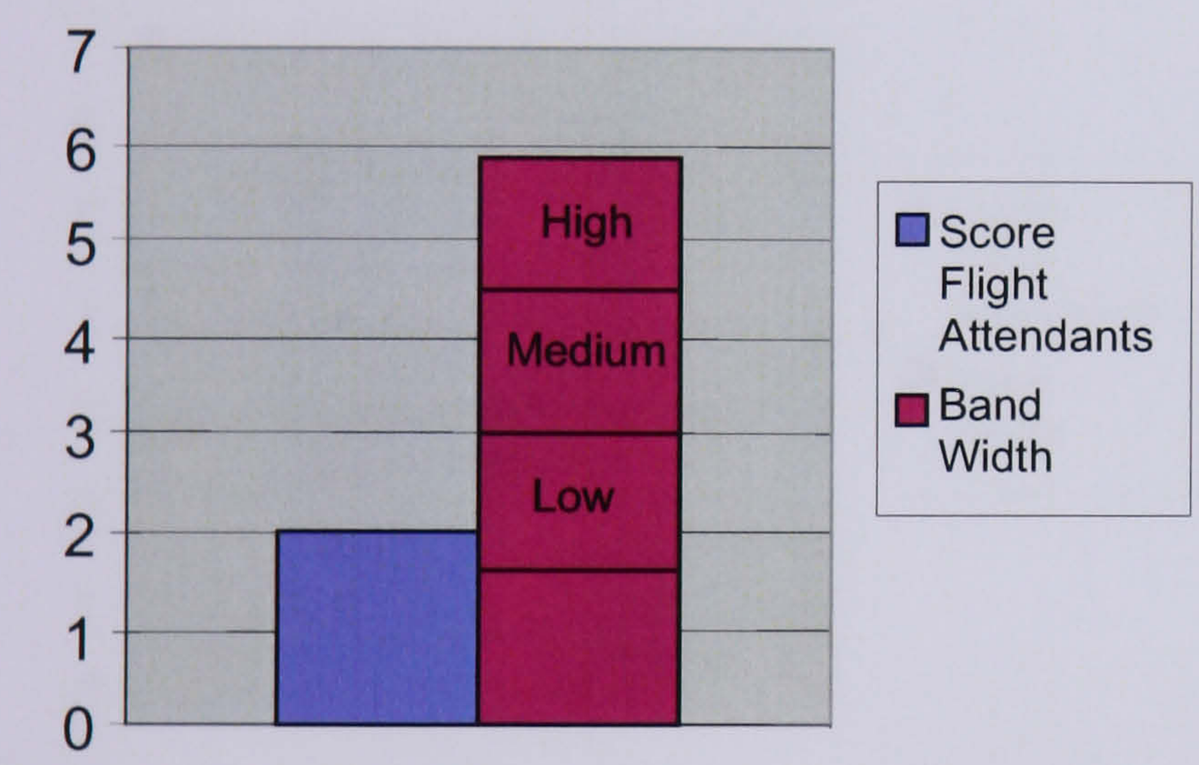
6.2.1.1 The Results of the Quantitative Part

Figure 43: Uncertainty Avoidance



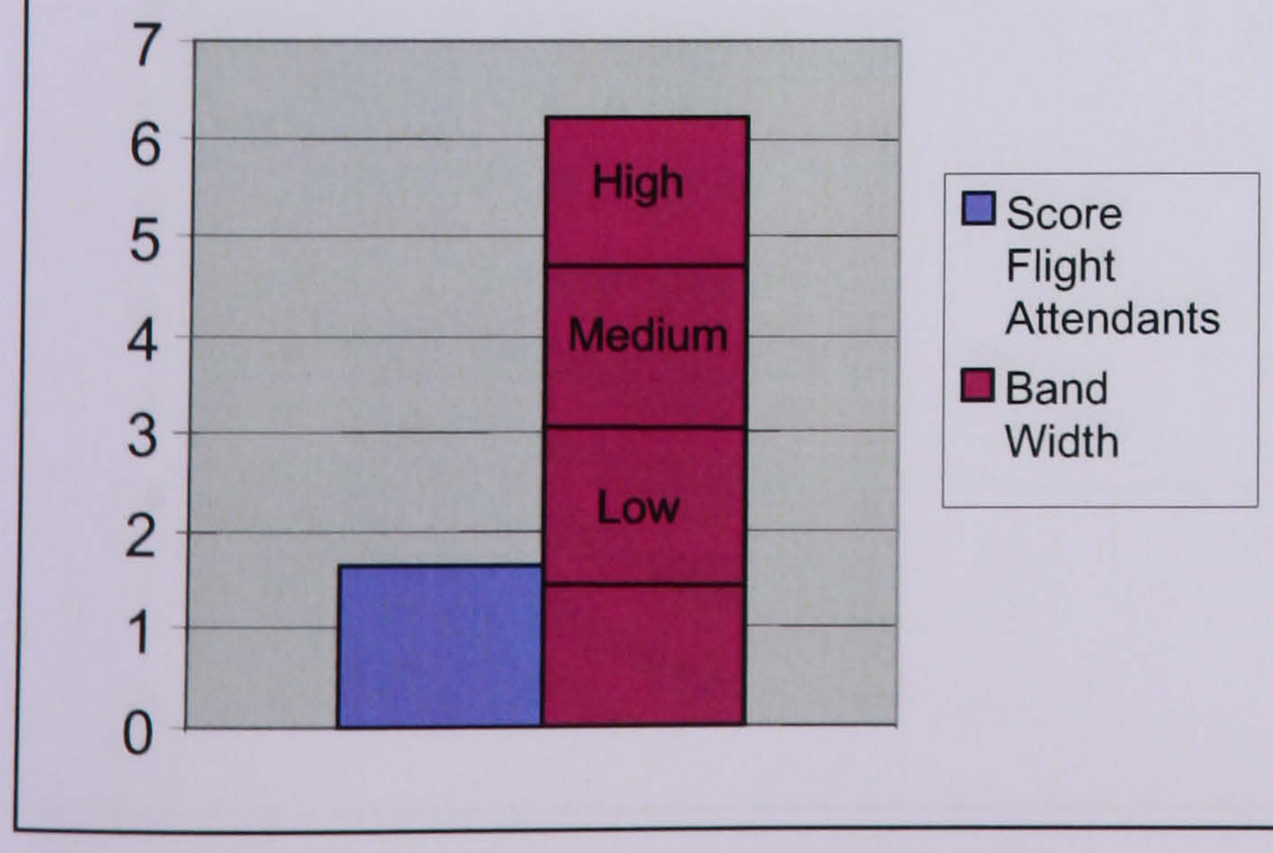
The **Uncertainty Avoidance** Dimension is rated positively (5.39). The reasons for this are similar to those of the Pilots (see also section 6.4) and have their roots in the fact that unforeseen and/or surprising events are considered to be a precursor for incidents or accidents.

Figure 44: Assertiveness



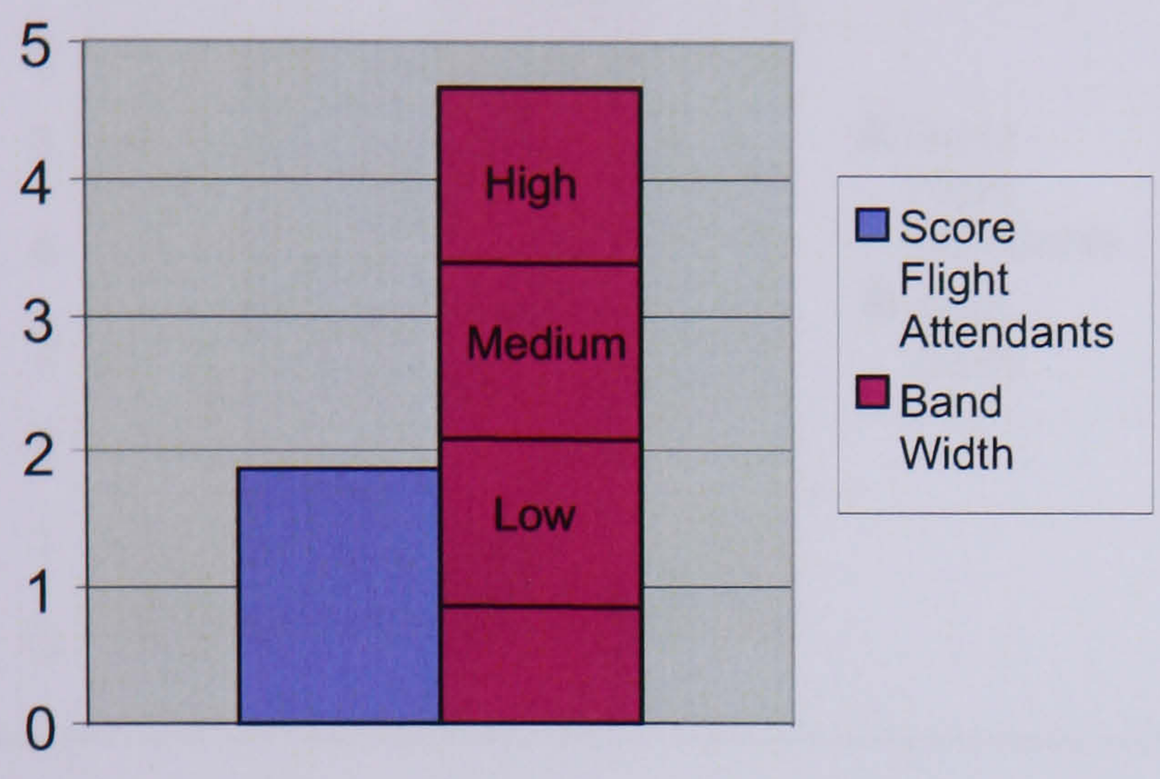
Assertive behaviour is seen extremely negatively by the members of this group with a value of 1.99; this represents the *lowest value* of all Cultural Clusters. The reasons for this result can be found in the specific composition of this Professional group and the demands of its Professional environment.

Figure 45: Future Orientation



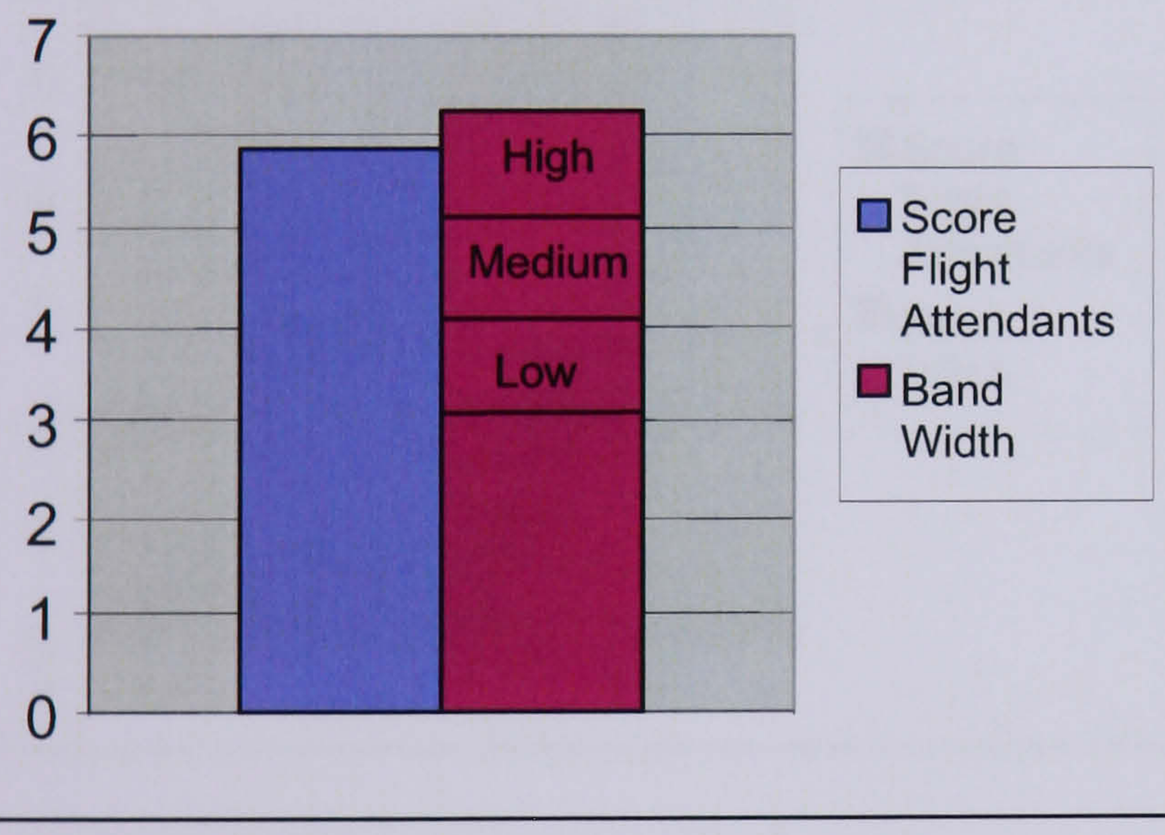
Future Orientation is valued *even lower* with 1.66. Furthermore, this represents the *lowest value* out of all groups. The reasons for this rating are the importance and longevity the regular flight attendant attributes to his or her job and again the demands of the job itself which *favour short term thinking* at the expense of long term planning. These aspects will be investigated in more detail in the following section.

Figure 46: Power Distance



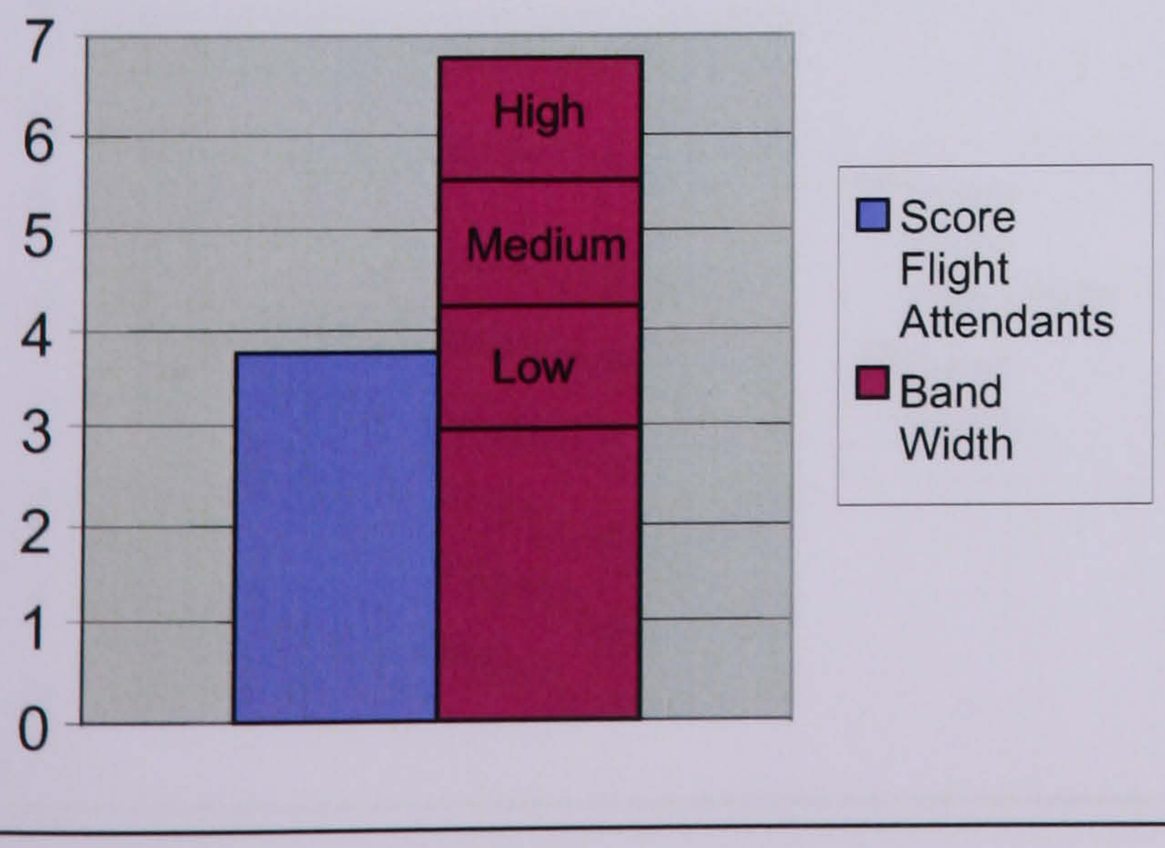
The **Power Distance** Dimension also receives the *lowest rating* of all groups (1.86). This result is mainly due to a mostly *very flat to non-existing hierarchy* in the cabin, combined with the fact that the regular flight attendant is always at the receiving end when it comes to the exercise of power. These aspects and some more will be described in significantly more detail later in this chapter.

Figure 47: Collectivism I



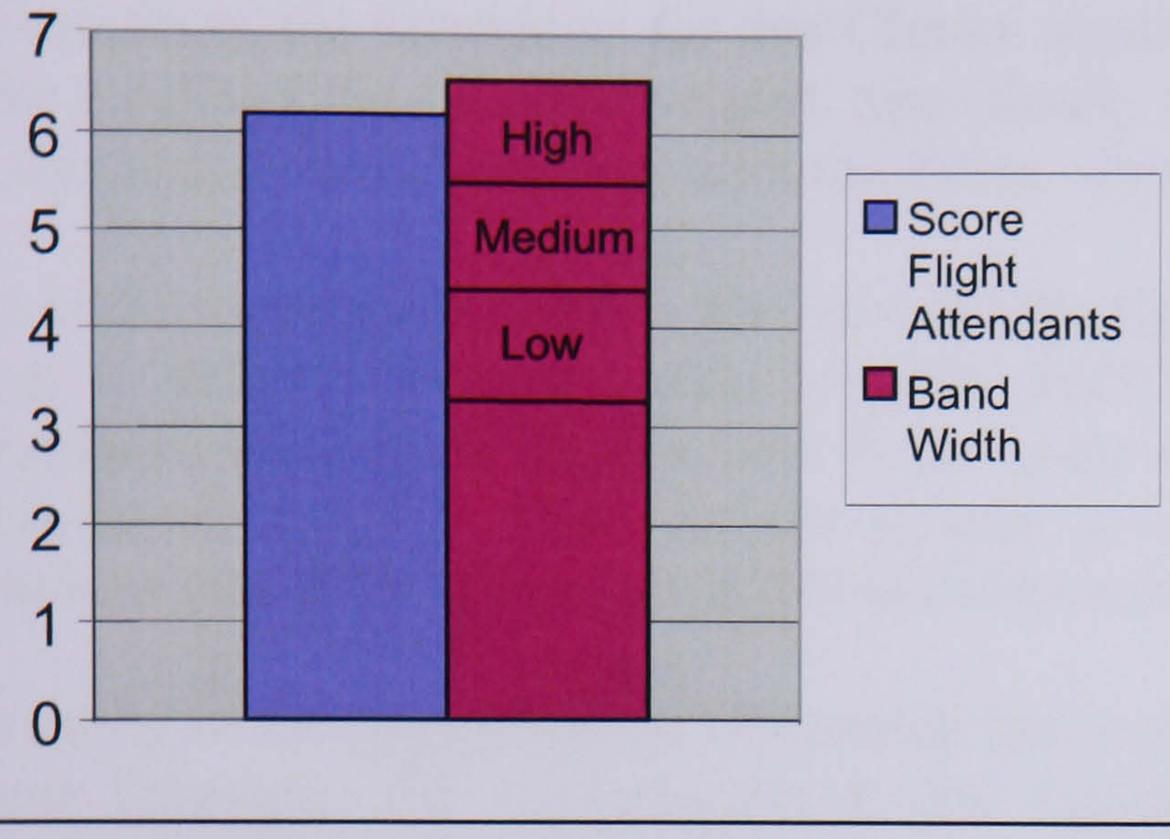
Collectivism I is valued very *positively* (5.82). Teamwork is apparently seen to be a necessary part of the successful completion of the flight attendant's daily work routine. This result must be seen in connection with those of the Assertiveness and the Power Distance Dimension. Therefore, more details will be given later.

Figure 48: Performance Orientation



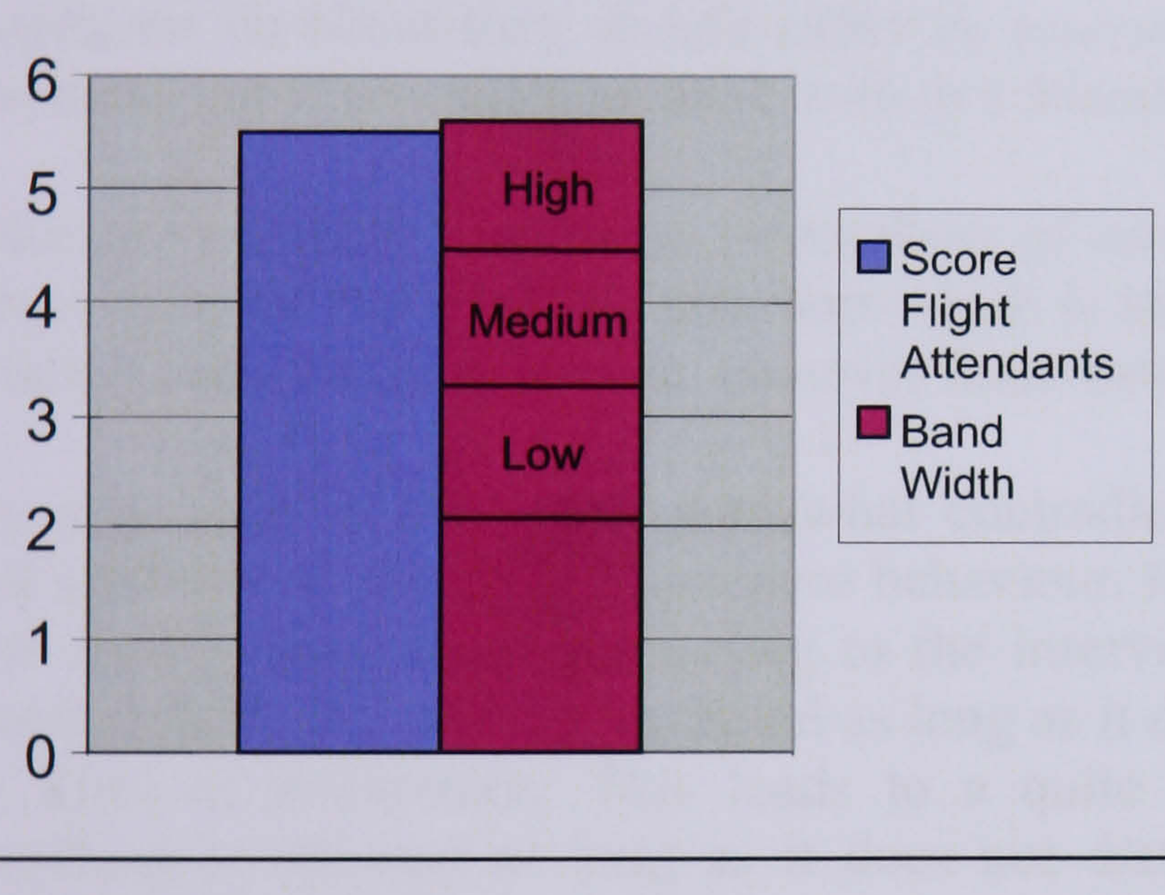
Performance Orientation is scored the lowest out of all groups (3.75). To simply interpret this result as a lack of interest in the job would be quite unjustified, however. The reasons are a bit more complicated and will be clearer after considering the results of the interviews.

Figure 49: Gender Egalitarianism



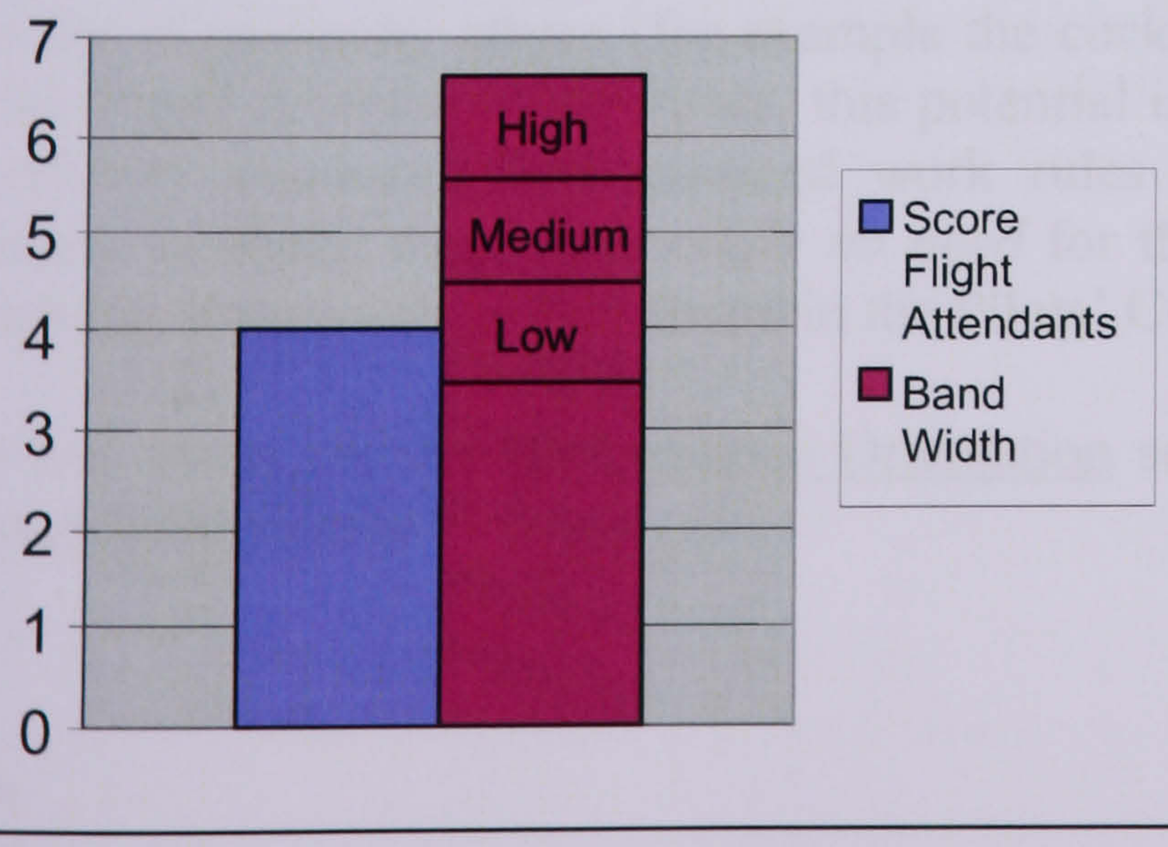
Gender Egalitarianism receives a *positive* rating (6.19). Considering among others the composition of this Cluster as far as age and gender are concerned, this result is hardly surprising.

Figure 50: Human Orientation



The same reasoning is true for the result of the **Human Orientation** Dimension which receives a *significantly positive* rating (5.5). Being nice and considerate with each other seems to be highly important to the members of this Cluster.

Figure 51: Collectivism II



Collectivism II, finally, receives a clearly *negative* rating (4.02). Apparently, neither pride in nor loyalty to the Profession are important to the members of this Profession. But this result must be seen in connection with those of the other Dimensions. Therefore, the insights gained with the help of the interviews will clarify the reasons for this rating given by the members of the Flight Attendant's Cluster.

6.2.1.2 The Results of the Qualitative Part

The results of the interviews for this Cluster significantly broadened the understanding of the results of the quantitative part. Specifically interesting were those parts in which *the similarities and differences* with the *Pilots' Culture* were determined.

One of the major similarities is the view of Uncertainty by the Flight Attendants. In this group a strong antipathy exists towards anything unforeseen, unexpected or not anticipated. The reason for this view is the same as that of the Pilots' group; anything which has a co-notion of uncertainty is seen as a precursor of unsafe and potentially hazardous situations. Therefore stable environments are *always* preferred.

The rating of the Assertiveness Dimension has to be seen in connection with that of the Power Distance, the Collectivism I, the Gender Egalitarianism and the Human Orientation Dimension. According to the interviewees, generally a very friendly working atmosphere is preferred by the members of this group. This atmosphere should be achieved through equal treatment of every member of the cabin crew. If differences of opinions do occur they should either be accepted as an expression of that person's personality, or if necessary be dealt with in a friendly and cautious manner.

In this environment there is *no acceptance of assertive or aggressive behaviour*. The same is true for any kind of behaviour which is intolerant towards persons' expression of their beliefs and convictions, whatever those may be.

This may seem at first view somewhat contradictory with the previously mentioned clear rejection of any kind of assertive behaviour. In fact, though, a clear ranking within these aspects does exist. According to the interviews, basically any kind of opinion, behaviour and conviction is accepted as long as it does not conflict with the rejection of any form of intolerance. This leads to a quite *unique work atmosphere* in which everything is allowed as long as it does not disturb the governing peaceful way of dealing with each other.

This generally accepted framework for the Flight Attendants' work environment obviously has the inherent potential for *significant* problems when it comes to the exercise of power by others (for example the cockpit crew) and the acceptance of that by the Flight Attendants. However, this potential is usually kept under control by very specifically expressed and enforced work rules and procedures, which leads to a situation in which there is *virtually no need* for the exercise of power. This aspect is somewhat comparable to that found in the Pilots' Culture described later.

The low rating on the Performance Orientation scale can be partly explained on the basis of these results.

Due to these very specific characteristics of the Flight Attendants' *Professional Culture*, *benevolent, friendly and conflict free behaviour* is favoured over the pursuit of outstanding performance. This obviously does not inhibit good performance on the job, but leads to it being merely a by-product of the "right" mix of people working in one cabin crew.

Another very interesting aspect explored with the help of the interviews concerns the reason for the extremely low rating on the Future Orientation scale. This result is due to *two* distinctive influencing factors, which tend to cumulate and strengthen each other in the Flight Attendants' group.

The *first factor* is the obvious *lack* of necessity for *long term planning* in the Flight Attendants' work routine. Usually it is sufficient to have the next flight and its necessary service in mind, without having to think too much about any subsequent occurrences of the day.

Interestingly the *second factor* is an expression of the *self-image* the regular Flight Attendants have about themselves and the job. A significant part of the interviewees does not see this job as an occupation for a lifetime. A typical statement in the interviews was "I'll do this job maybe for another one or two years or so and then I'll have to see". More stunningly still was that this kind of attitude was not only restricted to Flight Attendants who were new to the job, but could also be found among more experienced Flight Attendants. Apparently members of this group have only a very limited time horizon as far as their Professional development is concerned and are driven more by short term motivations.

These two aspects *strengthen* each other over time and are obviously enhanced by the underlying group dynamics which consider this perspective to be the "normal" perspective of the Flight Attendants' job and life.

Finally, the rating of the Collectivism II Dimension has to be seen in connection with this self-image. Before the background of this image it is virtually impossible to develop any kind of pride on or loyalty to the Profession. Usually the most positive references about the job are those related to flight benefits, travelling and sometimes income (although this last aspect is highly dependent on the airline); i.e. those who have only an indirect link to the job itself and therefore create *extrinsic motivation* only (Maslow, 1970; Deci, 1975; Thomae, 1999). Hence, a certain indifference towards the job and its consideration by outsiders can be stated for this Cluster.

In summary, it can be said that the interviews gave a number of very interesting insights into the motivations of the Flight Attendants to rate the different Core Cultural Dimensions the way they did. These results will be highly important in the following to develop an appropriate leadership and organisational structure.

Furthermore, the overall understanding of the results of the quantitative part was significantly enhanced, leading to a better interpretation for the purpose of their use in the following sections.

6.2.1.3 Summarising Illustration of the Empirical Results

The empirical results of this Cluster gave a highly coherent picture, in which the *interviews* largely *supported* and further *explained* the results of the *quantitative part*.

The main point of this Culture is its extremely *consensus driven* and *harmony oriented* nature. As shown this orientation is fully lived even at the expense of performance on the actual job.

A further important factor is the image that the Flight Attendants have of themselves and of their job.

As shown, members of this group do not attribute any long term importance to their job. Instead they see this job only as some sort of transitory phase in their life which is limited to a couple of years only. Furthermore, this perspective does not have the tendency to change with the actual time the individual Flight Attendants have spent on their job. This strengthens the impression that the regular flight attendant does not have any long term perspective as far as the job is concerned, which is partially due to the usually short term orientation inherent to the content of the job itself.

A direct consequence of this state of mind is the very low consideration the regular Flight Attendants have for their job as expressed in the interviews and the low rating on the Collectivism II scale.

Finally, Uncertainty in any form is very strongly rejected by the members of this group. This finds its expression in the high rating on the Uncertainty Avoidance scale and is a direct consequence of the very strong insistence on safety which is inherent to any training for every single flight crew member.

In summary, it can be said that the results of the empirical part show a very distinct Culture for this group. This can be seen as a consequence of the very specific characteristics of the job itself and its environment.

These characteristics have consequences which stretch out far into the whole life of the Flight Attendants as for example the high numbers of days away from home, or the significant problems to build stable social relationships on the job due to the often changing flight crew members.

These aspects also have to be taken into consideration when developing an appropriate organisational and leadership structure, as will be shown in the following.

6.2.2 An Integrative Solution to the Found Characteristics

Concerning the appropriate leadership and organisational structure for this Cluster, a *distinction* has to be made which can be found as well in the Pilots' Cluster.

This distinction concerns the *leadership level* of the solution which has to take into account the difference between the *operational* leadership exercised by the head of the cabin crew and/or the Pilots on the one hand (in the following *micro level*), and that of *higher* cabin crew management on the other (in the following *macro-level*).

On the level of the appropriate organisational structure, a number of *similarities* with the Pilots' Cluster can be stated.

Obviously, these similarities are a consequence of the closely related working environments of both groups, which share a number of common characteristics.

This very special work environment is also responsible for the very unique and quite homogeneous way respondents rated the different scales in the quantitative part and expressed themselves in the qualitative part.

6.2.2.1 The Appropriate Leadership Style

In accordance with the results of the GLOBE-Study (House et al., 2004) an appropriate leadership style should include the following characteristics.

It should be centred around a specific form of the *Self-Protective Leadership Style* (House, et al., 2004) including a number of elements of the *Human-Oriented* (e.g. Gagné/Fleishman, 1959; Fleishman/Quaintance, 1984; Blake/Mouton, 1985; House, et al., 2004; see also section 2.1.2) and the *Participative Leadership Style* (e.g. Lewin, 1948; Tannenbaum/Schmidt, 1958; House, et al., 2004; see also section 2.1.1) and finally some elements of the *Team-Oriented Leadership Style* (e.g. Manz/Sims, 2001; House, et al., 2004; see also section 2.2.2).

Due to the very low rating on the Power Distance scale though, the retained characteristics of the *Self-Protective Leadership Style* differ somewhat from the prototype of *Self-Protective Leadership*. The aggressive parts of this leadership style which exclusively serve to "self protect" the respective leader, such as status consciousness and conflict induction have to be omitted. But those parts which reduce uncertainty and consequently enhance the procedural fulfilment of the job of the respective flight attendant need to be emphasised.

On the *micro-level* the same is true for those parts of this leadership style which generate "group protection" in lieu of "self protection" of the respective leader. As the flight crew has only very limited possibilities of justifying any deviation from prescribed procedures on the one hand, but sees itself to be subject to very strong

sanctions in case of any unjustified deviation on the other, any leadership action which leads to an enhanced protection of the group is viewed positively. This finds its expression e.g. in the very clear preference of the reduction in Uncertainty over an increase in Performance.

On the *macro-level* the procedural parts of *Self-Protective Leadership* are more important as they give to the work environment of the Flight Attendants clear guidelines as to how to carry out the job.

The already mentioned tendency of the individual flight attendant to strive for a *conflict free work environment* which is based on good, although somewhat superficial interpersonal relationships renders it necessary to include some elements of the *Human-Oriented Leadership Style* into an appropriate leadership style. These elements exclusively concern the interpersonal level of this leadership style on a rather superficial level. This is due to the fact that normally there is no possibility of establishing a stable and deep work relationship as a consequence of the often changing team composition in the cabin and the very rare direct interaction between the individual Flight Attendants and their direct superior.

On the micro-level these aspects are obviously *more important* than on the macro-level, as interactions on that level are more intense than on the macro-level, due to the close proximity at which crews have to work together.

Participative Leadership needs be taken into account *only* on the micro-level, as according to the interviews this enhances a positive working atmosphere. If possible, crew members like and expect to be integrated into the decision taking process for decisions which directly concern them. Although true decisions are only rarely possible due to external restrictions and demands which can not be solved on the micro-level, involving the respective flight attendant as far as possible into the decision taking process seems to be highly important. This view is supported by the results for the *Human-Orientation Leadership Style*, because a positive and friendly atmosphere among flight crew members is of the utmost importance to this group.

This picture changes on the *macro-level*. As a consequence of the very limited occasions in which direct leadership is exercised and the rather high acceptance of given structures in this group (see also the Pilots' Cultural Cluster), a direct influence on the decisions of higher management is not significantly important.

Here again, the already mentioned focus of the regular flight attendant on a conflict and "worry free" work environment in which good, but somewhat superficial interpersonal relationships exist, surfaces.

For the same reason it is important for this group to feel part of a team. This aspect is however *only* relevant on the *micro-level,* due to the number of Flight Attendants usually existing in bigger airlines, no real team spirit can develop on the *macro level*. This finds its expression, among others, in the very low rating on the Collectivism II scale and the results of the interviews.

In summary, according to the results given, the *leadership style* on the *micro-level* should be as follows:

A procedure based and group protective approach should be favoured. This is due to the already mentioned preference for a stable and "worry free" work environment. Moreover, this approach should incorporate the individual Flight Attendants as far as possible into the decision taking process for decisions which directly concern them. In addition, it is important to create a very warm and conflict free environment. This can be achieved through a cautious and friendly leadership approach which always has the individuals and their problems in its focus (*Human Orientation*). Finally, it is important to give every flight crew member the feeling of being part of a team. Although this is not a top priority for the members of this Cultural Cluster, it still greatly enhances the positive impact that the achievement of the above described leadership style has.

On the *macro-level* an appropriate *leadership style* would have the following characteristics:

Due to the very limited personal interactions between the Flight Attendants and their superior, *indirect leadership* is significantly more important than direct leadership (see the following section). In this respect a clear parallel exists with the Pilots' Cluster.

For those occasions on which direct leadership is necessary, an approach based on rules and regulations should be pursued. In that logic a leader should follow the *"Management by Exception"* approach (e.g. Wunderer, 2001; Bass/Avolio, 1993; see also section 2.2.3 where this leadership style is treated in the context and as a counterexample of *Transformational Leadership*). However, the realisation of this approach has to take into account the specific characteristics of the regular flight attendant. Therefore, it is necessary to use an as much as possible *"Human-Oriented"* approach to implement any kind of measure in the context of direct leadership.

As already said, participation and team orientation are *not* overly *important* on this level.

To sum up, it can be said that the importance of direct leadership is remarkably higher on the *micro-* than on the *macro-level*. Therefore, on the *micro-level* a successful use of the here described leadership style is vital for a motivated and in consequence efficient cabin crew. On the *macro-level* though, an efficient and appropriate way of indirect leadership as exercised through organisational means is *significantly* more important than direct leadership.

6.2.2.2 The Appropriate Organisational Structure

Due to the highly repetitive nature of the Flight Attendants' job combined with a quite strict regulatory framework from state authorities, rather *tight guidance* through *rules and regulations* seems to be the solution of choice.

In that respect, the Flight Attendants' Cultural Cluster is similar to that of the Pilots, the difference here being, however, that *not all aspects* of the job are as well accessible to indirect leadership as with the Pilots' Culture.

These parts are the ones that *are directly related to the customer relationship* which requires flexible answers to the varying customer demands. For this part of the job an organisation in rather small work groups (as usually implemented with a standard crew mostly comprising between 3 and 18 crew members) is highly advantageous. This is due to the fact that, within a given frame, each crew can find its own solution to these demands.

To try to get a crew to a point of self governance in the sense of *Likert's System 4* (Likert 1967; see also section 3.3.1.3) or *Complexity Theory* (Lewin/Regine, 2000; see also section 3.2.2) would not be appropriate, though.

This is due to the fact that the work of the Flight Attendants, very much like that of the Pilots, is embedded in a very *tight regulatory* framework by aviation authorities. This may seem to be a disadvantage at first view, but can be *transformed into an advantage* if correctly used.

The regular flight attendant is used to receive a high number of unquestionable written orders in the form of aviation laws, relevant parts of airplane manuals, standardised emergency drills, and the like. Therefore a certain *predisposition* to the acceptance of written standardised procedures can be stated in this Professional group.

Furthermore, a huge portion of the Flight Attendants' *work* is highly *repetitive*. For example, the sequencing of the different service items is only dependant on the flight, but not on any unforeseeable events. Therefore, the above mentioned predisposition to the acceptance of pre-established rules and procedures without a loss in individual motivation can be used to lead a flight attendant efficiently.

This also goes along well with the already stated need of the Flight Attendants for safe and predictable environments which is obviously best coordinated through the use of rules and procedures.

Therefore, an optimal organisational structure according to the results presented here would be the following:

The base would be a *rules and regulations* oriented approach which would incorporate a mixture of prescribed rules and laws on the one hand and company policies, procedures and goals on the other. The advantages of this course of action are on the one hand that it is not always clear to the individual where a certain law ends and a company procedure begins and on the other, the already mentioned acceptance of rules and procedures.

These two aspects together lead to an extremely high acceptance of an approach in the logic of *Weber's Bureaucratic Rule* (1976; see also section 3.1.1.3) in which the whole organisation is based on rules and procedures. These job characteristics lead to a very high efficiency of this organisational design; a similar process takes place in the Pilots' Cluster (see section 6.4).

At the same time it is important, though, to give enough *manoeuvring room* to the leadership on the *micro-level* to react appropriately to unexpected problems and demands. Although these make up only a smaller portion of the regular work routine in this group, it is nevertheless necessary to have a structure that is able to deal efficiently with such problems. This structure should be crews that are self-governed by a cabin leader (often referred to as Purser; Chef de Cabine, etc.) who is directly involved in the Flight Attendants work routine.

But this *self governance* has to be *restricted* to occasions which are clearly inaccessible to prescribed rules as e.g. dealing with specific passenger demands.

In summary, it can be said that the best organisational structure according to the results presented here is one which is as close as possible to the *Bureaucratic Organisation* according to *Weber* while keeping enough space for low level leadership to efficiently deal with unforeseen events. The right balance between these two aspects should lead to the most efficient organisational structure for the characteristics of the Flight Attendants and their work environment.

6.2.2.3 Summary of The Possible Solution

The above described solution is a very unique approach to a Professional group with very unique characteristics. These characteristics are comparable only to those of one other group; the Pilots. This is obviously due to the fact that the work environment in civil aviation is significantly different from that of any other occupation.

The interesting point about the proposed leadership style and organisational structure is the extensive use of indirect leadership. As mentioned, this is a peculiarity which takes advantage of a set of given and unalterable traits of the Flight Attendants' occupation and their work environment.

With the application of the solution given here it is possible to efficiently turn a potentially highly dysfunctional set of characteristics into a very helpful tool for the realisation of company goals.

Especially the *right mix* between *indirect leadership* with the help of the *Bureaucratic Approach* according to *Weber* and *direct leadership* carried out on the crew level is extremely important for efficiently leading the members of the Flight Attendants' group.

A further important aspect when considering the results for this group is the distinction between the micro and the macro-level. This is again a peculiarity of flight crews in general, as they have to deal constantly with both operational management (cabin crew leader/Pilot) and higher leadership (cabin crew management). These interactions take place in different time intervals and in different situations, but are both decisive to successfully lead Flight Attendants.

In summary, it can be said that if correctly applied, the solution shown here is the best integration of the sometimes diverging interests of aviation authorities, personal characteristics of the members of this group and airlines' goals.

6.2.3 Global Assessment of the Results for Cluster 2

The results for Cluster 2 give a very compelling picture of the characteristics of this group and the way the members of this group expect their work environment and leadership to be structured.

When applying these results to a real world scenario one major problem arises, however.

This problem is a consequence of the fact that a *significant* minority of the Flight Attendants present in the sample are not part of the Flight Attendants' *Professional Culture* group. This minority can be found in the Service Providers' group (see section 7.2) and shows quite different characteristics in comparison to those of the members of the Flight Attendants' group.

The problem here is that it is obviously impossible to know the composition of a flight crew with "regular" Flight Attendants and Flight Attendants that are part of the Service Providers' group.

Therefore, by applying the solution found here, the danger always exists that one or more flight crew members are completely inadequately treated as far as their expectation towards organisation and leadership are concerned. This obviously leads to a sub-optimal efficiency of the flight crew.

The only possible solution to this problem is to *increase the homogeneity* of the work force through personnel selection and training. At this point, though, the question arises as to which of the two "kinds" of Flight Attendants the superior kind is, as that would necessarily be the one to be favoured at this point.

This question will not be answered at this point, but the issue will be raised again in section 7.2 to give a more complete picture of the possible solution of choice.

In summary, though, it can be stated that despite the above mentioned problem, an application of the leadership and organisational structures developed here has a very strong chance of being the best solution for an overwhelming majority of most flight crews. Therefore, it will be retained at this point as a possible approach for an optimum structure for Flight Attendants, pending the comparison with the Service Providers' Cultural group further down in this chapter.

6.3 ***Cluster 3: The Information Technology Experts***

The Cluster described in the following is composed of employees who are specialised in varying kinds of information technology related tasks.

Two main groups are represented in this Cluster.

The *first* group is composed of people who are responsible for *managing* the computer systems within organisations. Typically one may find IT technicians, administrators, or programmers here.

The *second* group is composed of people who are responsible for the actual *development* of new aviation computer systems. In this group basically any kind of IT competence, hardware and software, can be found.

The strong similarity of these two groups also shows itself statistically, as they create one Cluster which was consequently called the "Information Technology Experts".

6.3.1 The Empirical Survey

The *quantitative* part of the empirical survey gave rather clear results. Most of the employees present in this Cluster have an unambiguous orientation towards an IT related occupation. The sample is composed of 20 employees, showing diverse organisational and national backgrounds. Nevertheless a rather clear tendency towards a male domination of this Culture has to be stated.

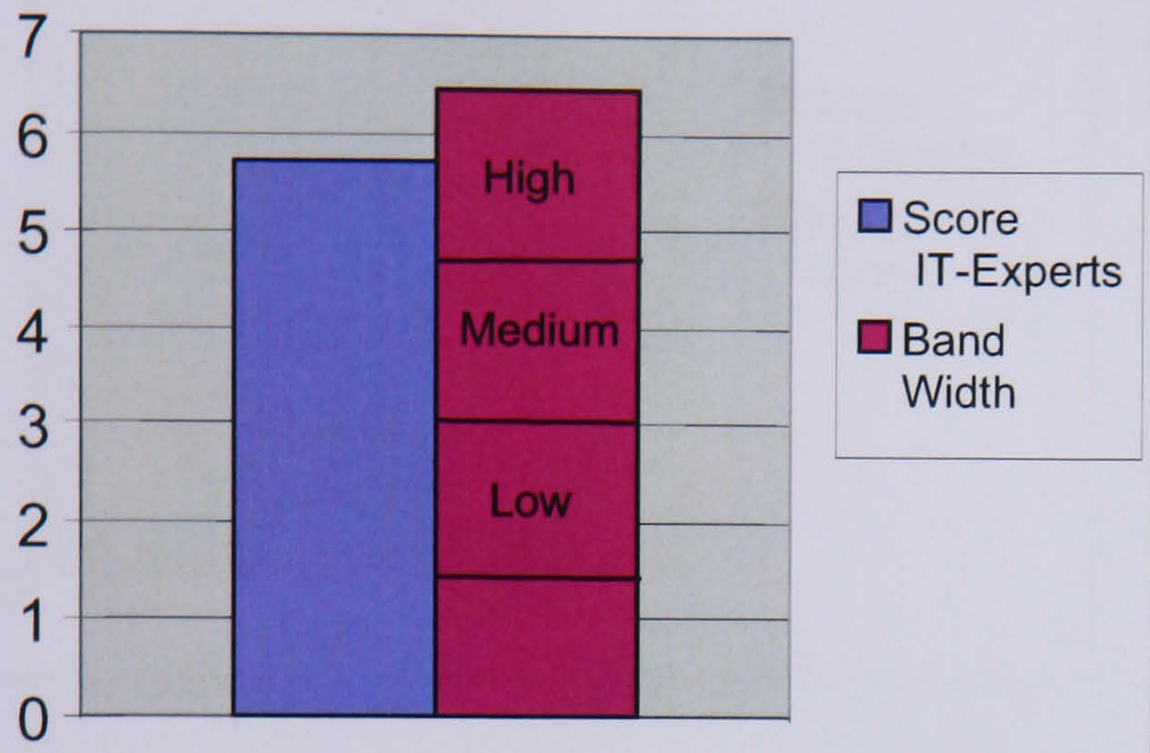
The *qualitative* part concentrated on deciphering the reasons for this specific orientation of people who work in an IT environment and was again composed of seven interviewees. One of the results of the interviews is that the above stated male predominance in this *Professional Culture* is a consequence of the specific contents of the different occupations in this sample, which are still significantly more appealing to men than women.

Therefore, in accordance with the empirical results, it can be stated that the majority of male respondents *does not* negatively influence the insights gained in this section.

Initially, the results of the quantitative part will be presented, followed by those of the qualitative part.

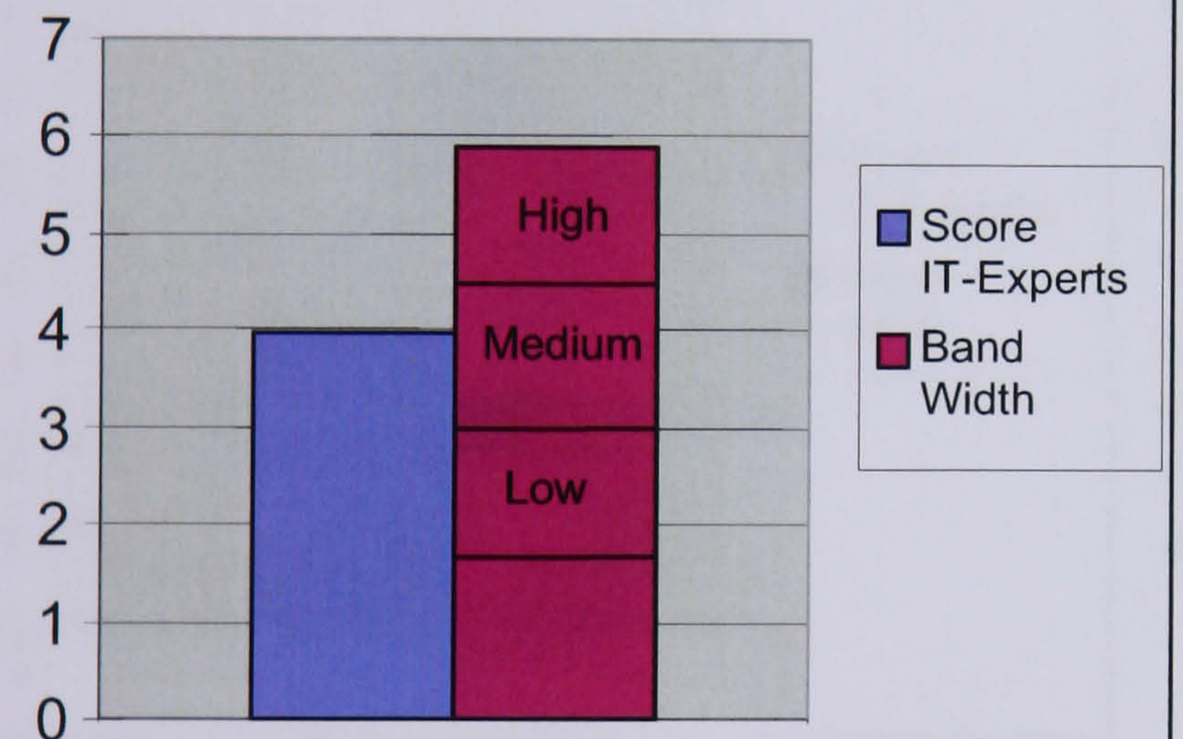
6.3.1.1 The Results of the Quantitative Part

Figure 52: Uncertainty Avoidance



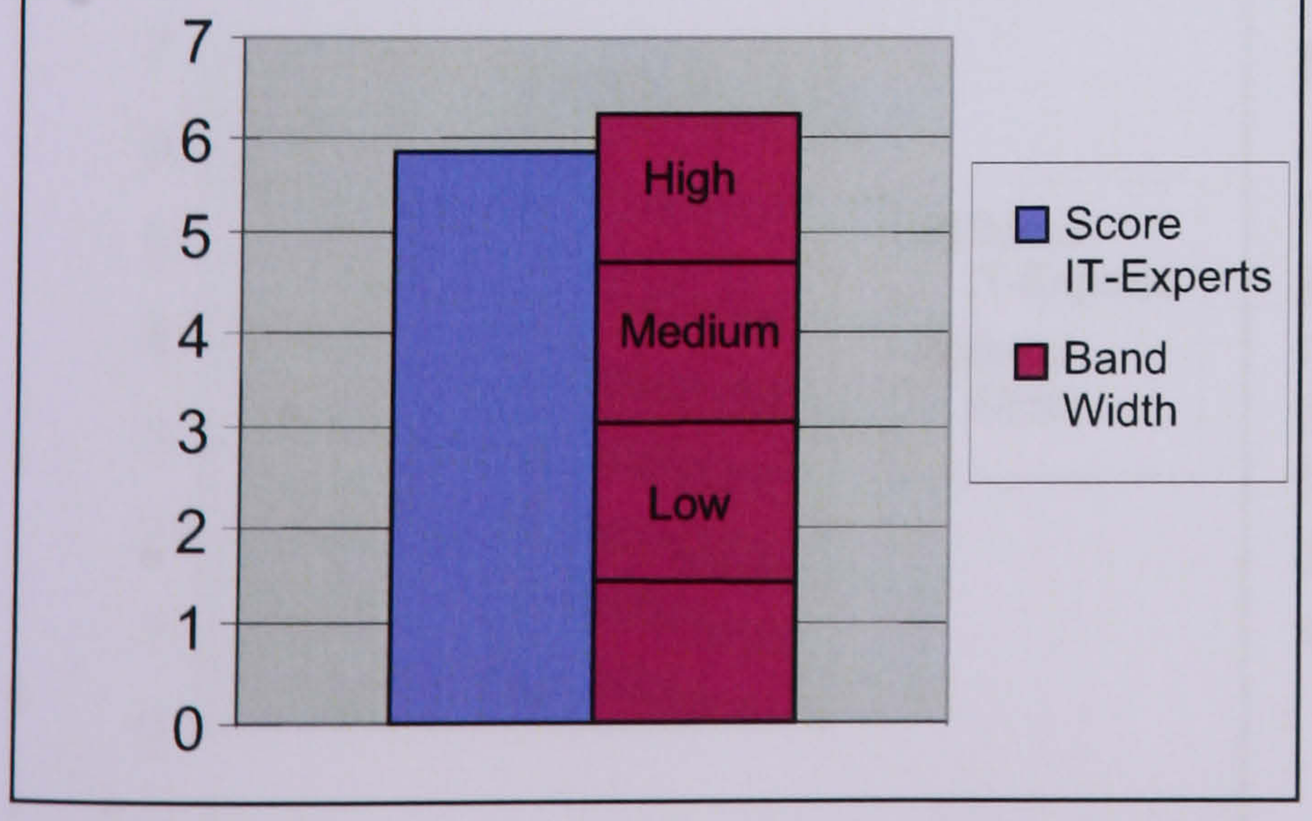
The valuation of the **Uncertainty Avoidance** Dimension is very high in this group (5.72). Apparently members of this Cultural Cluster prefer stable and predictable environments. This at first view probably somewhat surprising result will be discussed further in the context of the illustration of the open interviews.

Figure 53: Assertiveness



Assertiveness is seen to be neutral (3.98). No clear preference for either Assertive or Non-Assertive behaviour can be stated in this group. The specific demands on the group, which are detailed later in this section, play a decisive role for this result.

Figure 54: Future Orientation



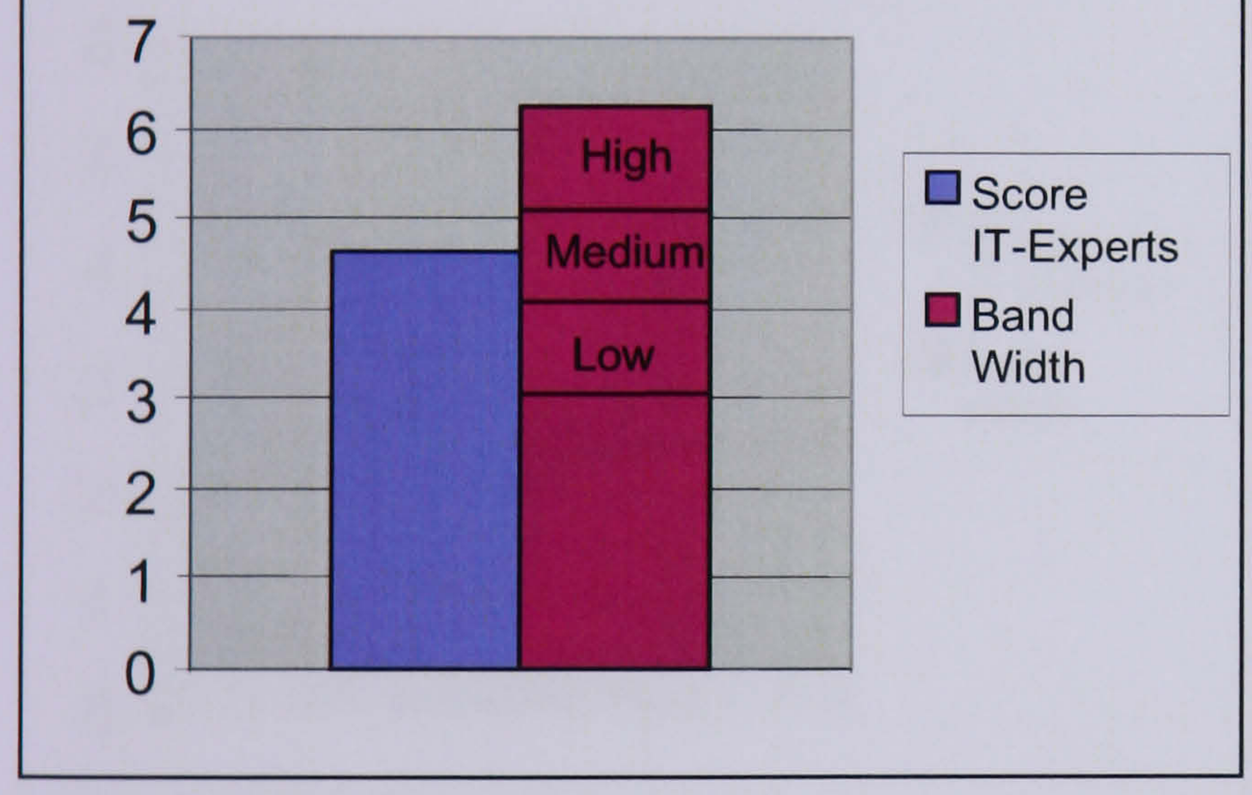
Future Orientation scores high in this group (5.82). This result is a consequence of the fact that most IT tasks require a certain long term orientation by the person carrying out that task in order to be successful.

Figure 55: Power Distance



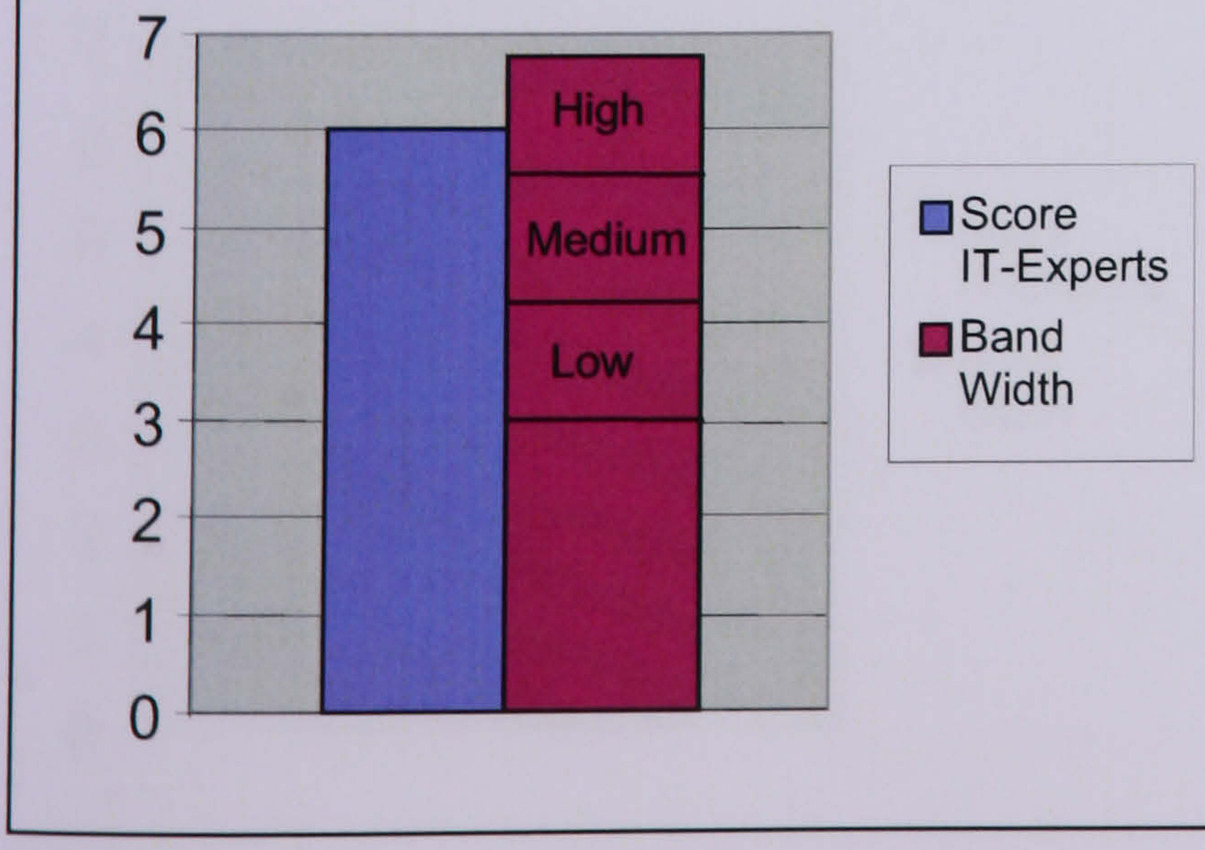
Power Distance is rated in the positive area (3.9). Apparently this group strongly prefers to be in a structured environment which leads to a positive view of Power Distance. This score has to be seen in connection with that of the Uncertainty Avoidance Dimension, which also scores strongly in this group.

Figure 56: Collectivism I



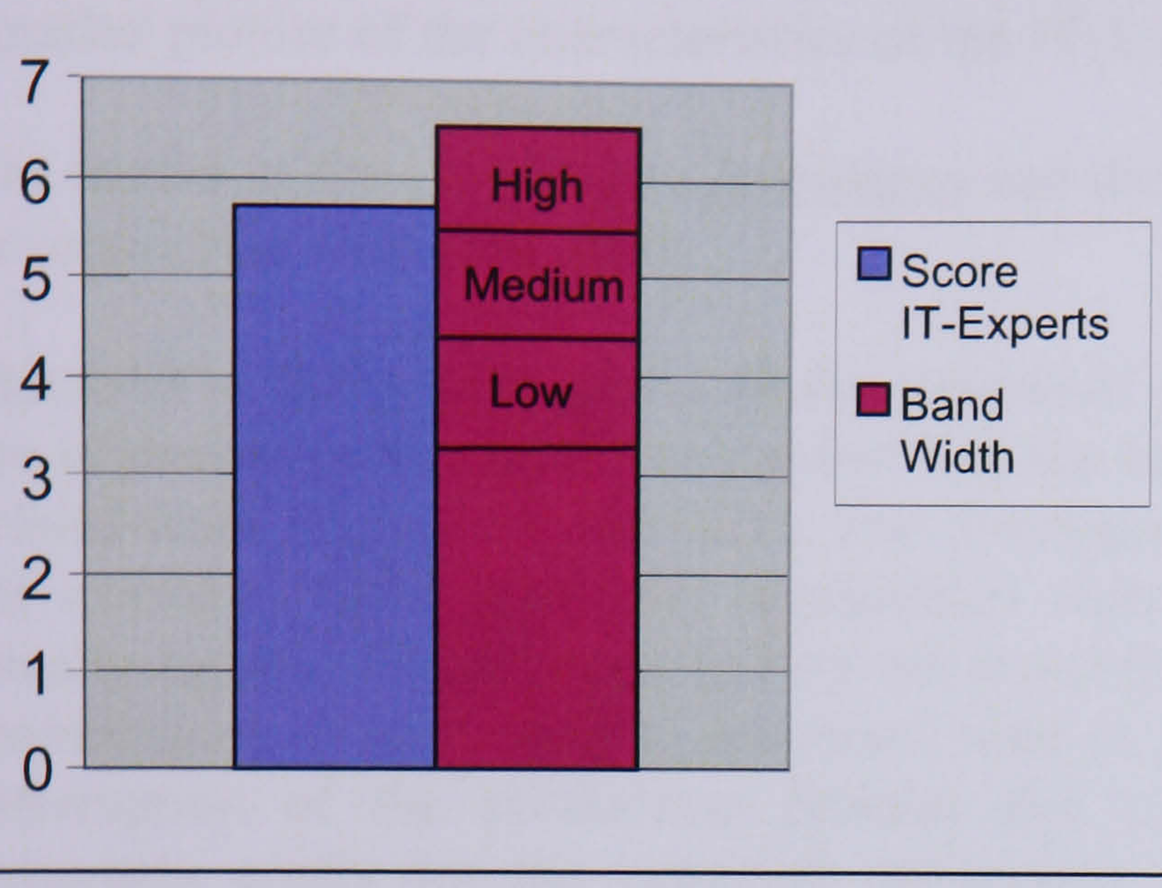
Collectivism I scores in the medium range only (4.62). This is due to the fact that tasks performed by members of this group have to be performed alone to a quite significant degree. Hence collective values as expressed by the Collectivism I Dimension do not score particularly well.

Figure 57: Performance Orientation



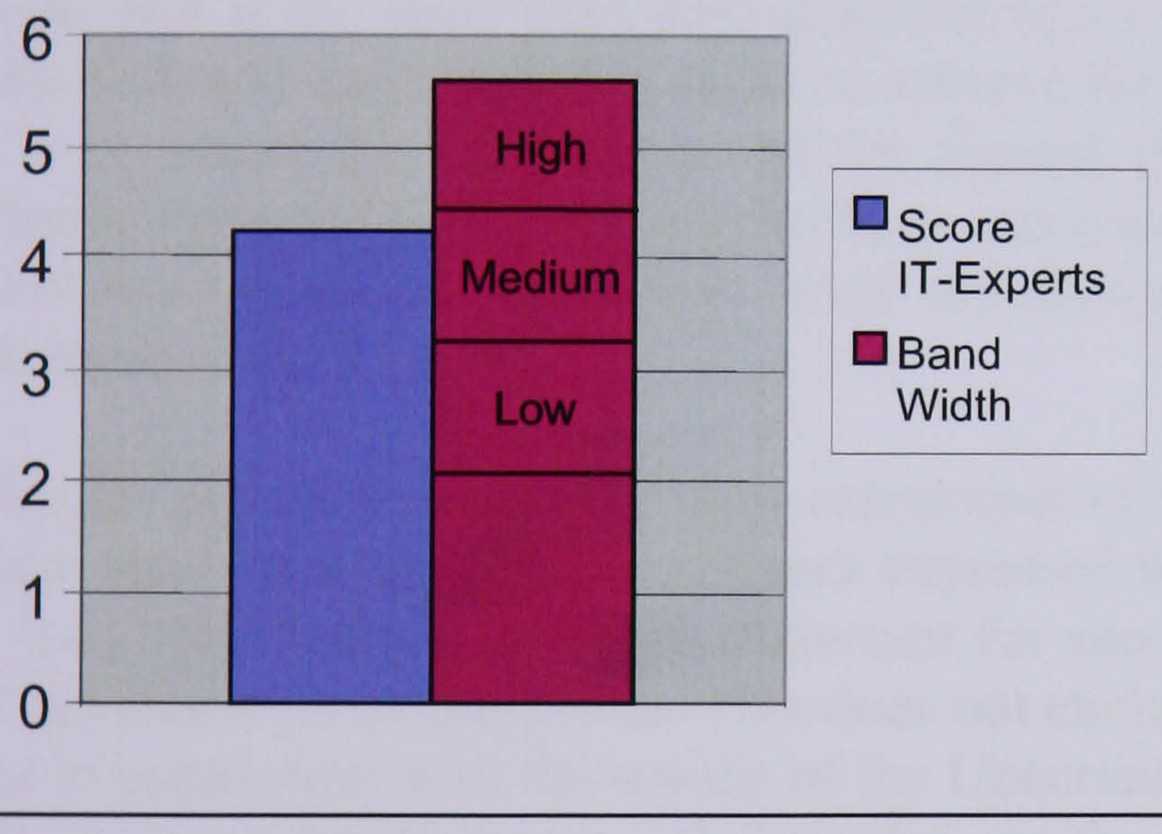
Performance Orientation scores positively in this group (6.0). The relative position members of this group have in their respective organisation and the peculiarities of their work are the decisive factors for this result. This aspect will be discussed further in the following section.

Figure 58: Gender Egalitarianism



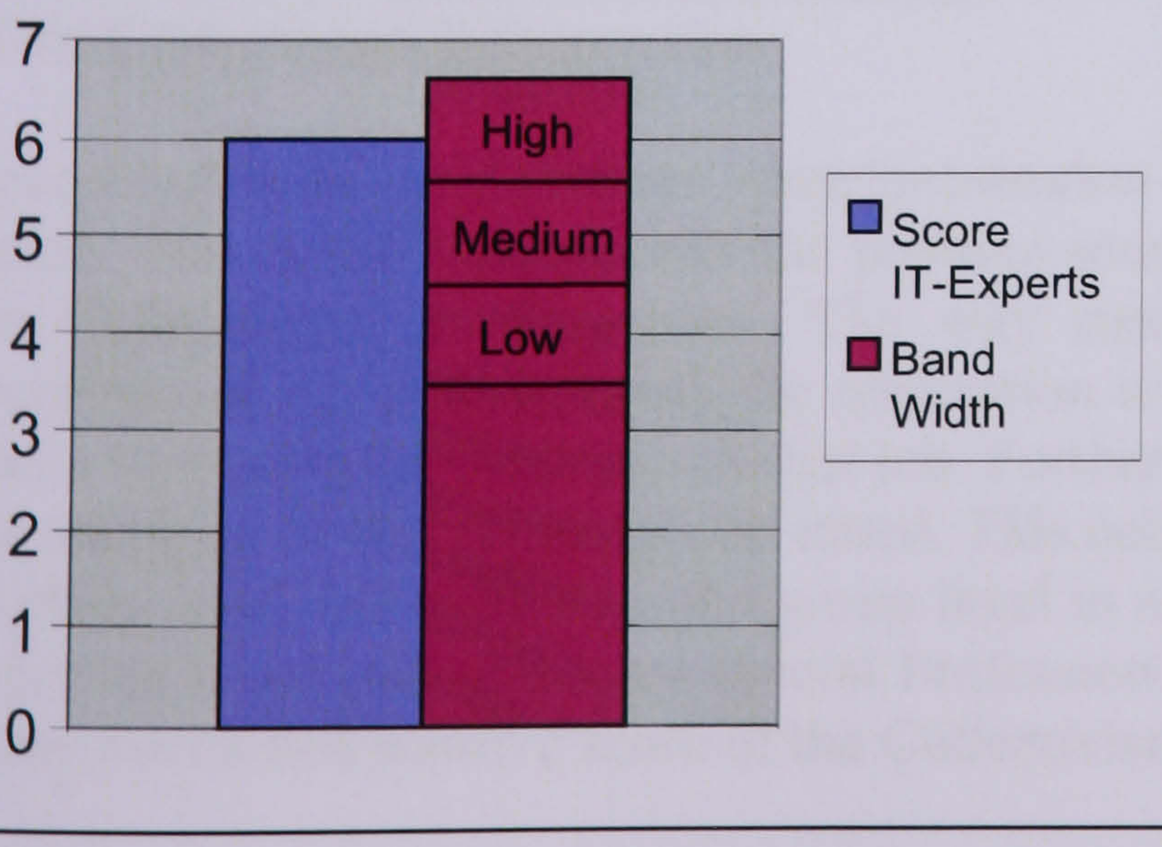
Gender Egalitarianism is rated in the positive area (5.72). As will be shown later, no specific importance is attributed to the content of this Dimension, except for the fact that Gender Egalitarianism is considered to be something completely normal and not worth paying any further attention to.

Figure 59: Human Orientation



Human Orientation is in the neutral area (4.23). In the technical environment in which this group finds itself, Human Orientation apparently does not play an overly important role.

Figure 60: Collectivism II



Collectivism II is seen positively by the members of this group (6.0). Pride on the Profession and a high degree of loyalty to the Profession and the other members of the Profession prevail in the group.

6.3.1.2 The Results of the Qualitative Part

The following description of the qualitative part will give the reader a deeper and more detailed picture of the characteristics of the IT-Experts group.

The results of the Uncertainty Avoidance and the Power Distance scales have to be seen *in connection* with each other.

Members of the present group prefer *structured and stable environments*. According to the interviewees this is due to the fact that the time horizon and importance of most IT related tasks is quite considerable. The development of a new automated flight system, for example, takes years and necessitates significant investments. Such projects are usually significantly simpler to carry out in stable environments. Another example is the maintenance of computerised machines used in a production process. An unscheduled interruption of the production process due to a computer related failure can be extremely costly for the company concerned. Here again, any unforeseen event is considered to be an obstacle for the successful fulfilment of the IT-Expert's task.

These factors lead to the above described high rating of the Uncertainty Avoidance scale. But at the same time they also lead to a high score on the Power Distance scale. This is due to the fact that in order to achieve the above mentioned stable environments, it is necessary for the members of the present group to receive *clear indications* as to what is expected from them so that they can concentrate on the fulfilment of their task. This view finds its expression with the above given positive score on the Power Distance scale.

The already mentioned long term orientation of most tasks shows itself in the positive view this group has about the values expressed with the Future Orientation Dimension. A long term horizon is highly important for successfully carrying out the regular tasks of the members of this group. This does not exclude the ability to find ad-hoc solutions, but in connection with the results of the Uncertainty Avoidance and the Power Distance Dimension it demonstrates a clear preference for anticipation and planning. This view is strongly supported by the results of the interviews.

The rating of the Performance Orientation scale should be seen in connection with that of the Collectivism II Dimension.

According to the interviewees, clear *orientation towards excellence* on the job can be stated. This is reflected in both the positive score of the Performance Orientation and the Collectivism II Dimension. The way members of this Profession understand excellence gives them not only the motivation to always give their best on the job, but also a strong feeling of pride on that job. Furthermore, a very strong cohesion between the members of this group can be stated. This cohesion is not so much on the every day working level, but mainly on the group level in a broader sense. Generally, a feeling of everyone being part of a very special Profession is expressed. This consequently leads to the mentioned positive score of the Collectivism II scale.

The neutral rating of the Collectivism I scale is due to the nature of the work environment which can be both team work oriented and focused on one person working alone. According to the interviews, this changing work setting leads to no clear preference as to the valuation of the Collectivism I scale.

Assertive behaviour does not receive a clear score, either. This is also a consequence of the specific *demands* that are exercised upon this Profession. On the one hand, it is sometimes necessary to stand up for e.g. a solution or an idea which leads to a positive view of assertiveness. On the other, members of this *Professional Culture* in general prefer to find pragmatic solutions, which usually favours a non-assertive behaviour in order to concentrate on the problem to be solved in that situation.

According to the interviewees, this becomes even more important when working with members of *other* Professions (e.g. superiors or colleagues in adjacent fields) who do not necessarily always have the technical knowledge to fully grasp the IT related problems in a given situation, but who do have some other knowledge or competences necessary for the IT Experts to work out a successful IT solution.

Finally, due to the *highly technical nature* of the work environment and the consequent priorities of the members of this Cultural group, Gender Egalitarianism and Human Orientation trigger neither positive nor negative views in the interviews. According to their results, the content of these Dimensions is not overly important, as technical competence and an efficient working style are much more decisive for this *Professional Culture* than the values expressed with these two Dimensions.

6.3.1.3 Summarising Illustration of the Empirical Results

The empirical results give a number of very clear indications of the values and characteristics of the members of the IT-Experts group.

The *quality* of these results is *remarkable,* as the quantitative and the qualitative part complement one another very well. The coherence of these two parts also renders the following development of an appropriate leadership and organisational structure significantly easier.

In addition, the empirical results again show the *importance* of combining quantitative and qualitative elements in order to gain meaningful results that go beyond a mere collection of figures; a statement already given a number of times in this work.

In summary, it can be stated that the empirical results of this Cultural Cluster are highly meaningful and will be very valuable for the following development of an appropriate leadership and organisational Cluster for the IT-Experts Cultural Cluster.

6.3.2 An Integrative Solution to the Found Characteristics

In the following section an appropriate approach for the successful integration of the members of the IT-Experts' Cluster will be described.

Successful integration is particularly important for this specific *Professional Culture*, as the significant technical competence of the members of this Cluster is a key competence for any company in the aviation industry. Furthermore, it is quasi impossible for outsiders to monitor the work ethics of the members of this group efficiently.
Therefore, it is extremely important to create an atmosphere in which the individual IT-Experts do the best they can on their own initiative. This is helped by the already mentioned tendency of the members of this group to strive for excellence.

In summary, it can be said that the goal is to create leadership and organisational structures that help the members of this Cultural group to pursue their *intrinsically motivated* strive for excellence.

6.3.2.1 The Appropriate Leadership Style

According to the empirical results and in accordance with those of the GLOBE-Study (House, et al., 2004) an appropriate leadership style comprises significant elements of the *Charismatic* (e.g. Bass, 1985; Burns, 1978; House, et al., 2004; see also section 2.2.3), the *Team-Oriented* (e.g. Manz/Sims, 2001; House, et al., 2004; see also section 2.2.2) and the *Human-Oriented Leadership Styles* (e.g. Gagné/Fleishman, 1959; Fleishman/Quaintance, 1984; Blake/Mouton, 1985; House, et al., 2004; see also section 2.1.2). These should be rounded off by some elements of the *Autonomous Leadership Style* (House, et al., 2004).

The special characteristics of this Profession which are focused on performing excellently in a demanding environment and in consequence being very proud on the Profession and its achievements point to a leadership style which is centred around the *Charismatic/Value-Based Leadership Style*. This is enhanced by the already mentioned long term orientation of most of the IT-Experts' tasks which is accepted and lived by the members of this Culture (high score of the Future Orientation scale).

A second central point of an appropriate leadership style is the *Team-Oriented Leadership Style*. Although the need to often work alone is acknowledged by the members of this Culture, an orientation towards team work should be intended as far as feasible. The results of the GLOBE-Study in connection with the empirical results, especially from the qualitative part clearly indicate a preference for team orientation in the appropriate leadership style.

Thirdly it is important for a leader of this group to incorporate significant elements of the *Human-Oriented Leadership Style*. This judgement is partially due to the quantitative results in connection with those of the GLOBE-Study, but also due to the qualitative part.

Despite the fact that *Human-Orientation* itself was not considered to be overly important by the members of this Culture, a clear indication of the importance to be recognised as a *human being* and of having *good interpersonal relationships* within the group could be seen in the interviews.

Apparently, the somewhat ambiguous rating on the *Human-Orientation* scale in the quantitative part can be attributed to the content of the questions which are centred around generosity, sensitivity and tolerance of mistakes. This wording most likely contributed to a picture in which the *Human-Orientation* Dimension was seen somewhat ambiguously by people whose main focus is necessarily on technical matters.

Nevertheless, the need for healthy interpersonal relationships both among the work group and with the direct superior was clearly expressed in the interview process and is rather clearly confirmed by most of the quantitative part.

Finally, the *Autonomous Leadership Style* also contributes partially to a superior leadership style in the current setting. This is due to the fact that the IT-Experts think of themselves as being different and that in order to match that difference it is sometimes necessary also for the direct leader to be different in comparison to the way other leaders are perceived by the members of the here presented group.

An appropriate leadership style according to the above given results would look like the following.

The *Charismatic/Value-Based* leaders need to give a clear *Vision* and need to *inspire* their people especially when it comes to long term oriented and highly demanding tasks. They need to give a clear guidance to the people where they want them to be in the mid- and long-term future and what they are supposed to do in order to achieve that.

Nevertheless, self leadership in the sense of the *SuperLeadership* approach is a key issue as well. The *Charismatic/Value-Based* leader gives guidance and support as far as the "big picture" is concerned, whereas the regular day to day business is independently handled by the people. Therefore, an emphasise of the *Team-Oriented Leadership Style* is highly important as well.

Furthermore, the leaders' behaviour needs to be focused on the creation of *healthy* interpersonal relationships as well among the people, as between themselves and their people. This can best be achieved with the help of a warm and considered behaviour from the leaders' side in which all subordinates know that they are *personally valued*. In addition the emphasis of team work and self governance seems to be a valuable approach in connection with the creation of a credible *Vision* for all parties concerned.

Finally, the members of this *Professional Culture* expect their leaders to effectively live this behaviour even if that means that they will have to deviate from some commonly lived leadership style and *autonomously* create a new and different leadership style for themselves and their people.

In summary, it can be said that the specific traits of this Culture can best be matched with a nearly equal use of the *Charismatic/Value-Based* and the *Team-Oriented Leadership Style* with the consistent use of the *Human-Oriented Leadership Style* if necessary. In certain settings this leadership style needs to be supplemented by a few elements of the *Autonomous Leadership Style* in order to achieve a proper implementation.

6.3.2.2 The Appropriate Organisational Structure

The appropriate organisational design needs to take into consideration the special demands that the structure of the present Cultural Cluster creates.

It is particularly important to give both the leader and the subordinates the *room to manoeuvre* that is necessary in order to *create* the above described leadership relationship. Therefore, it is necessary for the retained organisational structure to permit a *close* and *healthy* relationship between the leaders and their subordinates on the one hand, but also for the subordinates to independently and self-responsibly pursue their tasks on the other.

These demands can be best matched by an organisation design which is based on that proposed in the context of the above described *Complexity Theory* (Stacey, et al., 2000; see also section 3.2.2).

The main point is the creation of *teams* in which the different competences (e.g. hardware and software engineers) can be bundled. In these teams, members should be encouraged to pursue on *their own initiative* the search for an appropriate solution to the different problems arising in the completion of their task.

The role of the leader in such an environment is mainly to *guide and help*. To guide and help has to be seen in a *double* meaning in the present setting.

The *first* meaning is on an *individual* level.

The organisation needs to give the leaders and their subordinates the freedom to actually work together. Working together means here that the subordinate is not under a direct command and control scheme with the leader, but, on the contrary, under *loose* supervision in which the leader gives guidance and help when needed without putting any excessive control pressure on the subordinates. Therefore, formalised and standardised control mechanisms should be kept to a *minimum*, whereas the organisation should encourage the individual IT-Experts to seek help on their own initiative when needed; either from a fellow IT-Expert or from their leader.

Furthermore, detailed planning of tasks should be replaced by the establishment of *rough* guidelines until when and in which form a task needs to be completed. The actual realisation of the task should, however, be left *entirely* in the hands the individual employee or team.

On the group level, the organisation has to give the leader the freedom to actually *live* the role described above.

This means that it is necessary for the organisation to permit the leaders to actually lead the subordinates which means providing them with an *appropriate* power base. In detail this means e.g. that overly restrictive planning, report and control systems have to be avoided, as this would impair the leaders' ability to actually take necessary decisions on their own.

Furthermore, the chances are that the leader would exhibit the same kind of behaviour towards the team members which would obviously inhibit the necessary trust and harmony for the creation of a living organisation in the sense of *Complexity Theory*.

Actual implementation of this organisational design could take as guideline *Likert's System 4* (Likert, 1967; see also section 3.3.1.3) or the above described *Lateral Organisation* (e.g. Wunderer, 2001; see also section 3.3.2.2). The important point about both approaches is the realisation of teams that work mainly *independently*. In these approaches, the leader is seen less as a commanding superior and more as a guide. Correctly applied, these structures also permit for the above mentioned key behavioural patterns of the leader to be *allowing*, *accessible* and *attuned* (see section 3.2.2 for details).

Furthermore, this kind of organisation also permits the satisfaction of the above detailed key needs of the subordinates which are guidance, team work and healthy interpersonal relationships.

In summary, it can be stated that an organisation which is designed around the principles laid down in the context of *Complexity Theory* is, according to the results obtained with the help of the empiricals, the most appropriate organisational design. The actual realisation of this approach can be achieved through a team based approach in the sense of *Lateral Organisation*.

Nevertheless, it is *not appropriate* to push the organisation into a state of a *heterarchy* (e.g. Stacey, et al., 2000; see also section 3.2.2) as this would undermine the need of the IT-Experts' group to be guided clearly by a leader. Therefore, a very cautiously lived hierarchy should still be put in place which would then be represented by the direct superior of the IT-Experts.

6.3.2.3 Summary of the Possible Solution

The possible leadership and organisation solution for the present Cluster is quite different from that for the first two.

It is significantly *less* based on a hierarchical solution and therefore a lot *more* in tune with *current* trends in leadership and organisational theory and research. This also leads to this solution being more *complicated* to implement, as it is significantly more demanding on the organisational and leadership level than e.g. a purely hierarchical solution which is rounded off by a *Bureaucratic Organisation*.

Nevertheless, it is highly important for an organisation to take into consideration these different aspects of the IT-Experts' Culture, as only an appropriate leadership and organisation structure is able to create an environment in which all IT-Experts actually do give their best.

As already mentioned, *intrinsic* motivation is of the utmost *importance* in the present setting, as direct control mechanisms are neither wanted by the members of the present Cluster, nor are they efficient in this specific environment.

In summary, it can be said that according to the demonstrated results the integrative solution described here is the most appropriate way to design the organisation and the leadership relationship for the present group. Therefore, any company having members of this Culture within its work force should strive for an implementation of the structures described here.

6.3.3 Global Assessment of the Results for Cluster 3

The results for the third Cluster are highly satisfying from both a *technical* point of view, and a *content* related point of view.

Technically, it can be stated that the employees present in the sample are nearly exclusively composed of members of IT related occupations. This homogeneity as far as the *Profession* is concerned is rounded off by the above stated fact that members of the present sample do originate from various countries and companies.

Therefore, the clustering that could be observed can be traced back to the *Professional* background of the different employees present in the sample.

As far as the content is concerned the results show a rather complex structure of this *Professional Culture*, which needs to be taken into consideration when leading and organising these employees.

The successful implementation of the here developed design obviously is not without problems. Particularly the demands on the leaders of the IT-Experts is extraordinarily high as they need to be very open minded in order to embrace the developed leadership style. This is due to the fact that it *significantly* deviates from the classic command and control structures still found very often in the industry. Especially the fact that the leaders should predominantly act as a role model and coach and not as a superior demands significant changes in the way leaders could possibly see themselves.

Furthermore, as far as the design of the organisation itself is concerned it is not without problems to implement the presented design. This is due to the fact that here as well, significant progress has to be carried out if a classical form of organisation is in place. In particular the very loose command and control system potentially poses a serious problem for classical companies. This is a consequence of the fact that it is impossible to just integrate these trust based structures into a classical and per definition not trust based organisation (for the relevance of trust see e.g. Weibler, 2001; Weibler 1997b). Therefore it is possibly necessary to alter whole divisions of concerned companies in order to match the needs of the IT-Experts Cultural group.

In summary, it can be stated that the results of the present section are highly valuable for a more successful way to lead and organise what is defined in this section as IT-Experts. Therefore, despite the fairly significant problems to integrate these findings into a classical organisation, it seems to be advisable for any company to attempt to come as close as possible to the here developed structures.

6.4 ***Cluster 4: The Pilots***

Pilots make up a group of themselves. The *unique structure* in their responses which is comparable to *no* other group leads to highly interesting insights into the mental structure of the members of this *Professional Culture*.

The specific demands and the specific environment Pilots live and work in are responsible for this. The present Cultural Cluster is in a number of ways significantly different from any other Cluster present in this sample.

Also, the Pilots' Cultural Cluster is *extremely* homogenous as there are no other occupational backgrounds found in this Cluster.

Hence, the separation between this Cultural Cluster and the other Clusters is unambiguous and clearly shows the unique position the Pilots' Culture has within the aviation environment.

The highly interesting peculiarities of the Pilots' Culture and the consequences these have for the respective companies will be outlined in the following. Also a number of possible solutions for the successful integration of this Culture into an organisation will be given.

6.4.1 The Empirical Survey

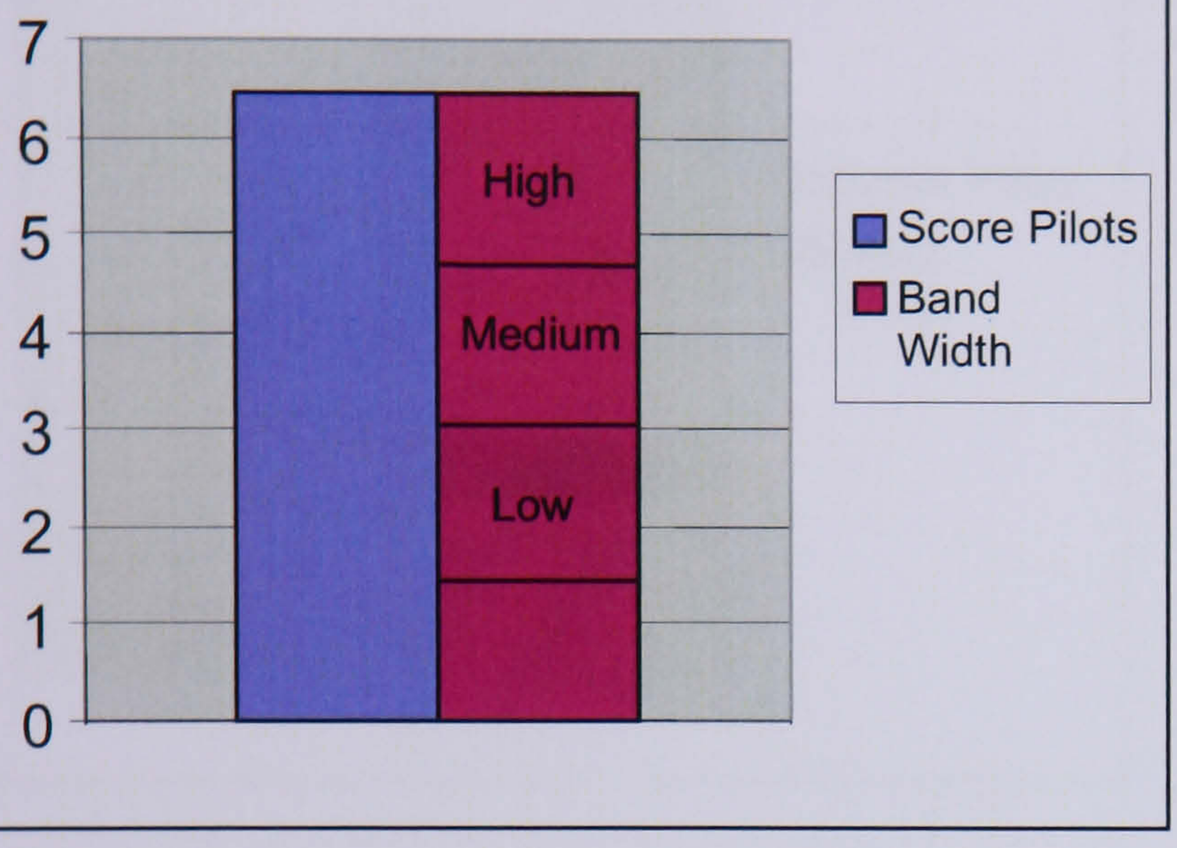
The description of the empirical survey is structured as always throughout this chapter. Initially the results of the quantitative part will be given, followed by those of the qualitative.

The quantitative part alone gives a very clear indication as to the characteristics of the Pilot's Cluster. The *homogeneity* of this group in comparison to the other groups of the sample is stunning. No other Cluster is as unambiguously defined as the Pilot's Cluster after evaluating the quantitative part of the survey only. The sample itself is based on 51 responses originating from various organisations and nations. As still today very few women are exercising this occupation, the sample too is nearly exclusively composed of men. As this is a reflection of the gender related composition of the occupation as a whole though, this *does not mean* a restriction as to the validity of the findings of this section.

The qualitative part, which is as usual composed of seven respondents, deepened and strengthened the results of the quantitative part further and demonstrates why the Pilot's Culture developed the specific traits it has.

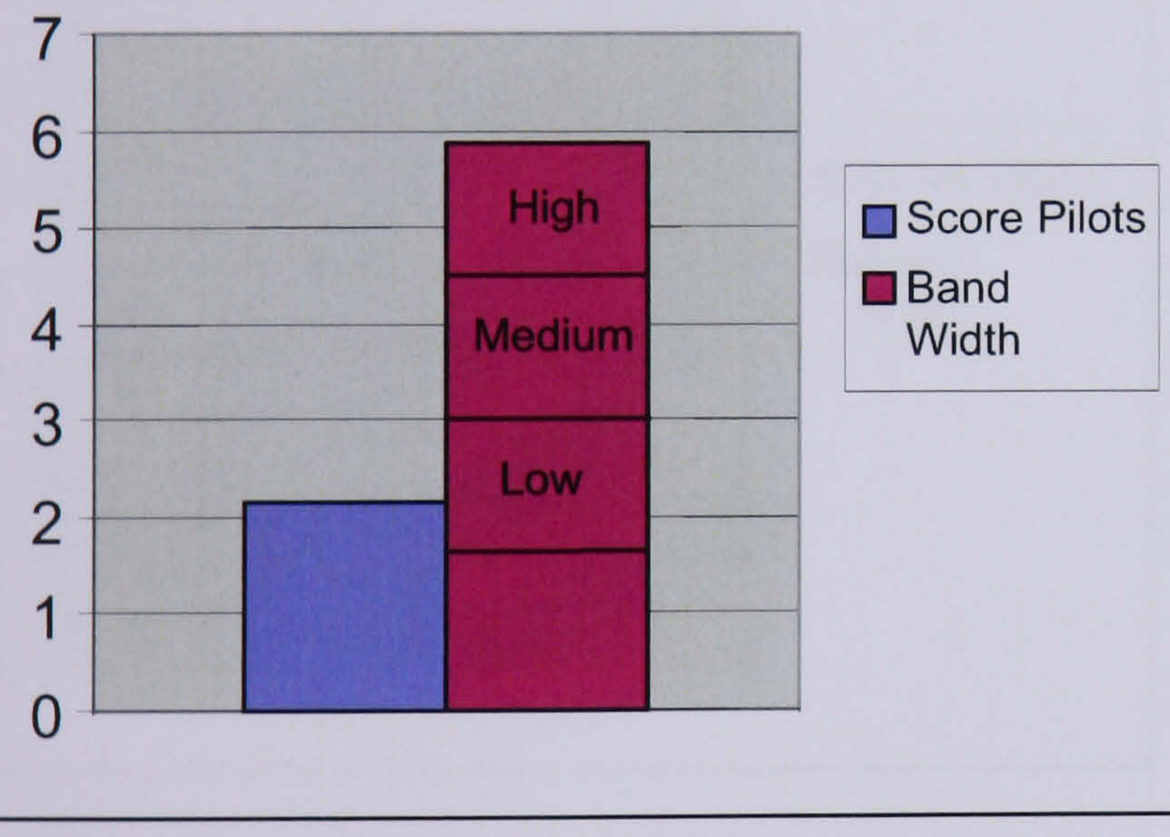
6.4.1.1 The Results of the Quantitative Part

Figure 61: Uncertainty Avoidance



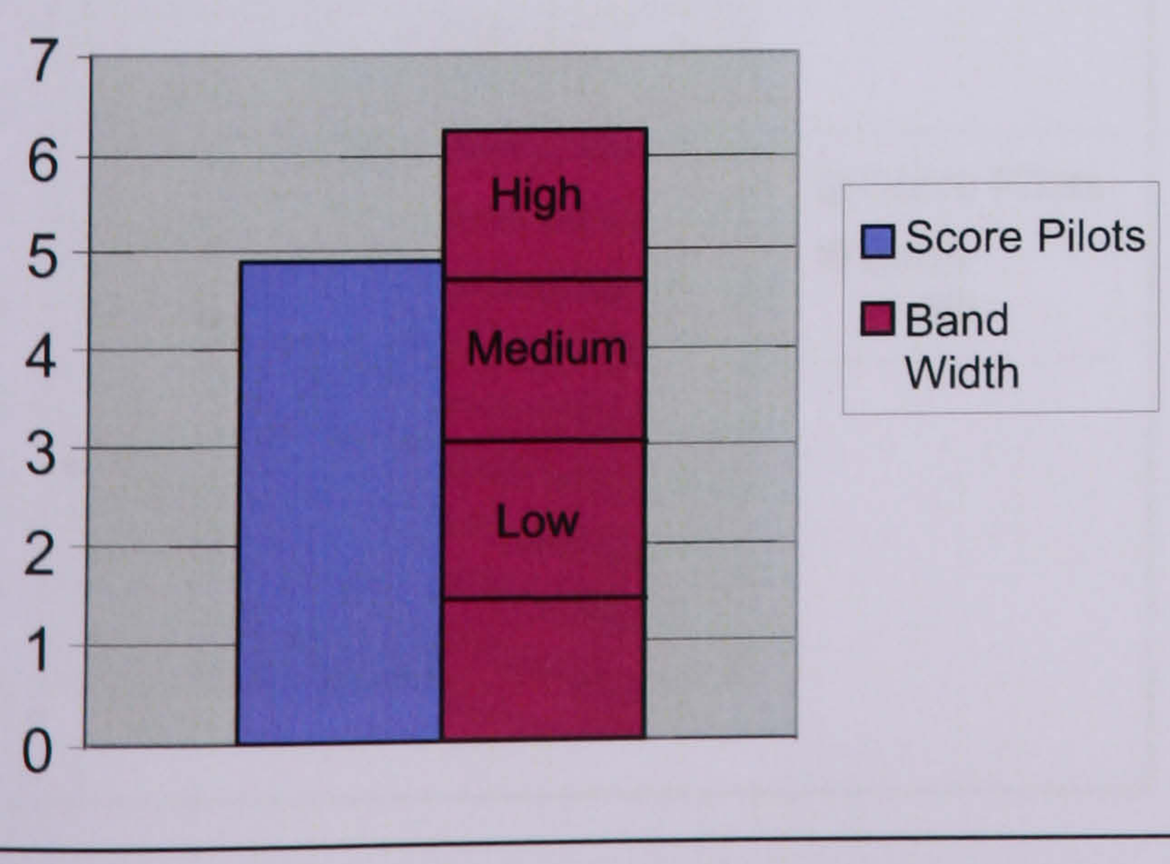
The **Uncertainty Avoidance** Dimension is valued *extremely* positively in this Cluster (6.45); no other group has the same high esteem of the values expressed by this Dimension. Not surprisingly, an environment which is characterised by few unexpected events and where future developments can easily be anticipated is preferred by the members of the Pilots' Culture.

Figure 62: Assertiveness



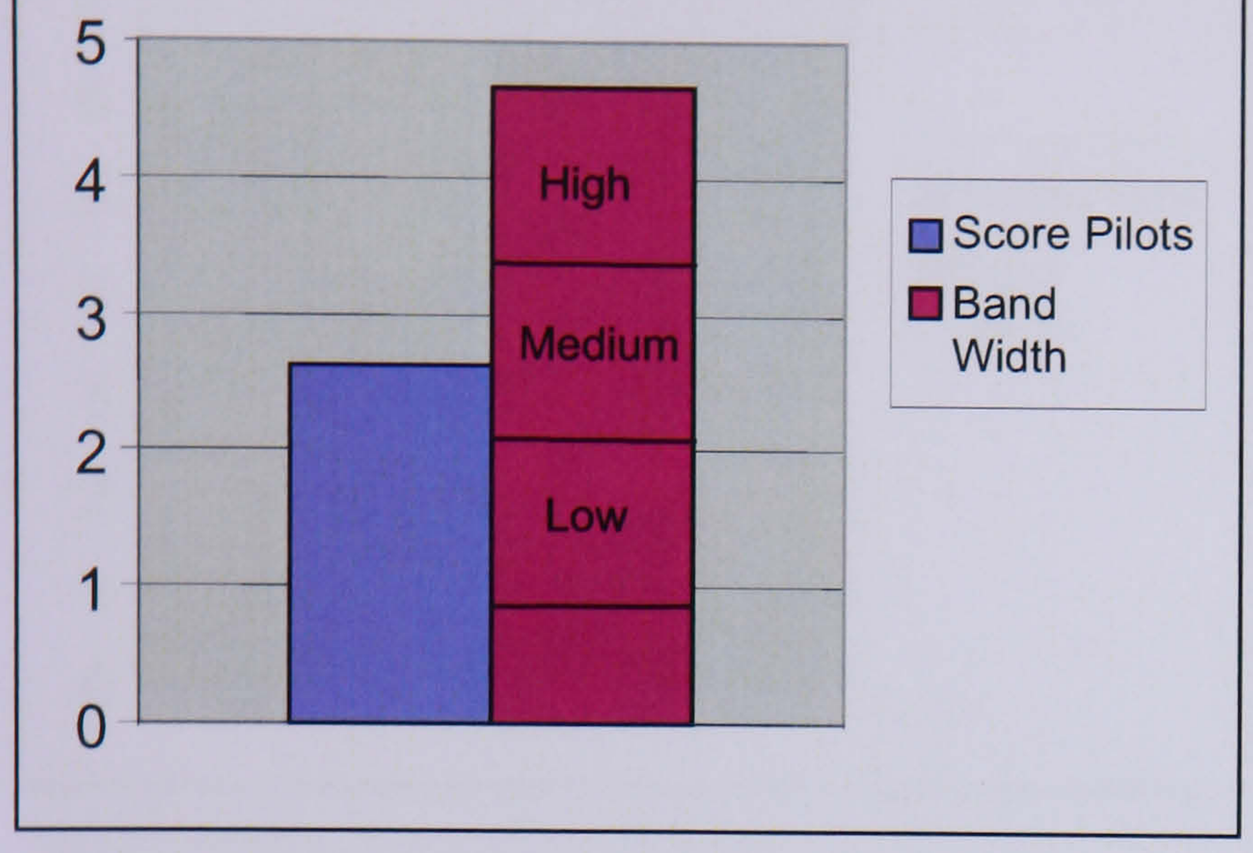
The **Assertiveness** Dimension is valued *very* negatively (2.14). A number of reasons which have their roots in different aspects of the Pilot's life are responsible for this result. These aspects will be pointed out further down in this chapter.

Figure 63: Future Orientation



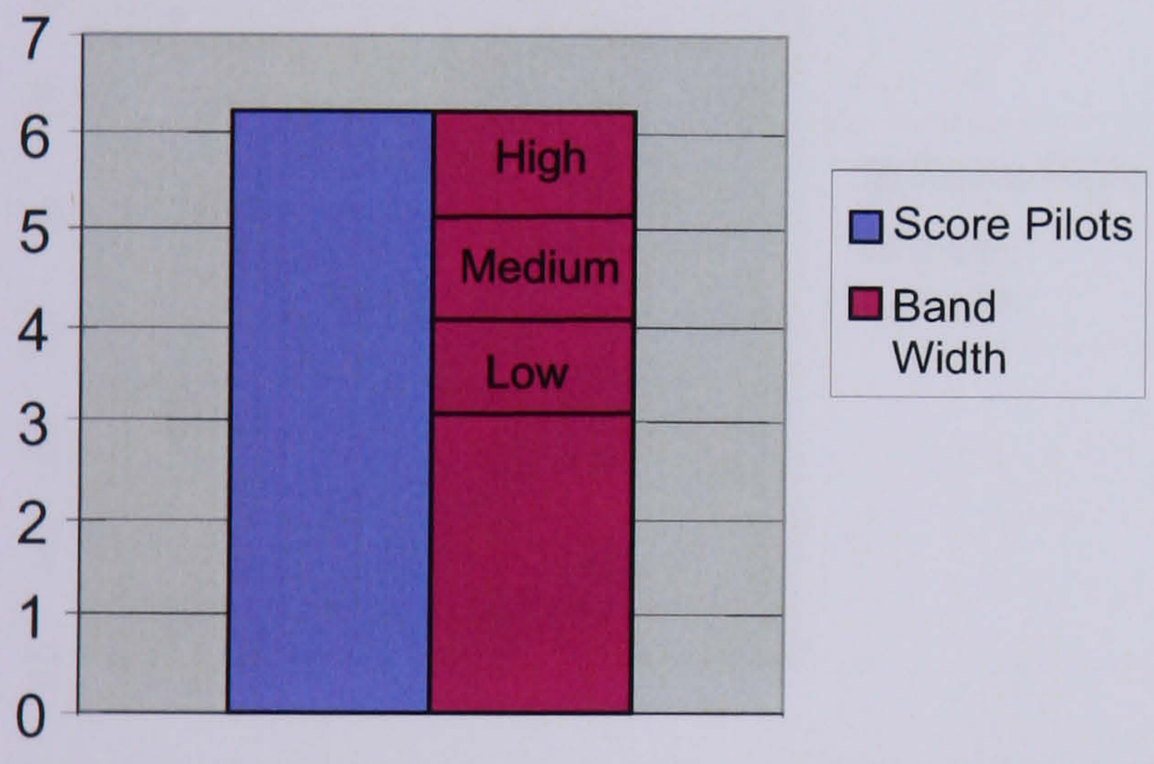
Future Orientation is valued in the very moderately positive area (4.88). A mixture of the need to anticipate and the need to react swiftly to arising problems is moderating each other in this Dimension. These counteracting forces lead to the rating stated at this point.

Figure 64: Power Distance



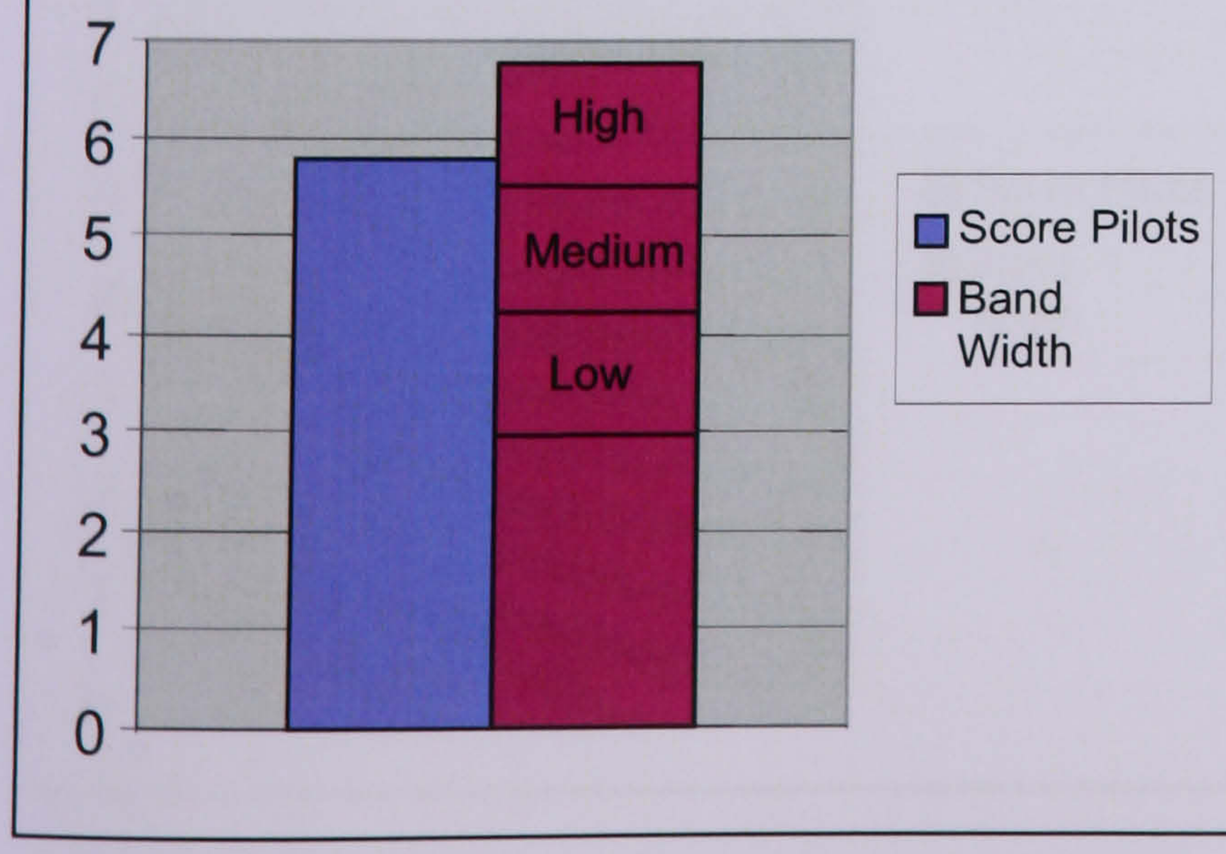
The **Power Distance** Dimension scores neutrally (2.63). This result is a bit misleading though, as the Pilots' absolute score is the *second lowest* in the whole sample. Taking this fact into consideration a certain aversion to the values expressed in the Power Distance Dimension has to be stated at this point.
An initial interpretation of this result as being the expression of a preference for a low to non-existing hierarchical structure, has to be rejected though. The reasons for this and some possible solutions will be given later in this chapter.

Figure 65: Collectivism I



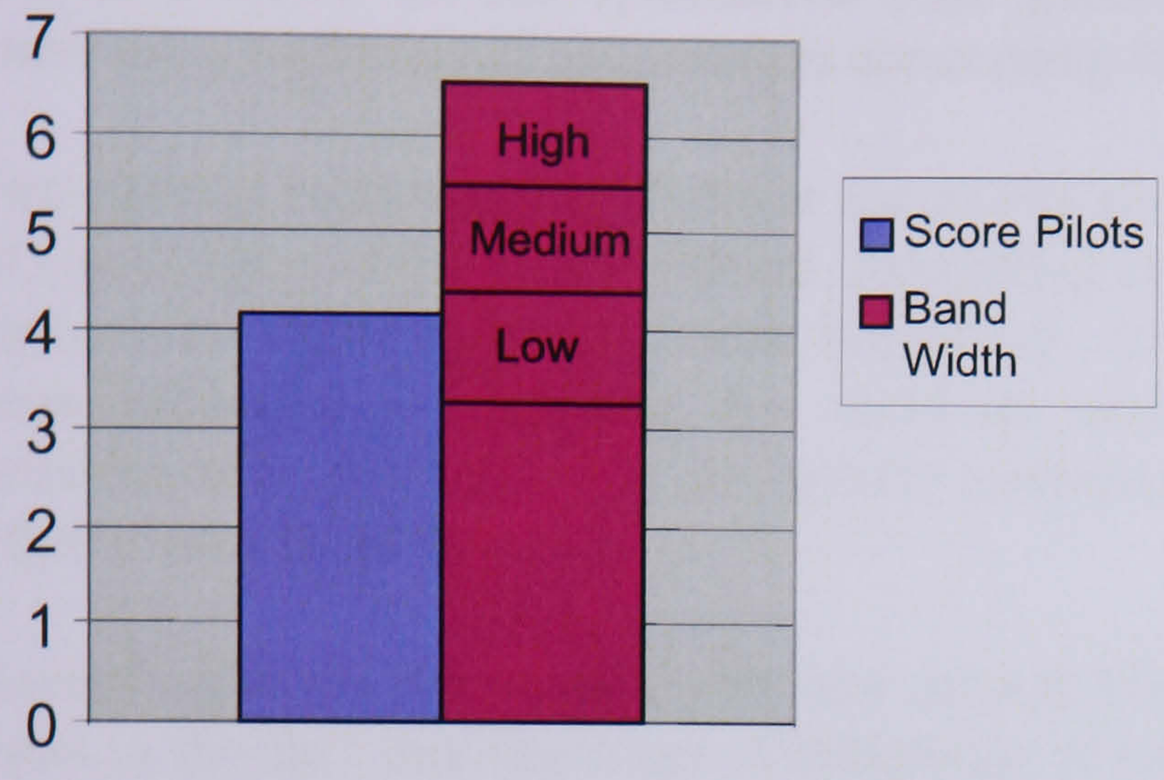
The **Collectivism I** scale gets the *highest* rating out of all Cultural Clusters (6.24). The apparent need for effective team work in the cockpit leads to this clear and unambiguous result.

Figure 66: Performance Orientation



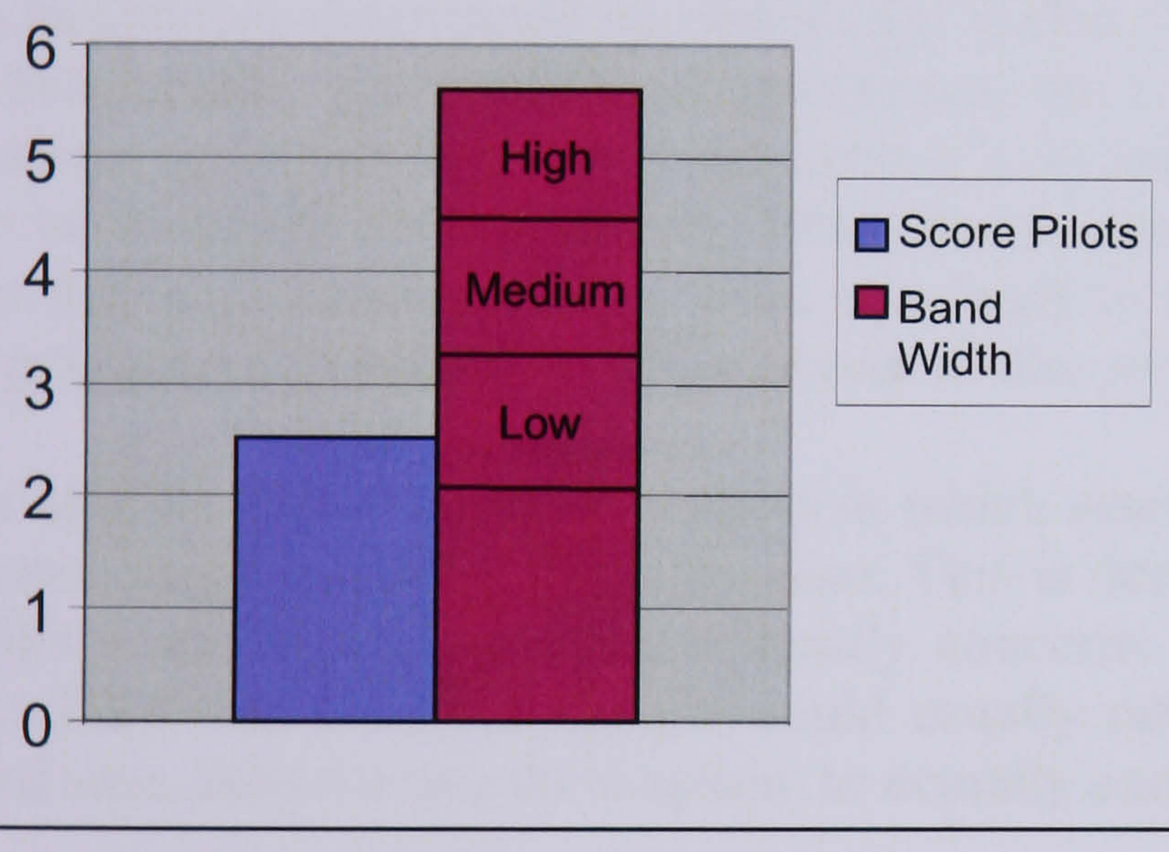
The **Performance Orientation** Dimension scores in the moderately positive area only (5.77). A number of reasons are responsible for that result. This Dimension will be discussed further in the following section, as some highly interesting insights result from the more detailed investigation of this Dimension.

Figure 67: Gender Egalitarianism



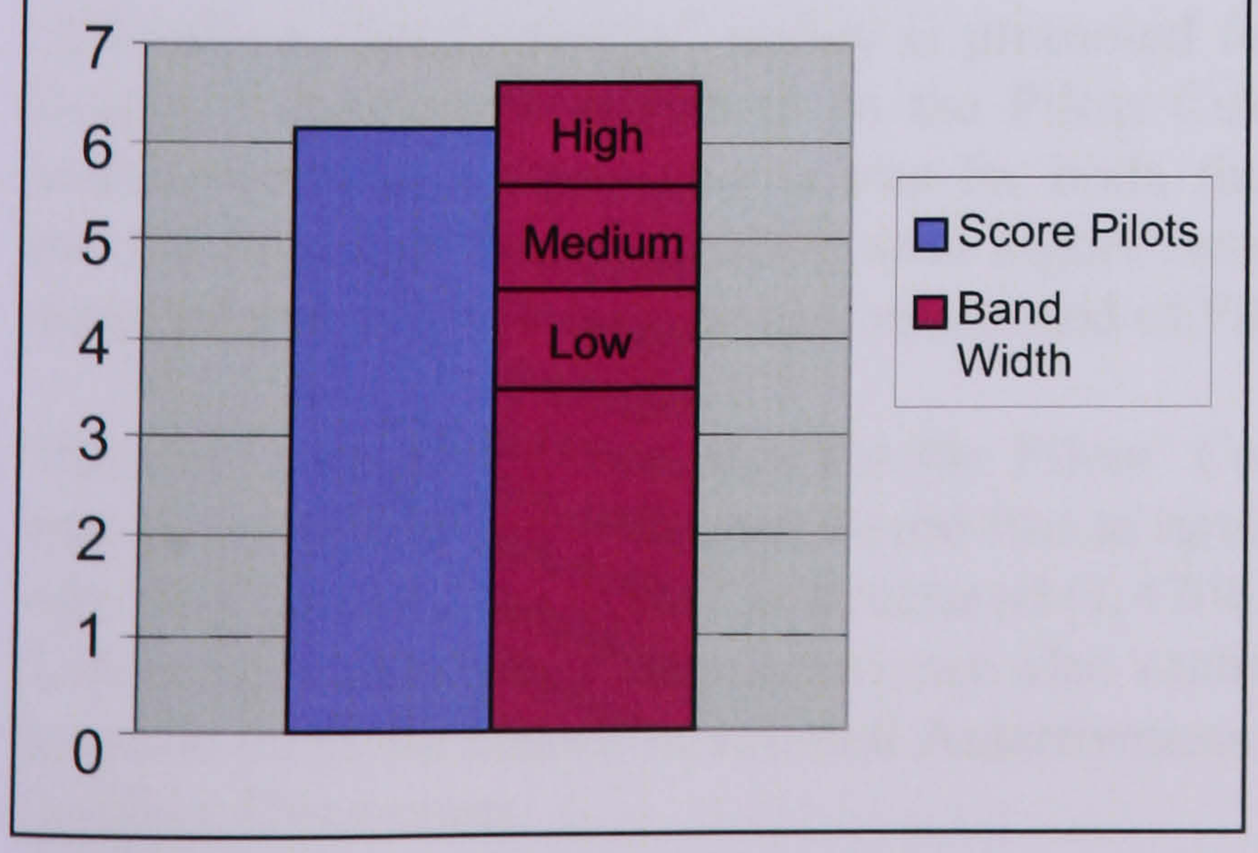
Gender Egalitarianism is valued in the low area by the members of this Culture (4.14), representing the *lowest value* present in the sample. Apparently some rather old fashioned views are still held in this predominantly male Profession. This aspect will also be discussed in more depth in the following section.

Figure 68: Human Orientation



Human Orientation scores the *most negatively* out of all Cultures present (2.5). This rating is the consequence of two main aspects. The first is the extremely technical environment in which the members of this group live and work. The second aspect was already mentioned in the context of the Power Distance Dimension and has to be seen as a consequence of the hierarchical structures prevailing in this group. These aspects will be described in more detail in the following section.

Figure 69: Collectivism II



Collectivism II is valued *very* positively in this Culture (6.16). Hardly surprising members of the Pilots' Culture express significant pride and loyalty towards their Profession.

6.4.1.2 The Results of the Qualitative Part

The interviews of the qualitative part generated a significant amount of highly interesting background information concerning the above described quantitative results.

The already mentioned preference for an environment which is marked by a *minimum* of Uncertainty could be confirmed. According to the interviewees, basically *any* kind of unforeseen event is usually seen negatively. Unforeseen events are considered to be responsible for a large part for incidents and accidents. Therefore, Uncertainty is considered to pave the way for unsafe situations, which obviously is the last thing a Pilot wishes to have.

According to the interviewees the low esteem Pilots have for Assertive behaviour has its roots in the fact that this kind of behaviour is rather unhelpful in most situations Pilots may find themselves. The clear dislike of Assertive behaviour is confirmed when it comes to the relationship between the Pilots and higher management.

The Pilots usually do not have any significant influence on their work environment as it is largely pre-determined by others (Air Traffic Control, Revenue Management, Station Management, pre-established procedures etc.). Therefore, if they want to achieve something in this work environment it is a lot more useful to be nice and cautious, than to be Assertive and aggressive. This *extreme restriction* as to the influence Pilots have on the final outcome of their work also leads to the only moderately positive rating the Performance Orientation scale receives in this group.

In addition, the very few situations in which assertiveness could be helpful, usually it is unnecessary to exhibit this behaviour. This is due to the fact that situations in which the Pilot's opinion does matter, it mostly concerns the relationship between Captain and Co-Pilot. The Co-Pilot though would usually rather give in to what the Captain wants and says, than forcing the Captain to actually exercise any kind of Assertive behaviour.

This second aspect leads to another very important topic which is the way *hierarchy* is seen on the one hand and lived on the other.

Officially a "flat hierarchy" policy is promoted for the cockpit crew. This official way though, is ultimately *not lived*. In the Pilots Culture a very polite kind of a military leadership style is used. This is true for both, the direct relationship between Captain and Co-Pilot and the relationship with higher ranking members of the flight operations management which is usually also composed of Pilots.

Therefore, despite the fact that for the Pilots' Culture a high accordance between the way the members of the Cluster would like to have their environment structured and the way they perceive it actually is structured (1,4706; 1 showing a very strong correlation, 7 showing a very weak correlation; see also section 8.4 for details) a restriction has to be made as to the before mentioned Assertiveness Dimension in reference to the Power Distance Dimension.

After due consideration of the results of the interviews the relatively low rating on that scale can only be seen as an *Espoused Theory* in the sense of *Argyris/Schön* (1978, pp.10ff. Argyris, 1976; see also section 4.2.2), whereas the *Theory-in-Use* is the military like command structure in this environment.

The very low rating on the Human Orientation scale perfectly fits this picture. According to the results of the interviews, the individual is seen much less as a person and much more as a sort of organic machine, performing various tasks.

Although these results may seem strange at first view, they make sense to the Pilots themselves. They see themselves being part of a machine and *they want to adjust* themselves as much as possible to the *needs* of this *machine*. For any Pilot initially the machine is the airplane, later in the career though the understanding of the "machine" goes well beyond that point and reaches out to the whole operational environment or in the case of the Pilots' management even to higher management tasks.
For instance, to describe an efficient interpersonal work style, words which are usually reserved for technical specifications of machines like standardisation or function(ing) are used. Therefore, there is virtually *no* room for individuality

The positive view of team work as expressed in the high rating of the Collectivism I scale has to be seen independently from these results to a certain degree. Despite the quite hierarchical structure of the Pilots' world, the need for effective team work at least in the cockpit, is acknowledged. Beyond the boundaries of the cockpit this becomes once again to a certain extent an *Espoused Theory*. Nevertheless, team work is considered to be *necessary* in the Pilot's Profession.

The *bridge* between the highly hierarchical structure of this environment and the acknowledged need for team work can be seen in the already mentioned rating of Assertive behaviour.

Usually *all* members of the flight crew (see also the Flight Attendants' Cluster in section 6.2) have internalised their role to such a degree, that the strong hierarchical elements are completely accepted by everybody concerned. This way of accepting hierarchy is something quite unique to this *Professional Culture* (and to a certain extent that of the Flight Attendants) and will be one of the key elements for an effective leadership and organisational style. Assertive behaviour as already mentioned, is mostly useless in this environment.

The *reasons* for these results have to be seen in a mixture of *environmental demands*, *strong selection of personnel*, *training and the very strict* way *leadership* itself is structured which does not tolerate any kind of deviating behaviour.

Personnel selection is done to a significant extend based on psychological testing, which aims at selecting persons who fit into this command and obedience scheme. During *initial and recurrent training*, the following of pre-established procedures, rules and commands is emphasised again and again. Higher ranking operational *management* finally *sanctions strongly* any behaviour which is not completely in accordance with that expected from the respective Pilot. Finally, *environmental demands*, create the

framework for putting people into this position, as the most important thing expected from a Pilot is the safe operation of the aircraft. Therefore, every measure taken, is referred to as safety relevant, which inhibits any kind of further discussion. This is further strengthened by the fact that even if some sort of questioning could arise, this is answered by stating that the measure has been taken by some higher ranking authority which "knows what it does as it is the only one to have the necessary overview to take a decision".

The results of the Gender Egalitarianism and the Collectivism II Dimension have to be seen in connection with this to a certain extent.

The self-image of the Pilot is still governed to a certain extent by some sort of "aviator romantic". The fact that the job of a Pilot consists nearly exclusively of system control and not of actually flying is somewhat ignored. Instead Pilots still think of themselves as performing the unique and at times heroic task of Piloting the way it was done in the old times.

This self-image in connection with a rather conservative basic state of mind leads to Pilots having a rather low esteem of gender egalitarianism.

At the same time the Pilots see themselves and their Profession as highly special, irreplaceable and extremely important. In connection with the high social prestige the Pilot's Profession has, this obviously leads to the above mentioned extremely high score on the Collectivism II scale.

The implications of these different aspects are quite far reaching. They will therefore be a main topic in section 6.4.2, where an appropriate leadership and organisational structure for this Cultural Cluster will be pointed out.

6.4.1.3 Summarising Illustration of the Empirical Results

The empirical results show a highly interesting picture of the Pilots' *Professional Culture*.

The Pilots' *Professional Culture* is characterised by the *tension* between a highly demanding and restrictive environment, a very strict hierarchical structure and a self-image which is still an artefact of the way this Profession may have actually been in the past.

This tension can be seen in both, the way the different Core Cultural Dimensions are valued and the results of the interviews.

Apparently though, the regular Pilot can live with this tension rather well. The *thorough selection* and the *tight guidance* which is exercised throughout the whole Professional life on both, the group level (among the Pilots) and the management level assures that the contradictions in the Pilots' Culture never really surface.

Especially the nearly impossible symbiosis of a relatively high valuing of interpersonal collective values (Collectivism I) and a very strong hierarchy, is *extremely* interesting in this Cluster. This symbiosis is, as already mentioned a *role model* for the difference between an *Espoused Theory* and a *Theory-in-Use* in the sense of *Argyris/Schön* (1978, pp.10ff.; Argyris, 1976).

In summary, it can be said that the main point about the Pilots' Culture is the way its contradictions can be kept under control through the use of an appropriate leadership and organisational style. Apparently in certain special settings, a hierarchical approach with specially adapted characteristics can be part of the solution of choice.

The now following section will give a possible integrative approach to the leadership and organisational structure appropriate to the above described Pilots' *Professional Culture*.

6.4.2 An Integrative Solution to the Found Characteristics

The following section is as usually divided into a leadership and an organisational part.

This separation is especially helpful in this Cluster as the difference between indirect leadership (the organisation) and direct leadership from person to person is remarkable here.

This is thanks to the fact that the Profession of a Pilot is especially *well accessible* to the use of various kinds of prescribed procedures, continuously valid written orders etc. due to its repetitive nature. This part of the Pilots' Profession is obviously governed with the help of the organisation and not with the help of face to face i.e. direct leadership.

The very few occasions in which an actual face to face leadership has to take place, is in special situations in which the pre-determined way of interpersonal interaction does not function the way it should. As a consequence of the high degree of standardisation and organisation this obviously rarely happens.

Therefore, this Culture can be used very well to demonstrate the difference between leadership and organisation; a differentiation which is usually not as clean cut as here.

6.4.2.1 The Appropriate Leadership Style

In accordance with the results of the GLOBE-Study (House, et al., 2004) and based on the results of the above described survey a possible approach to an appropriate leadership style would include significant elements of the *Team-Oriented Leadership Style* (e.g. Manz/Sims, 2001; House, et al., 2004; see also section 2.2.2), some elements of the *Charismatic/Value-Based* (e.g. Bass 1985; House, et al., 2004; see also section 2.2.3), the *Participative* (e.g. Lewin, 1948; House, et al., 2004; see also section 2.1.1) and the *Human-Oriented Leadership Style* (e.g. Gagné/Fleishman, 1959; Fleishman/Quaintance, 1984; House, et al., 2004; see also section 2.1.2) and finally in some very special settings certain traits of the *Self-Protective Leadership Style* (House, et al., 2004).

The mixture of these is going to be different though on the *micro-level* (among the cockpit crew) and the *macro-level* (higher management).

On the *micro-level Team-Orientation* should be the base of the appropriate leadership style as all Core Cultural Dimensions except for Human Orientation point to this leadership style.

The *Team-Oriented Leadership Style* in this special setting must not be confounded though with that found in other Professions. Usually a *Team-Oriented Leadership Style* is used to integrate diverging interests and personal orientations in order to achieve the highest possible performance of the group.

As already mentioned the given structure of the Pilot's work environment is characterised by a very strong hierarchy and very detailed rules and procedures that are highly internalised by this Profession's members. Therefore, an integration of diverging interests and orientations is not necessary. Instead the most important aspect of this leadership style is the creation of a work environment which permits for an atmosphere in which every member of the cockpit crew feels able and willing to contribute to the safe and efficient outcome of the flight. This aspect is enhanced by the fact that partially the *Participative* and the *Human-Oriented Leadership Styles* can as well be seen to be effective in this work setting.

Therefore, the appropriate leadership style by the Captain towards the Co-Pilot would be the following.

Based on existing rules and procedures an *open* and *friendly* work atmosphere should be created. Due to the highly regulated nature of the work environment itself, no major problems should arise within the cockpit crew as usually any decision can be taken based on these rules and procedures, with the help of the accepted authority of the Captain. Therefore, usually it is sufficient for the Captain to be open and nice and to integrate the Co-Pilot in the decision taking in so far as the opinions of the Co-Pilot are considered and decision taking is based on the mutually accepted prescribed procedures. In the very few situations in which there should exist any doubt about the way to proceed, *Self-Protective Leadership* is considered to be helpful. Again this is due to the fact that hierarchy, rules and procedures are the most important aspects when it comes to the Pilot's Profession. Therefore, in these special settings, the decision which is likely to cause the *least problems* to the cockpit crew is the solution best accepted and consequently the solution of choice. Usually this will lead to a decision which deviates as little as possible from the solution proposed by "the book".

In summary, *leadership* on the micro-level is rather *simple* and *straight forward*. This is due to the fact that the led person (the Co-Pilot) is usually alone with the "leader"; only on some long and ultra long-range flights the cockpit crew may be composed of up to four Pilots. In this small and in addition highly homogenous environment the need for actual leadership is very limited. Usually it is sufficient for the Captain to create a nice and positive atmosphere, as the work environment itself is mainly governed by prevailing rules and pre-established procedures. In this environment a pre-dominantly *Team-Oriented* and *Participative* approach in which a joint decision taking is undertaken is the most appropriate leadership style. This should be supported by a gentle, friendly and hence *Human-Oriented* behaviour towards the Co-Pilot, as this enhances the acceptance of the overall decision taking of the Captain.
This is further helped by the fact that as a consequence of the accepted hierarchical and procedural structure in the cockpit a decision finally taken by the Captain is in most circumstances very likely to be also the solution of choice for the Co-Pilot.

Here the above mentioned *contradiction* again surfaces between the hierarchical structure in the cockpit and the high rating on the Collectivism I scale which is *overcome* by the very high acceptance which this very structure has among every member of the cockpit crew.

On the macro-level, though, this picture changes significantly.

Simultaneously, the leaders have to take into account the specifics of the underlying structure of the leadership Culture of the regular line Pilot and those of leading a large corps of people.

This leads to a somewhat different focus of the leadership structure. Especially *Team-Orientation* and *Participation* change from lived behaviour to a more symbolic approach, as it is virtually impossible to lead such large divisions (depending on the company up to 1000 Pilots and more) with these leadership styles. At that point indirect leadership (see next section) and *Charismatic/Value-Based Leadership* become significantly more important, as it is vital to give the regular airline Pilots an idea about some greater purpose of their work.

Here again, the self-image of the Pilots plays a *very* important role, as it is highly useful for the creation of a "*Vision*" which can show a higher purpose of the Pilot's Profession.

This higher purpose lies mainly in the saving of human lives, which basically comes down to the safe operation of the aircraft at any time. Furthermore, this *Vision* can be extended to show the supposed importance the Pilot's work has for the efficiency of the company by operating the aircraft not only safely but also efficiently, etc.

In any case, it is important for the higher leaders of Pilots to create a *Vision* which is in line with the Pilot's work environment and which should incorporate parts of the above described self-image of the Pilots. Using this self-image already gives a number of hints on how to structure a *Vision* for the leadership of Pilots and therefore the creation of *Charismatic/Value-Based Leadership* for this special Professional group.
For the rest a *"Management by Exception Approach"* (see section 2.2.3 for details) should be pursued in which the leader intervenes only in case of unsatisfactory performances from an individual Pilot.

In summary, it can be said that, in accordance with the results of the empirical part of the research project, on the macro-level *Charismatic Leadership* together with *indirect leadership* is the most promising approach to leading Pilots. Depending on the size of the department, elements of *Participative* and *Team-Oriented Leadership* may be included into this, although at that level their impact appears to be rather limited in comparison to the appropriate and efficient use of *Charismatic/Value-Based Leadership*.

6.4.2.2 The Appropriate Organisational Structure

The appropriate organisational structure also has to take into account the very special traits of this Profession.

The three main aspects of this are

- Safety in the operation of the aircraft including adherence to international aviation law
- Efficiency in the operation of the aircraft
- Inter-changeability of the different Pilots among themselves

In connection with the usually high span of control particularly in larger airlines, all these aspects point to unusually *high importance* of indirect leadership as exercised through organisation.

As already mentioned in the previous section, direct leadership is exercised mainly on the micro-level. On the macro-level it is necessary to create an organisation which is able to generate a highly homogenous work environment, which exactly follows prescribed rules without the need to constantly check for the obedience of these rules.

This goal can best be achieved in this special setting through a set of *very detailed and strictly enforced working rules*. These rules have to be based on the very restrictive framework given by aviation law.

At first view this may seem to be an impediment. In fact, however, this framework can be used in a highly *advantageous* manner, as it is possible to create a mixture between state and company given "law". This mixture can be created in a way that for the individual Pilot it is largely impossible to discern where state law ends and company law begins. In connection with the already mentioned high acceptance of higher ranking authorities, this has the obvious advantage of giving the whole Professional framework of rules and regulations a *significantly higher* meaning than regular company rules alone can have.

In cases where state rules obviously do not cover a measure taken, it should normally be possible to find a reason for the safety relevance of that measure, or as a last resort the necessary efficiency of the flight operation.

But this last resort is obviously not more binding than it would be in any other Professional setting. This renders it to be the *least* advisable course of action considering the whole Professional background of the Pilots. It has to be kept in mind that this background is focused on the application of certain pre-set standards according to aviation law and safety and not on the fulfilment of "business administratively governed efficiency goals" (cumulative statement from various interviews).

Therefore, the *appropriate* organisational structure for the Pilots' environment should be as follows.

Due to the above mentioned specific characteristics a *deviation* from most modern organisational solutions has to be favoured. In this special setting a *classical approach* is the solution of choice.

In fact, this solution can be deduced virtually directly from the *Bureaucratic Organisation* according to *Weber* (1976; see also section 3.1.1.3). This type of organisation derives its justification from mutually accepted rules and regulations. As already stated, these rules and regulations are for a significant part pre-given by national authorities.

The pursuit of company goals should consequently be accomplished by integrating company rules and procedures into this framework of aviation law by preference while giving a reference to the safety of the flight operation. Based on the Pilot's *Professional Culture* this will guarantee a very close following of these rules.

Thus very careful development of these rules and procedures has to be carried out. The realisation of most company goals can and should be achieved by integrating them into the regulative framework for flight operation. As already mentioned, this should be achieved by referencing the different measures to either aviation law or safety of the flight operation; only as a last resort should business efficiency goals be mentioned, as they are the least effective in this environment.

In summary, it can be stated that this *Professional Culture* is probably the *role model* for a Culture which can be almost entirely led by indirect leadership i.e. organisation. Especially in that aspect, the results of this chapter are highly interesting in the overall context of the present work.

6.4.2.3 Summary of the Possible Solution

As shown, the very special characteristics of the *Pilots' Professional Culture* demand very special solutions to the complex of leadership and organisation.

First, a distinction has to be made between the micro- and the macro-level of leadership; the organisational aspect is of interest only on the macro-level, as the organisational environment is not different for the Captain and the Co-Pilot(s).

On the micro-level a highly *Team-Oriented* approach supported by *Participative* and *Human-Oriented* elements is the most appropriate leadership style; *only* direct leadership is of significance on this level.

On the macro-level, however, direct leadership loses a significant portion of its importance, as it is reduced to a highly symbolic approach expressed by a *Charismatic/Value-Based Leadership Style*. In addition, at this level direct leadership has a merely supporting function for the highly important indirect leadership through organisation.

So the importance of a *thoroughly* and *carefully* developed organisational structure can not be overestimated at this level.

In summary, it can be stated that this *Professional Culture* exhibits a number of very special traits, which completely differentiates it from any other *Professional Culture* in the research sample.

6.4.3 Global Assessment of the Results for Cluster 4

In this section the most homogeneous and distinct *Professional Culture* of the whole sample in this survey was described.

The high number of very distinctive traits in connection with their remarkable strength renders this Cluster highly interesting in a number of aspects.

First, the *extremely* high importance of indirect leadership for the successful integration of this *Profession* into the organisation is extraordinary in comparison with any other *Professional Culture*. Any leadership and organisational approach has to take this very special trait into account.

Second, the high *acceptance of hierarchy* is another rather unusual trait for a *Professional Culture*. This second aspect, though, has to be seen in connection with the first and can be combined with it in a very advantageous manner. Thus both aspects are of significant importance for the successful integration of the *Pilots' Professional Culture* into any company.

Third, the *extremely homogeneous* composition of this Culture has to be kept in mind when developing leadership and organisational measures for this environment. Usually, it is necessary to allow for the fact that not all the members of a specific Culture are accessible in the same way. This always gives direct leadership a more or less important role. In this special setting, though, it can safely be assumed that all members of the present Culture *are virtually the same*, permitting highly efficient ways of indirectly leading its members. Obviously, this has to be seen in connection with the first two aspects, pointing again to the extreme importance that indirect leadership has in this setting.

In summary, it can be said that this *Professional Culture* has practically no features in common with other *Professional Cultures*. This fact in connection with the described high degree of self governance of this group (as mentioned the management of Pilots is usually done by Pilots) can sometimes lead to misperceptions as to the right way to handle its members, even triggering unnecessary disputes with the normally strong Pilots' unions.

However, most of these disputes could easily be avoided through careful implementation of the above approach. This would obviously lead to a significantly better organisation-internal understanding which in turn would have highly positive effects on the Pilots' motivation. This stresses again the high importance that an appropriate mix of direct and indirect leadership has in general and for this *Professional Culture* in particular.

6.5 *Cluster 5: The Specially Qualified Production Experts*

The fifth Cluster comprises people who have a very high qualification level and who are working directly in a technical production process.

Employees who fulfil this definition are for example various kinds of engineers, such as aerospace/space and mechanical engineers, but also highly qualified and specialised technicians.

In order to decide whether or not specific persons belong to this group, one therefore has to answer *two* questions.

The *first* one is whether the *qualification* level of these persons is that high and rare that their contribution is vital for the success of the production process. This distinguishes a member of this group, for example, from a member of the Blue Collar Worker group.

The *second* question is whether that person's job is *directly* production related in a technical discipline. That aspect, for example, differentiates members of this Cluster from that of the Innovation and Development Cluster.

These two factors are also the reason why there is *no Cluster* that could unite all or at least a significant majority of all engineers present in our sample, because within the engineering group one can state a clear distinction between the *"creative and inventive"* engineers and the *"applied knowledge"* engineers. Both have their own particularities that have to be taken into account if one wants to work with them the best way possible.

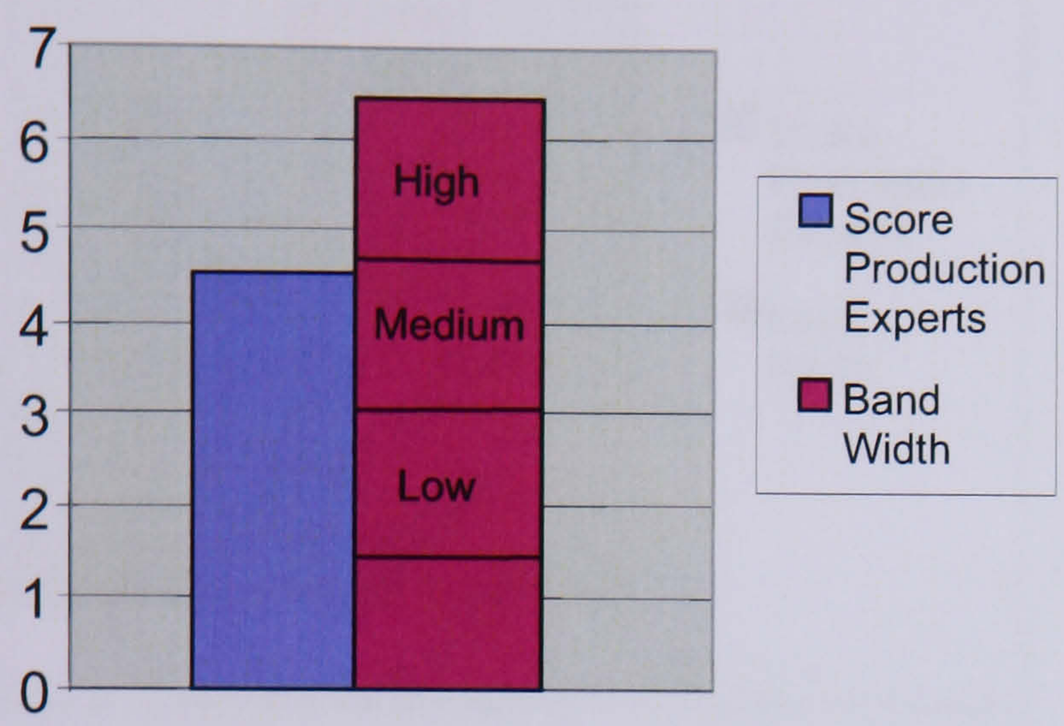
6.5.1 The Empirical Survey

For this *Professional Culture* the standardised survey produced results that only indicated a certain direction for the characterisation of the group. These results needed to be clarified in the course of the *verbal* interviews, as most of the ratings of this group are in the *neutral* area. The quantitative part itself is based on 37 respondents originating from various countries and organisational backgrounds. Hence, the intended heterogeneity could be achieved. The rather male oriented nature of the present Professional environment is reflected by the composition of the current sample which is largely male dominated. Therefore, this male domination does not impair the quality of the findings of this section as it is merely a reflection of the actual composition of this *Professional Culture*.

Due to the large number of *neutral* ratings within the *quantitative part*, the interviews (based as usual on 7 interviewees) are once again highly important for the complete understanding of the traits of this Cultural group and hence for the development of an appropriate leadership and organisational style.

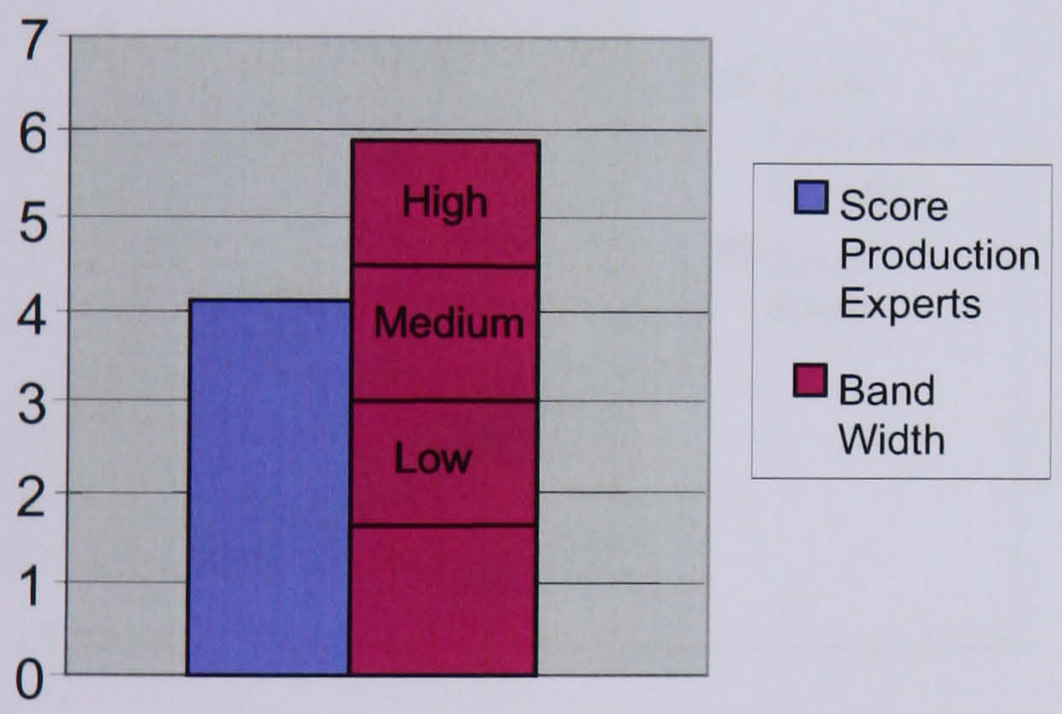
6.5.1.1 The Results of the Quantitative Part

Figure 70: Uncertainty Avoidance



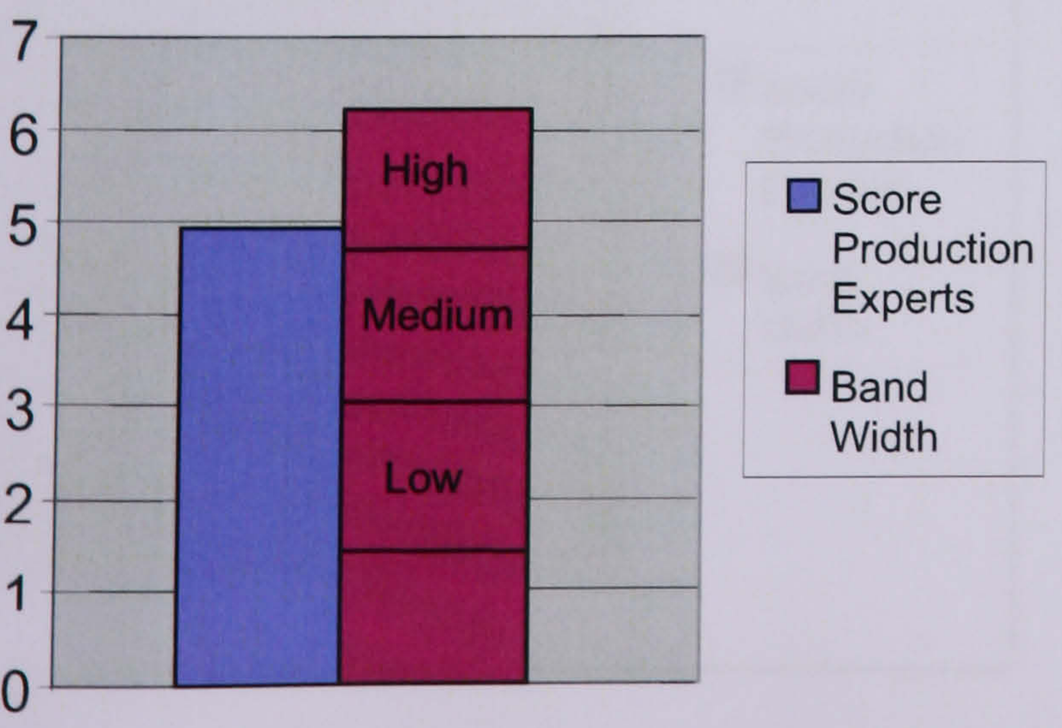
Members of this group score the **Uncertainty Avoidance** scale in the higher neutral area (4.54). The reason for that can be seen in the necessity to be able to react swiftly within the production process to cope with unforeseen events. This is moderated by the wish to avoid such situations since to a certain extent they always mean a disruption in the production process itself. Among others, these two counteracting forces lead to the above given rating.

Figure 71: Assertiveness



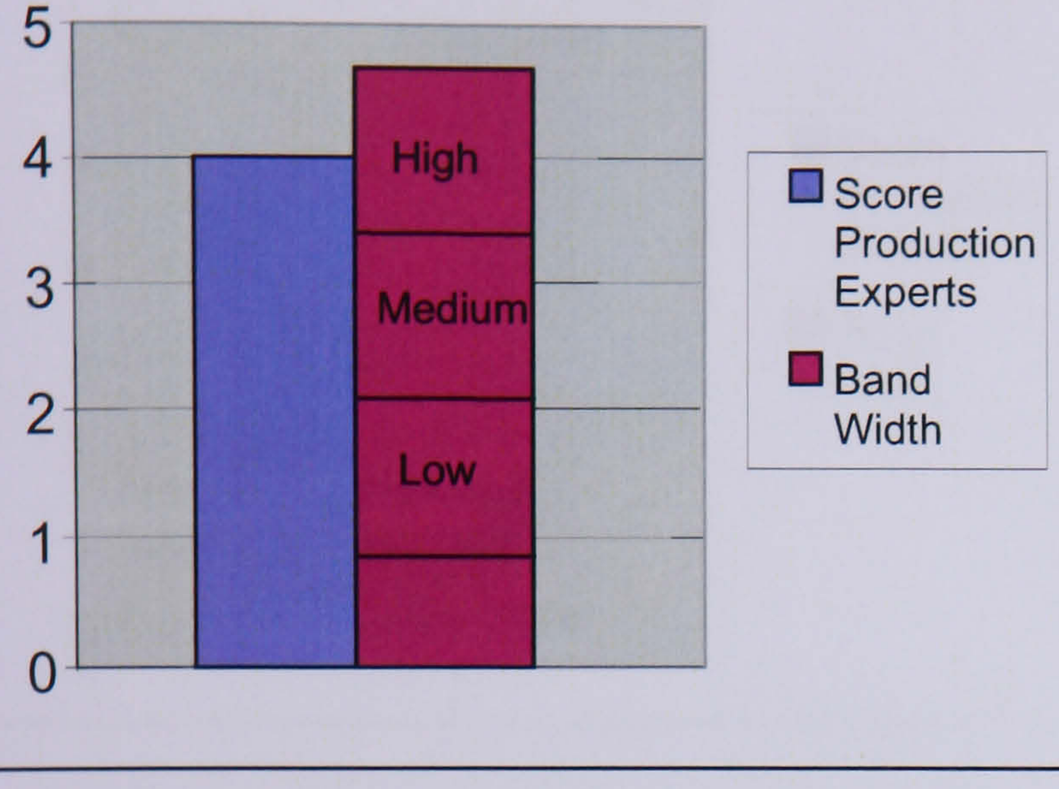
Assertiveness is placed in the higher medium area (4.12). This can be traced back to the need for the members of this group to maintain a smooth production process, which requires them to be moderately assertive every once in a while.

Figure 72: Future Orientation



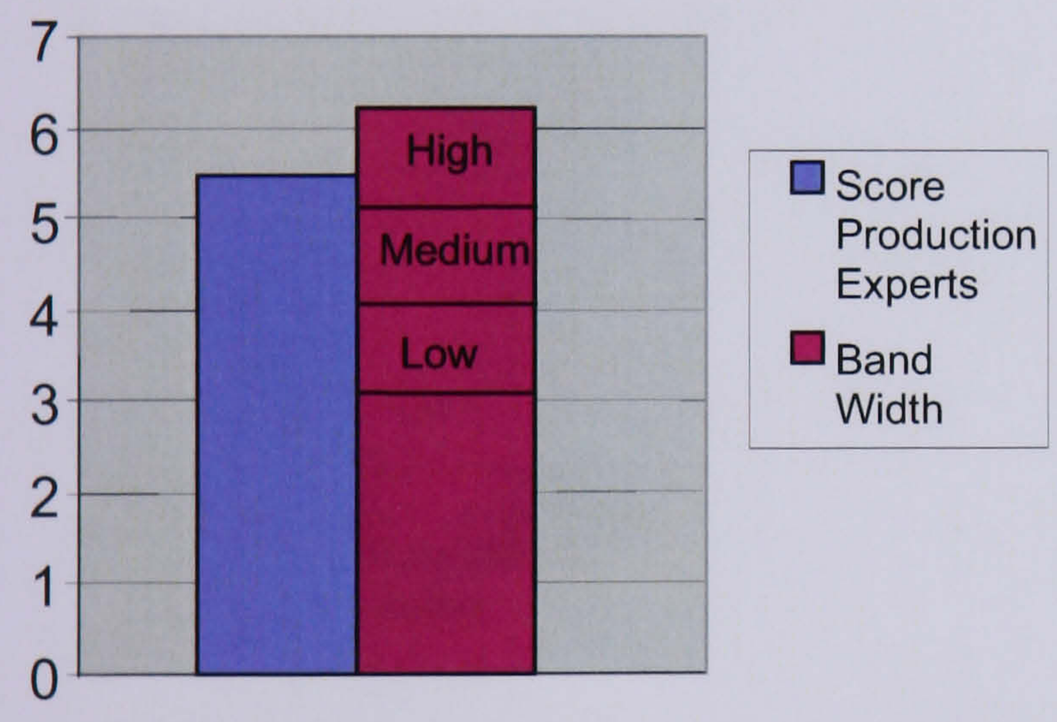
Future Orientation is placed in the lower high area (4.92). This rating has to be seen in connection with that for the Uncertainty Avoidance scale. Here, as well, the area of tension between the need to be flexible in order to meet exterior demands and the need to plan ahead to assure a smooth production process is responsible for this score.

Figure 73: Power Distance



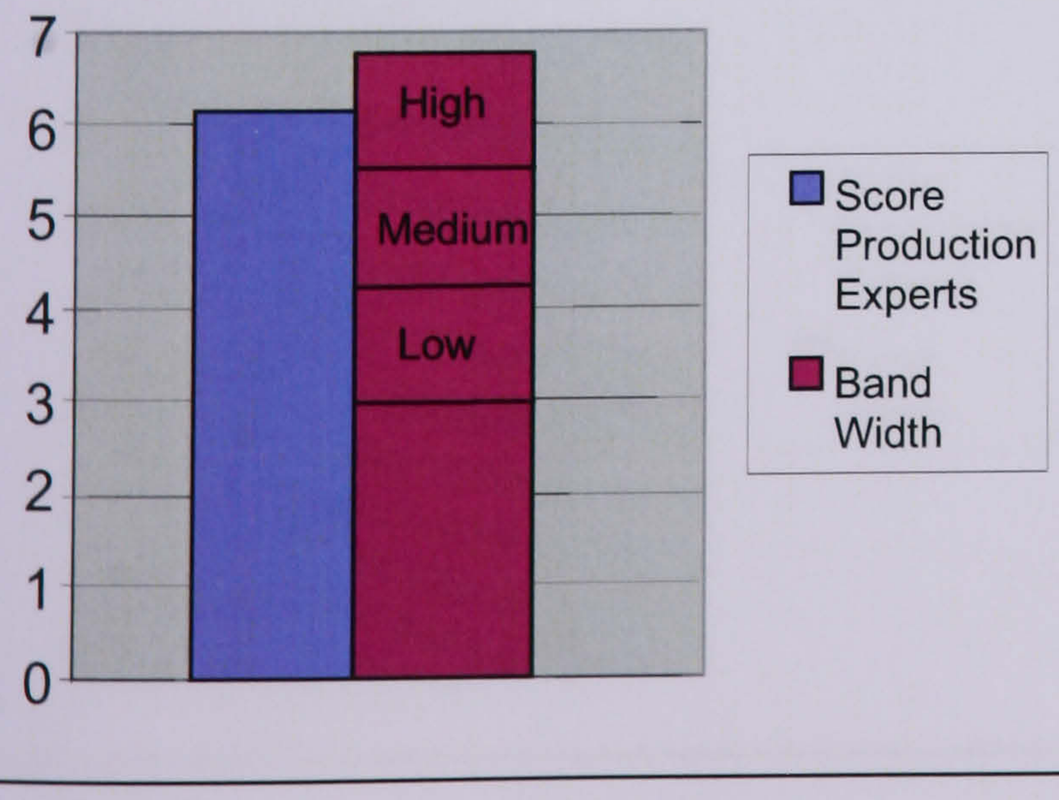
Power Distance is rated in the positive area (3.97). This score is a direct consequence of members of this group usually being in some position of power. Apparently, the use of power is seen to be rather positive. The score has to be interpreted in connection with that for the Uncertainty Avoidance scale. That interconnection will be discussed further in the following section.

Figure 74: Collectivism I



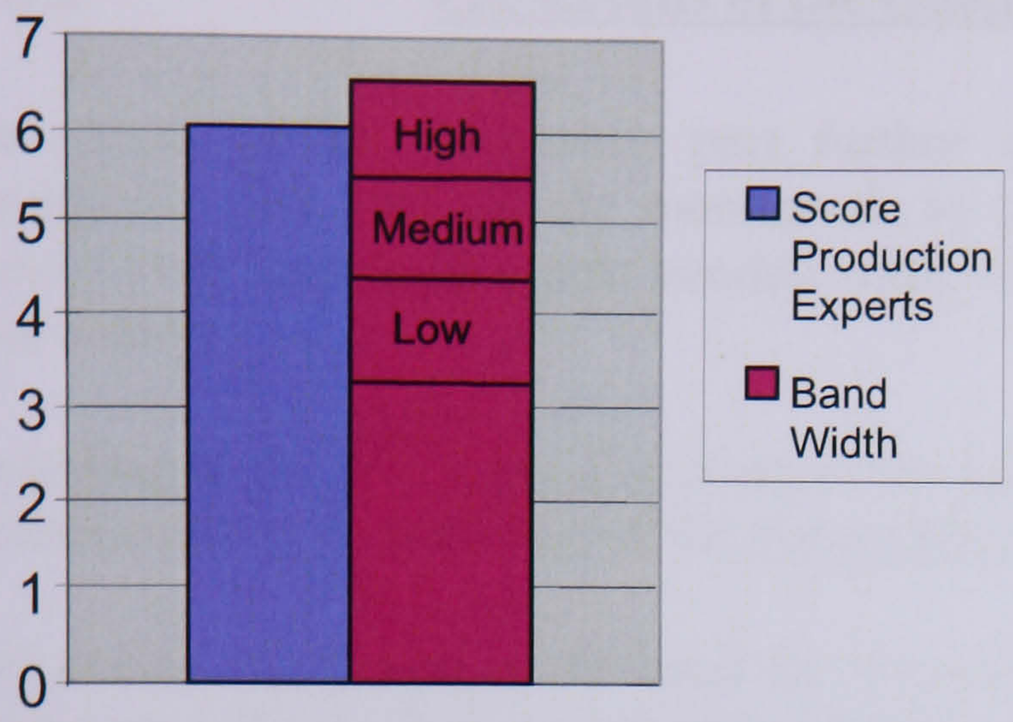
Collectivism I scores positively (5.46). Members of this Cultural Cluster do apparently recognise the need for efficient team work. Considering the work environment for the Production Experts and its demands, these results are not overly surprising.

Figure 75: Performance Orientation



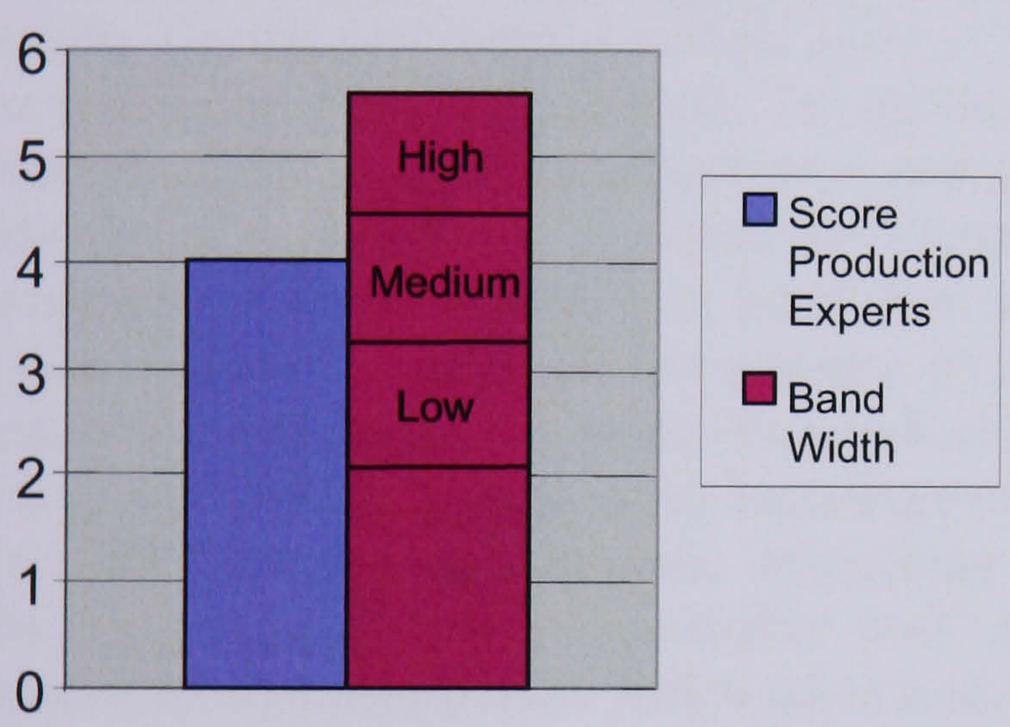
Performance Orientation scores positively (6.14). High performance on the job seems to be of significant importance to this group. This result is especially interesting in connection with the Assertiveness and Power Distance Dimension and will therefore be a central subject in the next section.

Figure 76 Gender Egalitarianism



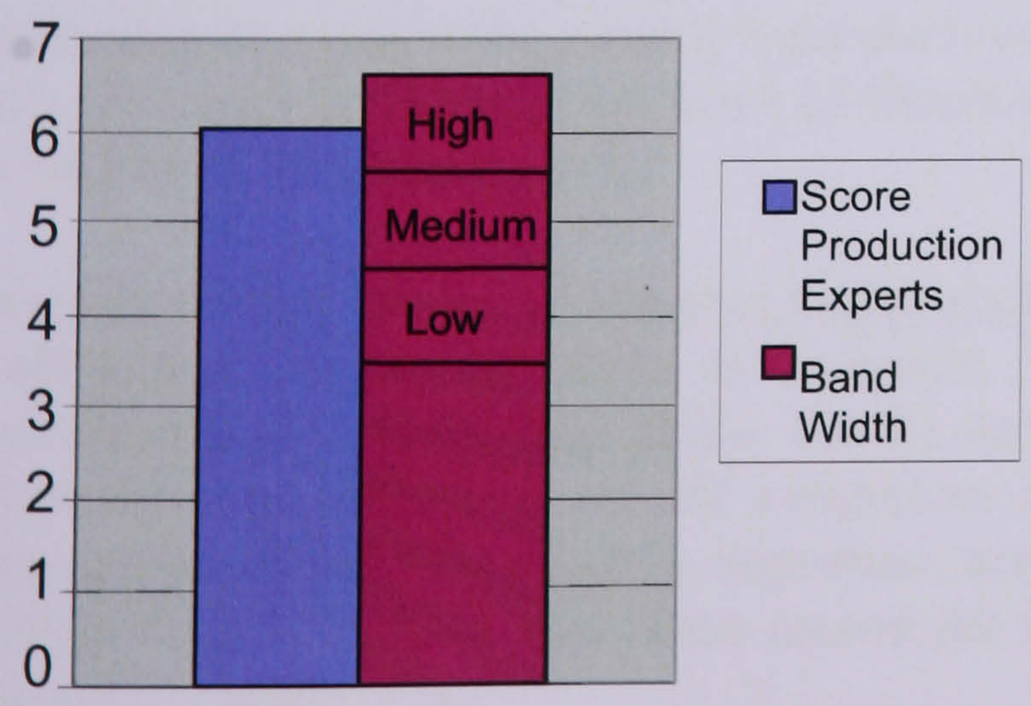
Gender Egalitarianism scores positively (6.04). In the present setting, this result mainly indicates that job related performance is considered to be more important than gender based considerations.

Figure 77: Human Orientation



Human Orientation is rated neutrally (4.03). Considering the highly technical nature of the different jobs carried out by the members of the present group, this result is not overly surprising. Nonetheless, in connection with the results of the other Dimensions this score strengthens the impression that this Culture is very result and efficiency driven, without paying too much attention to individual concerns. Once again, the open interviews were of crucial importance for the understanding of the rating.

Figure 78: Collectivism II



Collectivism II finally scores positively (6.04). Looking at the key function which members of this Cluster have for the success of their respective companies, this result is hardly surprising.

6.5.1.2 The Results of the Qualitative Part

The results of the qualitative part further deepen and clarify the findings of the quantitative part. As already mentioned, in particular, the frequently found medium scores in the quantitative part needed some further clarifications as to the reasons for these ratings.

According to the interviews the rating of the Uncertainty Avoidance scale has to be seen in close connection with that of the Future Orientation scale.

Both are an expression of the need for flexibility in any production process, while still being very critical when it comes to unforeseen events which are considered to be at the source of this need for flexibility.
These counteracting influences moderate each other in both Dimensions.

The medium rating of Uncertainty Avoidance is a clear expression of the above situation. On the one hand, a certain level of Uncertainty is accepted and seen to be a necessity in the production process. On the other, this very Uncertainty is considered to be the reason for a significant number of problems in the production process. Therefore, ambivalence is felt when it comes to Uncertainty. For the members of this group Uncertainty is not a bad thing in itself, but rather something which has to be kept in balanced control. Too much Uncertainty is considered to be problematic due to the negative consequences it has on the production process. At the same time, too little room for flexibility is seen to be counterproductive as well, as it inhibits a swift and appropriate reaction to demands originating in the production process. These two influencing factors virtually neutralise each other, leading to the given rating on the Uncertainty Avoidance scale which gives a slight preference to a somewhat more stable Professional environment.

According to the interviewees, a similar line of argument leads to the rating of the Future Orientation scale. On the one hand, it is necessary to have a certain long term perspective in order to successfully carry out a production process. On the other, it is impossible to completely control a production process through the sole means of long term planning. Thus, a certain level of flexibility is needed which moderates the rating on the Future Orientation scale.

The high rating of the Performance Orientation scale is due to the relative position this *Professional Culture* has in its environment. The regular Production Experts consider *themselves* to be largely responsible for the success of the production process. As this is a core-function of practically all companies sampled (including the airlines) it gives them the feeling of being highly important, which leads to a high motivation to perform well on the job. This in turn is the reason for the stated high rating of the Performance Orientation scale.

The rating of the Assertiveness scale has to be seen in connection with that of the Performance Orientation scale. The very high motivation to perform well on the job sometimes leads to a lack of tolerance for other Professional groups who do not necessarily share the same view as to how to carry out a certain task. Especially when dealing with *lower ranking* employees, the members of the present group sometimes feel the need to behave Assertively. Another example where Assertive behaviour is occasionally necessary is when dealing with people of a *comparable* relative position within the organisation. According to the opinion of the interviewees, it is "often problematic to reach an appropriate agreement with these co-employees due to their lack of technical knowledge which is paired with an excessive drive to influence the production process". At the same time, it is acknowledged that *excessively* Assertive behaviour is *counterproductive* when dealing with both lower ranking employees and people of the same relative position. These influences virtually neutralise each other with a very limited tendency in favour of Assertiveness. With their superiors, they accept Assertiveness as long as it is paired with reasonable judgements and not excessively frequent and strong.

The positive view of Power Distance is also a direct consequence of the relative position of the members of the Production Experts in the organisation. Very often they are in situations in which they have to *express clearly* what has to be done. At the same time the employees who receive these orders often do accept and do expect their superior to actually give them clear guidance (e.g. see section 6.1). This specific way of leading people though is *not accepted* when it comes to being led by the direct superior. The present group expects to be led in a way which is marked by low Power Distance and high consideration for the opinions and views of its members.
This phenomenon *is not* a peculiarity of the present group, but can be found with a number of higher ranking *Professional Cultures*. The exercise of power is considered to be helpful and right only when the respective group is *not on the receiving end* of this exercise. So the interpretation of the positive rating on the Power Distance scale as an acceptance of a leadership and organisational concept based on Power Distance would be seriously misleading and cause *significant* dysfunctionalties in the respective departments.

A positive view of team work which already shows itself in the positive rating of the Collectivism I Dimension was confirmed in the course of the interviews. Although the need for real team work is sometimes seen to be limited, it is largely acknowledged that in certain settings a team based approach is necessary. Therefore, it depends largely on the respective *situation* whether or not there should be a team based approach. Nevertheless, if the work setting is as such that it permits such an approach, this course of action should be favoured.

The high rating of the Gender Egalitarianism scale is, on the one hand, a consequence of the fact that the present group is *extremely* result and efficiency driven. On the other, it is a consequence of the fact that the clear conviction exists that superior results can only be achieved if there are no gender based prejudices.

The same reasoning is at the core of the neutral rating of the Human Orientation scale. The technical background and the high emphasis of efficiency lead to a certain indifference towards the values expressed with the Human Orientation scale. This does not necessarily mean that they are seen to be negative, but according to the interviewees it does mean that these values are not part of the main concerns of the members of the group.

Finally, the score on the Collectivism II scale is a clear expression of the pride which members of this *Professional Culture* feel in being part of the group. This pride is a consequence of the perceived importance each group member has for the success of their respective companies and therefore the importance felt within the company. As already mentioned, in addition they sometimes feel certain pressure from other Professional groups, which adds to the *pride* in the Profession a notion of *loyalty* towards the Profession and its members.

In summary, it can be said that the results of the qualitative part *significantly* deepened the insights gained with the quantitative part. Furthermore, for the *correct understanding* of the results of the Power Distance scale they were actually *crucial,* as without them a complete misinterpretation of this Core Cultural Dimension would have been possible.

6.5.1.3 Summarising Illustration of the Empirical Results

The empirical results gained in the course of the research project give a very detailed picture of the characteristics of the Specially Qualified Production Experts.

As shown, *technically,* the present sample is highly satisfying. This is due to the fact that it comprises a rather large number of people, on the one hand, and on the other, the sample itself is highly divers as far as nationality and organisational origins are concerned.

The *quality of the results* themselves is also clearly satisfying. In fact, they will be more than sufficient to develop a fitting leadership style and organisational design to integrate this *Professional Culture* efficiently into any organisation.

In addition, one particular quality of the present section is the demonstration of the clear *necessity* to join quantitative and qualitative research methodologies in order to gain a correct and complete picture of a *Professional Culture*. *Neither* research approach alone would have been sufficient for the full understanding of the present Culture; even worse, this could have led to wrong conclusions.

Therefore, in summary, it can be stated that the empiricals delivered highly satisfying results both from a technical and a content focused point of view. Thus they are highly adequate to achieve a *clear* identification of the characteristics of the present *Professional Culture* on the one hand and to assure the development of an appropriate organisational structure and leadership style on the other.

6.5.2 An Integrative Solution to the Found Characteristics

The development of an integrative solution to the found characteristics will be undertaken as usual.

Initially, an appropriate leadership style for the direct leader of the present group will be described.

Subsequently, an organisational structure that fits the characteristics of the present group will be developed.

Jointly, these two approaches form the solution to integrate the members of the present Cluster successfully into an organisation according to the results of previous chapters, the empiricals and the GLOBE-Study (House, et al., 2004).

6.5.2.1 The Appropriate Leadership Style

An appropriate leadership style according to the results found here will comprise elements of the *Team-Oriented* (e.g. Manz/Sims, 2001; House, et al., 2004; see also section 2.2.2), and the *Participative Leadership Style* (e.g. Lewin, 1948; Tannenbaum/Schmidt, 1958; House, et al., 2004; see also section 2.1.1), while being centred around the *Charismatic/Value-Based Leadership Style* (e.g. Bass 1985; Burns, 1978; House, et al., 2004; see also section 2.2.3).

The relatively high degree of flexibility that is needed in order to carry out the tasks of the present group successfully, in correlation with the high motivation to perform well on the job, calls for its members to be given a significant amount of freedom. Nevertheless, it is necessary to keep up this high level of motivation. The best way to do that in the present setting is to create a very clear idea where the direct superiors want the department and its people to be in the middle and long term; thus they need to create a clear *Vision* that inspires their people. At the same time, the leaders should stay out of the way of the subordinates when it comes to their day to day business. Therefore, *Charismatic/Value-Based Leadership* has to be at the core of the appropriate leadership style.

In addition, *Team Orientation* is also quite important. This *Team-Orientation* is necessary because of the expressed need of the members of this group to be free from too much influence from their respective superiors on the one hand and, on the other, due to the explicitly expressed preference for a team based approach wherever possible. Therefore, elements from the above described *SuperLeadership* (Manz/Sims, 2001; see section 2.2.2) should be employed whenever possible, which includes the actual implementation of the three aforementioned core roles of the respective leader (*coach, referee, entertainer*).

Finally, *Participative* leadership has to be considered as well. This is due to the fact that the extremely high qualification level in connection with the high Performance Orientation leads to members of the present group expecting their superior to take their respective opinions into consideration.
As already mentioned, the relatively high score on the Power Distance scale is oriented solely towards other employees led by the members of this *Professional Culture* and not an expression of a preference for being themselves led that way.

Therefore, an appropriate leadership style for the present group would have to look like this:
The leader creates an appropriate *Vision* which inspires the employees on a long term basis. Unfortunately, this *Vision* can not be specified more clearly at this point, as it depends on various factors such as competitors, traits of the company, technical challenges, etc. The important thing is, however, that it actually *inspires* the members of this group in the sense outlined in section 2.2.3.

The leaders keep out of the day to day business as much as possible and serve primarily as a counsellor to their subordinates. They guide and help them when needed, but do not impose their view if not absolutely necessary. The leaders should *always* try to lead their people with a team based approach *if the task permits*. In connection with the above mentioned inspiration, it is highly important that the leaders are actually able to convince their subordinates of the rightness of their *Vision*. This can be achieved more easily if the leader embodies the above mentioned three core roles of *SuperLeadership*.

Furthermore, thorough *participation* in the decision taking process is *crucial* for the motivation of the members of this group, as this directly touches their self-image as being among the most qualified to judge technical matters in the production process. By taking the subordinates' opinions, concerns and ideas seriously the leader further enhances the acceptance of the *Vision* formulated.

If the leader is able to join the different elements of these three leadership styles, an appropriate match between the used leadership style and the needs of the subordinates should occur. It is crucial, though, that the leader is able to *live* the correct mixture of these three leadership styles. Especially the joining of *Charismatic/Value-Based* on the one side and *Team-Oriented* and *Participative Leadership* on the other may prove difficult.
This is due on the one hand to the fact that actually "learning" *Charismatic/Value-Based Leadership* is rather hard. On the other, successful leaders in the present setting will have to *step back* somewhat and permit their subordinates to go their own way and give them the feeling of actually participating in the various decision taking processes instead of simply imposing themselves by virtue of their charisma.

In summary, it can be said that the demands on the leaders are very high in the present setting. Not only have they to be charismatic, which is already a challenge in itself, but in addition it is necessary to avoid fully exploiting that charisma to their own advantage. This will often put enormous strains on the character of the respective leaders. Thus a very important aspect is the careful selection of an appropriate leader for the Specially Qualified Production Experts' group.

6.5.2.2 The Appropriate Organisational Structure

Concerning the appropriate organisational structure, the found particularities of the present Cultural Cluster point clearly to an adaptation of *Complexity Theory* to the needs of this Cluster (Stacey, et al., 2000; see also section 3.2.2).

According to the logic of the *Complexity Theory,* it is necessary to build a living complex system (Lewin/Regine, 2000; for detail refer also to section 3.2.2). As far as leadership is concerned, this can be achieved through the leadership style developed in the previous section.

The organisation needs to be structured with a team based approach. Here, this team based approach does not, however, necessarily have to be understood in the strict sense it is usually used in the present work. For the Production Experts' Culture it is more appropriate to use a *broader understanding* of teams.

In the present setting, a *team* can be understood as a group of people working for a common goal, without necessarily working together in a physical sense. As an example, consider a leader leading twenty production engineers, each of them being responsible for a different part of the production process or working in a different location. For organisational purposes they may still be considered to form a team if they work for that same common goal.

At that point, as already mentioned, it is necessary for the leaders not to exercise too much influence upon the day to day business itself. Organisationally, their role becomes two-fold and genuinely more complicated.

To the *outside* they have to be the *representative* of the team, collecting information, being "the face of the team", articulating the interests of the team towards outsiders, etc. To the *inside* the main role is to ensure good relationships between the team members, give guidance and help, make sure that external demands are well understood by the team members, etc. In short their role is to create out of the different team members *one entity* that works closely together towards the common goal.

Besides the above given leadership style, this implies the creation of an organisation in which the individual team members have all the autonomy they need, in order to decide for themselves if a certain task can be accomplished alone, or if any help is needed. Therefore, boundaries between the responsibilities of the different team members will fluctuate, rendering fixed organisational structures *obsolete*. These are replaced by *capacities* and *competencies* of the individual team members and the groups/teams/departments they lead respectively.

As a consequence, this becomes an organisation that is oriented to a solution of *"Integration through Lateral Organisation"* (e.g. Peters, 1993; Wunderer, 2001; see also section 3.3.2.2) in which the individual team members organise themselves in order to pool the competencies needed for a specific task. The leader is only involved in case

no such pooling is possible, be it due to a lack of such competencies or due to a lack of the will to pool these competencies, etc.

Organisationally, this also means that it is necessary for the leaders of the Specially Qualified Production Experts to have the necessary competencies to actually give this freedom to their subordinates. As most of the time this leader will be part of Strategic Management (see section 7.6), this should usually be assured. But should a situation arise in which the leader is closer to Operational management (see section 7.5), which may happen if e.g. a group of highly qualified technicians is led by another technician who in turn is not part of the higher echelons of management, it is crucial to provide this leader with the above described imperative freedom.

In summary, the necessary organisation for the present Cultural Cluster will have a *flatter* hierarchal difference between the superior and the members of this Culture and more competences located at the level of the members of this Culture than a classical organisation. As a rough guideline, it can be stated that *any* competence that can be reasonably located with the members of the Specially Qualified Production Experts' Culture should be located with them.

6.5.2.3 Summary of the Possible Solution

The possible integrative solution for the present Cluster is quite complicated, especially when it has to be realised within a classical organisation.

For one thing, it is necessary to select people who are actually capable of filling out the highly demanding leadership role that this Culture requires, and for another it is necessary to give that leader thorough training in dealing with the peculiarities of the present Cultural Cluster.

For the organisation, the demands are of the same magnitude. The rejection of hierarchy, control, etc. as the main organisational features in favour of empowerment and an increase of responsibilities at the level of the Production Experts can be extremely demanding depending on the type of organisation in use.

Despite these problems, though, it has to be stated that a *non-adaptation* of the organisational and leadership structures developed here can have *highly negative consequences*. This is due to the fact that the preference for the above described structures could be identified clearly in the course of the research project. In connection with the objective importance that the members of this group have for the success of virtually any company, this can lead to *disastrous consequences* if ignored.

Therefore, despite possible problems when implementing these structures, the beneficial consequences will far outweigh these potential inconveniences.

6.5.3 Global Assessment of the Results for Cluster 5

The results of Cluster five show a very complex and highly interesting *Professional Culture*. Furthermore these results are highly satisfying from a technical point of view.

The complexity of this group shows itself in connection with the results of the "Innovation and Development" group (see section 7.1). These results were quite surprising, as they clearly indicate that there is no such thing as one homogenous group of engineers, but *two distinctively different* groups for the production part and the development part. In addition, neither of these two groups is exclusively composed of engineers, further undermining the idea of a common "engineering culture".

Especially for companies that have large development and large production divisions, these results are highly important. This is even more so, as the two groups have a number of quite *significant* differences, rendering common treatment of both not only less efficient, but also potentially harmful for the whole company.

In that sense, the results gained in this chapter go well beyond this one single *Professional Culture* and point to an aspect that has already been mentioned on various occasions in this work. This aspect is the necessity to properly take into account the different characteristics of the various *Professional Cultures* present in a company. Furthermore, it is of the utmost importance not to base these judgements on some rule of thumb, but on a thorough and well founded data base and an appropriate evaluation of these data.

Another interesting aspect of this section is the further demonstration of the *enormous benefit* that can be achieved through the combination of quantitative and qualitative research methodologies.

A purely qualitative research approach would not have generated the necessary details to truly characterise this Culture, while a purely quantitative approach would possibly have led to erroneous results. Here again, the above mentioned necessity to combine these two research methods in this highly complicated environment has been demonstrated.

In summary, it can be said that in this section a number of aspects show up that have an importance which goes well beyond this single chapter. Therefore, this section is highly interesting in a number of points for the understanding of the whole meaning of the present work.

6.6 ***Cluster 6: The Project Leaders***

The sixth Cluster reunites people whose focus is on managing and integrating projects. Depending on the projects themselves, these employees had varying backgrounds *before* they started managing projects. Nevertheless, the very activity of being responsible for projects has been exercised by these employees for a number of years. Apparently this time span and the specific demands of project management are sufficient to create a *genuine* Project Leaders Culture.

The existence of a Project Leader Culture is highly important for a number of reasons.

First, it clearly indicates that for the integration of employees with different Professional backgrounds very *specific* qualifications and approaches are required. This represents another strong indication for the existence of different *Professional Cultures* as stated and empirically shown in the present work.

Furthermore, the existence of a Project Leaders Culture and its characteristics will be highly interesting in section 7.7, when an integrative solution to the a number of rather common cross cultural encounters will be developed. Obviously these encounters are very often to be found in project-type environments.

Finally, the tasks that are organised in projects are frequently of a key importance for organisations. Their *success* is therefore often *critical* for the concerned organisations.

Hence, the meaning of the results of this section can not be overestimated due to their relevancy for both the present work and the success of organisations in general.

6.6.1 The Empirical Survey

In this *Professional Culture*, already the written questionnaire gave highly satisfying results based on 18 respondents from various national and organisational backgrounds. Therefore, the intended heterogeneity of the sample was achieved.

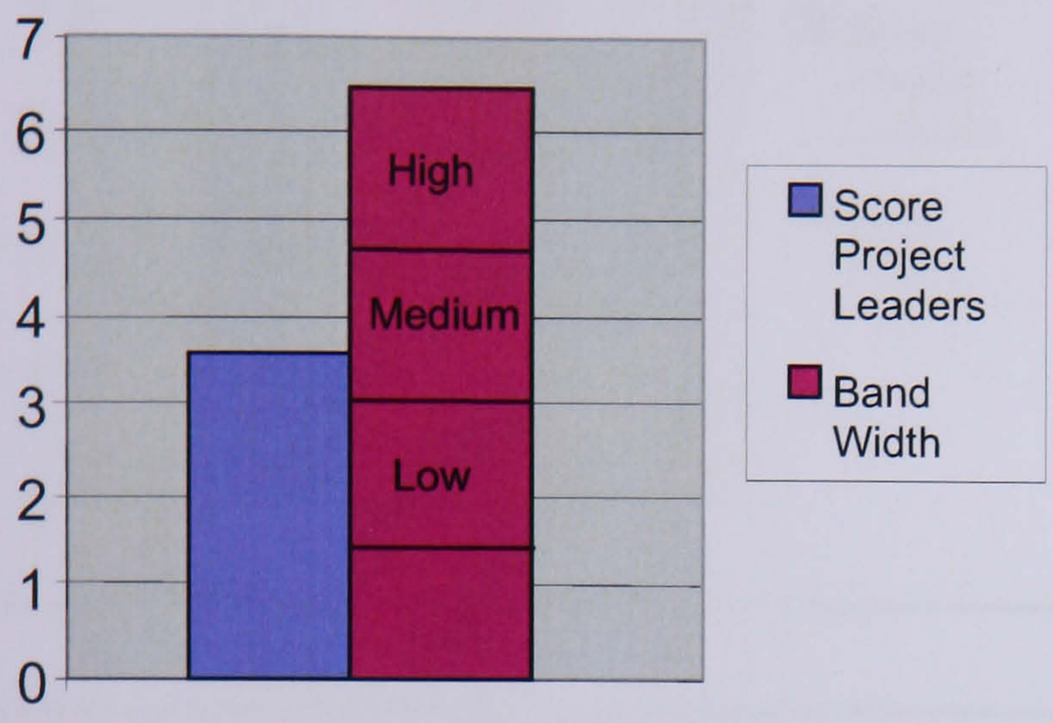
A tendency towards a Cultural Cluster which is virtually exclusively composed of Project Leaders was already clear after the evaluation of the written data.

These results were further enhanced with the help of the interviews in which also the underlying reasons for these results became increasingly understandable. This part was as usual based on the statements from seven interviewees.

As usual, initially the results of the written questionnaire will be given, followed by those of the interviews and some further insights.

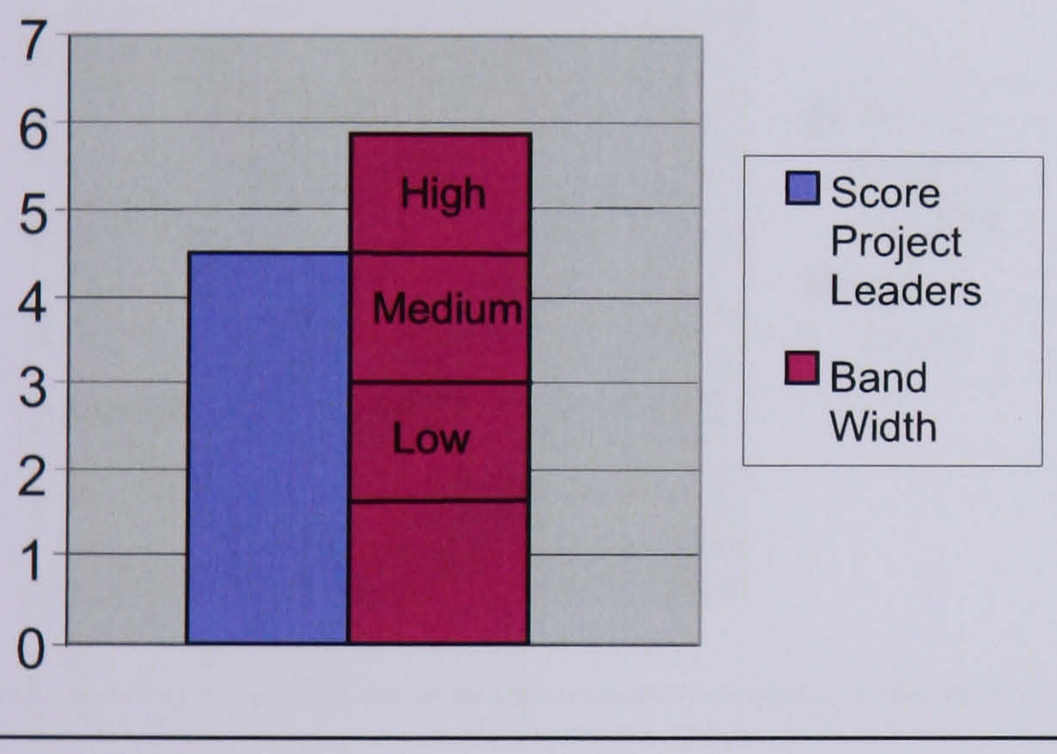
6.6.1.1 The Results of the Quantitative Part

Figure 79: Uncertainty Avoidance



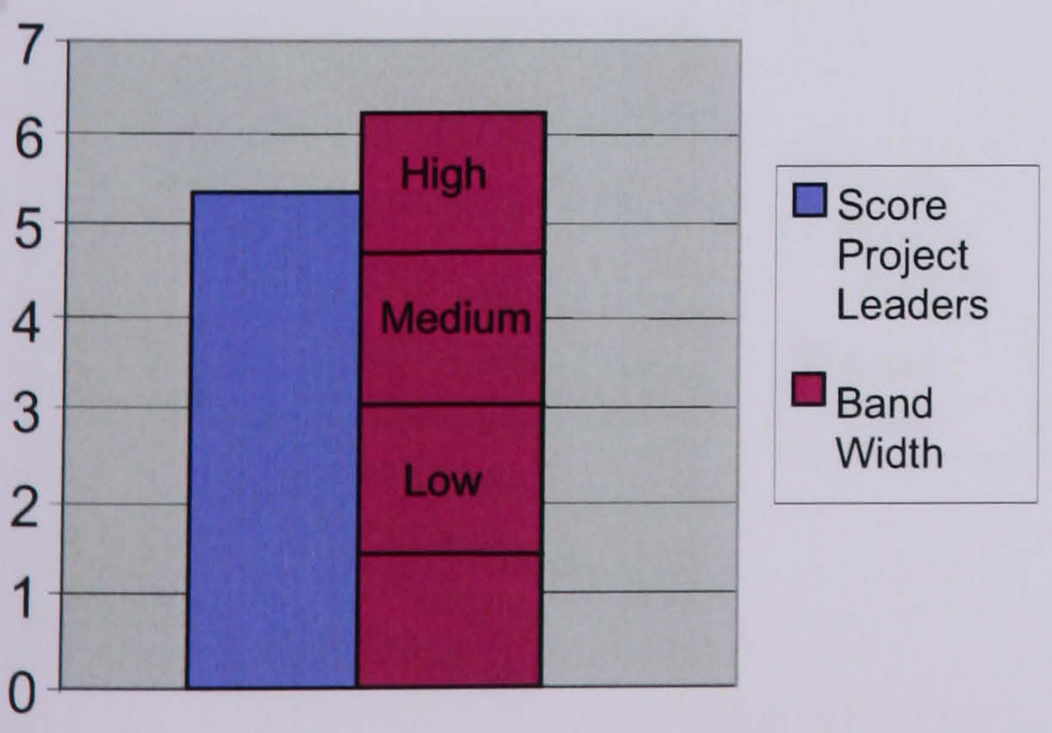
The rating for the **Uncertainty Avoidance** scale is neutral (3.57). The reason for this can mainly be traced back to the specific demands with which the members of this Culture have to deal with. Further highly interesting details concerning this aspect will be given in the following section.

Figure 80: Assertiveness



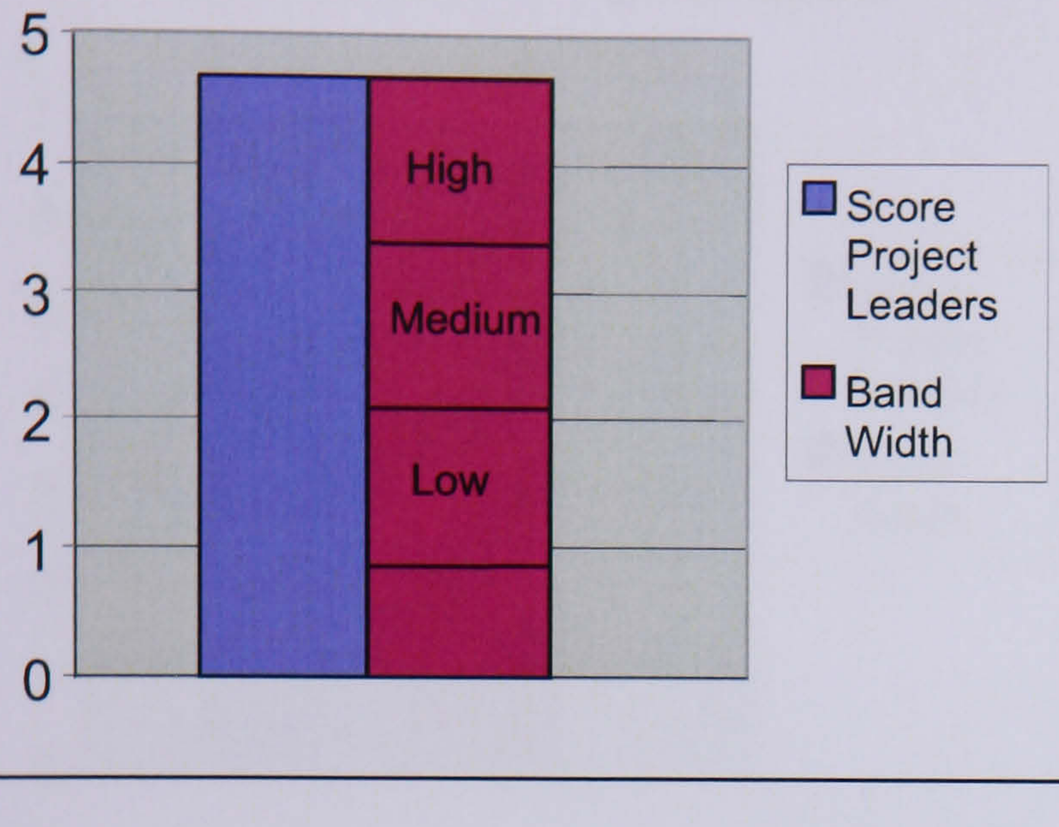
Assertive behaviour is seen to be relatively positive (4.5) with a score just on the limit between a medium and a high ranking. The sometimes highly diverging interests among the members of a given project lead among other factors to the need to integrate through consensus building, but also to the need to sometimes take decisive action if this consensus is not achievable.

Figure 81: Future Orientation



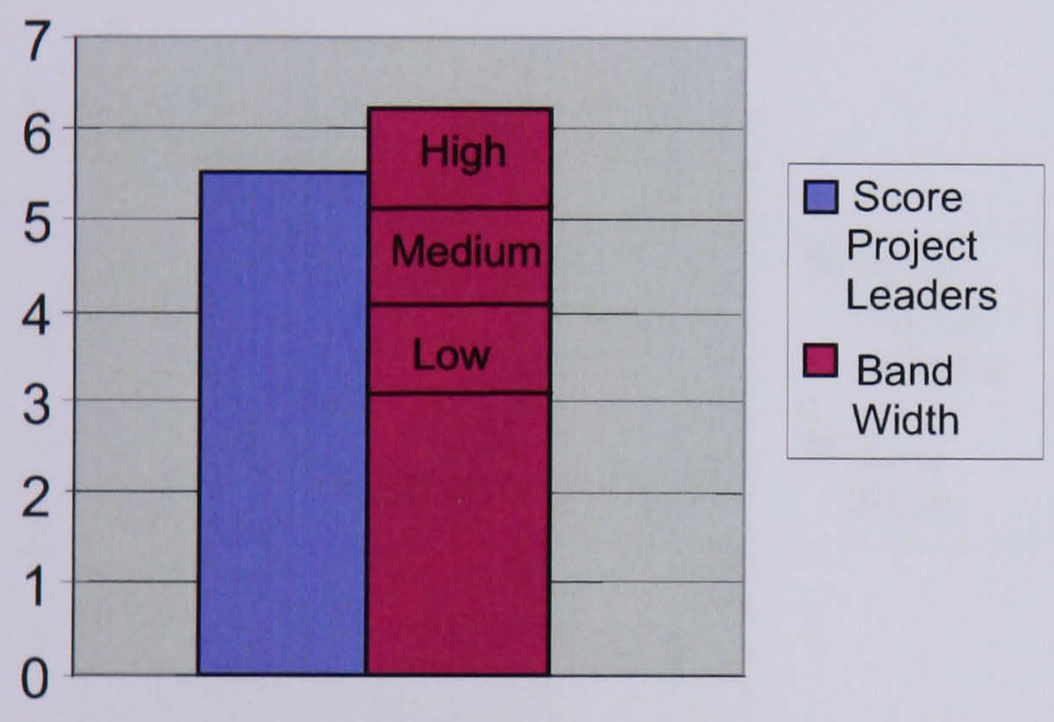
Future Orientation is valued positively in this group (5.35). This score is influenced by two demands. These two demands are a result of the need for the Project Leaders to have a precise long term perspective in order to achieve the goal of the project on the one hand. On the other, this long term perspective is slightly moderated by the necessary flexibility most projects require from their leaders. This area of tension will be discussed in more detail further down in this section.

Figure 82: Power Distance



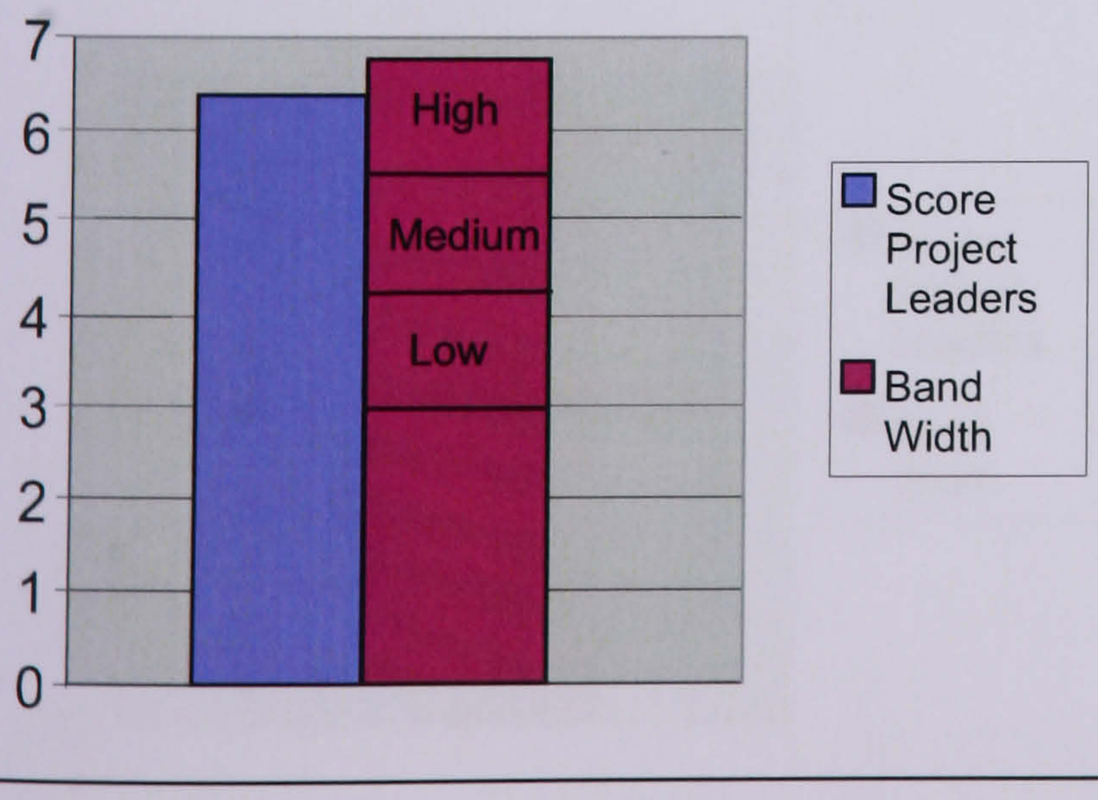
The **Power Distance** Dimension is valued very positively by the Project Leaders (4.67), representing the *highest score* out of all Dimensions. This result has to be seen in connection with that for the Assertiveness Dimension. Sometimes decisions have to be taken despite diverging views among the members of the project. These decisions necessitate at that point obviously the use of power to a certain extend, which leads to the above given score.

Figure 83: Collectivism I



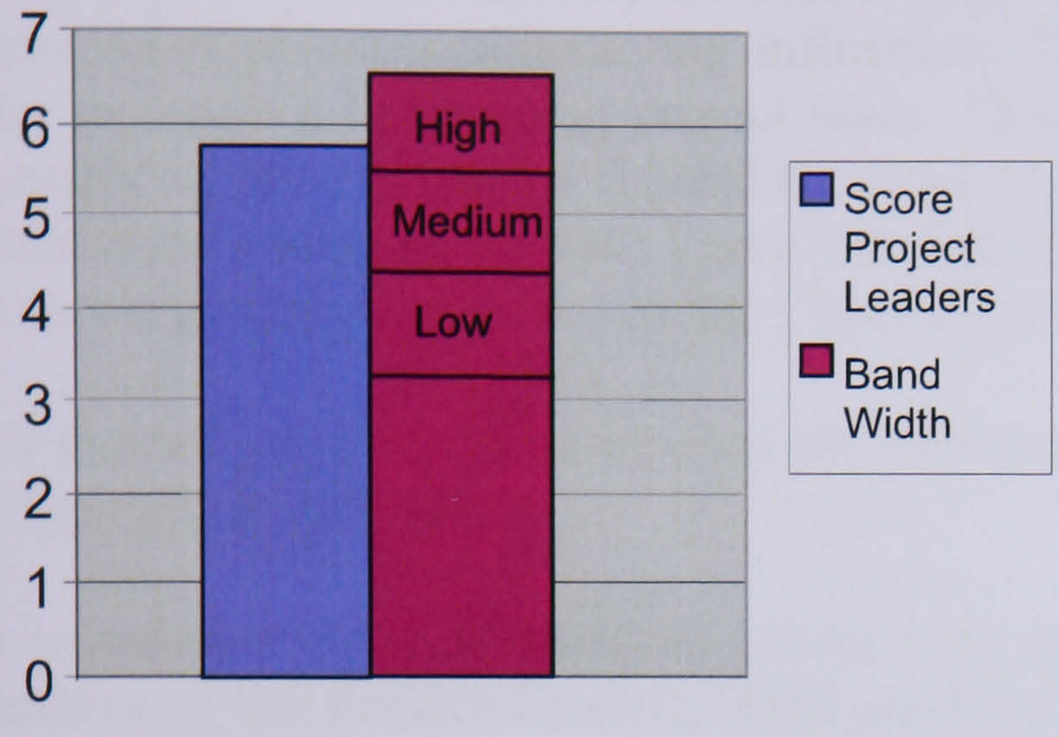
The values expressed with the **Collectivism I** Dimension are seen positively by the members of this group (5.5). This is obviously a consequence of the need for teamwork in complex environments, which shows itself in a positive score for the Collectivism I Dimension.

Figure 84: Performance Orientation



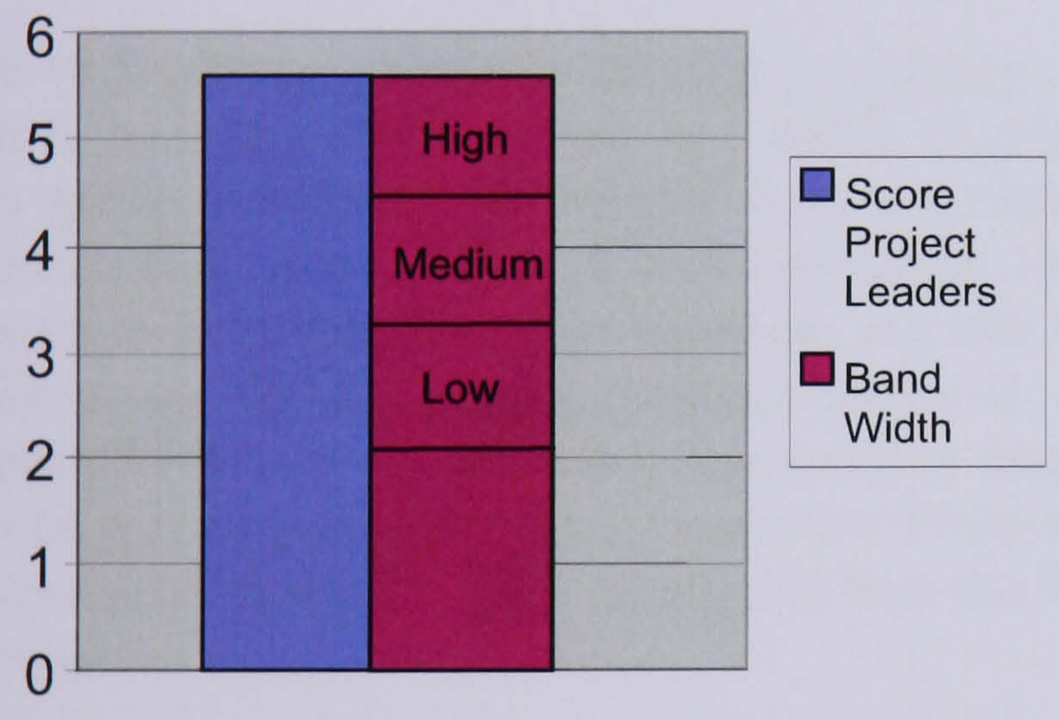
The **Performance Orientation** Dimension is valued positively by the members of this group (6.39). As will be pointed out further below, the nature of projects leads to the need for performance driven personalities to lead them.

Figure 85: Gender Egalitarianism



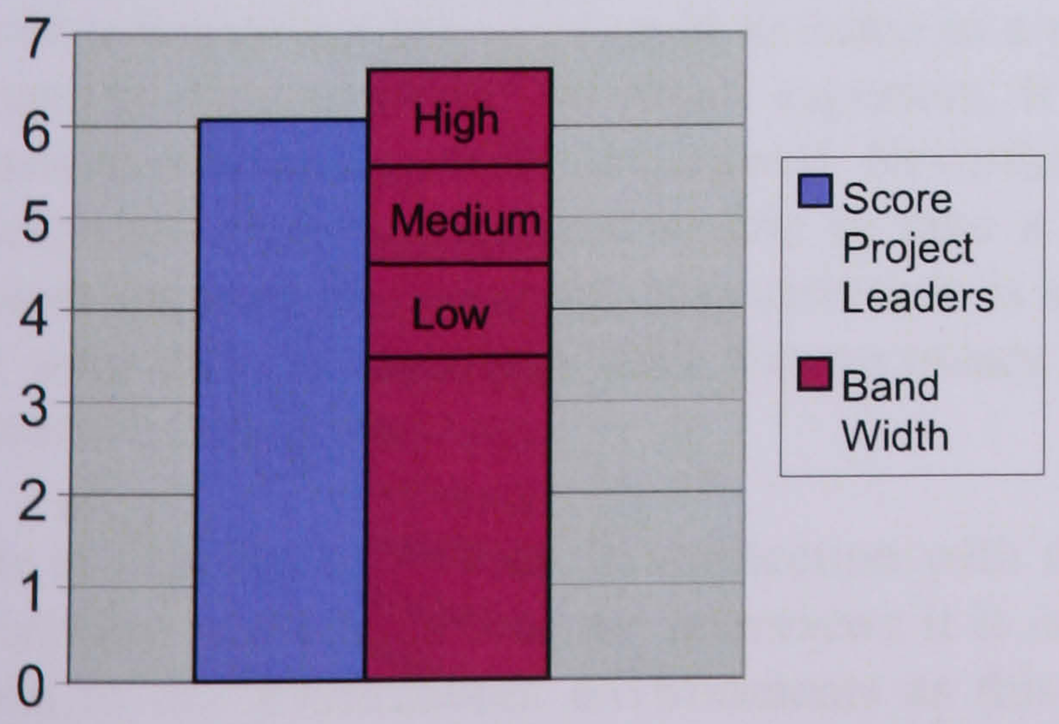
Gender Egalitarianism is valued slightly positively (5.81). Here again the nature of Project Leadership is responsible for this rating, as the values expressed by that Dimension are not seen to be overly relevant. This is due to the fact that people are judged according to their achievement without taking into consideration their gender.

Figure 86: Human Orientation



Human Orientation as expressed with the respective Dimension is valued very positively by the members of the Project Leaders group (5.59). This score which is the *highest* in the whole sample can be traced back to the need for the individual Project Leader, to strive for decision taking by reaching a consensus. Although this approach may not always work, chances are significantly enhanced if the decision takers express some affection for their co-workers, including their needs and desires.

Figure 87: Collectivism II



The Collectivism II Dimension is scored positive (6.06). As will be shown in the following section, this rating is due to the perceived importance of the tasks carried out, which in turn leads to a feeling of pride and loyalty towards the respective project and thus to the occupation of project leadership.

6.6.1.2 The Results of the Qualitative Part

According to the interviewees, the neutral score on the Uncertainty Avoidance scale is a consequence of two counteracting influences. The first one is the need for stability in order to create a functioning project team. This influence though is moderated by the necessity to have a certain flexibility so as to cope with the varying challenges this Professional environment has. These two influences neutralise each other and lead to the above given neutral score on the Uncertainty Avoidance scale.

This picture gets even clearer when put into the context of the Future Orientation and the Power Distance scales.

An *orientation* which is based on a *long term* strategy is very much appreciated by the members of the Project Leaders. This result is rather obvious as most projects in the aviation industry show a very long time span from their initiation until their completion. This supersedes the above mentioned need for flexibility in the rating of this Dimension as a clear concept of time is of the utmost importance for the successful completion of any major project.

The very positive rating on the Power Distance scale further strengthens the impression that to a certain extent a clear and stable environment is preferred by the members of this group. Furthermore, according to the results of the interviews, this rating also shows a clear appreciation of understandable and responsible hierarchical structures. It is seen to be a necessity that superiors are able to formulate clearly what they want to achieve, so that the people working for those superiors have a clear idea of what is expected from them. The same reasoning is applied when it comes to the treatment of the project members by their respective Project Leaders. Therefore, if properly used, power is considered to be positive and thus the Power Distance scale was rated the way shown.

In connection with this aspect, the rating on the Assertiveness scale has to be seen. The integration of a number of sometimes diverging interests leads to the necessity to show at occasions a somewhat Assertive behaviour. According to the interviewees this is not the "regular" course of action. Nevertheless, if a consensus can not be reached a more decisive behaviour has to be used to come to a solution. The same kind of behavioural pattern is expected from the direct superiors. It is expected from them that initially a consensus driven approach is followed. Nevertheless, if this approach does not work, it is expected that the superior is able to take a reasonable decision if necessary also against opposition. Therefore, Assertiveness is seen to be positive to a certain degree, but only if it is exercised with the necessary caution, in order not to slip into an autocratic behaviour.

This in turn has to be seen in connection with the results for the Collectivism I scale. According to the results of the interviews it is *extremely* important to built functioning teams in this Professional environments as this is the only way to truly mobilise all available resources, which is a prerequisite for the success of any project team. Therefore, an approach which initially favours a consensus driven way to solve

problems is always the approach of choice. Only if that does not work, the above mentioned Assertive behaviour may be employed in order to find and take a reasonable decision if the team is not able to do so. Therefore, team work and in consequence the Collectivism I scale receive a highly favourable rating from the members of the Project Leaders' Culture.

This is well in line with the results of the Performance Orientation scale. The very positive rating of this scale is a clear expression of the members of this group always striving to perform in an outstanding manner in their jobs. This performance driven behaviour as already mentioned leads to the activation of all available resources, which in turn favours the above mentioned team orientation. According to the interviewees this Performance Orientation is a *key element* of the *Professional Culture* of the Project Leaders.

Linked with these insights, the results concerning the Gender Egalitarianism scale have to be seen. According to the interviews the only slightly positive rating is an expression of the fact that there is no special importance attributed to gender based questions. In comparison to those groups in which exists a clearly positive rating on the Gender Egalitarianism scale this is an even stronger verdict, as it clearly shows that there is no importance at all attributed to the values expressed by this Dimension. Or to put this into the words of one interviewee "it is not important who does the job, a man, a woman, or whatever, it is important that the job gets properly done in our team based atmosphere".

The results of the Human Orientation scale have to be connected to those of the Collectivism I scale. The very high appreciation of the values expressed with this Dimension shows that if one wants to create well functioning teams the necessity to create good and healthy interpersonal relationships is understood by the members of the present Culture. Therefore, this extremely positive rating for the Human Orientation scale is once more an expression of the perceived importance team work has for the members of this group. In addition they also do expect their direct superior to behave in the same manner, as they consider this behaviour to be a prerequisite for an effective leadership style and therefore, for the success of the company as a whole.

The positive rating of the Collectivism II scale finally is a clear exhibition of pride on the *Profession*. This is a direct consequence of the perceived importance Project Leaders have in their respective companies, but also a direct consequence of the content of the job itself. Being responsible for a project gives the Project Leaders the possibility to clearly see what they achieve, to significantly influence the very outcome of the project and to work relatively independently. Therefore, the results of this Dimension have to be seen in connection with those of the Performance Orientation Dimension, as both results unambiguously point to a very high *intrinsic motivation* of the members of the Project Leaders' *Professional Culture*.

In summary, it can be said that the open interviews gave a number of highly interesting and important insights into the processes that take place within this *Professional Culture*.

6.6.1.3 Summarising Illustration of the Empirical Results

The empirical results clearly show a number of *distinctive* traits of the Project Leaders' *Professional Culture*.

The most interesting ones are the highly *performance driven* nature of this Culture on the one hand, and the extremely interesting *mixture* between human values, team spirit, etc. and assertive power based behaviours on the other.

These at first view somewhat *contradictory* aspects will be extremely important when it comes to the development of the appropriate leadership style and organisational structure. This is even more true as the results gained on the base of this *Professional Culture*, will be very useful in the context of the development of appropriate leadership and organisational styles for cross-cultural encounters undertaken in chapter 7.7.

Hence, at this point it can be stated that a genuine Project Leader Culture does exist and that this culture does show a number of very distinctive and highly interesting traits.

Furthermore, the importance of these results clearly goes beyond this section as they will be very helpful for the correct handling of cross-cultural encounters.

In summary, it can be said that the present section is in a variety of aspects extremely important for the correct understanding of the processes that take place in most companies in the aviation industry.

6.6.2 An Integrative Solution to the Found Characteristics

In the following an appropriate leadership style and organisational structure will be developed.

As already mentioned, some results of this section will be picked up again in the context of section 7.7. Special attention should therefore be given to the findings outlined below.

As usual initially the leadership style will be developed, followed by that of the appropriate organisational structure.

6.6.2.1 The Appropriate Leadership Style

The appropriate leadership style is *unambiguously* based on *Charismatic/Value-Based Leadership* (e.g. Bass, 1985; Burns, 1978; House, et al., 2004; see also section 2.2.3), which needs to be supported by *Team-Oriented* (e.g. Manz/Sims, 2001; House, et al., 2004; see also section 2.2.2) and *Human-Oriented Leadership* (e.g. Gagné/Fleishman, 1959; Fleishman/Quaintance, 1984; Blake/Mouton, 1985; House, et al., 2004; see also section 2.1.2). If necessary some elements of *Autonomous Leadership* (House et al., 2004) should be added.

All relevant Core Cultural Dimensions for *Charismatic/Value-Based Leadership* show either high or very high ratings in the quantitative part. This view was *confirmed* in the course of the open interviews. On the one hand it was confirmed with the views expressed concerning the Core Cultural Dimensions themselves. On the other the necessity to clearly show what the goal of the company and in that context of the respective project is, was considered to be extremely important. Also aspects such as decisiveness, integrity and the formulation of a persuasive *Vision* for the future was mentioned again and again. These aspects together lead to the necessity to base *any* leadership style for this group on the *Charismatic/Value-Based Leadership Style*.

Team-Oriented Leadership is a second very important factor for appropriately leading this Professional group. In the present circumstances though this should *not* be understood as the necessity to *artificially* create a team out of all Project Leaders present in a company (an undertaking that would necessarily be fruitless anyhow). It is to be seen as Project Leaders expecting their direct superiors to give them the freedom and support to effectively built and lead a true team for the benefit of all parties concerned. Therefore, this rating has to be understood as a demand to transfer as much decision competency as possible into the hands of the Project Leaders, in order for them to redistribute these competencies among the project/team members.

Human-Oriented Leadership is the third main component of an appropriate leadership style for the present *Professional Culture*. Members of this Culture do praise this kind of leadership in both the standardised questionnaire and the open interviews. They

highly appreciate the beneficial consequences an integration of this leadership style into the appropriate leadership style for the current *Professional Culture* potentially has if correctly carried out. Therefore, they expect their direct superior to behave in a similar, although more subtle way towards themselves. This includes e.g. the creation of good and healthy interpersonal relationships among the leading personnel in the company instead of a rules and regulations based approach.

Finally, they do expect their superior to *actually live* this kind of leadership style, even if it means that a deviation from classic patterns of leadership has to be undertaken. This finds its expression in the moderate support for some elements of the *Autonomous* leadership style.

Hence, an appropriate leadership style for the Project Leaders' *Professional Culture* looks like the following.

The leaders formulate a *compelling Vision* via which they inspire the Project Leader; this could e.g. be a *Vision* concerning the extreme importance the project has for the future success of the company. The superiors are reliable and honest in their dealings with the Project Leaders so that the Project Leaders always know that they can trust their superiors.

The superior places as much responsibility as possible into the hands of the Project Leaders. Often this will be a necessity by the demands of the project itself, but if there is any room to manoeuvre for the superiors they should use that room to give the maximum decision competency to the respective Project Leader. Furthermore, they should make sure that the respective Project Leaders actually feel encouraged to use that extra competency they have.

The relationship between the leader and the Project Leader should be governed as much as possible by a healthy and warm way of dealing with each other. The leader should focus this relationship on the individual Project Leader, so that its characteristics approach those of a friendship without losing the balance between this friendship and the necessary difference between superior and subordinate. It is important though that this difference is not perceived as being a problem in the establishment of the mentioned friendship like relationship between the superior and the Project Leader.

If necessary the leader should exhibit a leadership behaviour that may be somewhat uncommon if it supports the actual implementation of the above described kind of leadership style. This is due to the fact that *Autonomous Leadership* is perceived to be an advantage if it is beneficial for the interests of the members of the Project Leaders' *Professional Culture*.

In summary, it can be said that the appropriate leadership style needs to be based on a compelling *Vision* that guides the individual Project Leaders in their day to day business. The superiors have to give the Project Leaders as much decision competency as possible and they have to make sure that the respective Project Leader feels appreciated not only as a *Professional* but also as a *human being*.

6.6.2.2 The Appropriate Organisational Structure

The appropriate organisational structure in the current setting is relatively *straight forward.*

The most efficient way to structure an organisation for the needs of a "project", is described below. How the *internal structure of the different projects* looks like is a different story and depends mainly on the Professional composition of the project itself (for some examples see section 7.7). In this section a project is considered to be a sort of *black box*, whose internal structure is not subject of this section. Only the treatment by outside actors of the respective Project Leaders is of interest at this point.

Considering the above described appropriate leadership style an organisation design which is based on self governance and emphasis of auto determination of the different project groups is the best adapted organisation design.

Therefore, *Complexity Theory* (Stacey, et al., 2000; Lewin/Regine, 2000; see also section 3.2.2) is once again the approach of choice. It is of the utmost importance to create an organisational structure which renders the project team and its leader as independent as possible. If the project is important and large enough it should be treated like an *independently* acting entity within the company, very much like a subsidiary.

The organisation which actually employs the project team should only set the framework and distribute the task(s) to the project team. The manner in which the project team members tackle those tasks should be entirely up to the team itself.

The project team should not be subject to *any* kind of external control, except for occasional checks if set up goals actually are achieved. An impression of being under direct and constant control of the parent company has to be avoided.

Therefore, it should be aimed for a *very Loose Coupling* between the project team and the parent company which always respects the here shown need for independency (for more details concerning *Loosely Coupled Systems* see e.g. Orton/Weick, 1990; Perrow, 1984; see also section 3.3.2.2). Any unnecessarily close interference with the project team and especially its leader potentially has highly negative consequences.

The appropriate organisational structure for a project team can best be brought down to one single guideline: When in doubt give more freedom.

6.6.2.3 Summary of the Possible Solution

The possible solution worked out here, probably is not as much a surprise as some of the preceding ones.

This is due to the fact that at least the organisational part of this solution is *very close* to what is usually referred to as project organisation. In how far these results are actually in line with what is to be found in reality will be left to section 8.6.

Nevertheless, these finding are relatively comforting as they show once more that it makes sense to create for different demands and different Professional groups also different organisational structures. Obviously no one would intend to use some organisational structure which is commonly used in a non project type setting for the organisation design of a project type environment. Therefore, the hypothesis that different *Professional Cultures* require different organisation and leadership structures is *supported once again*.

The leadership part though may be a different story as it is highly depending on the individual characteristics of the respective leader. Nevertheless, it does not seem to be overly unlikely that the described leadership style may be found in reality.

The main *problems* arise most likely out of the necessary close and trusting personal relationship between the superior and the Project Leader(s). This is due to the fact that possibly not all leaders are able to built such a bond with their subordinates. Nevertheless it is of the utmost importance that the leader of one or more Project Leader(s) is able to live the above described leadership style, as this is the leadership style of choice for this *Professional Culture*.

In summary, it can be stated that the structures developed in this section are relatively straight forward and simple as far as the organisation part is concerned and potentially very demanding as far as the leadership part is concerned. Nevertheless, an implementation does seem to be possible with an appropriate selection and possibly some training of the leaders to render them more in line with the requirements of this specific Cultural group.

6.6.3 Global Assessment of the Results for Cluster 6

The results gained for Cluster six are once again of a highly interesting and qualitatively very satisfying nature.

As already mentioned, the importance of the results gained in this section go well beyond the *Professional Culture* treated here. A number of the insights gained will be of great interest within the context of section 7.7.

Another important aspect is the clear preference for a very *interesting mixture* between direct and indirect leadership.

The demand for a maximum degree of freedom as far as indirect leadership is concerned is joined with an expectation of a very cordial, warm and caring kind of direct leadership. This statement is enhanced by the expectation by the Project Leaders that this cordial relationship is built by a strong and *Visionary* personality who is able to give clear and unambiguous meaning to the work of the Project Leaders. At the same time it is expected that this leader does not overly interfere with the Project Leaders' interests.

This mixture is rather uncommon as it demands a strong but at the same time cautious and caring leader. But this precise mixture possibly represents the biggest obstacle to the realisation of the solution developed in this section. This is particularly true in comparison to the organisation design, which is relatively simple to build.

Technically, the results are again highly satisfying. The Professional group extracted is highly homogenous, with most members having actually carried out the task of a Project Leader for years. Therefore, the results gained here are seemingly apt as regards Project Leaders as a whole.

In summary, it can be said that this section serves to identify a highly interesting and in some aspects quite demanding *Professional Culture* that nevertheless possesses enormous importance for the success of most companies in the aviation industry.

7 ILLUSTRATION OF THE RESULTS OF THE EMPIRICAL SURVEY II

In the following, the analysis of the empirical results will be continued.

The split in the illustration of the empirical results is mainly due to easier access to the various sections of this illustration.

One more aspect of the current chapter is a cross evaluation of the possibilities of integrating various *Professional Cultures* in one work team.

This evaluation is important in order to get an idea of the possibilities of leading and organising successfully cross functional teams.

This evaluation will serve mainly to demonstrate whether and how it is possible to integrate different Professional Cultures in one work team.

Therefore, in summary, the current chapter continuous the work undertaken in chapter six while introducing another highly interesting and important aspect of the complex of *Professional Cultures*.

7.1 ***Cluster 7: Innovation and Development***

According to the results of the empirical survey, people working in Innovation and Development related areas create an independent group which is *not* restricted to that of development engineers.

This is due to the fact that Innovation and Development are not necessarily exclusively due to somebody exercising a technical Profession.

This can already be seen when considering the composition of this group, which incorporates not only engineers, but also members of a variety of Professional groups such as consultants, HR managers, or members of management and obviously engineers.

The results given in this section have *far reaching consequences* for any organisation that depends largely on innovation for its success, because *creativity* and *innovation cannot be decreed* like an increase in working hours per day. Therefore, the appropriate treatment of this key group is hugely important for optimising its results.

Considering the fact that in the aviation industry virtually any company is highly dependent on innovation in order to survive, this insight is even more important in the present context than in most other industries.

7.1.1 The Empirical Survey

The results of the empirical survey are presented as usual, beginning with the results of the quantitative part of the survey.

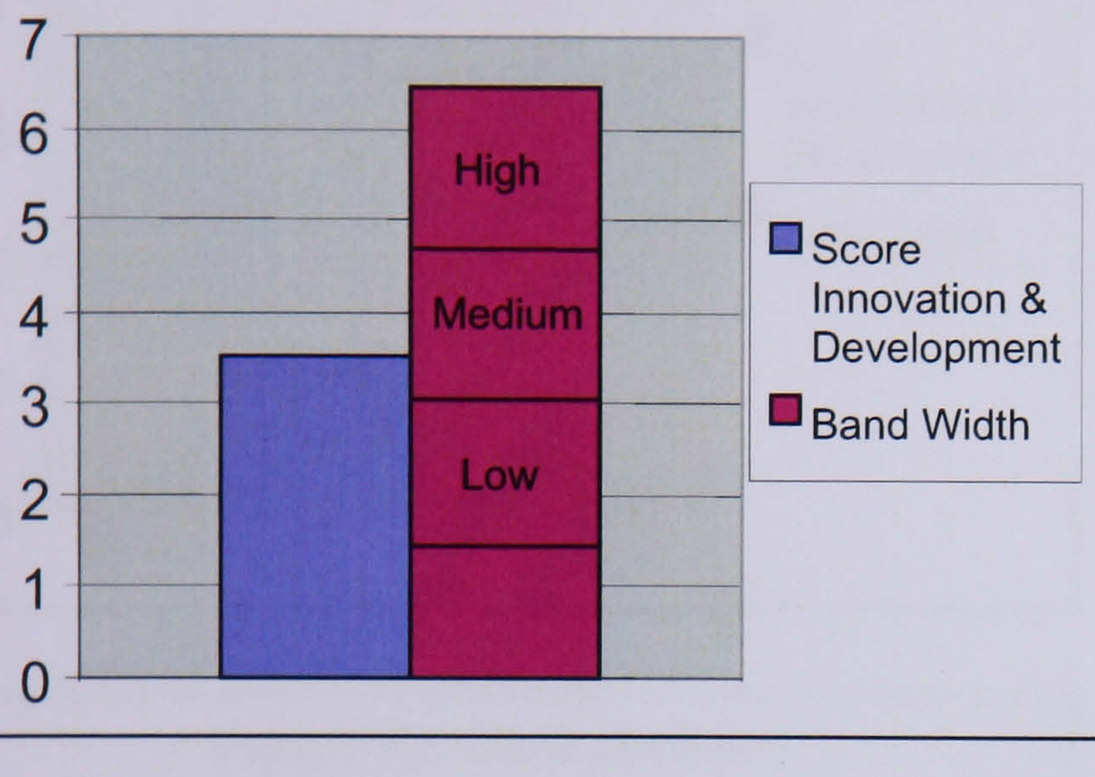
The quantitative part of the survey played a *key* role in determining the main charactieristics of the Innovation and Development Culture. It is based on responses from 26 respondents originating from various countries and organisations. The gender related composition shows a male majority. This majority is once again a *reflection* of the composition of the occupations themselves present in this Cultural group.

The qualitative part, which is as usual composed of seven respondents, played once more an important role in understanding the underlying processes leading to the results of the quantitative part.

Therefore, this dual approach proved once more to be the most appropriate way to gain the maximum amount of information and therefore the best insights into the research object possible.

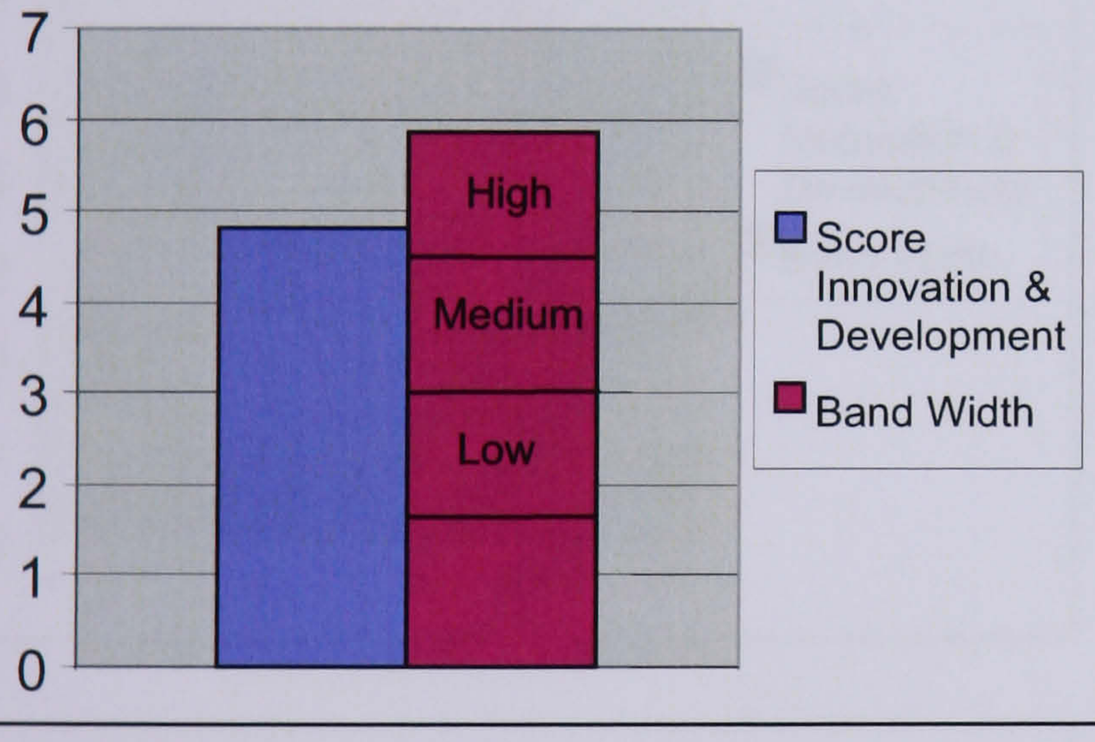
7.1.1.1 The Results of the Quantitative Part

Figure 88: Uncertainty Avoidance



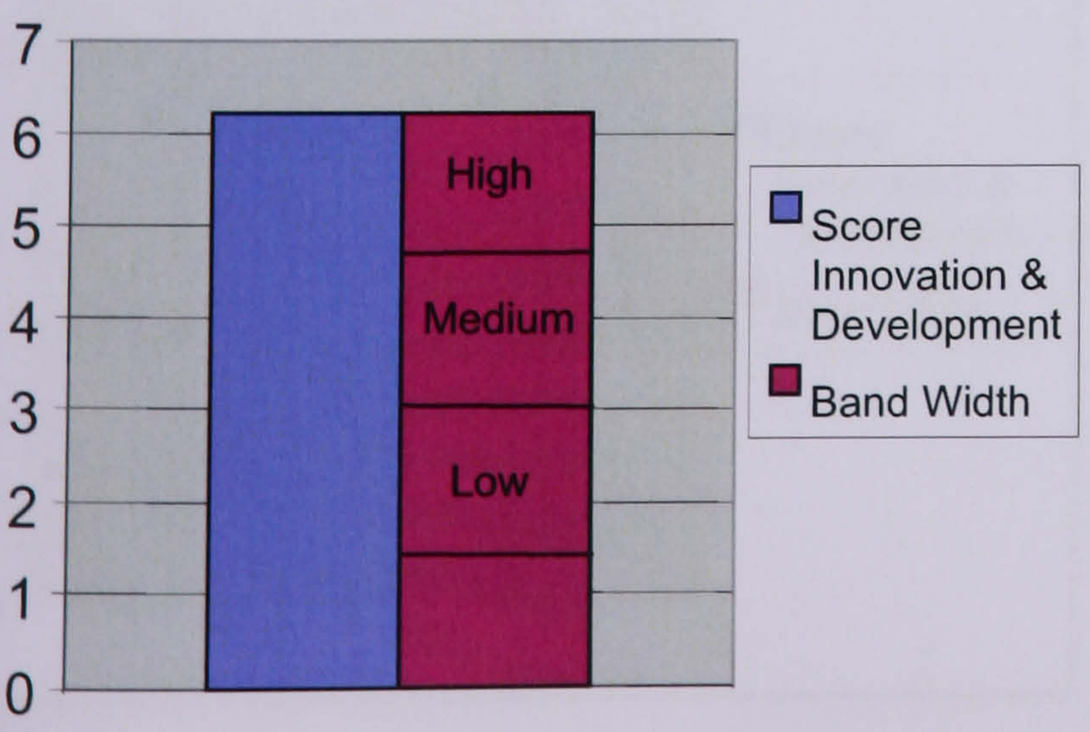
The **Uncertainty Avoidance** Dimension is placed at the lower end of the medium area (3.53). This result is hardly surprising for a Professional group which has to search for new ways of doing things, as this necessarily creates an environment of high uncertainty.
Nevertheless, total uncertainty is not the goal of this Cultural Cluster as its members still need stability to a certain extent in order to successfully pursue their respective tasks.

Figure 89: Assertiveness



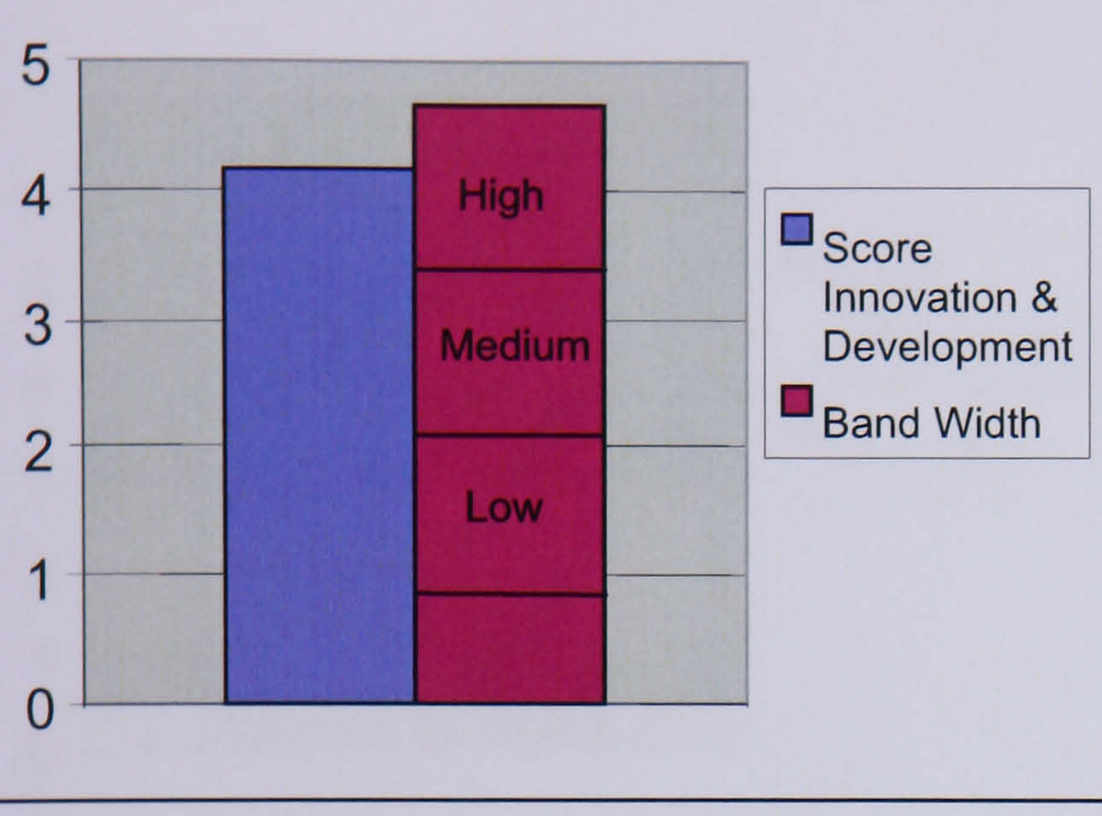
The items of the **Assertiveness** Dimension score positively in this group (4.79). This result has to be seen in relation with the role of the members of this group in their respective organisations. These employees are at the source of most new developments and innovations in every organisation. As will be elucidated below, it is often impossible to push through any innovation without a certain amount of persistence and assertiveness leading to the given result.

Figure 90: Future Orientation



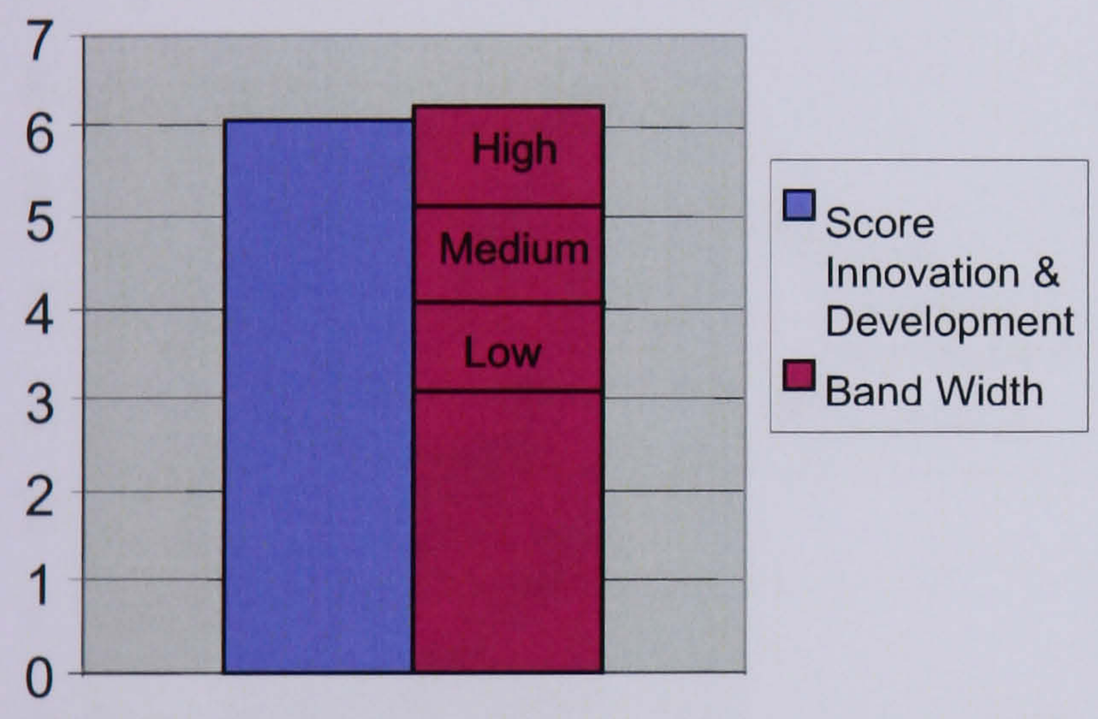
The **Future Orientation** Dimension receives in this group one of the *highest* ratings out of all groups (6.22). This result is rather obvious as the values formulated by this Dimension are at the core of the self understanding of this group. Further details concerning this will be given below.

Figure 91: Power Distance



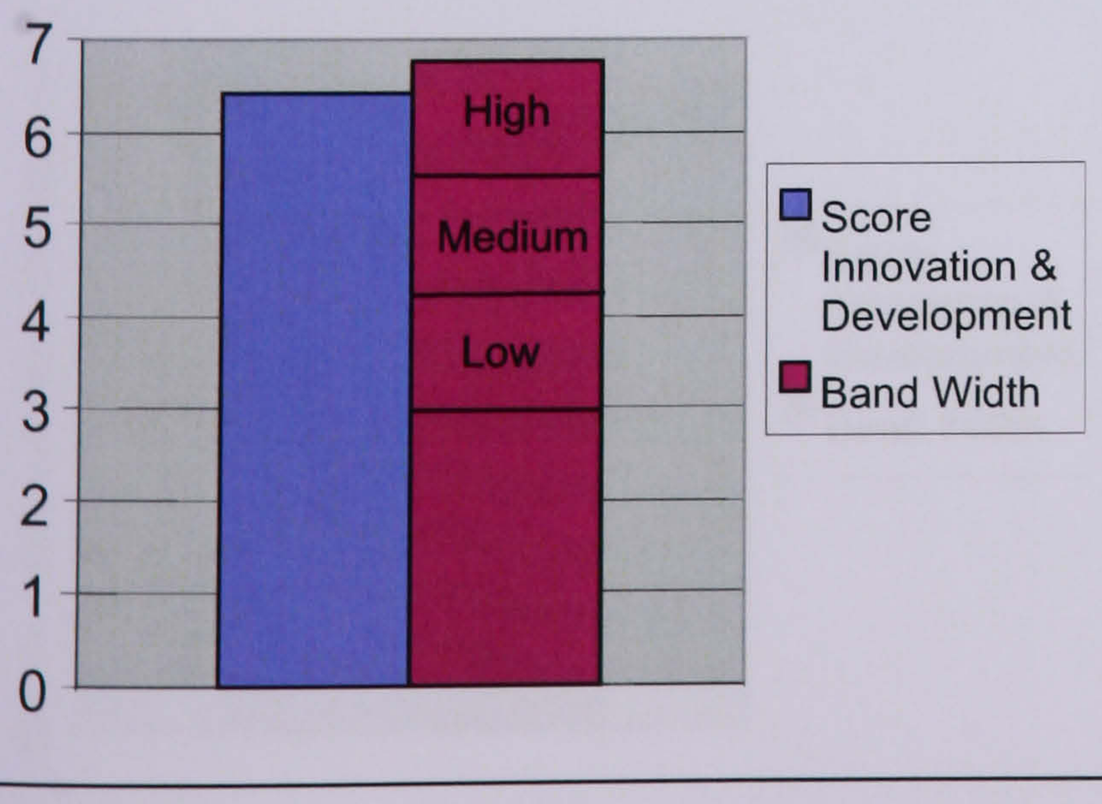
The **Power Distance** Dimension gets a positive rating within this group (4.17). Again, the reasons for this will be elucidated below. The one thing to be retained at this point though is that this rating is to be seen in connection with the needs to have clearly set goals and the ability to push through developments if necessary against opposition.

Figure 92: Collectivism I



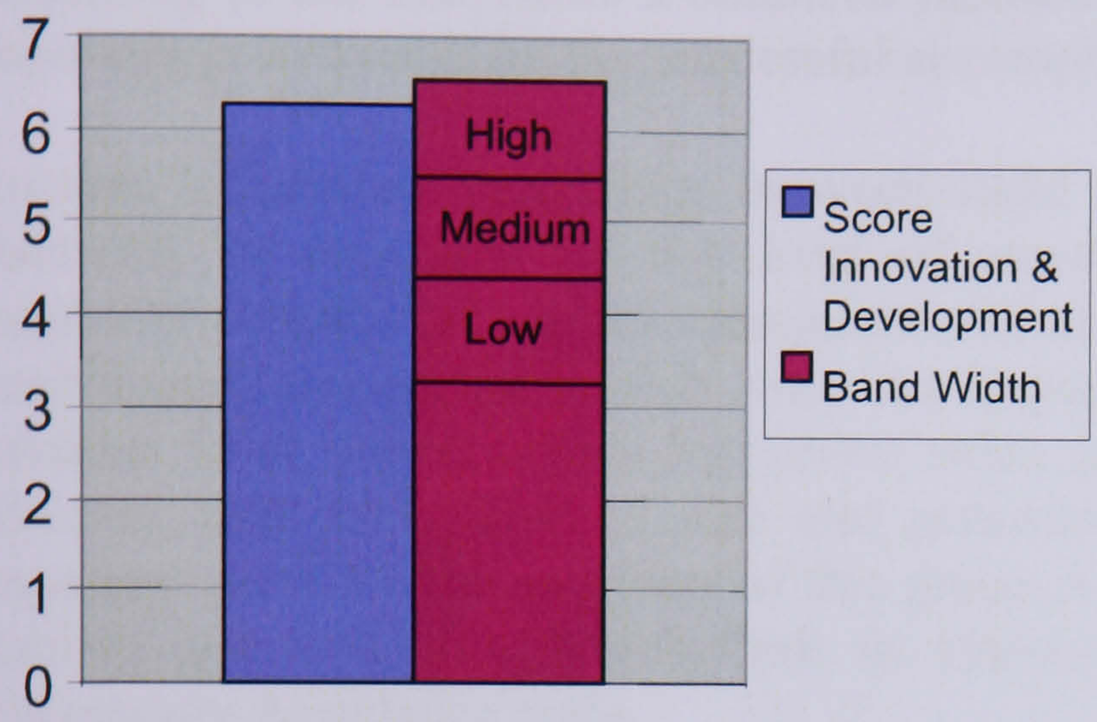
The **Collectivism I** Dimension is clearly rated in the positive area and gets the *second highest* score of the whole sample (6.08). This result is a *clear reflection* of the need for effective team work in this group, which is a direct consequence of the highly demanding work environment.

Figure 93: Performance Orientation



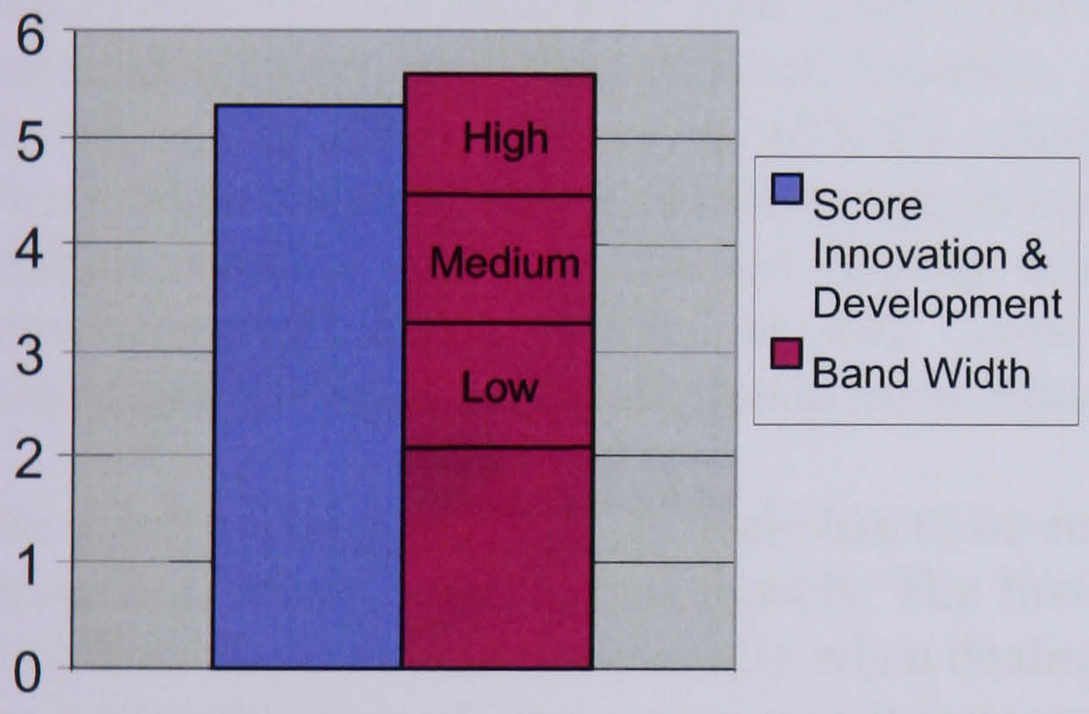
The **Performance Orientation** Dimension is also valued strongly positively (6.41). This rating should not be a surprise, as in the highly demanding environment in which this group is placed only individuals who strive for excellence can succeed.

Figure 94: Gender Egalitarianism



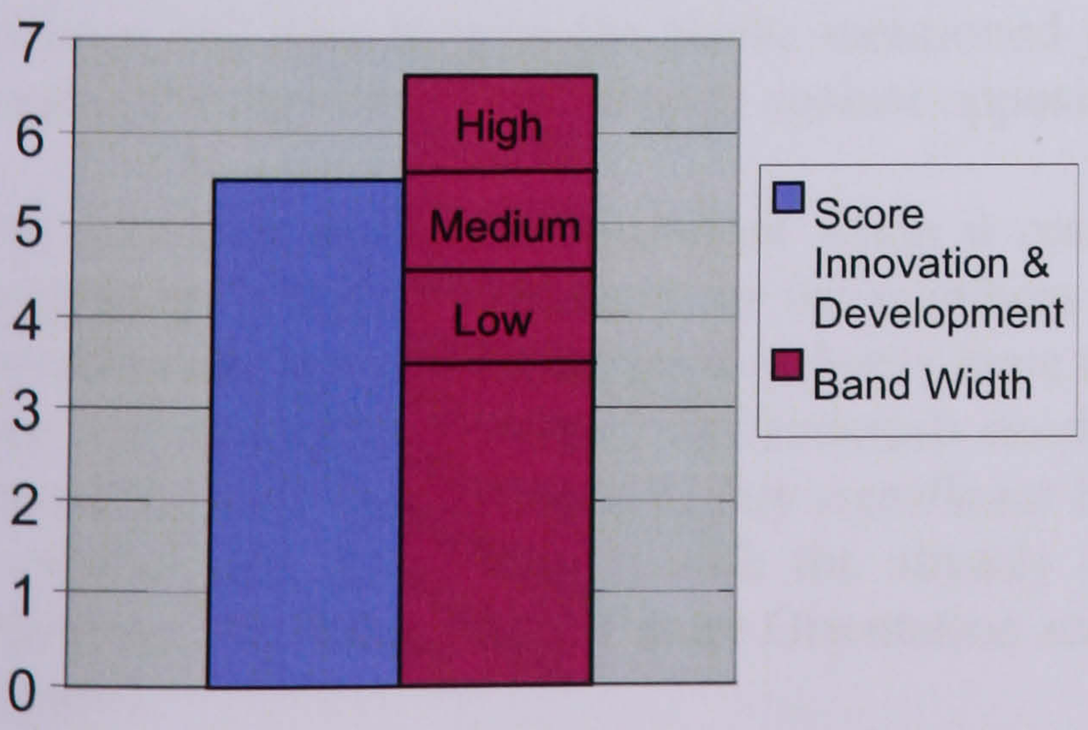
Gender Egalitarianism is rated positively (6.24). This rating can be seen as an expression of the fact that the most important aspect when judging a person in this environment is that person's performance. As will be pointed out further below, this Dimension should therefore be seen in connection with the Performance Orientation Dimension.

Figure 95: Human Orientation



Human Orientation is valued *strongly* positively (5.29). With reference to the details given in the following section, this rating reflects the understanding of the members of this group that an efficient and creative way of working together, also necessitates good and healthy inter-personal relationships.
This highly interesting aspect will be investigated further in the following section.

Figure 96: Collectivism II



The **Collectivism II** Dimension is rated at the limit between the medium and the high area (5.46). Considering the key role this Professional group plays in any company, such a result should not be overly surprising although it does *not completely reflect* the view members of this group have about themselves. As will be pointed out further below the self-image of the members of the Innovation & Development group is very positive, partially leading to the given result.

7.1.1.2 The Results of the Qualitative Part

According to the interviews a *balanced* mixture between stability and instability is an important prerequisite for the successful accomplishment of the tasks of the group.

An area of tension thus exists between these two factors. On the one hand, some instability is necessary for any kind of creative process, on the other, too much instability is potentially counterproductive for any long term development process. The interviewees stressed more than once the importance of freedom and specifically the freedom from unnecessarily restrictive rules and procedures. That does not mean, however, that every kind of rule and procedure is considered to be negative. The important point for the members of this group is the above mentioned balance between stability and instability, which finds its expression in the low medium rating of the Uncertainty Avoidance scale.

Another interesting point concerns the relatively high rating on the Power Distance scale. This at first view somewhat surprising rating is a direct consequence of a very specific understanding by the members of the Innovation and Development group of the way in which power should be used. They expect their direct superior to give them clear and unambiguous guidelines without, however, influencing their day to day work. This can be seen in direct connection with the results of the Uncertainty Avoidance scale, where some stability and guidance is appreciated. According to the interviewees this relative stability can be achieved among others by setting up goals and clearly communicating them, while at the same time relying on the individual Innovator/Developer to actually reach them independently.

The result of the Assertiveness scale has to be seen in connection therewith. Its positive rating is a consequence of two aspects. The first one is the way members of this group think they should behave, especially when dealing with other Professional groups. Here, the impression prevails that sometimes it is necessary to be somewhat Assertive in order to successfully "push through" certain new developments. The second aspect concerns the behaviour they expect from their superior. Here it is thought that it is advantageous for a superior to be able to be Assertive when *necessary*. "When necessary" means for the members of the present group that they sometimes expect their superior to take a decision and thus to give the above mentioned guidelines. That is also true when this means pushing something through against opposition.

This aspect is especially important when it comes to long term decisions, as Future Orientation is highly important for the members of this group. As most Innovation and Development tasks in the aviation industry have rather long term orientation, the overall time horizon of the concerned Professionals needs to be long term oriented as well. This latent long term orientation is highly significant for the members of the present group as it can be seen in connection with the already clearly expressed need for guidelines. Therefore, the rating on the Future Orientation scale was the *highest* out all *Professional Cultures*.

Team-Orientation is very important for the members of this group as well. Such a result is hardly surprising as most innovative tasks would be largely impossible without properly functioning teams. This result finds its expression in both the quantitative part of the survey with the high rating of the Collectivism I Dimension and the qualitative part, where the importance of team work was mentioned more than once.

This impression was further enhanced by the results of the Human Orientation scale. The quantitative part of the survey showed a clear preference for the values expressed with this Dimension. Furthermore, the interviews clearly indicated the importance that good interpersonal relationships have for the members of this group. A direct reference was made to the above described importance of efficient teams. Members of the Innovation and Development Culture are convinced that caring about the other team members and having a true relationship with the them is a necessity for the *successful* implementation and actual experience of team work.

Performance Orientation is high for the members of the current group. According to the interviewees, the task itself is usually *extremely intrinsically* motivating, leading to a very high motivation to perform in an outstanding manner. This is usually strengthened if these performances can be achieved within one of the above described functioning and harmonious teams.

The result of the Gender Egalitarianism scale has to be seen in direct connection with that of the Performance Orientation scale. The positive rating of this scale can be interpreted once again as a clear expression of the *preference for performance* in comparison to any gender based questions, further strengthening the above stated importance of performance.

Finally, a positive view of the Collectivism II Dimension could be confirmed, which is not completely clear when only the score of the Collectivism II scale is taken into consideration (as shown it is on the limit between medium and high). This positive rating is, on the one hand, a *direct consequence* of the stated high intrinsic value the *Profession* itself has for the members of the Innovation and Development group. On the other, it is a consequence of the perceived importance the work carried out by the members of this group has for the companies concerned. The perception is that most tasks carried out are vital for the future of the company, giving this work even more *intrinsic value* than it already has thanks to its unique character.

In summary, it can be said that the interviews gave a number of very interesting insights that went well beyond those gained in the course of the quantitative part of the survey. Once again, it was only possible with the help of the interviews to reasonably join the findings of the quantitative part into one coherent and detailed picture of this specific *Professional Culture*.

7.1.1.3 Summarising Illustration of the Empirical Results

Jointly the empirical results gave a very interesting and detailed picture of the characteristics of this *Professional Culture*.

For the *appropriate interpretation* of the quantitative results it was necessary once again to proceed to a thorough qualitative survey. Only by taking full advantage of the results of both research methodologies is it possible to correctly develop an appropriate leadership style and organisational structure as undertaken below.

A very interesting second aspect concerns the *composition* of this group. This is due to the fact that the present group comprises the second part of the group of engineers present in the survey. In comparison with the production engineers though (section 6.5) the characteristics of this group are *remarkably different*. This is a consequence of the fact that the engineers present in this group, are development engineers, thus have a quite different work environment than that of the production engineers.

Furthermore, this group is *not* only composed of engineers, but also of people working in HR development, as consultants, in coaching, etc. Therefore, the differentiation between two *Professional Cultures* is not necessarily possible with reference to what is usually called an occupation or a Profession, but *rather with reference to functional aspects*. The importance of these results can not be overestimated in the context of the present study as it clearly shows that a *Professional Culture* may develop in a quite different manner from what usually may be expected.

In summary, it can be stated that the present *Professional Culture* exhibited a number of highly interesting and important traits in the course of the empirical study. As mentioned, these results are based on responses from employees originating from various countries and working for a number of different organisations. Hence, here again the found characteristics are not an artefact of some national or organisational Cultural influences, but apparently of the mentioned underlying mental processes being a consequence of the prevailing *Professional Culture*.

7.1.2 An Integrative Solution to the Found Characteristics

In the following an adequate leadership style and organisational design will be developed.

Based on the rather detailed picture gained in the course of the empirical study, initially the appropriate leadership style will be developed. Subsequently an organisational design will be proposed which will be in line with the results gained in this section.
The results presented in the following are of a rather high importance as they concern one of the key *Professional Cultures* of this very demanding and dynamic industry, as each company is dependent on the successful and constant development of new solutions.

Due to the fact that it is hardly possible to *order* creativity, it is of the utmost importance to appropriately treat the members of the Innovation and Development group.

7.1.2.1 The Appropriate Leadership Style

According to the above given results an appropriate leadership style is based on the *Charismatic/Value-Based Leadership Style* (e.g. Burns, 1978; Bass 1985; House, et al., 2004; see also section 2.2.3). Large parts of the *Participative* (e.g. Lewin, 1948; Tannenbaum/Schmidt, 1958; House, et al., 2004; see also section 2.1.1), the *Human-Oriented* (e.g. Gagné/Fleishman, 1959; Fleishman/Quaintance, 1984; Blake/Mouton, 1985; House, et al., 2004; see also section 2.1.2) and the *Team-Oriented Leadership Style* (e.g. Manz/Sims, 2001; House, et al., 2004; see also 2.2.2) need to be included into the final solution in order to create a leadership style which appropriately reflects the above given preferences of the members of this group.

All relevant Core Cultural Dimensions clearly point to the *Charismatic/Value-Based Leadership Style* as the leadership style of choice. The only exception here is the *inconclusive* quantitative result for the Collectivism II Dimension. As already mentioned the interpretation of the Collectivism II Dimension became much clearer with the open interviews. The resulting *positive interpretation* of this Dimension leads to the very high importance attributed to the *Charismatic/Value-Based Leadership Style*.

Four out of the five Core Cultural Dimensions which are relevant for the *Team-Oriented Leadership Style* indicate the necessity to incorporate elements of this leadership style into the final solution. Only the result of the Uncertainty Avoidance scale is in contradiction to this leadership style. The fact though that four Dimensions are in accordance and considering the nature of the tasks carried out by the members of this group, the importance of *Team-Oriented Leadership* can not be denied.

Concerning the *Participative Leadership Style* all relevant Core Cultural Dimensions at the exception of the Assertiveness scale indicate the importance this leadership style has for appropriately leading the members of this *Professional Culture*. Furthermore, reflecting the Professional competencies present in this Culture, it is evident that its members expect their superiors to be participative in their leadership style.

Finally, *Human-Oriented Leadership* has to be taken into account as well. As already mentioned, good and healthy interpersonal relationships are *extremely* important to the members of the Innovation and Development Culture, as they consider these to be necessary in order to create well functioning teams. In connection with the results of both the quantitative and the qualitative empirical part, and the already stated importance of team work in general for the members of this *Professional Culture*, it becomes clear why *Human-Oriented* leadership necessarily forms part of the appropriate leadership style.

An appropriate leadership style would therefore look like the following.

The leaders would have to develop a compelling *Vision* which inspires the subordinates. It is important that the *Vision* is realistic and that the leaders have the credibility that the subordinates actually believe in them and the *Vision*. The *Vision* itself should be *closely related* to the Innovation/Development task so that the link between the successful completion of the task and the fulfilment of the *Vision* is clearly visible to the employees concerned.

Furthermore, it is extremely important that in their day to day business the leaders take a strictly *Team-Oriented Leadership* approach. A very promising approach in this setting is the above described *SuperLeadership* (Manz/Sims, 2001; see also 2.2.2). The leader should always strive to transfer as much decision competency as possible into the team in order to clearly demonstrate that it is the team's responsibility to find the appropriate solutions to the problems at hand.

In that context it is also vitally important when the leader has to take a decision, that the decision taking process itself is as *participative* as possible. This is a consequence of the usually extraordinarily elaborated *specialised knowledge* members of this *Professional Culture* have. A decision which does not truly reflect this existing knowledge, has a very high chance of *not* being *accepted*. Due to the already mentioned impossibility to order creativity, unaccepted decisions taken by the leader have potentially disastrous consequences for the results of the whole department concerned.

In addition the leaders have to make sure that they create the above mentioned *positive interpersonal relationships*. To achieve that it is necessary for the leader to value all members of the team as *human beings* beyond the limits of their Professional function. The intention has to be to create a true bond between the team members and the leader so as to facilitate the leader's role outlined in section 2.2.2. Furthermore, strong positive interpersonal relationships between the leader and the team members, greatly facilitate the internalisation of the above mentioned *Vision*. Hence, the significance of *Human-Oriented* leadership must not be underestimated in the current setting.

In summary, it can be stated at this point that the leadership pattern to be exhibited by the leader of an Innovation and Development team, is *quite demanding*. Failure to do so though, may result in a greatly diminished efficiency of the concerned team. Due to the importance of this Professional group for their individual companies, this is an outcome which should be strictly avoided.

7.1.2.2 The Appropriate Organisational Structure

Due to the above given characteristics of this *Professional Culture*, *Complexity Theory* will serve again as guideline for the appropriate organisational structure of this Culture (Stacey, et al., 2000; Lewin/Regine, 2000; see also section 3.2.2).

The actual characteristics of this organisational structure should be very close to the theoretical approach given in section 3.2.2.

In detail this means that the whole organisational structure has to be centred around largely *independent work teams*. Superiors should exist, but depending on the size of the respective team not necessarily one for every single team. They should exhibit the three main traits of a leader in a complex system mentioned in section 3.2.2 which are *allowing*, *accessible* and *attuned.*

The hierarchy, if one still wants to call it that way in the present setting, should be very flat. On the regular day to day basis the members of the Innovation and Development Culture should not feel that a true hierarchy really does exist. Instead they should get their day to day guidance from *their intrinsic motivation*, the above mentioned *Vision* and their *fellow team members*.

Therefore, *self-governance* is a key issue for this organisational design. It is of the utmost importance that the different teams get the tools into their hands, which actually allow them to lead their teams themselves.

When it comes to the creation of the different teams it is to be made sure that all necessary competences are present within the group. If after a while it becomes clear to the team that a competence is missing the initiative for adding that missing competency may and should obviously come from the team itself.

Control mechanisms should be kept to a minimum. As a principal the teams should only be measured by the degree to which they actually *reach their goals* not on how they reach them. Here as well the basic idea of self governance shows up again, as true self governance obviously implies self-control.

Any measure which facilitates the exchange of knowledge among the different teams should be undertaken. In the present setting this should provide the different teams with the possibility to have *unrestricted access* to the knowledge of other teams if needed. This topic is to be seen again in the context of self governance.

In summary, it can be said that the present *Professional Culture* does require a lot of freedom in order to perform efficiently and at the level of its potential. As shown this freedom can best be achieved with the consequent use of the approach described in section 3.2.2. One of the things though which *should not* be attempted is the implementation of a true heterarchy as this clearly collides with a number of points given in section 7.1.2.1. Therefore, the solution is not a blind implementation of some organisation design which goes back to *Complexity Theory*, but the adequate use of this design to the here described needs of the present *Professional Culture*.

7.1.2.3 Summary of the Possible Solution

The here proposed solution is on the one hand highly demanding and on the other again rather straight forward.

The leadership part puts *enormous demands* on the respective leaders as they have to display a large number of highly challenging behaviours in order to achieve the above described leadership style.

The organisational design part on the other hand is *relatively straight forward* and in theory easy to implement. The main problems would probably arise due to superiors not getting along with this kind of organisational structure or possibly even outright fighting it.

Therefore, the most challenging part is to have leaders who can actually *successfully live* the above developed *leadership style*. The problem here is similar to that in the previous section although somewhat even more distinct.

Hence, the importance of a *thorough selection* of future leaders for this *Professional Culture* and *continues training* with these leaders seems to be a necessity. Especially the leader selection process is extremely important as not all the behaviours described above are actually well learnable; e.g. persons who are not able to adjust their behaviour to build the mentioned positive relationships with their subordinates lack a key competence which they need to effectively lead a team in the present setting.

In summary, it can be said that the solution proposed in this section may not be the easiest to implement either due to a lack of qualified leadership personnel or due to political opposition within the company against such radical change in organisational design. Nevertheless, the importance an outstanding performance of the members of this *Professional Culture* has for the companies concerned should after due consideration of the costs and benefits clearly demonstrate that the benefits outweigh the costs.

7.1.3 Global Assessment of the Results for Cluster 7

The results of this seventh Cluster show a *Professional Culture* which has a very special standing in most companies.

The members of this Culture are not necessarily hierarchically highly placed in their respective companies, but due to their importance for the *future* of these companies they often do have a very special position.

This special position finds its expression in the clearly articulated demands for independency and freedom, the members of the Innovation and Development Culture expect to have in their companies. There is no doubt that an overly restrictive leadership and organisational design has potentially *highly negative* consequences for the performance of the members of this Culture.

Therefore, the results gained in this section are highly important. Often companies may be tempted to structure Innovation and Development departments in a more classical way. According to the results given here, such a structure would be highly inappropriate and most likely harmful for the success of the concerned companies.

It is for that reason, that it becomes once again clear why it is of such an importance to take the specific requirements into consideration that different *Professional Cultures* and therefore *Professions* have. As demonstrated at various occasions in this work, failure to do so leaves large parts of a company's resources unused. This should be avoided with all *Professional Cultures* present in a company, but in particular with those Cultures that have such a key importance for the success of many companies, as the present.

7.2 ***Cluster 8: The Service Providers***

The eighth Cluster comprises people that are providing varying services to clients *within* and *outside* of the company. Obviously this view is not in accordance with that commonly held about service being exclusively a task dealing with outside clients.

Logically though a discrimination between internal and external clients does *not* make sense as for someone being in need of a service it does not make a difference if that need is met by external or internal Service Providers. The same logic applies to the person providing the service, as in principal there is no difference between providing service to an *internal* or an *external* party.

This understanding of service obviously leads to a significantly broader view as to which occupations should be included in the Service Providers' Cultural Cluster.
In the present sample such different occupations as internal business analysts, marketing analysts, supply chain specialists, customer support specialists, human resource specialists or Flight Attendants are present. Concerning the Flight Attendants in this group one has to keep in mind that they are *significantly* different from those representing the main portion of the Flight Attendants sample which are building their own group (see section 6.2).

A problem with the Service Providers' group is that sometimes the limits between this group and the administration groups are fluent. This may become a problem to a certain degree especially when practical applications of these research findings are planned. Nevertheless, this problem can be controlled if one keeps in mind the following points when deciding if a specific occupation or a team etc. should be assigned to this group or not.

The decisive factor as to the assignment to this group is the question if the specific occupation actually performs a *real service activity* and not primarily a mere administering one. If for example an analyst is working in a department in which primarily external data is collected which then in turn is used to give the marketing division a sound decision base, this department and therefore this specific job is considered to be part of the Service Providers group. This is because the purpose of its activity is to provide information and therefore a *service* to someone else. If on the other hand analysts work in a controlling department and collect data as part of their department's controlling activity then these persons and their department are not to be considered to be part of the Service Providers group as the focus of the task is it's own activity.

Therefore, the main question one has to ask when deciding if an entity is to be assigned to the Service Providers group is if *the task of that entity* (an individual, a team, a department etc.) *is focussing on the needs of another entity or not*.

The traits that result from these demands and this focus of the Service Providers group are lined out now in the following.

7.2.1 The Empirical Survey

In this group the role of the *qualitative part* was *highly important*. This is due to the enormous complexity of this group and the already mentioned grey zone that necessarily exists between this group and neighbouring groups.

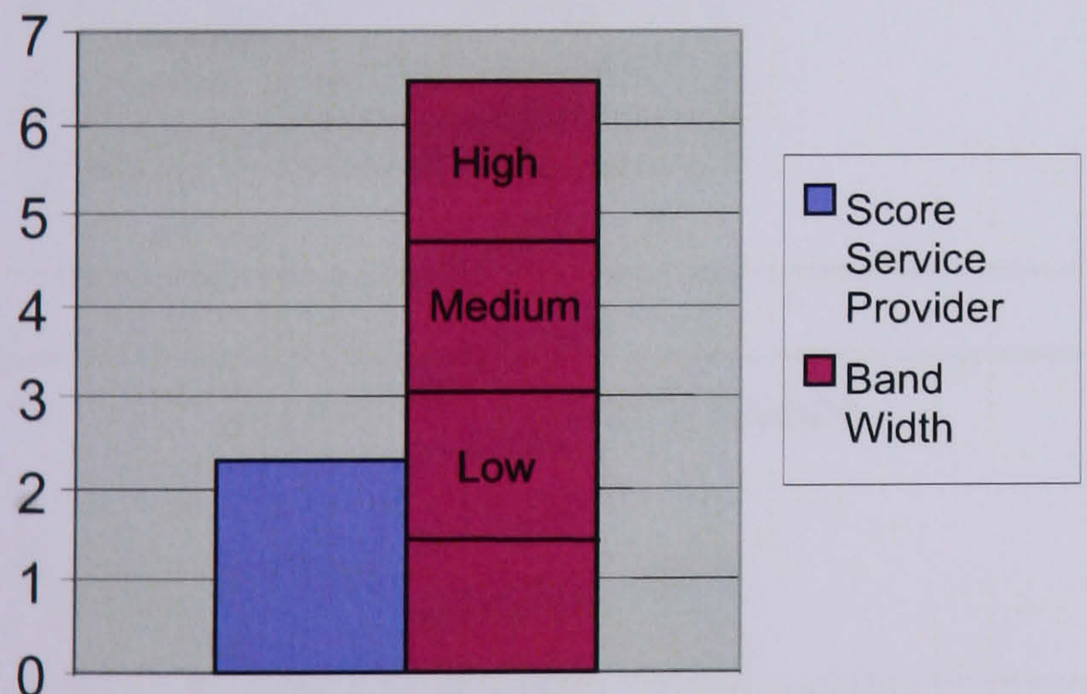
Therefore, it was *imperative* for the correct interpretation of the results of this group to verify and deepen the understanding of the characteristics of this group resulting from the quantitative part. This was done with the help of the qualitative part.

The quantitative part itself is based on responses from 29 employees, originating from various national and organisational backgrounds. A majority of the respondents is female, which is once again a *consequence* of the composition of the *occupations* present in this group.

The qualitative part is based as usually on seven respondents and significantly clarified the results of the quantitative part.

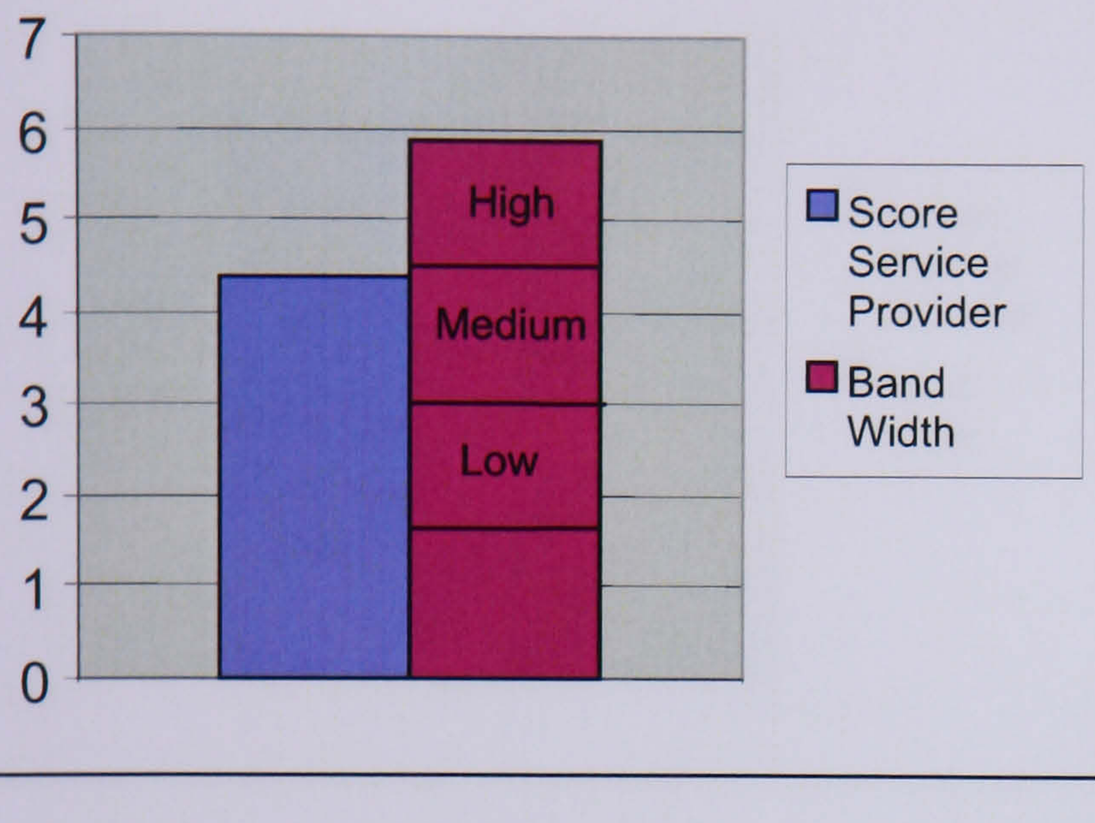
7.2.1.1 The Results of the Quantitative Part

Figure 97: Uncertainty Avoidance



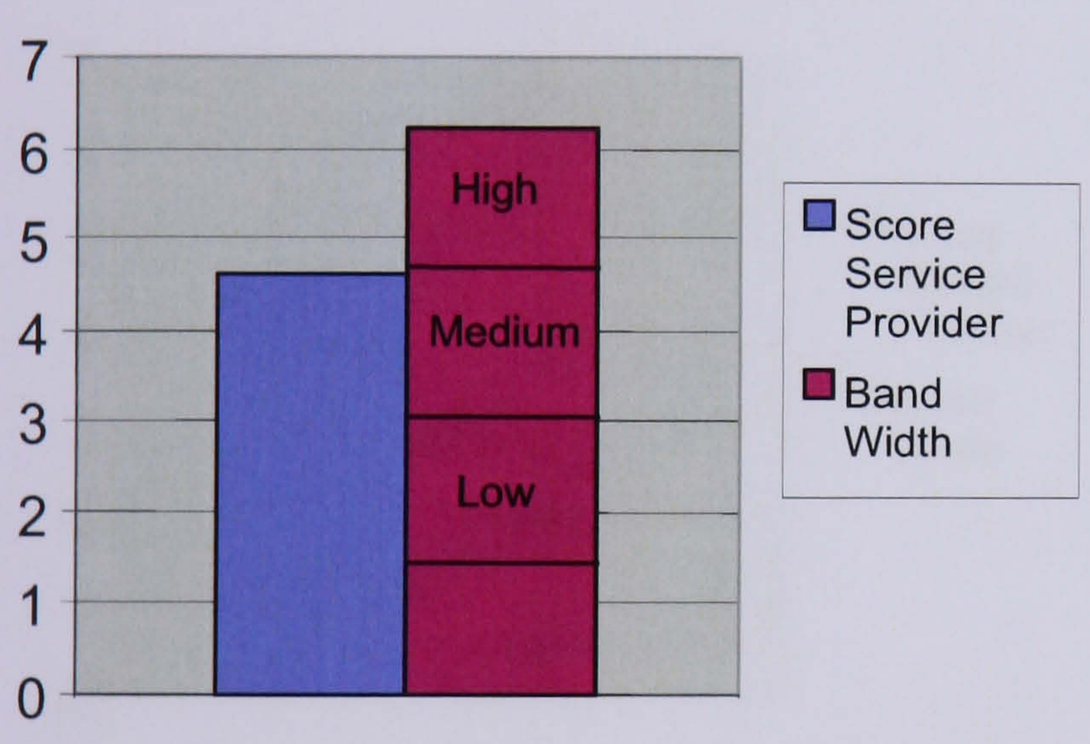
Uncertainty Avoidance is seen *very* negatively in this group (2.3). This can be seen as a direct consequence of the specific demands on this group. A high degree of openness and flexibility is often expected of the members of this group by their clients. This constantly varying environment obviously does not really go along with people who express a strong inclination towards a stable and foreseeable life, as would be expressed with a high score on the Uncertainty Avoidance scale.

Figure 98: Assertiveness



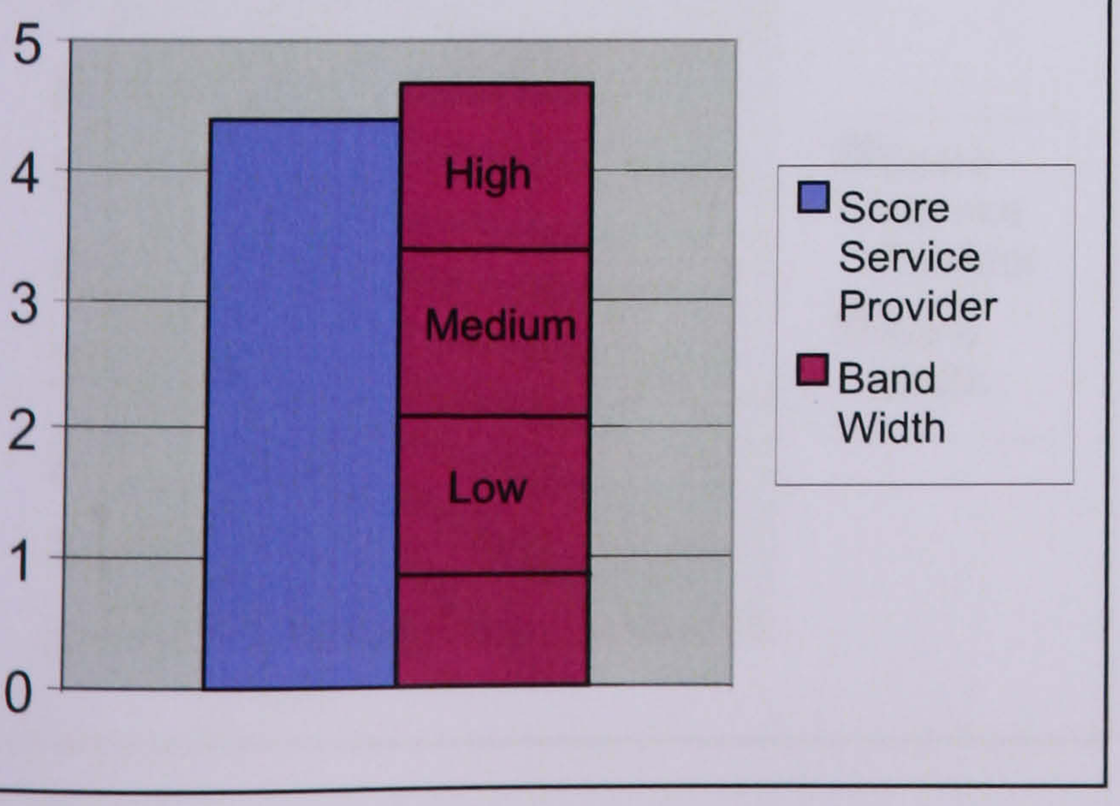
The **Assertiveness** scale is rated at the upper end of the medium area with a score of 4.39. This score clearly indicates the area of tension between showing a Non-Assertive behaviour towards the client and the need to sometimes show an Assertive behaviour towards others in order to meet the clients needs. More details concerning this Dimension will be given in the following section.

Figure 99: Future Orientation



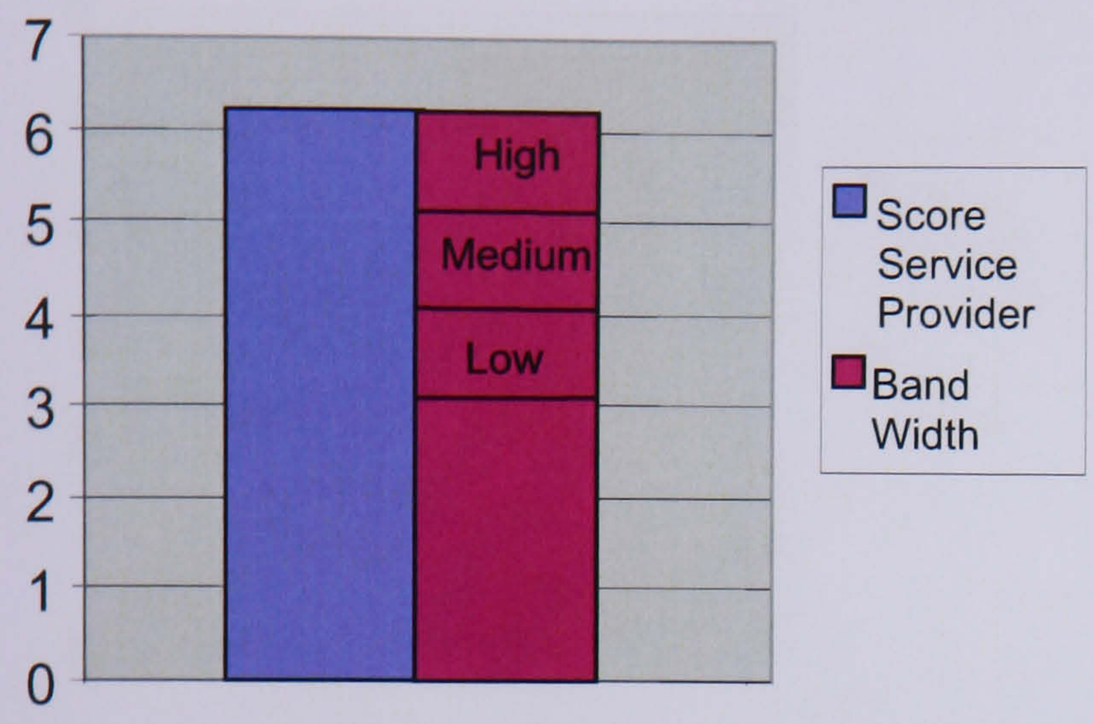
The **Future Orientation** Dimension is in the upper medium area (4.6). The reason for this ambiguous picture has to be seen in the area of tension that exists between the need to plan for the future in order to work efficiently and the need to stay as flexible as possible in order to meet the sometimes unstable needs and demands of the client. This aspect will be particularly interesting in the context of the open interviews.

Figure 100: Power Distance



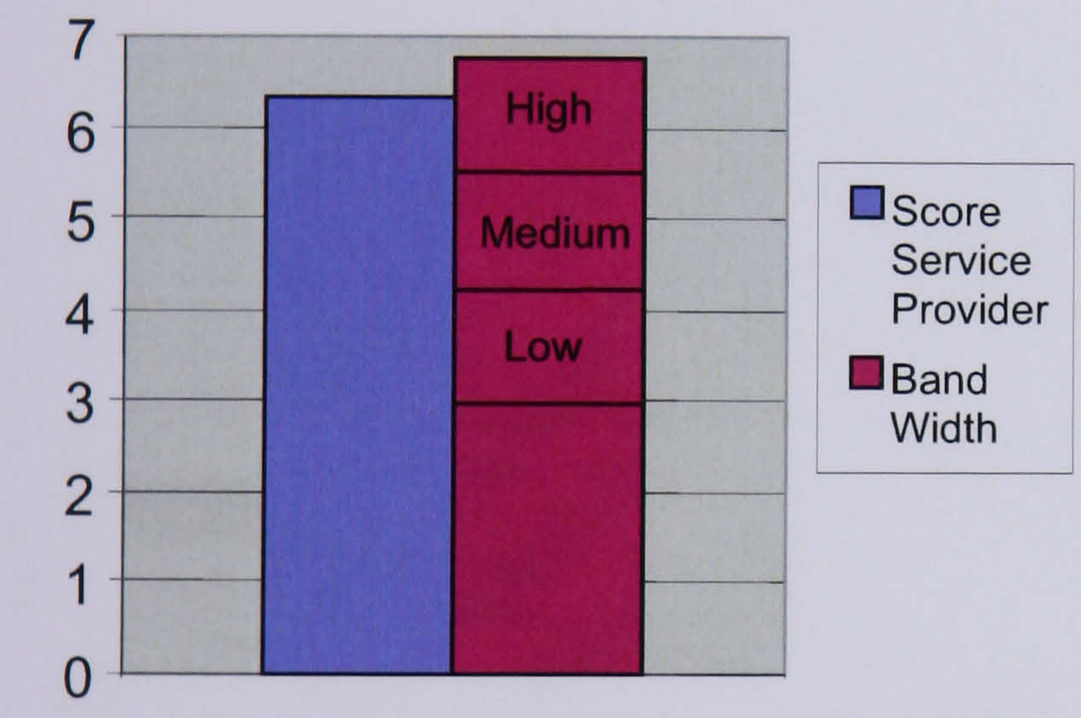
The **Power Distance** Dimension is valued *very* positively (4.38). This score can be traced back to the apparent need to have clearly set goals and to be able to set clear goals in the unstable environment members of this Cultural Cluster live and work.
This subject is also going to be raised again in the course of the open interviews.

Figure 101: Collectivism I



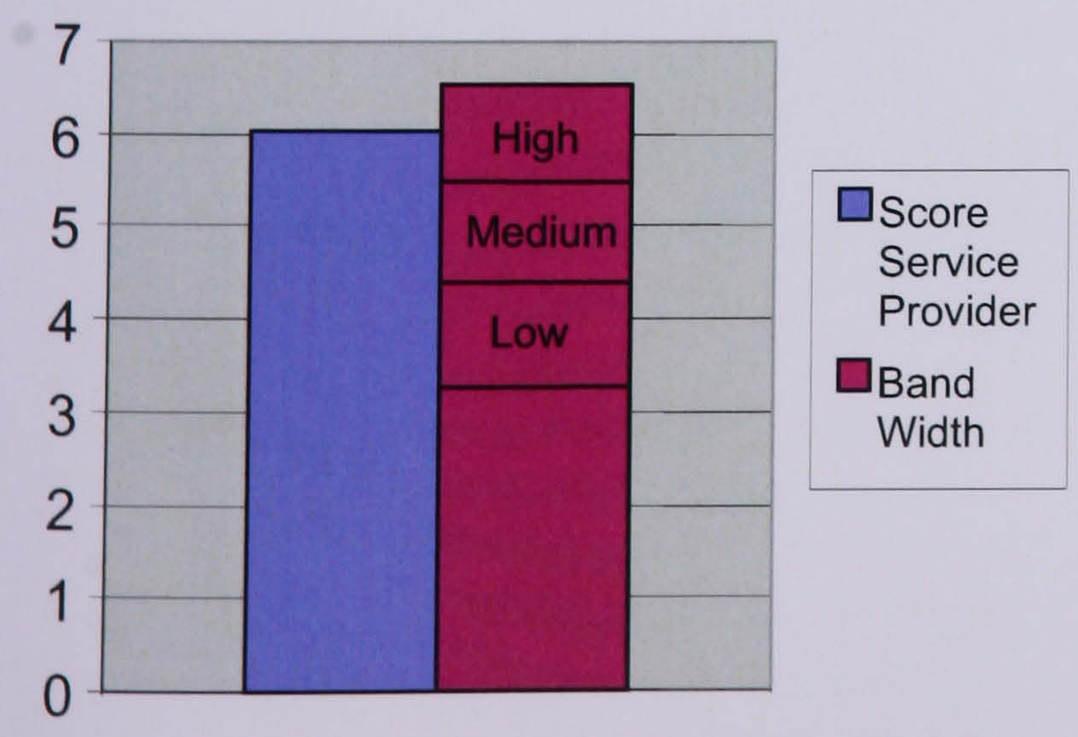
The **Collectivism I** Dimension *clearly* is located in the positive area with a score of 6.21, representing the *second highest* value out of all *Professional Cultures*. The actual jobs carried out by most members of this group are centred around team work. Consequently, this very nature of the occupations present in this group, leads to its members seeing collective values as expressed in the Collectivism I Dimension to be very positive.

Figure 102: Performance Orientation



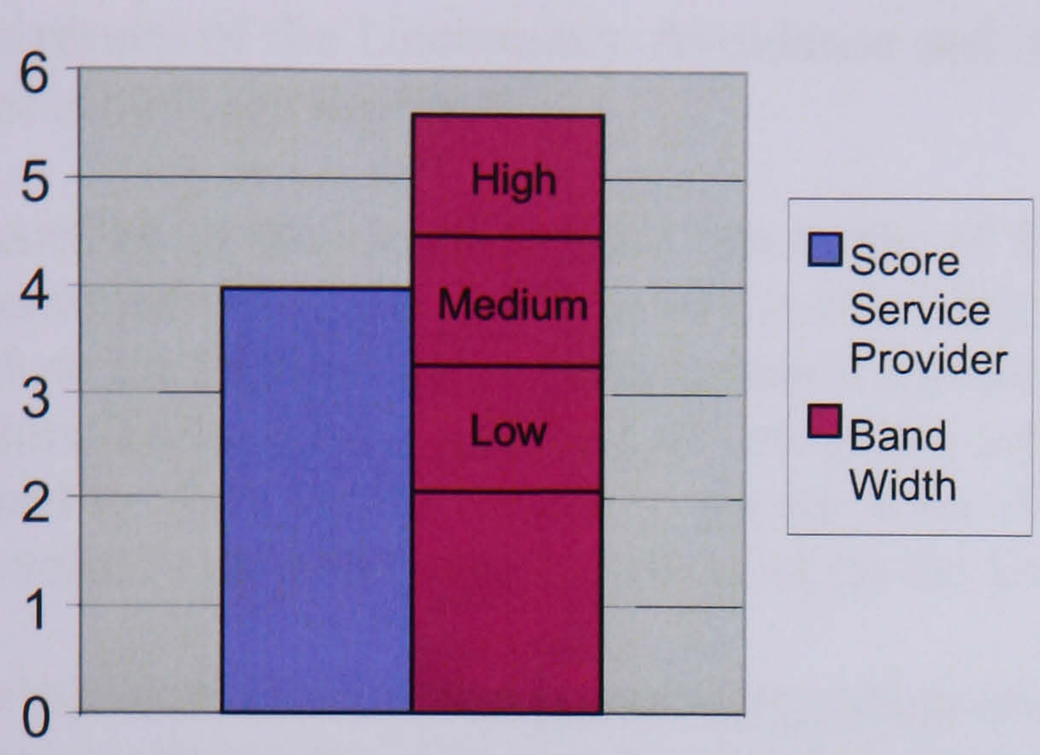
Also **Performance Orientation** is valued *very positively* by the members of this group (6.32). Clearly, the successful accomplishment of the tasks arising out of the client's needs is a very important part of this specific *Professional Culture*. As will be shown, this interpretation is further enhanced by the results of the qualitative survey described below.

Figure 103: Gender Egalitarianism



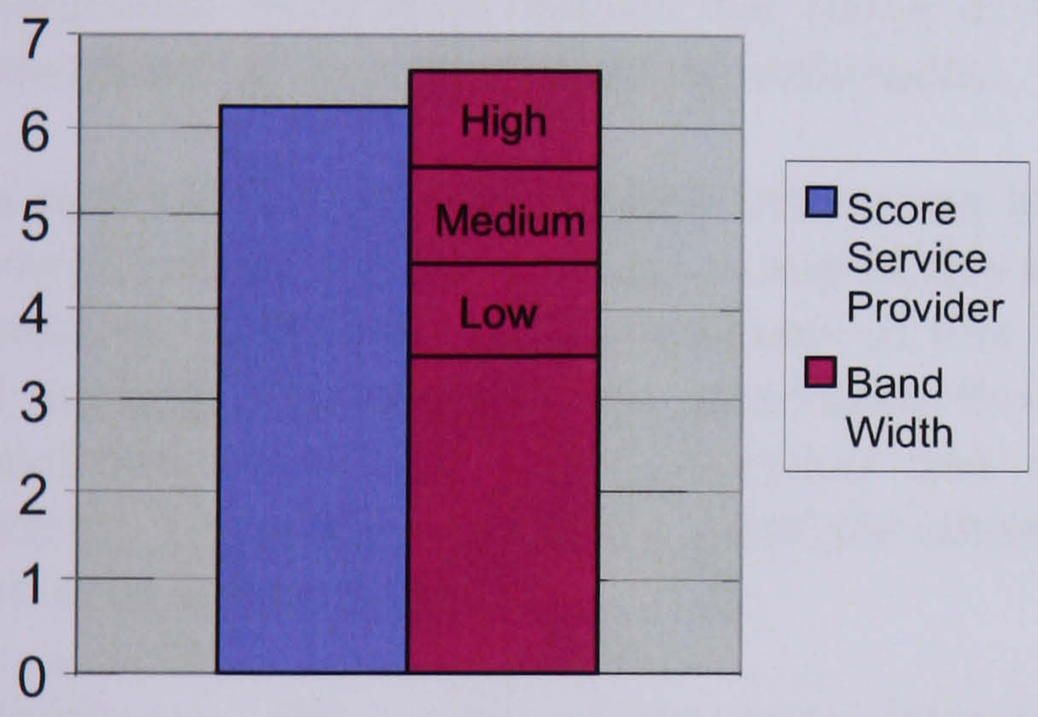
Gender Egalitarianism is valued *unambiguously* in the *positive* area as well (6.02). This rating has to be seen in interconnection with the previous Dimension and the actual task of this group which leads to a self-image relying on a set of performance oriented, "modern" values.

Figure 104: Human Orientation



Human Orientation is clearly placed in the medium area by the members of this Culture (3.95). Here again, two counteracting forces lead to this result. The first is rejection in everyday business of the values expressed by this Dimension which revolve around the key issues "warmth" and "tenderness". On the other hand these very values are seen to be important when dealing with members of one's own Culture, as will be shown further below.

Figure 105: Collectivism II



The **Collectivism II** Dimension, finally, is valued in the positive area (6.23). Members of this Culture see themselves as taking a *key role* in Professional life as they consider others to be frequently dependent on their work. Obviously this leads to a very positive self-image of members of this Culture and consequently gives them a feeling of pride and importance in comparison to other Professions.

7.2.1.2 The Results of the Qualitative Part

The results of the Uncertainty Avoidance and the Future Orientation Dimensions have to be seen in connection.

According to the interviews, the low rating of the Uncertainty Avoidance Dimension is a consequence of the strong need for flexibility of this group. This need can be traced back to the fact that a lot of the demands members of this group face are due to external factors. Furthermore, members of this group actually *like instability* and they like to be forced to react swiftly to newly arising tasks. Therefore, they do not overly appreciate the values expressed with a high rating on the Uncertainty Avoidance scale.

For the same reasons, the Future Orientation scale receives a rating which is only in the upper medium area. Obviously it is necessary to have a quite clear concept of future developments to be successful in this environment. This is due to the fact that in order to satisfy the client's needs, it is hugely helpful to anticipate these demands. On the other hand due to the above given reasons in the context of the Uncertainty Avoidance scale this positive view of the values expressed with the Future Orientation Dimension is somewhat moderated. Hence, the rating of the Future Orientation Dimension is a consequence of these counteracting influences.

The rating of the Power Distance Dimension has to be seen against the setting of the above described results. The high rating of this Dimension is not to be understood as an expression of the wish of the members of this Culture to be subject of tight guidance and control. According to the interviews this high rating is a direct result of the expectation to receive *clear guidelines* and *clearly set goals* from the respective superiors. Especially in order to correctly interpret this particular Dimension, the open interviews were a great help.

According to the results of the open interviews, the results of the Assertiveness Dimension are a product of *three* different influencing factors.

The first factor is the Service Provider/Client relationship, the second is the Service Provider/colleague relationship and the third the Service Provider/superior relationship. In their relationship with clients the members of the Service Providers group clearly follow a Non-Assertive behaviour. This is in contrast to the behaviour they occasionally favour when dealing with colleagues from other Professions. Here, somewhat Assertive behaviour is sometimes considered positive.

For the purpose of this study, however, the most *interesting aspect* is the relationship with the superior.

When it comes to that relationship, members of the Service Providers' Culture prefer behaviour which is in principal Non-Assertive. Nevertheless, they expect their superior to be able to exhibit assertive behaviour when necessary.

That can be seen in connection with the Power Distance Dimension, where members of the present group clearly expressed the expectation that their leader is able to draw up clear guidelines and goals. As they are well aware of the fact that this may require action against the opposition, under the circumstances they expect the individual leader to show somewhat Assertive behaviour to actually take the necessary decisions. All these factors that partially neutralise each other lead to the above shown rating of the Assertiveness Dimension.

The very positive rating of the Collectivism I Dimension is a direct result of the nature of most tasks carried out by the members of the current group. According to the interviews it is *virtually impossible* to find a task which is not carried out in teams. This fact is also highly appreciated by the members of this group as apparently it fits rather well their expectations of how to work. These two factors, *work necessities* and *personal preferences*, lead to the *extremely* positive view of the values expressed with the Collectivism I scale.

According to the interviewees the positive rating of the Performance Orientation scale is due to *two* factors.

The *first* factor is the *high intrinsic motivation* the tasks to be carried out have for the members of this group. The *second* is the *highly competitive nature* of the work environment itself.

The high *intrinsic* motivation is a result of the fact that apparently the members of the Service Providers Culture usually do enjoy their work. There were practically no signs of frustration with the job, so there seems to be rather high congruence between the people carrying out a Service Provider job and certain elements of the job requirements themselves. Furthermore, respondents mentioned the highly competitive nature of the job environment. To cope with this competitiveness it is necessary for people working in this environment to be Performance Oriented, which in addition seems to be appreciated.

The high rating of the Collectivism II scale is a direct consequence of the above mentioned factors. Members of the Service Providers' Culture are proud of what they do and how they do it. According to the interviewees, this is due to two reasons. The first is that they perceive themselves to be extremely important for the good functioning of various parts of their respective companies. The second reason is that members of the current group consider themselves to be significantly more flexible and performing than a considerable number of other Professional groups of their respective companies.

Finally, according to the interviewees, the ratings of the Gender Egalitarianism and the Human-Oriented Dimension are closely interconnected as they are an artefact of the high Performance Orientation of the present *Professional Culture*. They clearly demonstrate that for members of the current *Professional Culture* it is not important who does the job as long as it is done well.

7.2.1.3 Summarising Illustration of the Empirical Results

The empirical results are once again of a highly satisfying nature.

This is true for both the technical quality of the survey and the results gained based on the current data.

As desired, the composition of the sample is heterogeneous as far as national and organisational origins are concerned. The only possibly influencing factor besides the prevailing *Professional Culture* is gender. In this group, a majority of female employees can be stated. As mentioned in the course of the interviews, it became clear, however, that the responses to the questionnaires were not biased due to the fact that mainly women completed them. Following the argumentation of the interviewees, the *job profile* of most jobs of this group is simply more attractive to women than to men, which leads to the underlying population of this Culture to be also predominantly composed of women.

Therefore, it can be stated at this point that according to the empirical results, the characteristics of the present Cluster go back to the specific traits of the prevailing *Professional Culture*.

In the present Cluster once again, the quality of the data could be *highly* improved with the *multi-method* approach employed. The interviews proved to be highly useful for the better understanding of the results gained with the quantitative survey.

Finally, the results themselves are of a highly interesting nature. The sheer existence of a Service Providers Culture was quite surprising. Furthermore, the traits of this Culture are rather extraordinary and have to be taken into account when designing a work environment for its members. This is strengthened by the fact that members of this Culture are often placed in key positions for the successful operation of the companies concerned.

In summary, it can be said that once more the main survey delivered very interesting and highly important insights. These insights will now be used to develop an appropriate work environment for the members of this Culture, which will be beneficial for both the members of the Service Providers' Culture and the companies involved.

7.2.2 An Integrative Solution to the Found Characteristics

In the following, an integrative leadership and organisation design solution will be developed. As always in this study, initially the appropriate leadership style will be developed, followed by the appropriate organisational style.

It should be kept in mind that this particular group is one of those groups where *positive motivation* towards the job is of *the utmost importance*. This is due to the fact that it is rather impossible to command e.g. a smile towards a customer. Therefore, a leadership style and organisational structure which harmonises well with the needs and expectations of the present group is *extremely* important for fully using the potential of the members of the Service Providers' Culture.

7.2.2.1 The Appropriate Leadership Style

According to the empirical results and in connection with those of the GLOBE-Study (House, et al., 2004), the appropriate leadership style should be based on the *Participative Leadership Style* (e.g. Lewin, 1948; Tannenbaum/Schmidt, 1958; House, et al., 2004; see also section 2.1.1) and should furthermore contain some elements of the *Team-Oriented* (e.g. Manz/Sims, 2001; House, et al., 2004; see also section 2.2.2) and the *Charismatic/Value-Based Leadership Style* (e.g. Burns, 1978; Bass, 1985; House, et al., 2004; see also section 2.2.3).

Three out of the four Core Cultural Dimensions of the *Participative Leadership Style* point to this leadership style, whereas one is in the neutral area. This picture is enhanced by the results of the qualitative part, as members of the current *Professional Culture* clearly expressed the expectation to participate in the development of decisions regarding their Professional environment. It was mentioned at various occasions that decisions by superiors which do not adequately reflect the knowledge of the "people in the field" have significant acceptance difficulties. This view seems to be in contradiction to the above mentioned relative appreciation of the Assertiveness Dimension. But as a matter of fact, the relatively positive view of the Assertiveness Dimension is only *conditional* and depends on the consideration of the Service Providers' Professional opinion.

Two out of the four Core Cultural Dimensions of the *Charismatic/Value-Based Leadership* point to this leadership style, whereas two are in the neutral area. As already mentioned, it is of some importance to the members of the Service Providers' Culture to have *loose guidance* in their day to day work. This guidance can be achieved partially through the creation of a *Vision* for this group. Nevertheless, the importance of this leadership style is not as high as for a number of other groups in the sample. This is due to the fact that the current group is more focused on carrying out the tasks at hand successfully than on the possible consequences their work may have in the middle and long term future.

Finally *Team-Oriented Leadership* is important as well. Two out of the five Core Cultural Dimension point directly to this leadership style, whereas two are in the neutral area and one in the negative one. The importance of team work for this group has already been mentioned on various occasions in this chapter. The one Core Cultural Dimension which is in contradiction with the *Team-Oriented Leadership Style* (Uncertainty Avoidance) is a little misleading in this context, as teams are *not seen* as a means to reduce uncertainty; a goal which is in any case not overly valued by the members of this group.

An appropriate leadership style for the Service Providers Culture would therefore look like this:

The leaders have to establish a highly participative leadership relationship with their team. In detail, this means that the leader has to make sure that the team members are always included in any major decisions regarding the team. This also includes decisions concerning individual team members only. Obviously, such a highly participative course of action will not always be possible. Nevertheless, a leadership relationship should be strived for which is as *Participative* as possible.

This *Participative Leadership* relationship should be supported by the above mentioned *Team-Oriented Leadership*. The establishment of a functioning team orientation in the sense of *SuperLeadership* according to *Manz/Sims* (2001, 1995) is *extremely* important in the present setting. This is due to the fact that the members of the Service Providers Culture see themselves as "natural born team workers". A leadership style which does not take this into consideration would not be able to liberate all the potential present within this group.

Finally, a valid *Vision* should be established. As the members of the current Culture are not too interested in far fetched *Visions*, this *Vision* should be *as close as possible to their actual work environment*. This could e.g. mean that the *Vision* incorporates elements such as comparisons with competitors. In a further step the *Vision* could then clearly show how it would be possible to actually be superior to these competitors in a reasonable amount of time thanks to the efforts of the group. In summary, however, the importance of the *Charismatic/Value-Based* elements should not be overestimated.

To sum up, the appropriate leadership style for the present *Professional Culture* is highly consensus driven and steered by collective values. Any successful leadership in this environment has to take these two main components into consideration. A leader who is not able to be a team player will not be in a position to lead the members of the Service Providers' Culture efficiently, possibly even inflicting dysfunctionalities that will gravely undermine the potential the team has in reality. The *Charismatic/Value-Based* part is in that aspect just an additional point which can transform a good leader into a somewhat better leader.

7.2.2.2 The Appropriate Organisational Structure

Considering the above given complex and team driven characteristics of the present *Professional Culture*, the starting point of the development of an appropriate organisational design will once more be *Complexity Theory* (Stacey, et al., 2000; see also section 3.2.2).

As already shown at various occasions in this chapter, *Complexity Theory* is the most appropriate theoretical approach when it comes to designing an organisation for *Professional Cultures* which have a preference for being organised within independently acting entities.

In the present case this is even more important as a significant number of traits of the present *Professional Culture* are in clear agreement with the basic ideas of *Complexity Theory*. For example, a highly important point of *Complexity Theory* is the *acceptance* of Uncertainty in the Professional environment. As shown, the members of the Service Providers' Culture see Uncertainty as something inherent to their work environment which in addition they highly appreciate.

Another point is *diversity*. The characteristics of the work environment necessitate often working with people of very different backgrounds. This again is highly appreciated by the members of the current Culture. Diversity is seen by them as a tool for enhancing the quality of their work, a point which is very much in line with the basic ideas of *Complexity Theory*.

Finally, the above mentioned preferred organisation into independently acting entities is one of the core ideas of *Complexity Theory*. Therefore, it can be stated that not only the underlying basic preferences of the members of the Service Providers Culture point towards *Complexity Theory*. In addition one of the key elements for the successful implementation of this theoretical approach is highly appreciated by the members of this culture.

The implementation of this approach should be carried out following *Lewin/Regine* (2000; see also section 3.2.2) through the implementation of true work teams that can act *independently* of restricting influences due to external command and control mechanisms. The teams have to be organised around the competencies needed to carry out the specific task at hand. This may e.g. mean that a department responsible for the supply of a technical company is composed of people who have more of a technical background and of people who have more of a business background. Another example may be a HR development department which may be composed of psychologists for the development of new theoretical approaches to HR development and of experienced trainers for the actual teaching of these new approaches, etc.

Another important point is the installation of means to facilitate *Lateral Organisation* [e.g. *SuperLeadership* (Manz/Sims 2001; see also section 2.2.2); the *network structure of project groups* (Peters, 1993); the concept of *"Loosely Coupled Systems"* (Orton/Weick, 1990; Perrow, 1984, pp.89ff.; see also section 3.3.2.2)].

In the current setting, the importance of this is the facilitation of the mobilisation of needed resources. If one team does not possess the capabilities it needs to successfully complete a task, it should have direct access to other teams to tap into their competencies. Doing so without having to go through some superior is extremely important for the members of the Service Providers Culture.

Depending on the situation, a very interesting further organisational option should be considered: The *Virtual Organisation* (e.g. Saabeel, et al., 2002; see also section 3.3.2.3). As this is a special form of *Lateral Organisation* for geographically dispersed entities it can not always be implemented, but in certain settings it has the potential to be highly beneficial.

Command and control systems should be kept to a minimum. In principal it is sufficient to give a rough guideline to the team and control it only via the *achievement* of these *goals*. The role of the superior in this setting is the above mentioned *Participative*, *Team-Oriented* and guiding role only; or to put it into the words of *Lewin/Regine* (2000) the leader should be *allowing*, *accessible* and *attuned*.

In summary, it can be said that the appropriate organisational structure for the Service Providers should be highly decentralised, *Team-Oriented* and as free as possible from hierarchical influences.

7.2.2.3 Summary of the Possible Solution

The possible solution proposed for the Service Providers Culture points to a very non-hierarchical structuring of the work environment for its members.

This may incur radical changes for some companies, but the empirical results are *unambiguous*. A classical leadership and organisation scheme for the present Professional group is highly inappropriate, potentially leading to the performance of any Service Providers team being seriously inhibited.

Therefore, the implementation of the described leadership style and organisational structures should be striven for. Although a parallel implementation of both is to be preferred, they are *not completely contingent* upon each other. If as a first step only the implementation of the described leadership style is possible, this should be undertaken. Nevertheless, the appropriate organisational design should follow as soon as possible.

An isolated implementation of the organisational structure is, however, not advisable, as a combination of the described organisation structure with a "classic" leader, would most probably lead to significant fractures within the internal structure of the concerned team.

Therefore, *joint implementation* of the appropriate leadership style and organisation design *should be striven for* if possible. After due consideration of the results given in this section, the benefits should *by far* outweigh the costs for the proposed change.

7.2.3 Global Assessment of the Results for Cluster 8

The results for Cluster eight are once again highly interesting.

As already mentioned, the existence of a Service Providers' Culture is extremely interesting. Especially for highly service oriented companies such as airlines, the knowledge about the existence of such a Professional group is very important.

In particular for *airlines* this group has a special significance. This becomes clear when comparing the traits of the current Culture with those of the Flight Attendants' Culture (see section 6.2) as e.g. the clear Performance Orientation of the members of the Service Providers' Culture is in stark contrast to that of the Flight Attendants' Culture. Hence, looking at the results of this section, a recommendation for airlines would be to strive for the promotion of this Culture at the expense of that of the regular Flight Attendants Culture, with the help of both personnel selection and training. Despite the fact that the demands on leadership are significantly higher in the present *Professional Culture*, the companies concerned would most probably gain greatly from a predominantly service and performance driven corps of Flight Attendants even if that means that the *Professional Culture* itself is *more demanding* as regards the accepted leadership structures.

But also for other companies it is important to know about the specific traits of the members of this Culture. This is true both for Service Providers for external clients and Service Providers for internal clients. The reason for this is clear: Service Providers for external clients are responsible for selling the company product, whereas Service Providers for internal clients are responsible for the smooth operation of a company.

The quality of the data collected was once again remarkable, giving the recommendations of this section a sound empirical and theoretical base.

Hence, despite the already mentioned difficulties when attempting to implement the proposed structures, one should also consider the possible negative consequences inflicted on a company by not implementing them. As stated above, a smile can not be ordered and therefore the performance of the members of the Service Providers Culture is largely dependent on themselves and their motivation.

Therefore, it can be stated at this point that anything which could impair that motivation should be avoided and anything that can enhance it should be striven for. A recommendation which may not always be easy to realise, but one which will most likely pay off in the long run.

7.3 ***Cluster 9: The Middle Administration***

The ninth Cluster is composed of the members of the Middle Administration. These employees are what is usually referred to as *"the administration"*.

Typical jobs that can be found in this Cultural Cluster are supporting activities of all kinds in various departments such as marketing, controlling or sales.

These employees always perform office jobs that require a *low to medium* qualification as opposed to the members of the Higher Administration group.

Time spent in training is therefore rather limited, while total time spent on the job is highly varying.

Although there are a number of *commonalities* between the two administrative Clusters, there are also quite a few *differences* which are highly interesting and will be explored in the following.

Nevertheless, initially, an isolated description of the Middle Administration Cluster will be given, beginning with the empirical survey.

7.3.1 The Empirical Survey

In this group the written part of the empirical survey already gave quite interesting insights on its own. It is based on 20 respondents originating from various countries and organisations. The gender related composition is well mixed, too. Therefore, it can be stated that the needed heterogeneity is achieved for this Cultural Cluster as well.

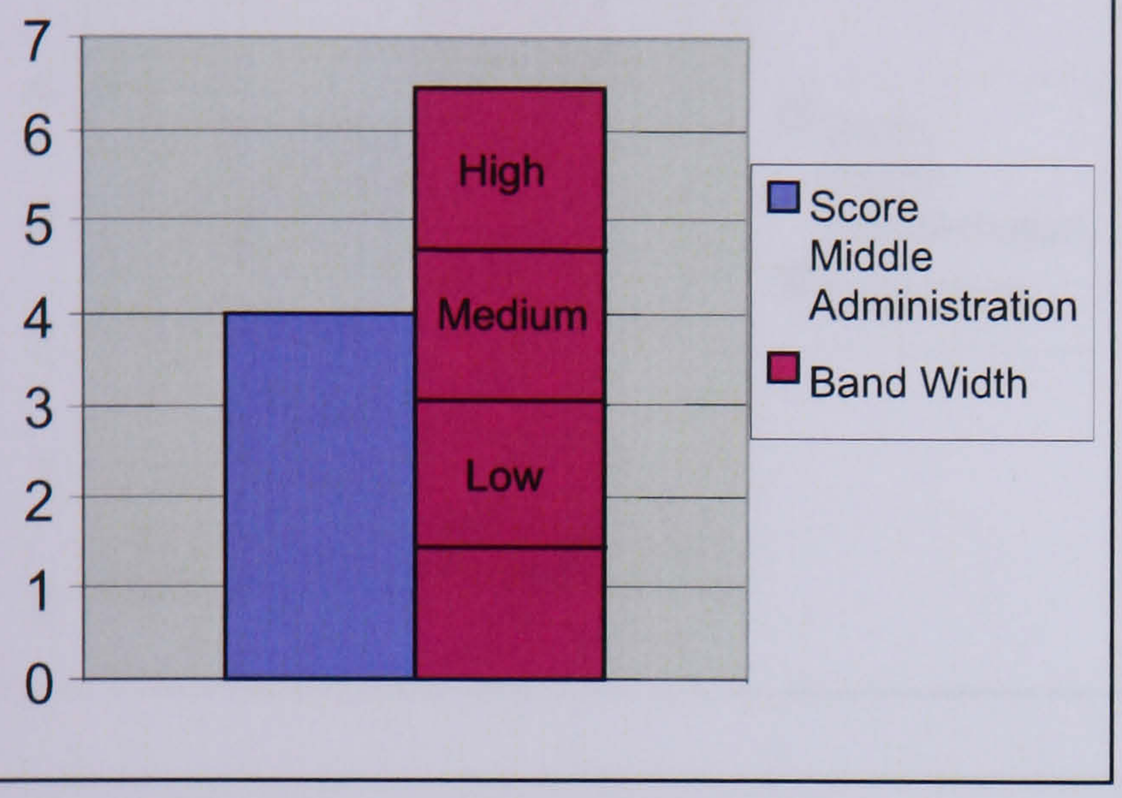
The distribution of occupations and the ratings on the different Dimensions gave a rather clear picture as to the nature of this Cluster.

Nevertheless, looking at the already mentioned differences in comparison with the Higher Administration group, a number of highly interesting questions remained to be solved with the help of the interviews. These were as usual carried out with seven respondents from the above mentioned companies.

As always, initially the results of the written questionnaire will be given, followed by those of the verbal interviews.

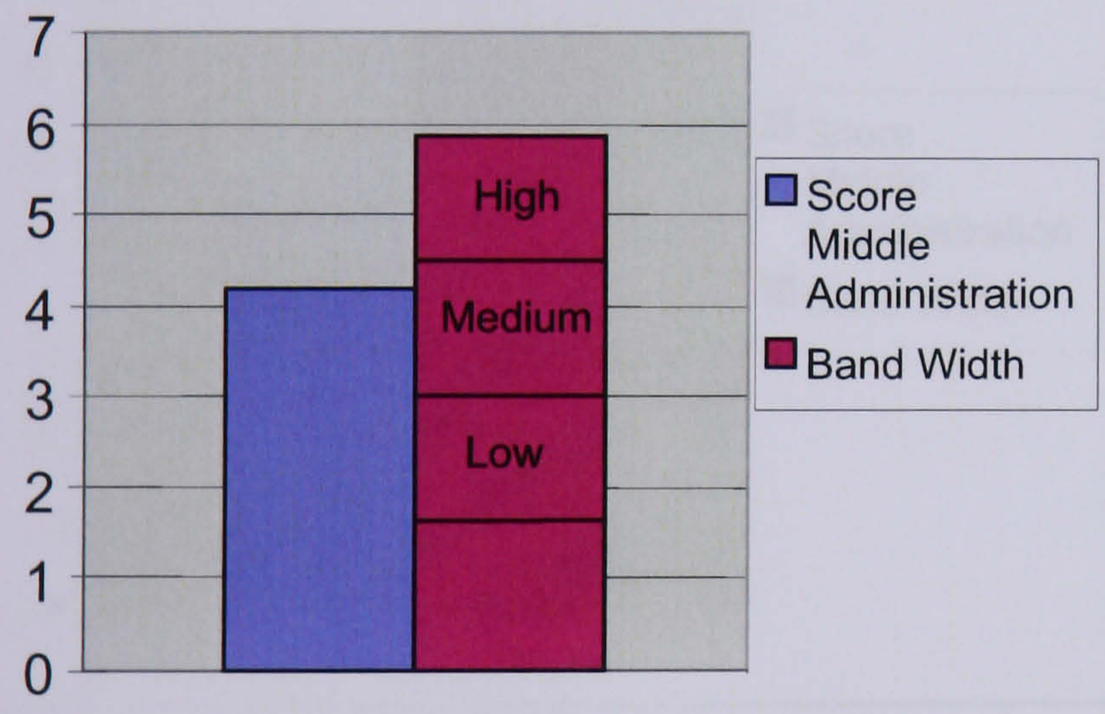
7.3.1.1 The Results of the Quantitative Part

Figure 106: Uncertainty Avoidance



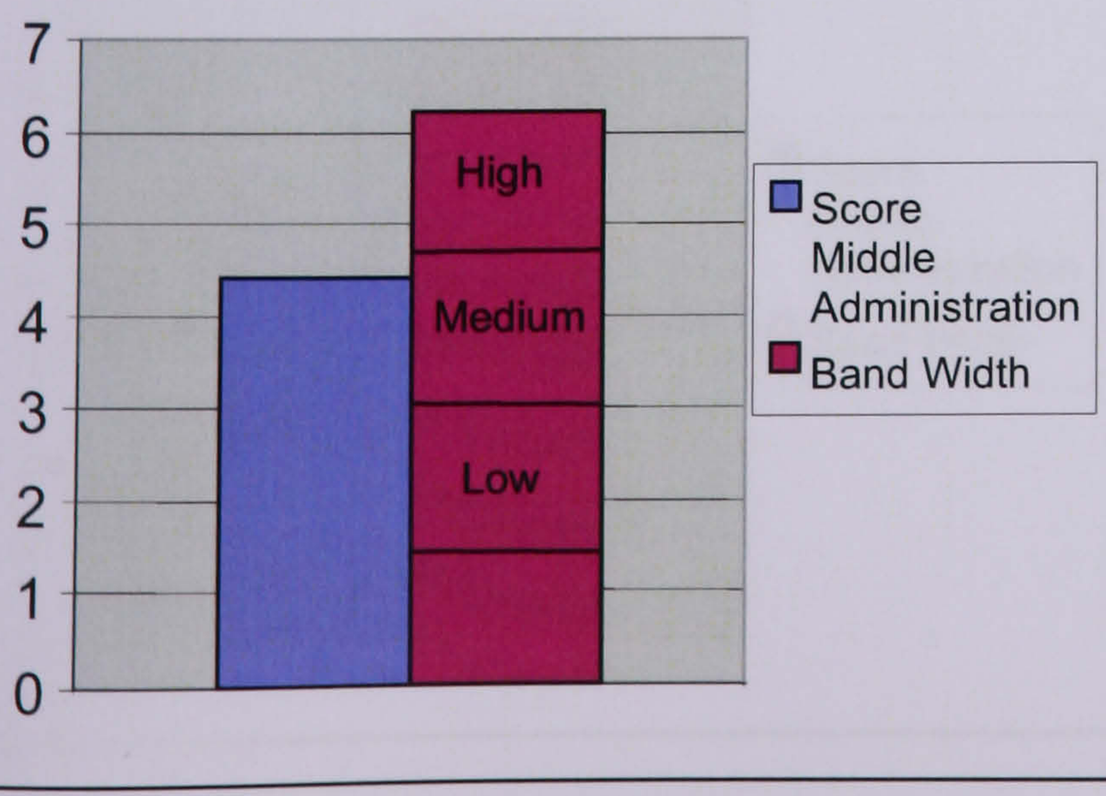
Uncertainty Avoidance is rated in the neutral area (4.0). The reasons for this rating will be given in the following section.

Figure 107: Assertiveness



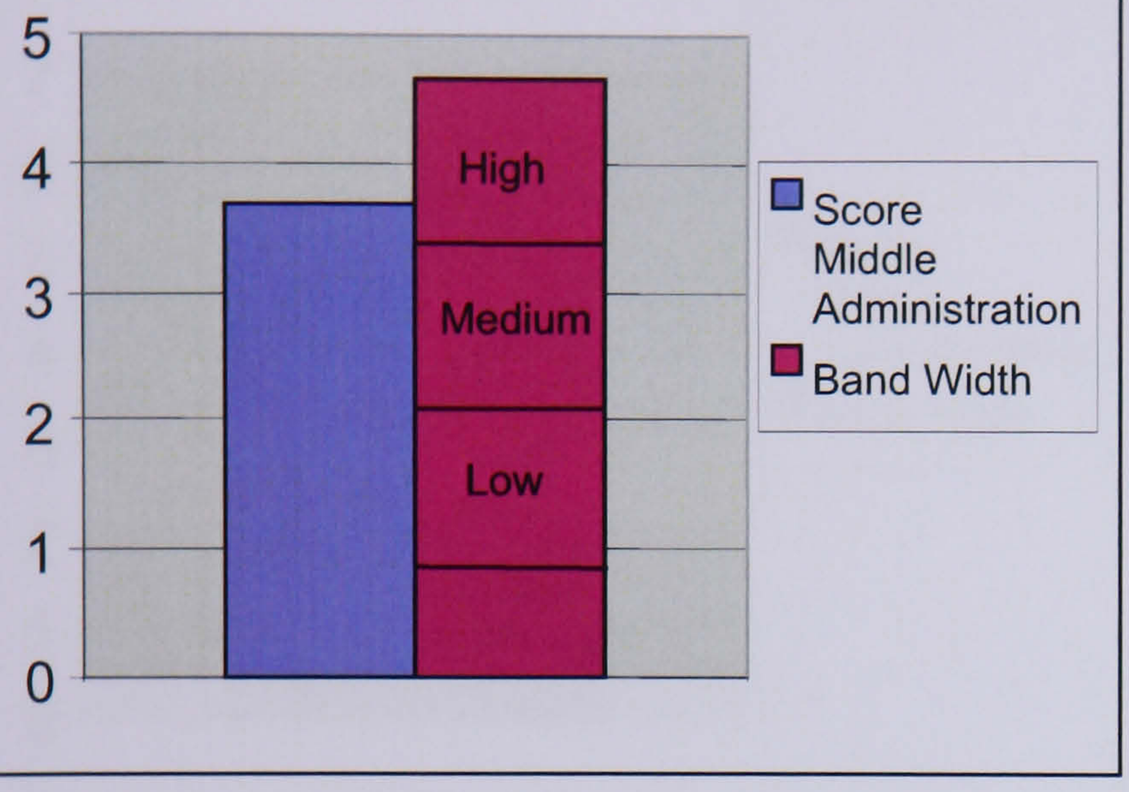
Assertiveness is placed in the upper medium area (4.17). According to the results of the present survey this score is the consequence of a variety of influences which all revolve around the perceived importance of the occupations exercised by the members of this group in combination with their relative position in the organisational hierarchy. These aspects will be examined further in the following.

Figure 108: Future Orientation



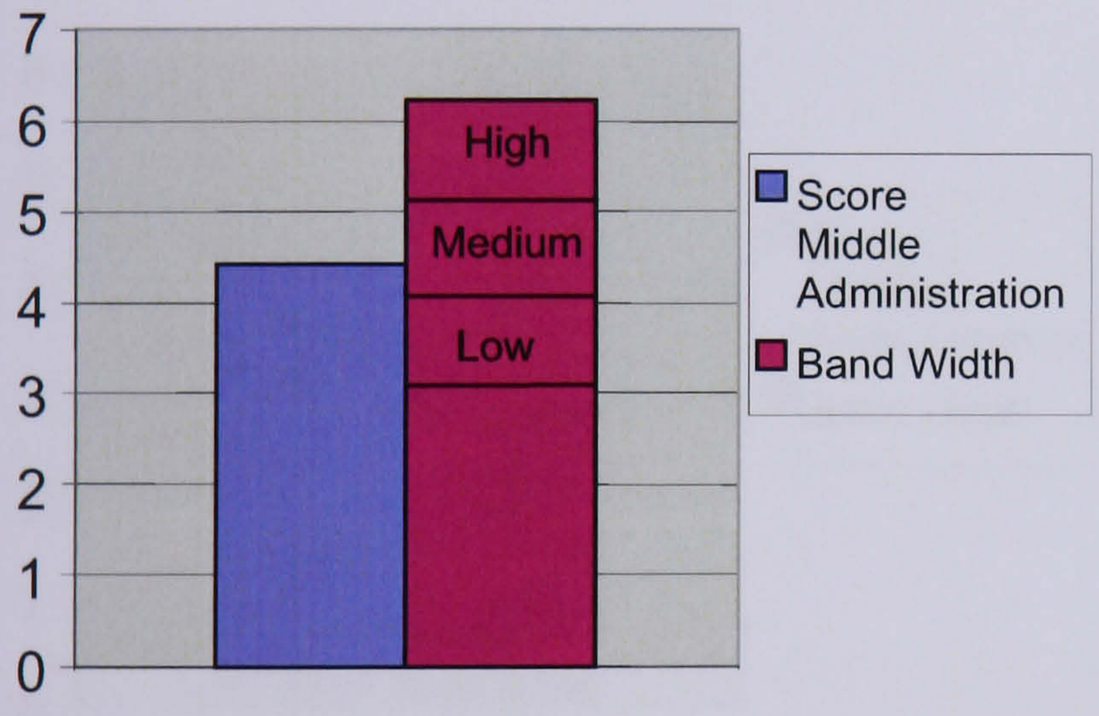
Future Orientation is scored in the upper medium area (4.43). Members of this group seem to exhibit a mixture between a rather short time horizon dictated by the regular day to day schedule of this group and a rather long time horizon as far as other factors as e.g. personal development within the bureaucratic environment of this *Professional Culture* are concerned.

Figure 109: Power Distance



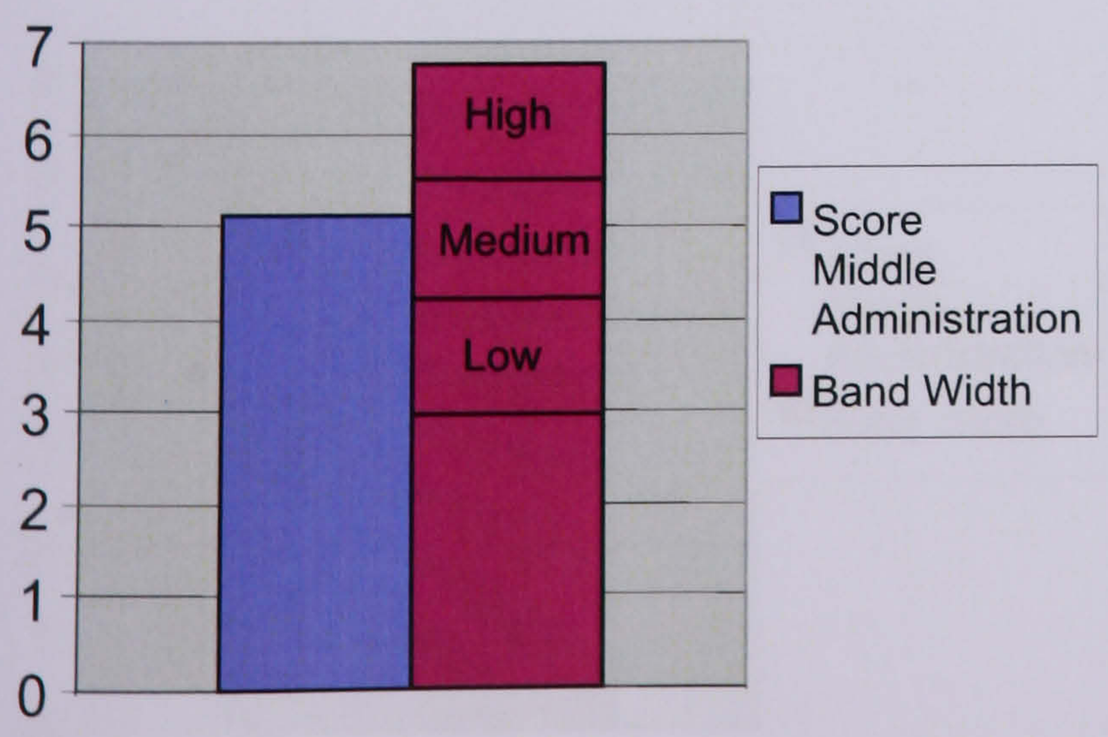
Power Distance is rated in the lower positive area (3.7). As the score for Assertiveness this one has to be seen in connection with the relative position of this Cluster in the organisation, which at the same time while it exposes members of this group to the exercise of power, it gives them the possibility to exercise power over others.

Figure 110: Collectivism I



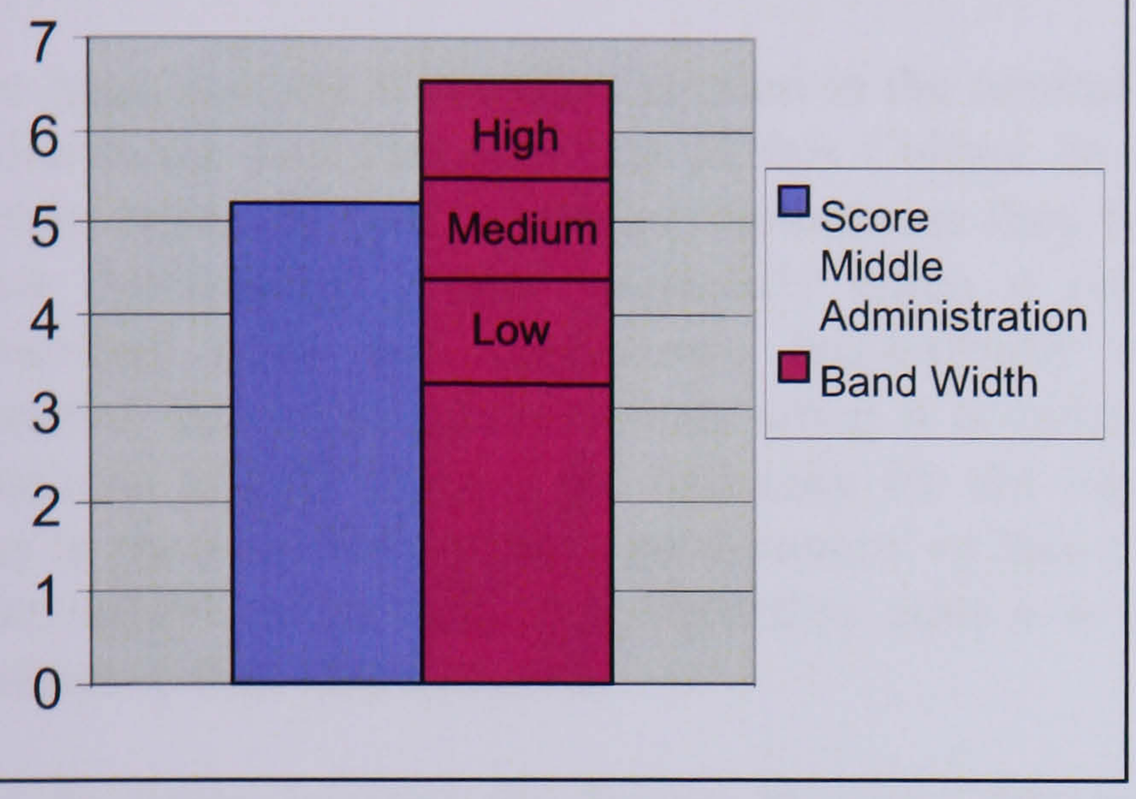
Collectivism I scores in the lower medium area (4.43). Keeping in mind that for this Dimension there is no *Professional Culture* placed in the low area and that this rating is the *second lowest* of all *Professional Cultures* present in the sample it seems like team related issues are of a lesser importance to the members of this Cluster.

Figure 111: Performance Orientation



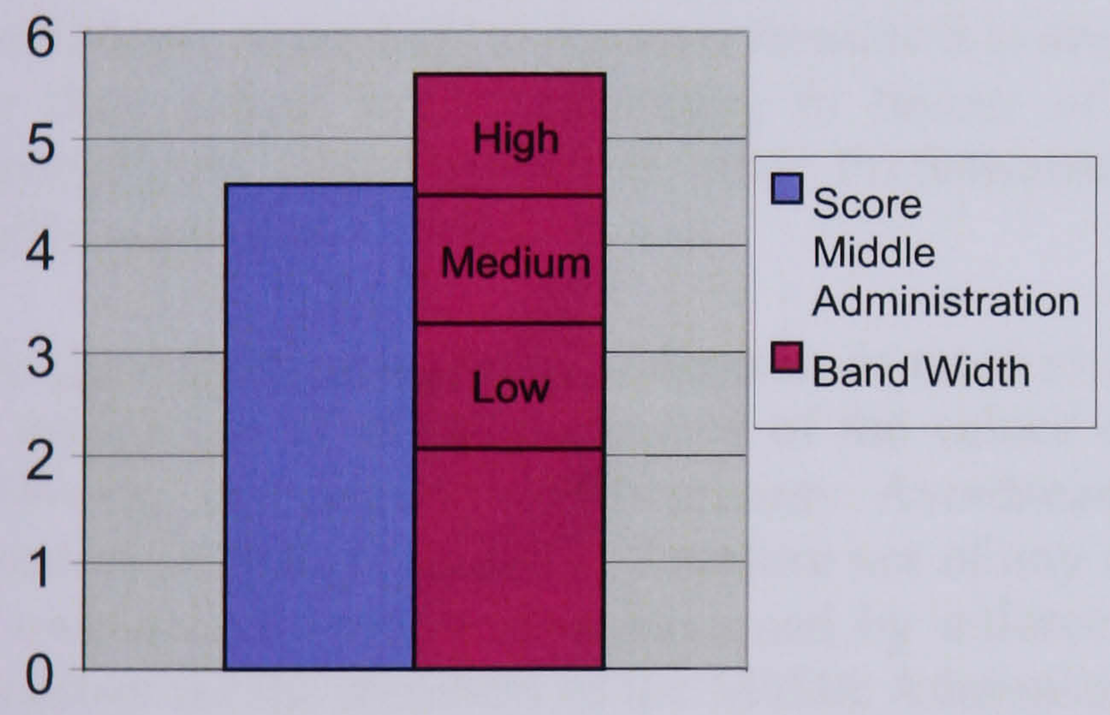
Performance Orientation is found in the medium area (5.12). Here again the specific work patterns of this Cluster play a major role for this result. More details concerning this Dimension will be given in the following.

Figure 112: Gender Egalitarianism



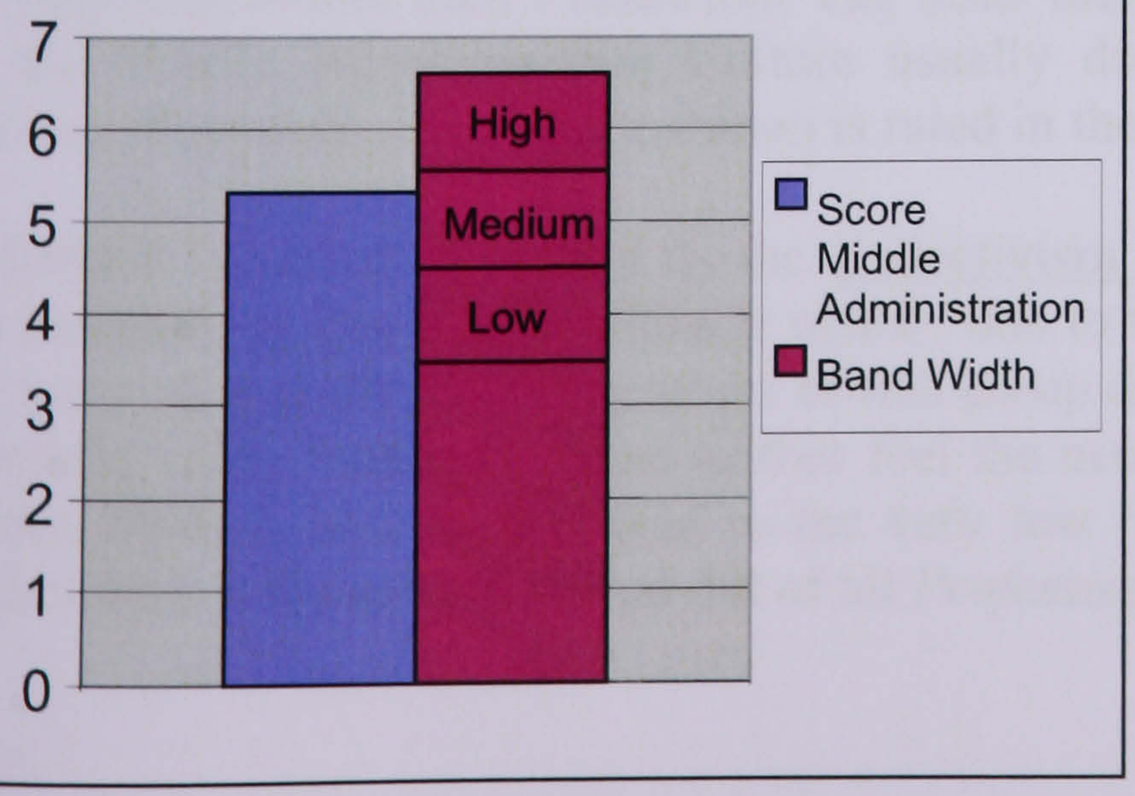
Gender Egalitarianism is placed in the higher medium area (5.22). This score does not seem to be the result of specific influences from the Professional environment, but rather of a certain indifference towards the contents of this Cultural Dimension. This assumption is also supported by the results of the verbal interviews given in the following.

Figure 113: Human Orientation



Human Orientation is in the slightly positive area (4.55). The values of this Dimension though, seem to be of a lesser importance to the members of this Cultural Cluster as will be pointed out further below.

Figure 114: Collectivism II



Collectivism II finally is rated in the upper part of the medium area (5.34). Members of this *Professional Culture* seem to have a certain positive notion about their *Profession* although it is not too strongly expressed. Further indications for that can be found in the following section, where the views members of this Culture have of their respective occupations will be discussed in more detail.

7.3.1.2 The Results of the Qualitative Part

According to the interviews the ratings of the Assertiveness, the Power Distance and the Uncertainty Avoidance Scale have to be seen in connection.

The Assertiveness Dimension is rated in the neutral area. Following the interviews, this is due to the fact that members of this Culture do appreciate Assertive behaviour to a certain degree in certain settings. Sometimes they feel the need to be Assertive towards other Professional groups, especially when it comes to the enforcement of certain prescribed rules and procedures. Interestingly sometimes they also do consider Assertive behaviour advantageous when it is exhibited by their direct superior. These situations usually involve the necessity for the superior to take some decisive action. Due to the very bureaucratic environment of this *Professional Culture* these situations arise rather seldom only, but when they arise it is expected that the superiors use their position to take that decision.

For the same reasons the Power Distance Dimension is rated in the positive area. Members of the current Culture sometimes appreciate the exercise of power towards other Professional groups and sometimes they expect their direct superiors to use the power they have to take a decision. This positive view of Power Distance though is conditional. According to the interviewees it is seen positively only when the superiors use their power to do something in favour of the Middle Administration group. Especially in situations where other Professional groups are involved this becomes highly important.

The Uncertainty Avoidance Dimension is rated in the neutral area only. This should not be interpreted as an insignificance of the values expressed by this dimension though. Following the interviews Uncertainty Avoidance seems to be a given fact to the members of this group and is therefore not of any major concern to them. Indeed living in a structured environment governed by enforceable rules and procedures is highly important for the members of the Middle Administration Culture.

In connection with this the rating of the Future Orientation scale has to be seen. According to the interviews members of this Culture do not have to be overly concerned about their future. The only thing which is somewhat important for them is their future development within their Profession. The tasks themselves carried out by the members of the Middle Administration Culture usually do not require an overly long time horizon. Therefore, Future Orientation is rated in the medium area only.

Collective values as expressed by the Collectivism I scale do not play a major role for the members of this Cluster. This is mainly due to the fact that a significant portion of the tasks carried out by the members of this group do not require team work. Therefore, members of the current Culture neither feel the need for nor have the habit to work in teams. Jointly, these factors lead to the very low *relative* rating of the Collectivism I scale which is the second lowest out of all *Professional Clusters* present in this study.

The Gender Egalitarianism Dimension does not have any particular meaning for the current Cluster. According to the interviewees this is due to the fact that Gender Egalitarianism as an idea is achieved in practice. This can also be seen with reference to the sample. Within the sample a very even gender distribution can be stated, strengthening this interpretation. Therefore, the members of the Middle Administration Culture scored the Gender Egalitarianism scale in the medium area only.

The importance of the Human Orientation scale is rather limited as well. According to the interviewees this is due to the fact that the rules and procedures driven environment does not overly require good interpersonal relationships beyond a certain level of superficial politeness. Therefore, the values expressed with the Human Orientation Dimension are seen to be without too much meaning, leading to a certain indifference as to the content of this Dimension.

The medium score of the Performance Orientation scale is a direct consequence of the bureaucratic environment and its socialising effects on the members of the Middle Administration Culture. They neither feel the urge to do more than necessary, nor the desire to do significantly less. A satisfactory fulfilment of the tasks expected from them is apparently sufficient to satisfy the members of this Culture. This does not mean that they do not like their jobs or that they want major parts of the jobs to be changed. It simply means that for the members of this Culture performing in an extraordinary manner in their job is not a top priority. Therefore, the values expressed with the Performance Orientation Dimension are *not overly relevant* for the members of this Culture, neither in a positive nor in a negative way.

The rating of the Collectivism II scale has to be seen in connection with this. Members of the Middle Administration Culture do like their jobs and they are also somewhat proud on what they do. One thing that can be stated though after the interviews is that they are realistic about the relevance of their jobs. Members of the Middle Administration know that they are not unimportant, but they also know that their individual importance is limited to a relatively small area only. This is further enhanced by the fact that their influence on most things is rather small as often a prescribed course of action exists. Again this does not mean that the members of the Middle Administration Culture dislike this situation. Apparently they appreciate the fact that they do not have to worry too much about what they do and why they do it. The only medium rating of the Collectivism II scale and the statements collected with the help of the open interviews are solely a *consequence* of the very *realistic self-image* the members of this Professional group have.

In summary, it can be said that the Middle Administration Culture is a rather bureaucratic Professional group. Furthermore, members of this Culture have a very *realistic self-image* which is rather positive for leading and organising this group. Finally, it is once again interesting to see how *Professions* attract certain people and subsequently shape them even more according to that *Profession*. E.g. it is highly unlikely that a member of the Innovation and Development Culture could be happy in the setting of the Middle Administration Culture and vice versa.

7.3.1.3 Summarising Illustration of the Empirical Results

In summary, it can be said that the results are once again highly instructive. Furthermore, as shown above they are also satisfying from a technical point of view.

The results themselves are highly interesting as they give a number of very important insights into the core of the administration of virtually any company.

Due to the high number of Core Cultural Dimensions rated in the neutral area though, the interviews were of a special importance to correctly interpret the opinions and expectations of the members of this Culture. The undertaken multi method approach proved once more to be the only adequate approach to successfully tackle this highly complex area of research

The importance of the findings themselves should not be underestimated. Despite the fact that the members of the Middle Administration Cluster are positioned relatively low in the hierarchy it should not be forgotten that it is *quasi impossible* to run any company successfully without a smoothly running administrative base.

Taking into consideration the expectations of the members of the Middle Administration Culture and translating these expectations into an appropriate leadership style and organisation structure is therefore highly important.

In summary, it can be said that the underlying logic of *Professional Cultures* being structured along *functions* and not Professional terms as e.g. “engineers” shows itself again very *clearly* in the present Cluster.

7.3.2 An Integrative Solution to the Found Characteristics

In the following a closer look at an appropriate leadership style and organisational structure will be undertaken.

As usual this will be done by initially developing the leadership style, which will be followed by the corresponding organisational structure.

In this case *special attention* will have to be given to the results of the open interviews as the high number of medium ratings in the quantitative survey permits even less than usually for a solution which is solely based on a quantitative analysis.

Nevertheless, joining quantitative and qualitative research will allow for the development of a comprehensive solution for the successful integration of the Middle Administration Culture into its Professional environment.

7.3.2.1 The Appropriate Leadership Style

As far as an appropriate leadership style is concerned the current *Professional Culture* is relatively special. This can clearly be seen with reference to the results of the empirical survey.

Members of this group show *no clear preference* for any of the six Culturally endorsed Leadership Styles isolated within the GLOBE-Study. According to the interviews though, this does not mean that one has to search for a seventh leadership style, but that the appropriate approach is somewhat special in comparison to most other *Professional Cultures* isolated within the current study.

As a matter of fact, the results of the empirical survey point to a rather *low consideration* of direct leadership in *general*. Members of the Middle Administration Culture do not overly appreciate any kind of regular personal intervention from their direct superior altogether.

As can be seen with reference to the Power Distance Dimension, only in exceptional circumstances and then only to a very limited degree direct leadership is appreciated by the members of the current Culture.

One aspect that was mentioned at various occasions in the course of the open interviews was the relevance of *clearly expressed guidelines*, *rules and procedures* that are stable over time.

Obviously, as long as this condition is achieved, there is no need for any direct intervention by the superior. In fact, most of the time a direct superior will be useless altogether.

As will be shown in the following section, the *importance of indirect leadership* through an appropriate organisational design is such that in accordance with the empiricals any direct superior should intervene in *exceptional circumstances* only. These exceptional circumstances in turn would only arise in the very rare occasions where employees fail to adhere to the requirements of their respective tasks.

Therefore, the present group is a role model for the existing necessity to sometimes employ a special kind of transactional leadership: *"Management by Exception"* (e.g. Bass/Avolio, 1993, p.52; see also section 2.2.3 where transactional leadership in general and *Management by Exception* in special is treated as the counterexample of *Transformational Leadership*).

Management by Exception postulates the need for any direct intervention by a leader only in case of unsatisfactory results achieved by the subordinates. According to this leadership approach, it is advisable for the leader to be *virtually absent* from the scene as long as all subordinates carry out their respective tasks as it is expected from them.

Therefore, the role of the leader is extremely limited in the current setting and is more that of an administrator than that of an actual leader.

In case of a necessary intervention, it is advisable for the leaders to have a relatively clear and straightforward approach with which they clearly indicate the problem and a possible solution. This can be derived from the above shown relative appreciation of the exercise of power. As expressed in the course of the interviews, members of the current Culture do expect their leaders to clearly indicate what they expect in the rare occasions where a direct intervention is appropriate.

Therefore, no particularly sophisticated leadership style is necessary in the current setting. It is sufficient for a leader to supervise the subordinates. The leader has to make sure though not to give them the feeling to be constantly controlled. In case of a deviation from given goals or procedures the leader has to take corrective action and should do so in a clear and unambiguous way. Except for these special occasions the leader should keep a clear distance from the day to day business of the subordinates.

Hence, in summary, it can be said, that the demands on a leader of the Middle Administration Culture are among the most limited ones of all the *Professional Cultures* isolated in the course of the present study.

7.3.2.2 The Appropriate Organisational Structure

In the current setting the appropriate organisation design will be straight forward and is based on one of the classic approaches.

In fact, the most suited organisational design is the *Bureaucratic Organisation* according to *Weber* (1976; see also section 3.1.1.3).

This is due to the above described appreciation of a rules and regulations based Professional environment. Members of the Middle Administration Culture explicitly expect to live a bureaucratic life in a bureaucratic organisation.

At first view this result may seem to be somewhat surprising as it is in clear contradiction with more modern approaches of organisational design. Considering the results of previous sections of the current study though, it becomes clear that for some *Professional Cultures* identified a classic approach is more suited than the for *all parties concerned* significantly more demanding *Modern* or *Post-Modern Approaches*.

This obviously does not mean that these *Professional Cultures* are more simplistically structured than others. It only means that as mentioned at various occasions throughout the present work, *different Cultures require different treatments*.

For the Middle Administration Culture this different treatment is a clearly bureaucratically designed organisation as expressed with the *Bureaucratic Organisation* developed by *Weber* (1976)

It is important though, that an organisational design based on this theory also takes into account the potential problems and shortcomings already mentioned by *Weber* (1976). In particular the tendencies of a bureaucracy to blindly follow inadequate rules and to be increasingly occupied with itself have to be avoided.

Therefore, it is important that surfacing *dysfunctionalities* within the organisation which can be traced back to an inadequate organisational design are taken care of and are not ignored. Most likely, this aspect is the most important role for the leaders of a Middle Administration group. They need to timely detect such dysfunctionalities and have to take corrective action within the organisational design to alter the factors leading to these dysfunctionalities.

In summary, it can be retained though that if one is aware of the potential problems that are inherent to a *Bureaucratic Organisation*, this kind of organisation design is according to the results of the current study the most appropriate one for the Middle Administration Culture. This view is also clearly supported by the results of the development of the appropriate leadership style, where the role of leadership is very much in line with that proposed by *Weber* (1976). Hence, the Middle Administration Culture is another example of a *Professional Culture* to which a more classical approach in organisation design is *more adequate* than the more complex approaches developed in the recent past.

7.3.2.3 Summary of the Possible Solution

The above developed solution is one more example for the necessity to also consider more classic approaches in leadership and organisation theory when designing a Professional environment.

This also supports once more the basic underlying idea of the present work which states that there is *nothing as such* as one leadership style or organisational design that fits all circumstances.

In summary, it can be stated at this point that the results given in this section are once again somewhat surprising as they are in opposition to a number of ideas brought forth in recent years. Nevertheless, these results are in accordance with those of a number of other *Professional Cultures* that also do prefer more classic approaches when it comes to leadership style and organisational design.

7.3.3 Global Assessment of the Results for Cluster 9

The above given results show a very interesting picture of the characteristics of the administrative base of an organisation.

As already mentioned it is highly important to appropriately integrate this group into the organisation as its efficient functioning is *crucial* for the success of *any* company.

Furthermore, the results *clearly* show that it is *not always necessary* to strive for the most complicated approach when designing leadership and organisational structures.

In the current setting this is especially relevant as the structures required by the Middle Administration Culture are relatively simple. Therefore, besides the fact that more sophisticated approaches may have counterproductive effects, using them would be nothing more than a serious *waste of precious resources*.

As the current Culture is e.g. quite undemanding when it comes to direct leadership and instead is heavily relying on indirect leadership, it is possible to have a rather big control span. This in turn leads to the possibility to eliminate a number of positions for higher paid superiors.

On the other hand the importance of an *adequately* designed *indirect leadership* is *crucial* in the current setting.

This is due to the already mentioned inherent weaknesses of the *Bureaucratic Organisation*.

Furthermore, it may not always be simple to formulate certain demands in a comprehensible and unambiguous way in written form so that employees clearly know what is expected from them.

In summary, it can be stated though, that the current group is rather easy to integrate into an organisation on the condition that the organisational structure is designed with the necessary care and precision to adequately match the requirements of the respective tasks.

7.4 ***Cluster 10: The Higher Administration***

The tenth Cluster, called "The Higher Administration", comprises all those individuals who are working in *purely or predominantly* administrative functions, but who are *not part of top management*. In that sense members of this group are still in executing functions. This does not exclude the possibility that these positions also imply management and decision-taking functions, but the main focus of this group's work is administrative on a higher qualification level.

Typical jobs in this group would be those in leading positions in a finance department, an executive secretary, or also higher positions in a controlling department.

In reference to the Service Providers the same problem surfaces here as to the boundaries of the Higher Administration group. The Higher Administration group shares a number of similar traits with the Service Providers group, so that the decision as to which group a certain entity should be assigned to is not always evident.

The solution to this problem is obviously similar to the one above, but inverted. As soon as a task carried out by an entity does *not* provide a service for another entity, but is part of its very core function and requires extensive training and in depth knowledge of the subject, this entity should be assigned to the Higher Administration group.

7.4.1 The Empirical Survey

In this group again, the qualitative part of the survey was of significant importance in order to render the results of the quantitative part correctly understandable.

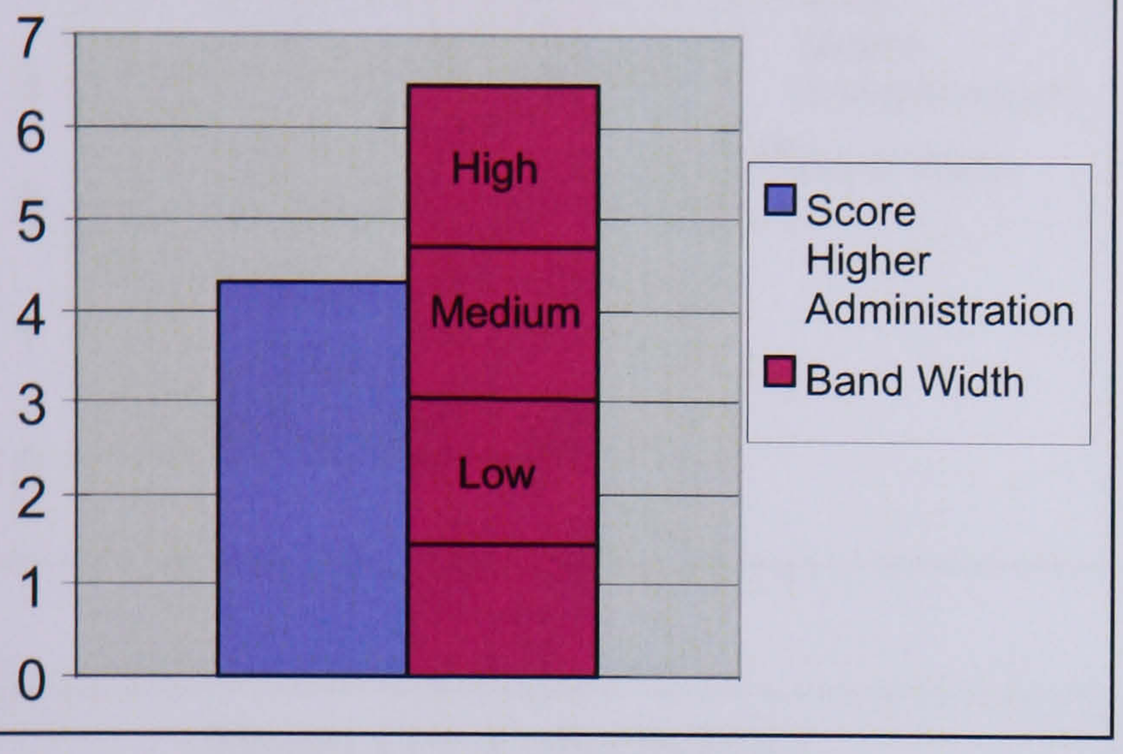
The *quantitative* part itself is based on 23 respondents from various organisations and countries, exhibiting a balanced mixture between male and female respondents. As always, the qualitative part is based on seven interviews.

With the present Cultural group the importance of the *qualitative* part mainly originated from the above mentioned difficulty in drawing a clear limit for this group based on quantitative analysis only. This made it necessary to verify the findings of the quantitative part thoroughly and to check their validity.

So in this group the findings lined out in the quantitative and the qualitative parts are also *heavily interdependent*. Hence, once again it can be seen why a combination of both methods is of such extreme importance in highly complex environments.

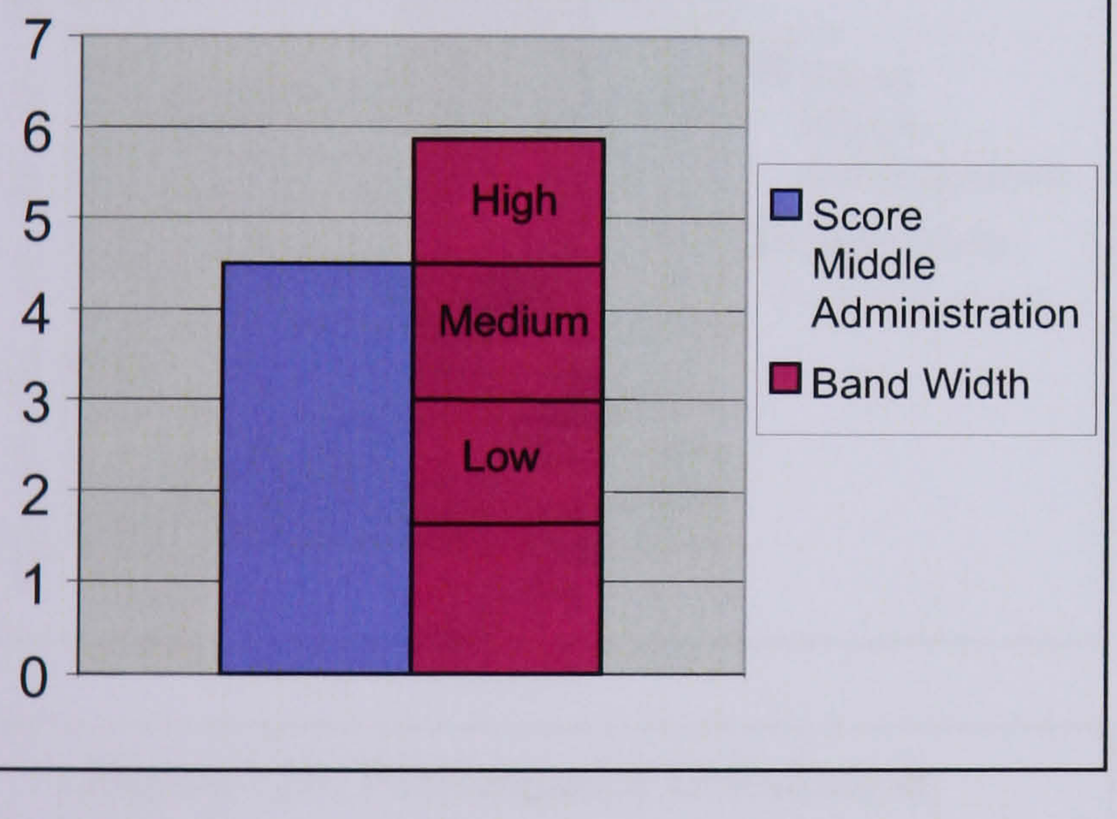
7.4.1.1 The Results of the Quantitative Part

Figure 115: Uncertainty Avoidance



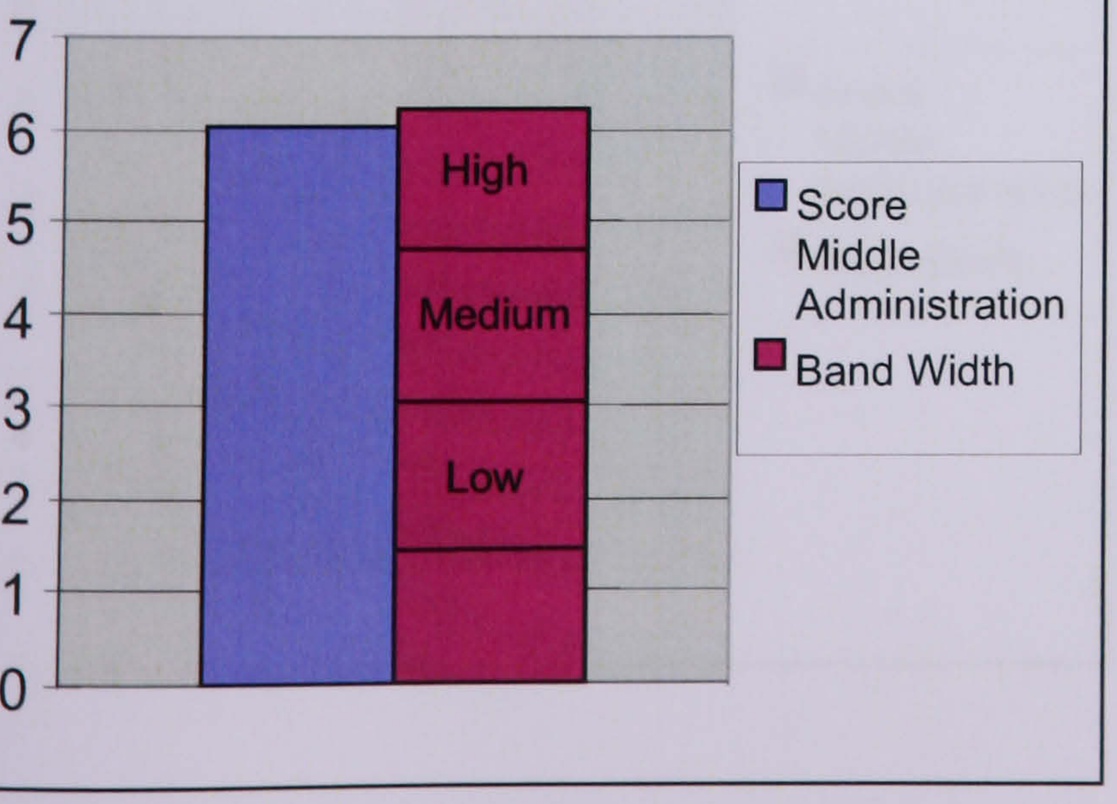
The **Uncertainty Avoidance** Dimension was rated neutrally (4.32). Here again an area of tension between the need to react swiftly to arising situations and the rejection of an unstable and/or unforeseeable environment which creates these very situations has to be stated.

Figure 116: Assertiveness



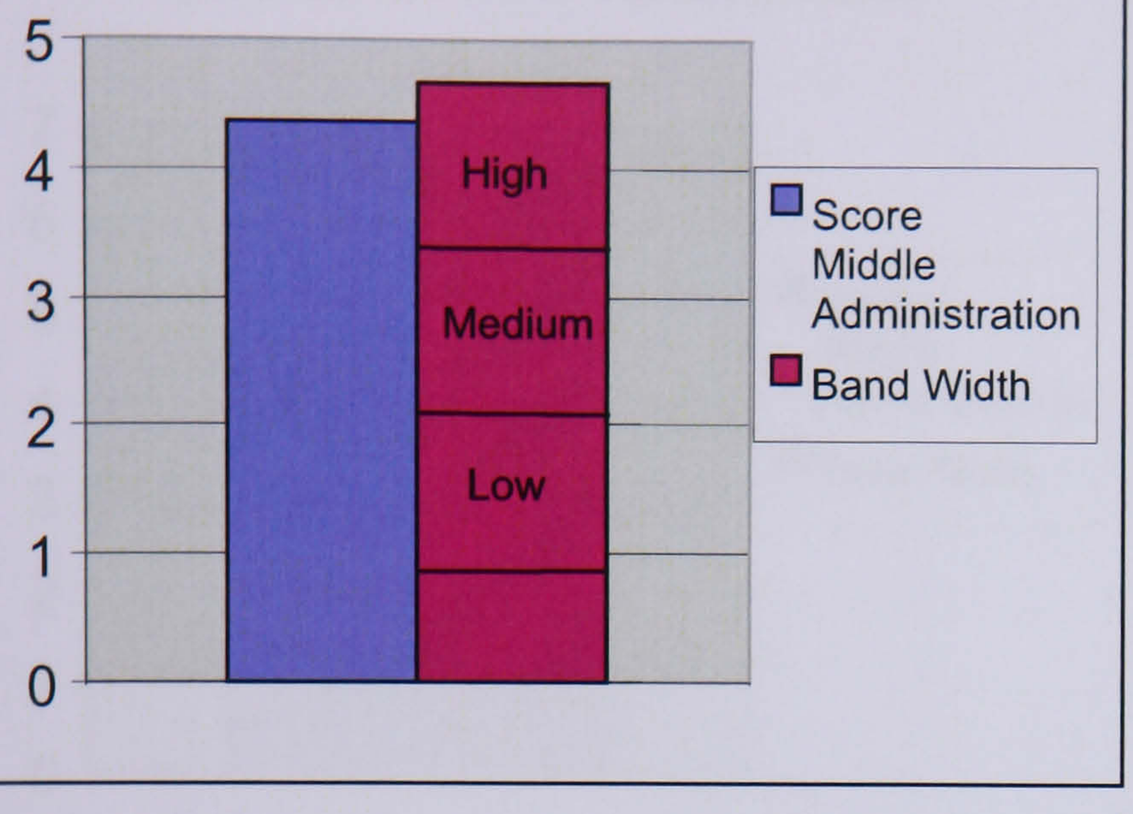
Assertive behaviour is placed on the boundary between the medium and the high area (4.48). This can be seen in direct interconnection with the jobs present in this group. They are often located in positions were a purely consensus driven approach does not lead to the desired outcome (e.g. controlling), whereas an excessively Assertive approach has equally disadvantageous consequences. This aspect will be studied closer in the following section.

Figure 117: Future Orientation



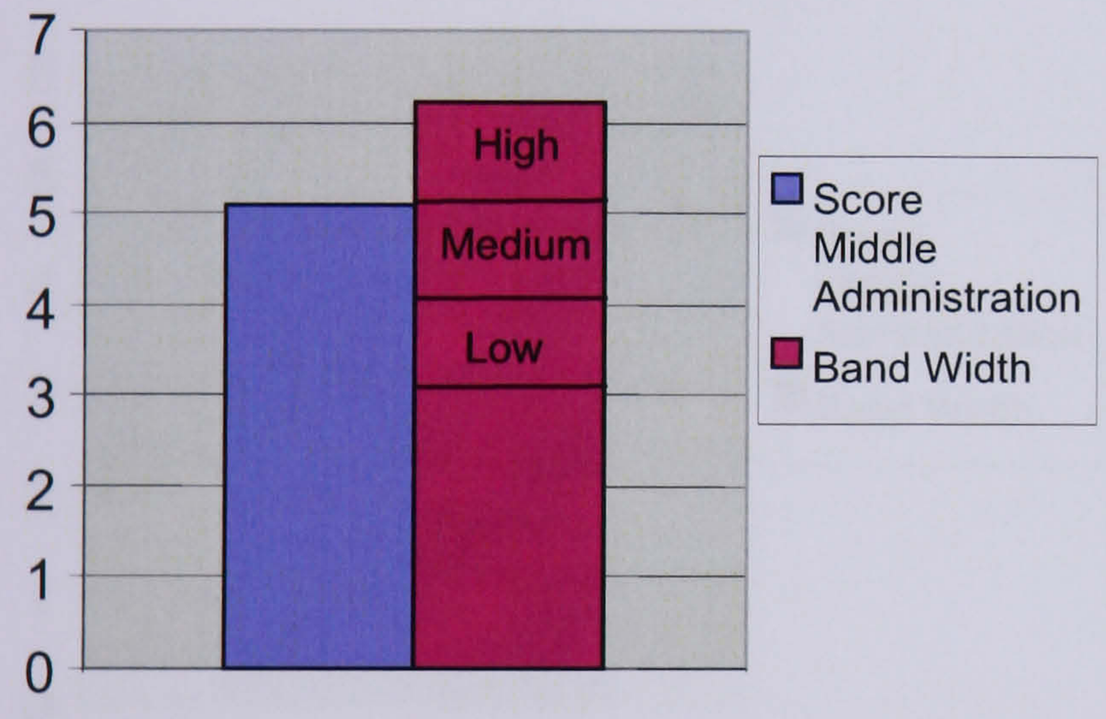
As the members of this Culture usually need to keep in mind the long term consequences of nearly every topic they have to deal with, the **Future Orientation** Dimension is valued *strongly* positively (6.03). This score is one of the *highest* in the sample, expressing the high importance that members of this Culture attribute to long term orientation.

Figure 118: Power Distance



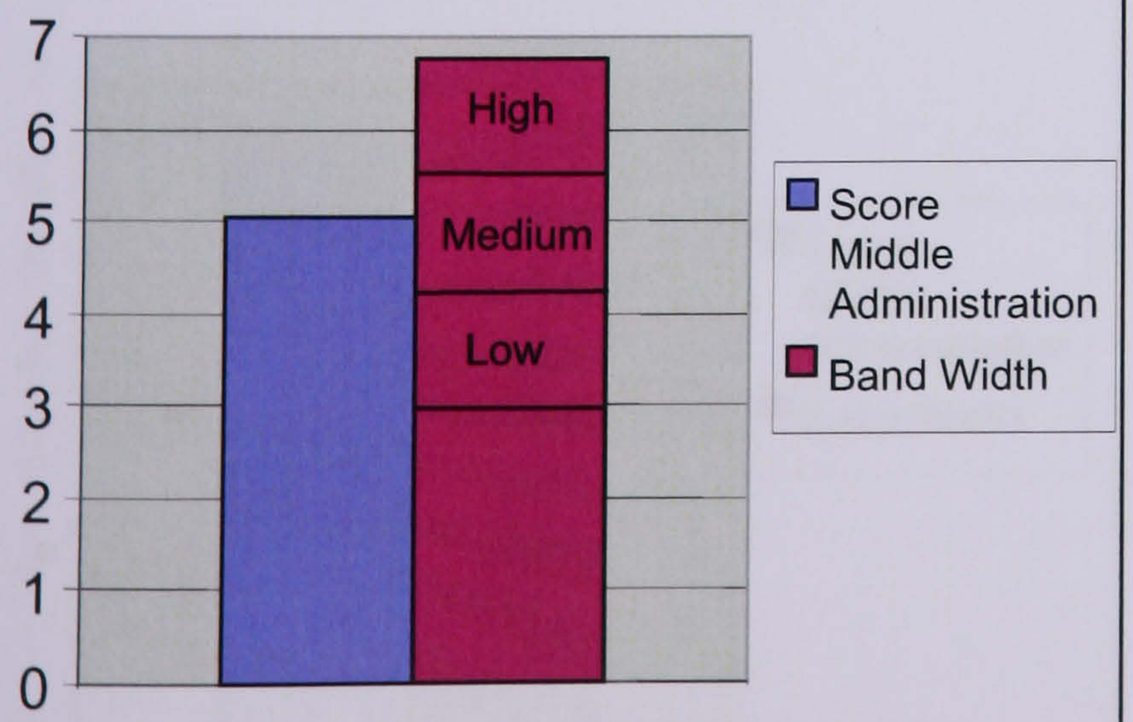
The **Power Distance** Dimension is valued positively by the members of this group (4.35). This rating can be traced back to the fact that the members of this *Professional Culture* are usually in a position of power and apparently appreciate the exercise of that power. The reasons for this will be evaluated in section 7.4.1.2. It can be kept in mind, however, that the characteristics of the Higher Administration's work environment play a major role for this specific rating.

Figure 119: Collectivism I



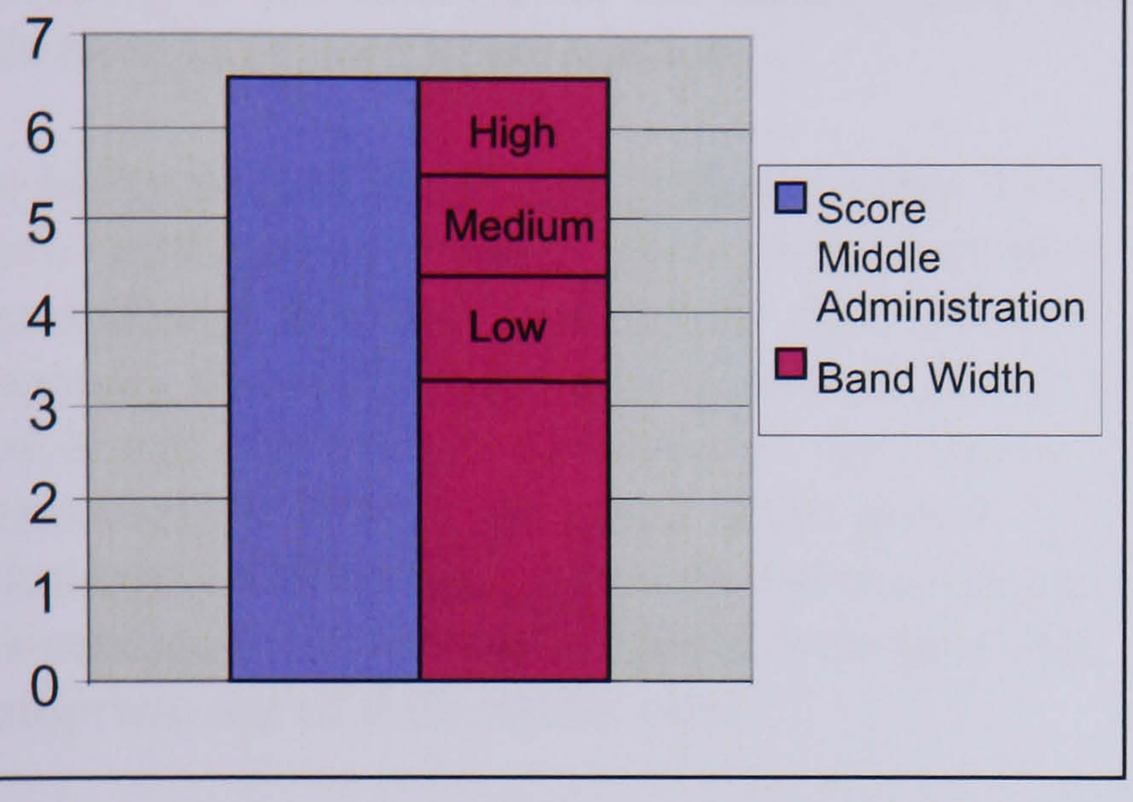
The **Collectivism I** Dimension is in the upper neutral area (5.08). Apparently members of this group do appreciate team work although the need for it does not always seem to be obvious to them. The reasons for this somewhat contradictory score will be clarified later; the important thing to keep in mind at this point is the ambiguity with which this Dimension is rated.

Figure 120: Performance Orientation



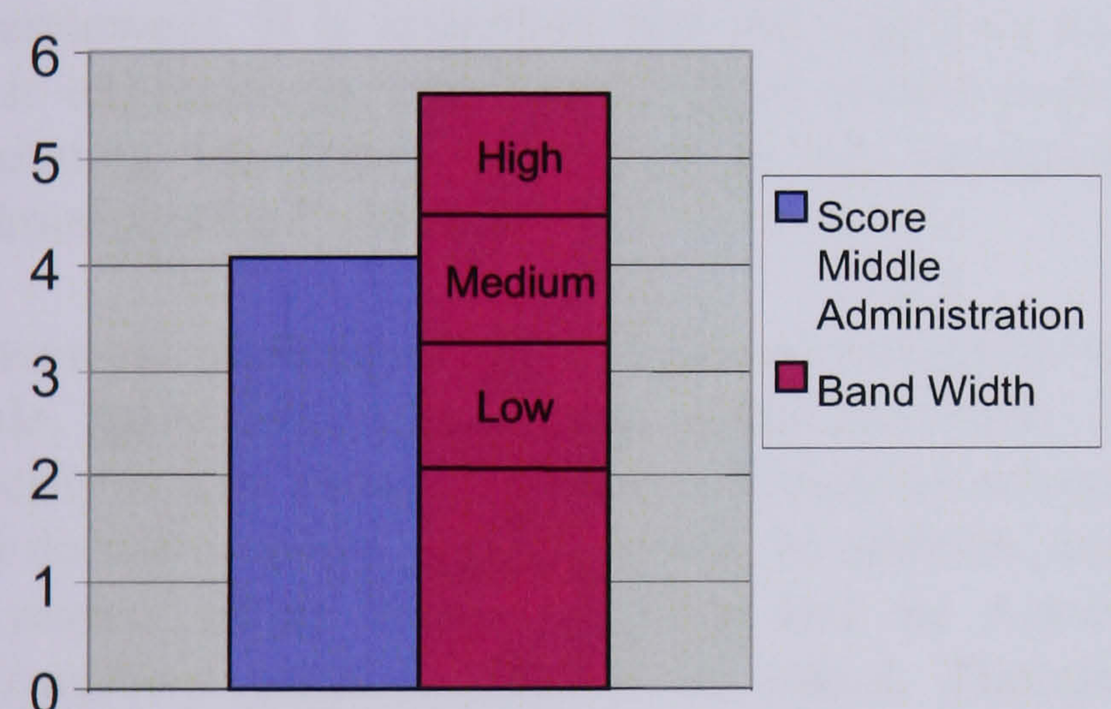
Performance Orientation is rated neutrally (5.03). This rating apparently has to be seen in connection with a tendency which all bureaucracies, private or state run, seem to incorporate. This tendency is that sometimes outstanding performance is not the first priority, but more of a by product of the efficient application of existing rules.

Figure 121: Gender Egalitarianism



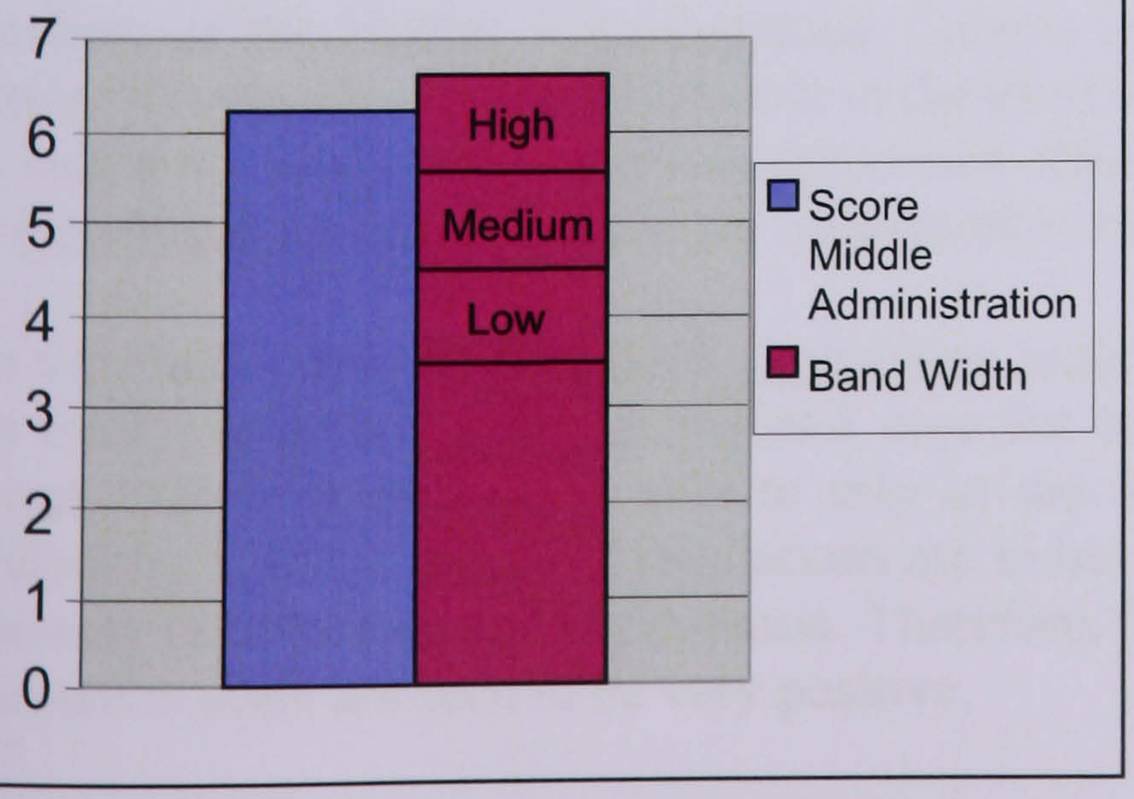
Gender Egalitarianism, on the other hand, is valued strongly in the positive area (6.52), showing the *highest rating* out of all Professional groups. Possibly this is a consequence of the relatively high number of women in this group, but probably also of the above mentioned strict application of rules by this group. These aspects will also be discussed in more detail in section 7.4.1.2.

Figure 122: Human Orientation



The **Human Orientation** Dimension is scored neutrally (4.06). A possible explanation which has to be seen in connection with the already mentioned application of rules and procedures will be pointed out further down. At this moment it is sufficient to keep in mind that the values of the Human Orientation Dimension have no significantly important meaning for the members of the Higher Administration group.

Figure 123: Collectivism II



Finally, the values expressed with the **Collectivism II** Dimension seem to be rather important for this group. The rating of 6.2 is one of the *highest* present in the sample. This is a clear indicator for pride in and loyalty to the group.

7.4.1.2 The Results of the Qualitative Part

According to the interviews, the results of the Power Distance and the Assertiveness scale have to be seen in correlation.

The high rating of the Power Distance scale is the consequence of the relative position which members of the Higher Administration Culture have in their respective organisations. Usually it is up to them when it comes to the exercise of power. Obviously this leads to a positive view of power in general. Nevertheless, this positive view is not restricted to members of the current Cultural group exercising power, but interestingly it is also accepted when power is exercised upon them. This does not include the arbitrary use of power, but it is acknowledged and expected that sometimes it is necessary for the direct superiors to give clear guidelines. This in turn implies the appropriate use of their power base.

The rating of the Assertiveness Dimension is in close connection with this reasoning. The use of power may obviously incorporate Assertive behaviour. This is not to be seen as the acceptance of some blind Assertive behaviour, however. According to the interviewees, it is important that the superiors are able not only to clearly formulate their expectations, but also to push certain decisions through. Therefore, weak and hesitating leadership behaviour is not accepted by the members of the Higher Administration Culture.

Somewhat interconnected with these considerations is the rating of the Collectivism I scale. According to the results of the interviews, team work is not considered to be a priority in this group. Sometimes it may be necessary, but very often the tasks carried out do not favour a team approach. In addition, considering the above given reasoning in respect of the Power Distance and the Assertiveness scales, an *affinity* towards *hierarchical solutions* has to be stated. Therefore, the values expressed with the Collectivism I scale are seen to be only marginally positive.

The scores of the remaining Core Cultural Dimensions are, apart from the Collectivism II scale, closely interconnected.

Members of the Higher Administration Culture see themselves to be in an area of tension between the need to be flexible in the short term and the urge to have stability in the long term. These influences neutralise each other and thus the values expressed with the Uncertainty Avoidance scale are considered to be neutral.

The very high rating of the Future Orientation scale has to be seen in that context, as it is a clear expression of the mentioned urge for long term stability. Members of the current Culture prefer to be able to rely in the long term on clearly set rules and regulations. If these rules and regulations are to have long term validity, it is obviously necessary to have long term orientation. Therefore, the values expressed with the Future Orientation scale are seen to be very positive.

But this orientation on rules and regulations has a second consequence. It leads to the surprisingly low score of the Performance Orientation scale, which is medium only. As members of the current Culture prefer to live in an environment based on rules and regulations, they do not necessarily see the need to perform extraordinarily in the sense expressed with the Performance Orientation scale. This is due to the content of the Performance Orientation items themselves and the self-image that members of the Higher Administration have. The items of the Performance Orientation scale stress aspects such as continuously searching for ways to be innovative and continuously improving performance. According to the interviewees, the sole emphasis of these aspects is counterproductive for the specific environment in which they live. They consider the exact following of rules and procedures as well as stability and predictability to be at least of the same importance. Therefore, the above mentioned importance of rules and procedures shows itself once more, leading to the *neutral rating* of the Performance Orientation scale.

This is also true for the very high score on the Gender Egalitarianism scale. In part, this score is due to the fact that in the present sample a very balanced gender distribution can be stated. Mostly though, this score is again a consequence of the emphasis of rules and procedures, as in most companies Gender Egalitarianism is part of company policy, which is obviously strictly followed by the members of this group.

Partly the score of the Human Orientation scale can also be traced back to this central trait of the Higher Administration Culture. In a rules and regulations based environment there is not very much room for the values expressed with the Human Orientation scale. Furthermore, according to the interviewees and considering the above mentioned view of the Collectivism I scale, there is no real need for the members of the current group to moderate this view. Still, they do not see the Human Orientation values to be negative; they simply do not attribute any importance to them. Therefore, a neutral rating is the logical consequence.

Finally, the positive view of the Collectivism II scale is a direct consequence of the relative position which members of this group have in their respective organisations and their resulting self-image. Usually, members of the Higher Administration Culture are placed relatively highly within their organisations. Furthermore, they consider themselves to be one of the *key* groups for the success of their respective company. Therefore, to a considerable degree they feel proud of their own work and about that of their peers. This is further enhanced by the fact that members of the current group sometimes feel they are the subject to some sort of underlying hostility by members of other Professional groups. In connection with the pride they exhibit in their work, this leads to a strong feeling of loyalty towards their Professional group, which is the second aspect of the Collectivism II scale.

In summary, it can be said that the results of the interviews clearly show one highly specific trait of the Higher Administration Culture: the perceived importance which rules and regulations have for the work environment of this Culture.

7.4.1.3 Summarising Illustration of the Empirical Results

The empirical results show a highly interesting picture for a very important group of employees.

Especially the highly rules and regulations based nature of the current group is quite stunning considering the relative position its members have in their respective companies.

This trait will be of a significant importance for the development of an appropriate organisational and leadership design.

In summary, it can be retained at this point that the specific characteristics of the Higher Administration Culture exhibit a remarkable number of similar traits with the Middle Administration, but also a number of highly interesting differences as will be shown in the following.

7.4.2 An Integrative Solution to the Found Characteristics

In the following the appropriate leadership style and organisational structure for the Higher Administration Culture will be developed.

Especially against the setting of the above shown very special traits of this Culture this undertaking is highly significant. This is even more important as the relative position members of this Culture usually have in their organisations is such that their successful integration into the organisation is *crucial*.

As always, initially the development of an appropriate leadership style will be undertaken, followed by that of an appropriate organisational style

7.4.2.1 The Appropriate Leadership Style

As far as the development of an appropriate leadership style is concerned the Higher Administration interestingly shows similar traits to those of the Middle Administration, as no clear preference for any of the six CLT Dimensions exists.

This similarity is rather surprising, as both Cultures do have rather significantly different Professional environments. Apparently though, *administrative processes* seem to *develop auto-dynamic processes* which are independent from hierarchical positions and actual tasks.

This result obviously has far reaching consequences and strengthens once again the insight gained in the current work which is that *Professional Cultures* do structure themselves around different functions.

Therefore, the appropriate leadership behaviour should be very non-intrusive into the regular day to day work of the members of the Higher Administration Culture. Only a very limited tendency towards *Charismatic/Value-Based Leadership* can be stated.

Jointly, these two aspects would lead to the superior developing some greater idea which would give some specific underlying meaning to the actual task members of the current Culture carry out. Nevertheless, this greater idea *should not* be understood like a genuine *Vision*, as the Higher Administration Culture does not have any affinity towards such idealistic approaches. It is sufficient if this greater idea in fact puts the individual tasks into the greater context which is very much based on the present situation.

For the rest the direct superior, which is often going to be found within the executive board, should follow a "*Management by Exception*" approach (e.g. Bass/Avolio, 1993, p.52; see also section 2.2.3 where transactional leadership in general and *Management by Exception* in special is treated as the counterexample of Transformational leadership and section 7.3 where the Middle Administration Culture is treated).

As members of the current Culture do take their jobs very seriously situations in which the leader would have to intervene in the sense of the *Management by Exception Approach* arise extremely rarely only. Therefore, the role of the superior is even more limited than that of the leader of members of the Middle Administration Culture.

Hence, a possible leadership solution should look like the following.

The leader of the Higher Administration develops a greater picture which clearly shows the importance of the respective tasks carried out by its members. Although depending on the actual task this may not always be necessary, it is definitely not harmful and has potentially beneficial consequences.

The leader sets up clear goals and guidelines and exhibits in that aspect clear and unambiguous leadership. As long as the set up goals are achieved and the different guidelines followed the leader does not interfere with the day to day business of the subordinates.

Control mechanisms have to be kept to a minimum, as they interfere with the self-image the Higher Administration has. Furthermore, tight control mechanisms will proof to be useless as in principal the current Culture inherently follows existing rules and regulations.

In summary, it can be said that *direct leadership* can be considered to be *quasi unnecessary* in the current setting. Except for the extremely rare occasions in which an unjustified deviation from existing rules and procedures has to be stated, the leaders will not have any direct role in their subordinates work environment.

Therefore, it is highly questionable if a leadership position which is exclusively dedicated to lead members of the Higher Administration is necessary altogether. Often it will be sufficient to have these leadership functions as a sideline only in addition to some other function within the organisation.

7.4.2.2 The Appropriate Organisational Structure

The appropriate organisational structure for the Higher Administration Culture is a reflection of that developed for the Middle Administration.

It should be based on the *Bureaucratic Organisation* developed by *Weber* (1976; see also section 3.1.1.3).

Therefore, *full use* should be made of a detailed and appropriate set of rules and regulations to design the organisation in the current setting. For the same reason it is of the utmost importance to avoid any incongruent or inconsistent parts within this organisational design.

Nevertheless, it has to be made sure that the organisation does not become too rigid and tight. It has to be kept in mind that most people present in this Culture have a rather high educational background as well as a rather high self-esteem.

Therefore, the organisation has to give them the freedom to actually decide themselves how they want to achieve the given goals and the feeling that they can act to a significant degree autonomously within their work environment.

For that reason the already mentioned necessity to avoid as much as possible control mechanisms is of such an importance.

Finally, it is necessary to check regularly the organisational design in general and the underlying rules and regulations in particular for adequacy and relevancy to avoid any dysfunctionalities within the organisation resulting from a non adapted organisational design.

In summary, it can be stated that for the present Culture, it is sufficient to quasi exclusively exercise leadership with the help of indirect leadership. Therefore, it is *crucial* not to underestimate the importance the development of a task appropriate set of rules and regulations has for the successful integration of this Culture into a company. Doing so though will lead to a very autonomously and efficiently operating Higher Administration, which in turn is of the utmost importance for the success of the whole company.

7.4.2.3 Summary of the Possible Solution

The solution proposed relies heavily on indirect leadership.

Considering the characteristics of the present Culture this approach seems to be the most appropriate approach for the integration of the current Culture.

The heavy reliance of this approach on organisational means can be an advantage though. If used appropriately it renders the integration of the members of the current Culture into their respective organisations relatively simply.

This is due to the fact that by using organisation as the primary means for integration it is to be expected that members of the current Culture act relatively autonomously within that organisation while striving for the achievement of the given goals.

Therefore, in summary, it can be stated that if the necessary provisions are taken, the present Culture is one of the easier ones to be integrated into the organisation.

7.4.3 Global Assessment of the Results for Cluster 10

The most interesting aspect about the results of the 10th Cluster is the high similarity it exhibits with the Middle Administration Culture.

Apparently, administrative processes of *all hierarchical levels* share a common set of characteristics which clearly finds its expression in the very similar leadership and organisational structures required for these two Clusters.

This does not mean that both Clusters are the same, but it does mean that they show a number of similar traits which leads to them being receptive to very similar leadership styles and organisational structures.

The importance of these results potentially stretches far beyond the boundaries of the current study and even the industry in general. This is due to the fact that jobs which show the characteristic traits of an administration can be found in *practically all parts* of state and economy.

Therefore, the insights gained in this and the preceding section serve the better understanding of administrations and their integration into the value creation process in general.

In summary, it can be said that the results of the 10th Cluster may be surprising at first view. This is especially true as members of the Higher Administration usually can be found within the higher echelons of their respective companies.

Nevertheless, administrative processes seem to be exercising such a high degree of influence upon the employees carrying them out that certain basic patterns can be found throughout any administrative environment.

7.5 ***Cluster 11: The Operational Management***

The Cultural Cluster which is presented in the following is composed of employees who perform tasks which can be subsumed under the term *Operational Management*.

Typically these individuals perform management tasks on a low to medium level in an organisation, leading a rather small number of other people.

Examples for such occupations are a team leader in an operational centre of an airline, lead buyer in a smaller company, but also foremen or team leaders in technical departments.

As can be seen from these examples, employees in this group are qualified to a *medium* level. The difference to other groups in the present sample is that members of this group are *directly* implied in the *production processes* on the one hand and they have to perform an actual *management task* in the day to day operation of their respective organisation on the other.

In summary, the task of the members of this group is to assure that decisions that have been taken at some higher position within the organisation are actually implemented and to guarantee a smooth operation on the "field level".

7.5.1 The Empirical Survey

As always, the results of the empirical survey are based on a quantitative and a qualitative part.

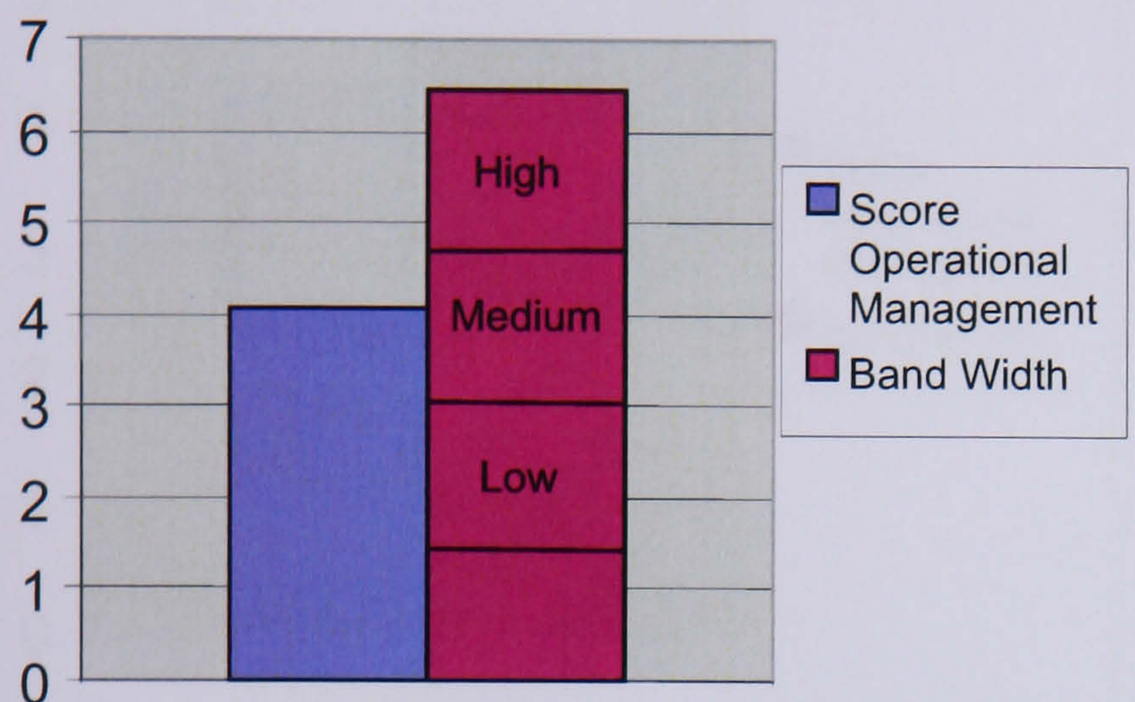
The *quantitative* part is composed of 21 respondents originating from various countries and organisations. As a *reflection* of the actual composition in reality of the occupations present in this sample, a majority of male respondents has to be stated. The intended heterogeneity is therefore achieved.

For this group the *qualitative* part which is based on seven interviews was of significant importance in determining the actual characteristics of the Cluster. The quantitative part obviously gave an indication as to the basic orientation of the Cultural Dimensions.

In this specific case, however, it was imperative to determine the underlying processes that led to these results in order to correctly determine the characteristics of this Cultural Cluster.

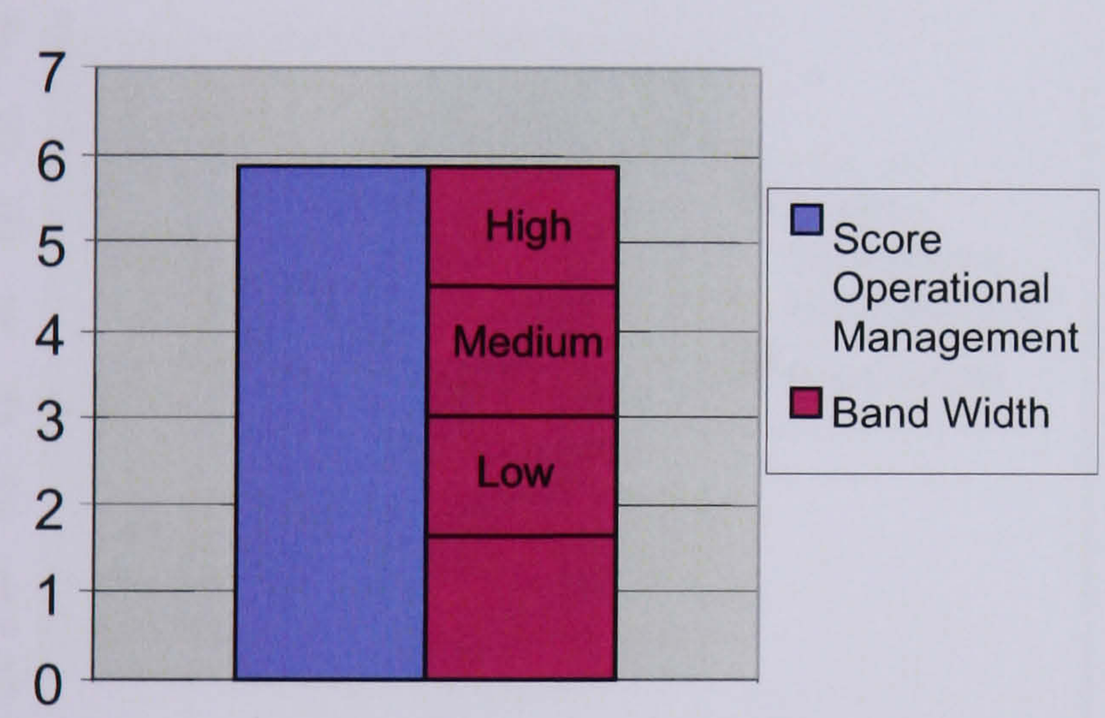
7.5.1.1 The Results of the Quantitative Part

Figure 124: Uncertainty Avoidance



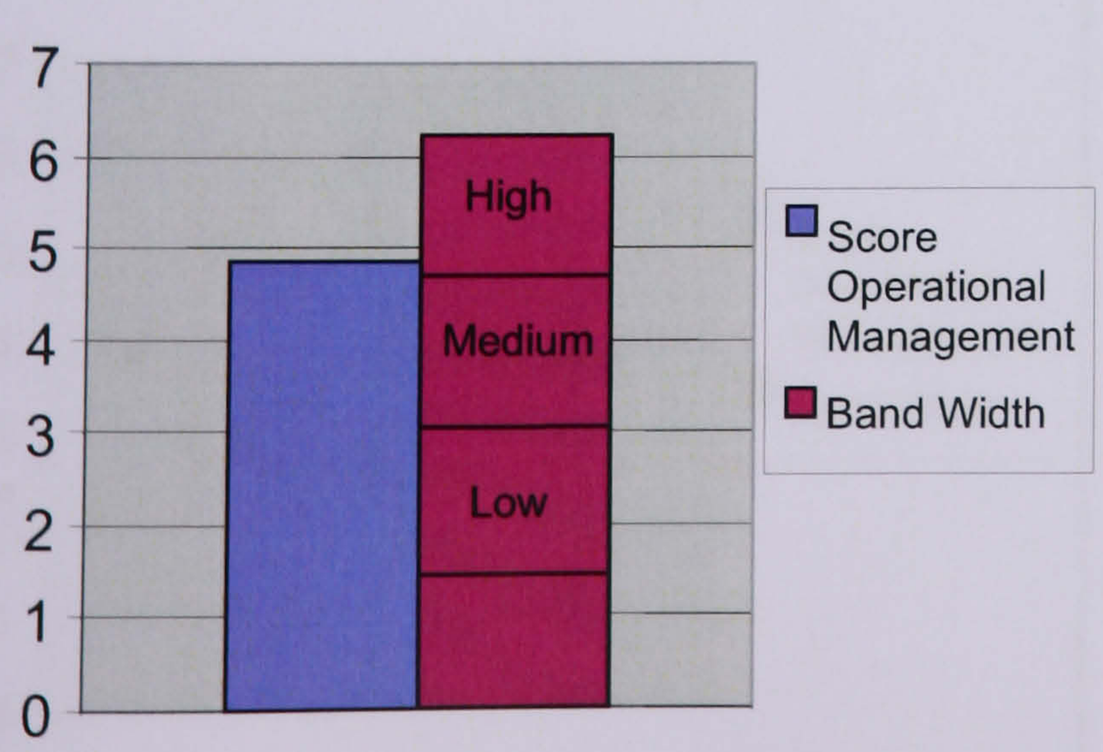
The **Uncertainty Avoidance** Dimension is rated neutrally in this group (4.06). This result can be seen as a consequence of the fact that members of this group often have to react to exterior influences on the one hand, but also seem to need at least some stability. This apparently favours rather mixed esteem for the values expressed in the Uncertainty Avoidance Dimension.

Figure 125: Assertiveness



The **Assertiveness Dimension** scores the *highest* of all groups in the present group (5.87). The extremely high demands exercised on the members of this group in connection with the sometimes only limited means to achieve the set goals are at the source of this result. This highly interesting aspect will be detailed further in the following.

Figure 126: Future Orientation



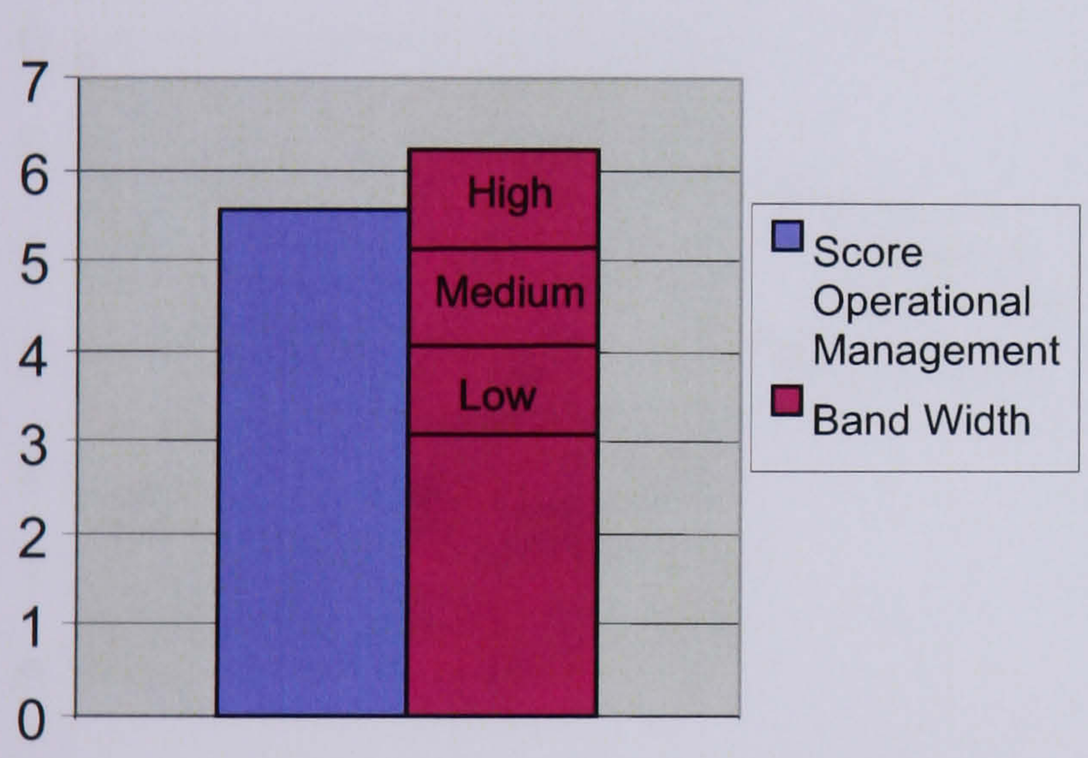
Future Orientation is considered to be moderately positive (4.84). On the one hand, this result has to be seen in connection with the already mentioned fact that this group has to be flexible enough to always efficiently react to exterior demands. On the other, a certain long term orientation has to exist in order for other people to be led effectively. This topic will also be raised again in the context of the interviews.

Figure 127: Power Distance



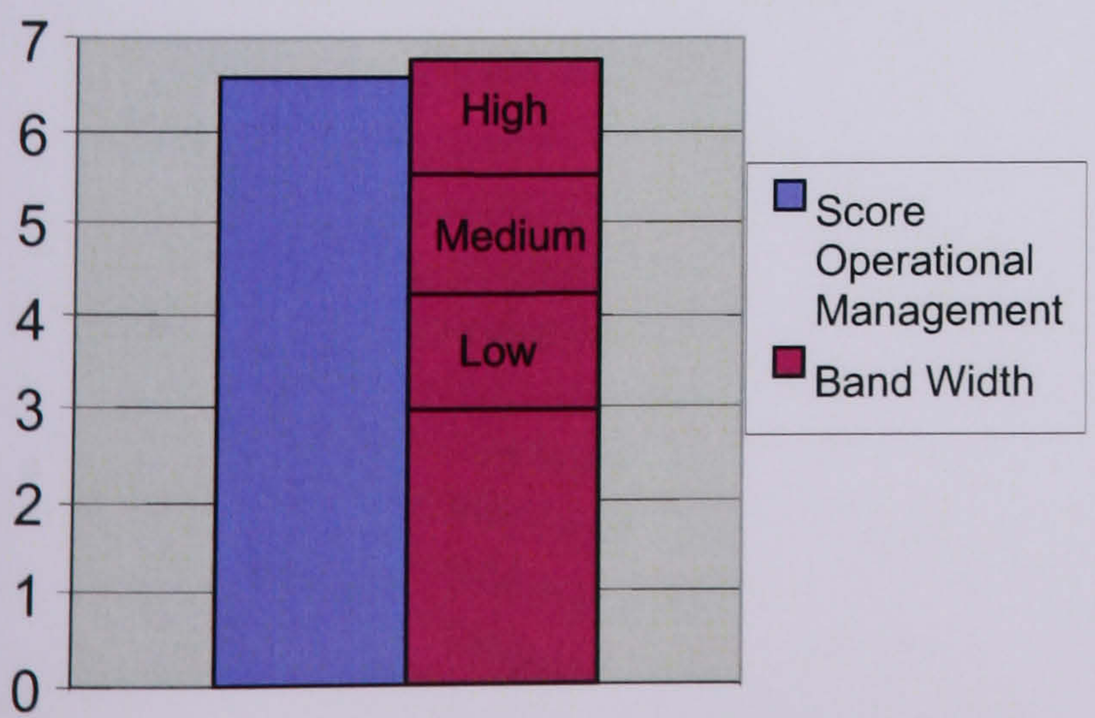
Power Distance is considered to be positive (4.27). This score has to be seen in connection with the already mentioned problem for the members of this group to actually achieve what they have to achieve with the limited possibilities they have. One of the means to do that is obviously the use and the appreciation of the power base they have.

Figure 128: Collectivism I



Collectivism I is rated positively (5.56). The need for functioning team work is obviously appreciated by the Operational Management. That result is a clear consequence of the placement which members of this Cultural group have in their respective organisations, as they head small teams, assuring constant personal contact to their subordinates. This aspect will be treated further in section 7.5.1.2.

Figure 129: Performance Orientation



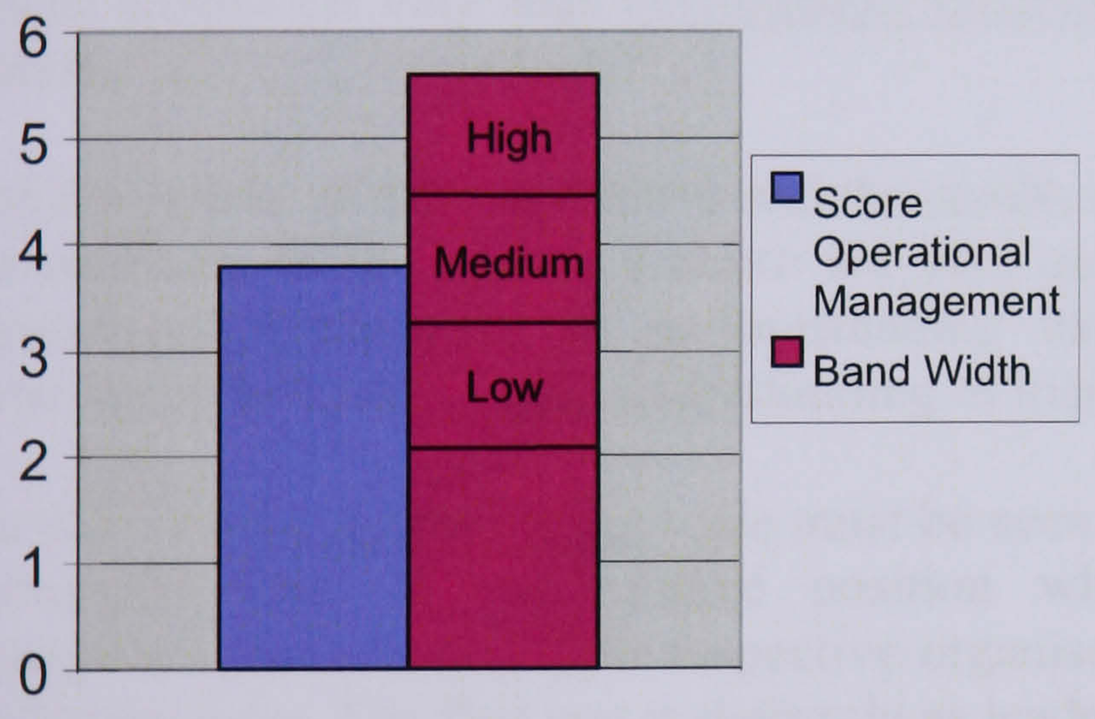
Performance Orientation scores *very high* in this group (6.57), representing the second highest value out of all *Professional Cultures*. Apparently members of this group want to perform in an outstanding manner. The very interesting reasons for that though will be described in the context of the results of the following section.

Figure 130: Gender Egalitarianism



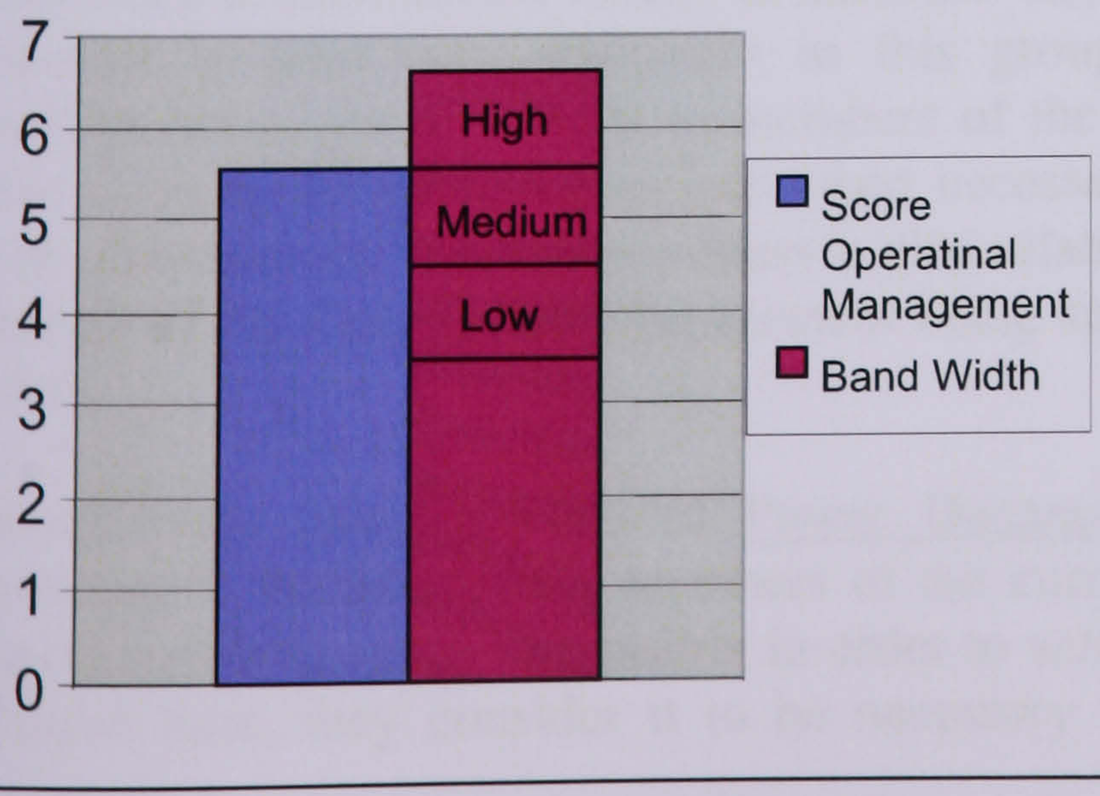
Gender Egalitarianism is seen positively (5.71). In connection with the high score on the Performance Orientation scale it becomes clear that members of this Culture predominantly value performance and do not appreciate gender based judgements.

Figure 131: Human Orientation



Human Orientation is rated neutrally (3.78). This has to be seen in connection with the results of the Assertiveness Dimension as well as that of the Power Distance, Gender Egalitarianism and Performance Orientation Dimension. All these interconnections point to the strong emphasis of performance by the members of this Culture if necessary even at the expense of human values such as warmth and tenderness.

Figure 132: Collectivism II



Collectivism II is located on the edge between the medium and the high area (5.56). Members of the Operational Management Cluster seem to be moderately proud only of what they themselves achieve and loyalty to the other members of their Professional group seems to be somewhat limited. This result is a direct consequence of the special position members of this group have in their respective organisations and will be discussed further below.

7.5.1.2 The Results of the Qualitative Part

The results for the Uncertainty Avoidance scale and for the Future Orientation scale have to be seen in correlation.

According to the interviews, members of the current Culture see themselves to be in an area of tension between the need to stay flexible in order to successfully carry out their day to day business and an urge for long term stability which takes away as much Uncertainty as possible. These two factors neutralise each other, leading to the medium score on the Uncertainty Avoidance scale.

The slightly positive score for the Future Orientation scale is a direct consequence of these conflicting influences. The need for flexibility is well acknowledged by the members of this group, but is somewhat superseded by the already mentioned urge for long term stability. So the values expressed with the Future Orientation scale are seen rather positively, leading to the above mentioned score.

The scores of the remaining Core Cultural Dimensions are all interconnected and centred around the very high Performance Orientation of the Operational Management Culture.

Both the results of the quantitative and the results of the qualitative part clearly indicate that members of the current Culture are very *performance driven*. According to the interviewees, performing in an outstanding manner is highly important in their environment and part of their understanding of their work.

The score of the Assertiveness scale must be seen in connection with this Performance Orientation. Due to the relative position which members of the Operational Management have within their respective organisations, they have to fulfil two *highly conflicting roles*. The first one is their role as leader. The second is that of a subordinate to the next higher management level. According to the interviewees, the room for manoeuvre to achieve their goals is extremely small, sometimes leading to a situation in which members of the Operational Management Culture feel responsible for outcomes they did not have any possibility to influence. Therefore, the tendency is to use existing possibilities to their fullest extent to influence any possible outcome. Hence, Assertive behaviour is seen very positively in this group. Furthermore, this acceptance of Assertive behaviour also leads to members of the current group expecting their direct leader to show Assertive behaviour when necessary towards themselves. This in turn has as consequence that Assertiveness is also relatively highly valued when it comes to members of the Operational Management being subject to Assertive behaviour of their leaders.

The relatively positive view of Power Distance goes back to the same reasons. According to the interviews, members of the current Culture need to use their (rather limited) power as much as possible in order to achieve what is expected from them. At the same time, they consider it to be necessary for their direct superiors to express

clearly what they expect. In case of arising conflicts, the use of power is accepted if it is necessary in order to develop and implement these clear guidelines.

Nevertheless, the need for efficiently functioning teams is also acknowledged. It may not be necessary always and for every task, but when it is, its use is appreciated. That is true on both the level of Operational Management subordinates and on the level of the members of Operational Management itself. Therefore, the values expressed with the Collectivism I scale are seen relatively positively.

The high rating on the Gender Egalitarianism and the medium rating on the Human Orientation scale both have their roots in the above described prevailing Performance Orientation. Jointly, these two Dimensions clearly indicate that it is of the utmost importance to the members of this group that the respective tasks are carried out well, irrespective of who executes them.

Furthermore, in the technical environment in which this Culture is positioned, human values as expressed with the Human Orientation scale are not overly important. As stated, the main focus is that "the job gets done, regardless of who gets it done".

These two Dimensions further strengthen the high Performance Orientation of the Operational Management Culture.

Finally, the rating of the Collectivism II scale indicates the pride felt in the current group in the respective tasks carried out and the loyalty towards the group as a whole. Statements clearly demonstrating pride were mentioned at various occasions throughout the interviews. The reason for that is the feeling that, given the very limited possibilities, the achievements of the members of the Operational Management Culture are rather remarkable.

7.5.1.3 Summarising Illustration of the Empirical Results

As shown above, the results are technically of a rather satisfying nature.

The double methodology employed proved its superiority yet again in comparison to a purely quantitative or a purely qualitative approach, as both the width and depth of the results are extremely satisfying.

Concerning the content of the results, it can be stated at this point that the most interesting aspect of the current Culture is its *extreme Performance Orientation*. This Performance Orientation shows itself in nearly all Core Cultural Dimensions and additionally in the interviews.

Consequently, this specific and very positive trait has to be taken into consideration when designing an appropriate leadership style and organisational structure as undertaken in the following.

7.5.2 An Integrative Solution to the Found Characteristics

In the following, an integrative leadership and organisational solution will be developed.

The way of proceeding will be as usual: initially the appropriate leadership style, followed by the appropriate organisation structure.

The most important aspect for this *Professional Culture* as far as leadership and organisation are concerned is the *support and promotion* of the Performance Orientation of its members. Therefore, provision has to be made in order to free them from any unnecessary restraints which may hamper the unfolding of this Performance Orientation.

7.5.2.1 The Appropriate Leadership Style

According to the empirical results and those given by the GLOBE-Study (House et al., 2004) an appropriate leadership style for the current *Professional Culture* would have to be based on the *Charismatic/Value-Based* (e.g. Burns 1978; Bass, 1985; House, et al., 2004; see also section 2.2.3) and the *Team-Oriented Leadership Style* (e.g. Manz/Sims, 2001; House, et al., 2004; see also section 2.2.2). Furthermore it would contain certain elements of the *Participative* (e.g. Lewin, 1948; Tannenbaum/Schmidt, 1958; House, et al., 2004; see also section 2.1.1) and the *Human-Oriented Leadership Style* (e.g. Gagné/Fleishman, 1959; Fleishman/Quaintance, 1984; Blake/Mouton, 1985; House, et al., 2004; see also section 2.1.2).

All Core Cultural Dimensions with the exception of Human Orientation, which is in the neutral area, point to the *Charismatic/Value-Based Leadership Style*. Furthermore, the need for guidance and "reason why" expressed in the course of the interviews is a very strong indication for the appropriateness of that leadership style. Therefore, *Charismatic/Value-Based Leadership* will be retained as the appropriate solution.

Three out of five Core Cultural Dimensions point to the *Team-Oriented Leadership Style*, whereas two are in the neutral area. This relatively positive view of team orientation was confirmed in the open interviews. Members of the current Culture consider functioning team work to be essential for their Professional success. This positive view is not unconditional, however, as team work is not promoted in all circumstances but only when "it makes sense".

The quantitative part gave some indication as to the appropriateness of *Participative Leadership* with two Core Cultural Dimensions being in favour of it, whereas one is neutral and one in contradiction. With the help of the interviews, this tendency could be focused more precisely. Members of the current Culture do not expect or even wish to be included in every little decision taken. Nevertheless, they expect their direct superior

to listen to them and appreciate their opinion when they consider their Professional knowledge and experience to be helpful.

Despite the fact that the Human Orientation scale itself is valued only neutrally, *Human-Oriented Leadership* should be part of the appropriate solution, but only to a limited degree. Hence, only some particular elements should be retained, as only two out of the four Core Cultural Dimensions are in favour of this leadership style, with two being in the neutral area. Furthermore, Human Orientation surfaced within the interviews in only one precise aspect, indicating the existing but limited use of this leadership style in the current setting.

An appropriate leadership solution for the Operational Management Culture would thus look like the following.

The leaders develop a *Vision* which inspires the members of this Culture. This *Vision* should also clearly show the importance of each individual's contribution for the achievement of the *Vision*. The leaders have to show integrity and they have to be decisive. Especially integrity and decisiveness are very important in that context, as they reflect personal characteristics of the leader which are highly appreciated by the members of the Operational Management Culture.

If possible, the leader should support this *Visionary* approach by a predominantly *Team-Oriented Leadership Style,* as proposed by *Manz/Sims* (2001). "If possible" means in the current context that the task structure itself needs to be favourable to team organisation. According to the empirical results, it is not advisable to push through a *Team-Oriented* approach at all costs, but appropriately realised, such an approach can be very beneficial.

Participative elements need to be included for two reasons. The first reason is that the Professional expertise of the members of the Operational Management Culture is highly valuable for a significant portion of the various decision taking processes. Furthermore, as already mentioned, members of the current Culture do expect to be heard when they have a contribution to make. Jointly, these two factors clearly indicate that it is advantageous to include the Operational Management into decisions regarding their direct Professional environment.

Human-Oriented Leadership, finally, should be included only in a very precise way. Members of the current Culture do not necessarily need an overly warm and understanding leader. What they need are leaders who clearly show that they are on their side and are willing and able to protect them if necessary. Most probably, this attitude is an artefact of the "Blue Collar Worker" origins shared by a substantial number of members of the current *Culture*. Nevertheless, this aspect needs to be taken into consideration in order to adequately lead the Operational Management Culture. This is a consequence of the fact that even for those individuals who do not have a "Blue Collar Worker" background a slightly Human-Oriented leadership is potentially beneficial.

In summary, an adequate leadership style is based on a *Charismatic/Value-Based* approach enriched by strong *Team-Oriented* influences. *Participative* and *Human-Oriented Leadership* need to be integrated into this approach in the highly focused way illustrated, in order to adjust the global leadership style to the needs of the Operational Management Culture.

7.5.2.2 The Appropriate Organisational Structure

The appropriate organisational structure needs to incorporate *two* different aspects.

The *first* is the need for guidance by a responsible and decisive superior, whereas the *second* deals with the decision competence given to the members of the Operational Management Culture.

These two aspects jointly lead to an organisational design which is a *mixture* between certain elements of the *Administrative Approach* according to *Fayol* (1984; see also section 3.1.1.1) and *Complexity Theory* (Stacey, et al., 2000; Lewin/Regine, 2000; see also section 3.2.2).

The base of the organisational approach is *Complexity Theory*. It is important that one of the *main concerns* for the members of this *Professional Culture* gets addressed and taken care of.

That *main concern* is the perception that *responsibility* and *competency* sometimes are seriously misbalanced. Therefore, it is necessary to give members of the current group a decision taking competence which is in agreement with their responsibilities. Furthermore, it is advisable to tap into the Professional expertise these employees typically have by giving them a rather far reaching operational decision power. That way a significant part of the mentioned imbalance between responsibility and decision taking competency should be taken care of.

Therefore, on the *operational level* the organisation should be relatively close to that proposed in the context of *Complexity Theory*. Consequently, the entities led by the respective Operational Manager should be relatively independent from other entities on that same operational level.

Strategically though, the organisation would be a lot closer to that proposed by *Fayol* (1984; see also section 3.1.1.1) as a relatively clearly structured administration is preferred by the members of the Operational Management.

These two aspects are well in line with the results of the preceding section. Members of the Operational Management Culture expect their leaders to keep their distance from day to day business, which they consider to be their area of competency.

On the other hand they explicitly expect their leader to give clear guidance and to be responsible for strategic decisions. That clearly shows a preference for a more hierarchical solution.

Therefore, the organisational design should be as follows:

Operationally, full responsibility and decision taking power should be with the Operational Managers. They need to have the ability to actually take decisions. Having provided the Operational Managers with the tools to achieve the given goals, it is then possible to give full responsibility for operational decisions to them.

Strategically though the organisation needs to be as such that the direct superior is present and responsible for decisions taken on that level. It is absolutely crucial that the Operational Manager does not have the feeling of being let alone by the direct superior.

Those decisions finally, that are neither clearly operational nor clearly strategic, should be taken in *a joint approach* by the Operational Managers and their superiors.

Therefore, the organisation needs to be relatively *flexible* to cope with various demands. Depending on the nature of the decision, it may be totally in line with the organisation design according to *Complexity Theory*, but it may also be very close to the organisation design according to the *Administrative Approach*. Between these two extremes, it may be possible to find situations in which the organisation design has to provide the means for a joint and *Participative* decision taking between superior and Operational Manager.

Hence, the organisation design is extremely important in the current setting. Especially the differentiation between strategic and operational design and the resulting decision competency is of the utmost importance for an efficient organisation. Failure to do so will be at the source of constant problems and conflicts about competences and responsibilities.

Opting for the concentration of the decision taking power either in the hands of the Operational Management or the next higher hierarchical echelon can not be the solution to the above given problem. This is due to the fact that the members of the Operational Management Culture will either feel left alone if they have to bear the responsibility and competency for practically all decisions taken or they will feel like their Professional expertise is not appropriately valued if they are excluded from the decision taking process.

Therefore, according to the results of the empirical survey only the above given solution appears to be feasible. Although the clear definition of strategic and operational will be rather complicated it is still the most promising approach to the efficient integration of the members of the Operational Management Culture into the organisation.

Furthermore, this organisation design will have to be *closely tracked* in order to make sure it evolves over time with altering demands.

If these potential problems are being taken care of though, in the form of a clear and appropriate distribution of competencies and the constant tracking of that appropriate distribution, the proposed organisational structure is the most appropriate organisation for the members of the Operational Management Culture according to the results of the current study.

7.5.2.3 Summary of the Possible Solution

The proposed solution is rather demanding on both the leadership level and the organisation design level.

On the leadership level the most demanding part is for a leader to be able to exhibit a number of completely different leadership styles according to the prevailing situation. As shown a large variety of leadership styles is required from very *Team-Oriented*, via *Participative* to significantly *Hierarchy Based.*

The leader faces *two challenges* with this demand.

The *first* is the correct *interpretation* of the situation to decide which kind of leadership style may be required.

The *second* challenge is to be able to appropriately *live* all these different leadership styles.

Therefore, as far as leadership is concerned the present *Professional Culture* is one of the *most demanding* Cultures present in this study.

Concerning the organisational level the challenge is to create an organisation which is *flexible* enough to cater for both the need for a rather hierarchy based organisation and the need for a rather team and autonomy based organisation.

The challenge here is to create an organisational framework which gives the leaders the possibility to actively choose the *situation adequate organisational background* in accordance with the *situation adequate leadership style* at their discretion. This aspect shows once more the *extreme importance* competent leadership has for the Operational Management Culture. Nevertheless, the appropriate organisation design is highly important as a non-supportive or even worse counterproductive organisation design renders it even for the most competent leader impossible to fulfil the demands of the current Culture.

In summary, it can be stated that due to the highly diverse requirement as far as leadership style and organisation design are concerned the Operational Management Culture is among the most demanding ones present in the current sample.

7.5.3 Global Assessment of the Results for Cluster 11

The results for Cluster eleven show a Culture that exhibits a significant number of different characteristics at the same time.

The rather concurring nature of these different characteristics renders the current Culture *extremely interesting* to study, but also *extremely difficult* to organise and lead.

These different characteristics are a reflection of the relative position members of the Operational Management Culture have in their Professional environment.

They are located exactly at an intermediate level between a predominantly executing and a predominantly ordering function in their respective organisations. Therefore, to cater for the varying demands that come along with this intermediate position, members of the Operational Management Culture consequently require varying organisational and leadership approaches.

The efforts though required to match the needs of this Culture, should be undertaken by all companies concerned. This is due to the fact that the performance of the Operational Management potentially makes the difference between a smoothly and efficiently running organisation and one that is largely struggling with itself.

Therefore, *any effort* necessary to enhance the performance of the current Culture should be undertaken.

In summary, it can be stated at this point that the Operational Management Culture demonstrates once again that a universal leadership and organisation approach for all members of an organisation leads to a less than optimum performance of the organisation. As this is a *clear waste* of valuable resources any organisation should strive to avoid this situation and take the varying demands of the varying *Professional Cultures* into consideration.

7.6 Cluster 12: The Strategic Management

Cluster twelve unites those employees who are responsible for Strategic Management. A different term for this Cluster could have been "Executive or Top Management".

The term *Strategic Management* though is more descriptive to show what members of this group actually do and was therefore favoured.

Strategic Management as it is understood here means that members of this Culture have the possibility to actually decide in which direction the organisation is to go. Their influence therefore is so significant that their performance has direct consequences for the future of the concerned organisation.

Typical occupations found in this Cluster are therefore, directors of subsidiaries, leaders of whole divisions, or CEOs.

Due to their place in the respective organisations, the results described for this Cluster get a somewhat different meaning in comparison to the other groups in this sample. This is a result of the fact that to a certain extent this group can actually *make its work environment* the way it wants to have it. This important aspect will be investigated further in later sections.

7.6.1 The Empirical Survey

The results of this part are again based on both methodological approaches of the survey. Only with the simultaneous use of quantitative and qualitative elements was it possible to gain actually meaningful results.

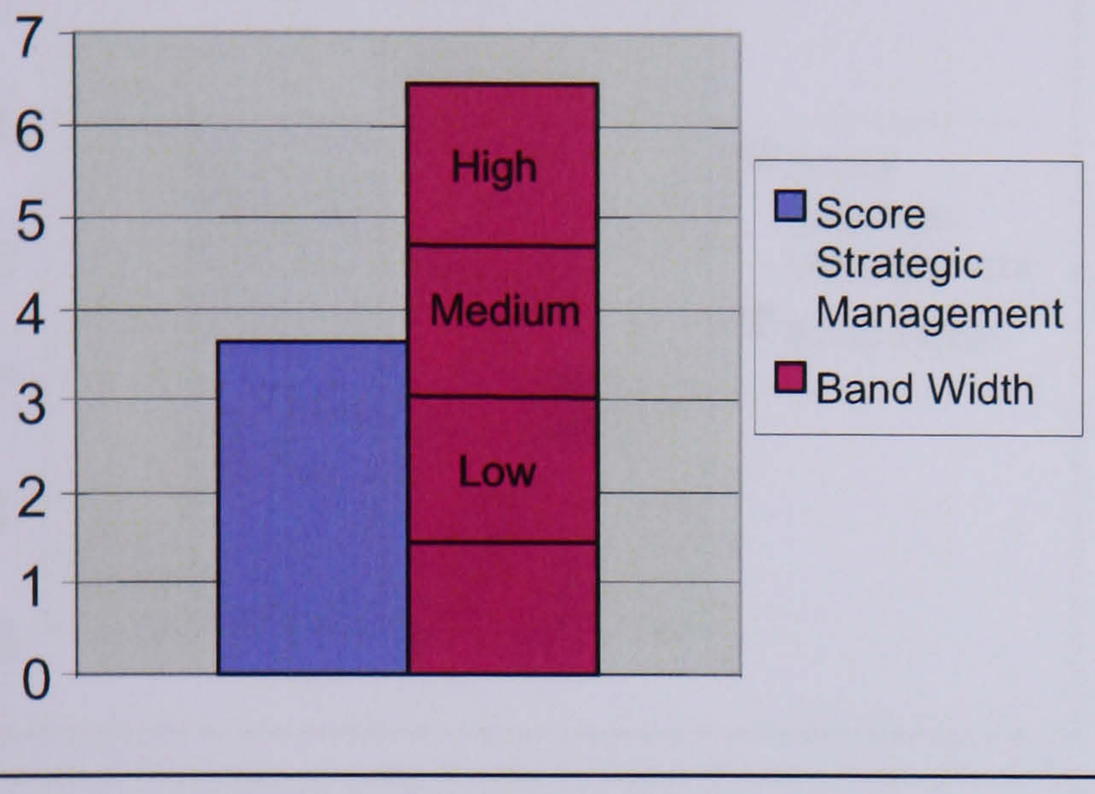
The *quantitative* part is based on responses from 20 individuals originating from various countries and organisational backgrounds. Once more the actual *composition* in reality of the underlying population for this sample finds its *reflection* in the gender related composition of the present sample as it exhibits a male majority. The needed heterogeneity of the sample in order to avoid any unwanted biasing influence therefore, can be considered to be achieved.

The *qualitative* part, as always, is based on seven respondents from the above mentioned companies.

Initially we will have a closer look at the quantitative results and then at the qualitative before a complete picture of this final Cluster is going to be given.

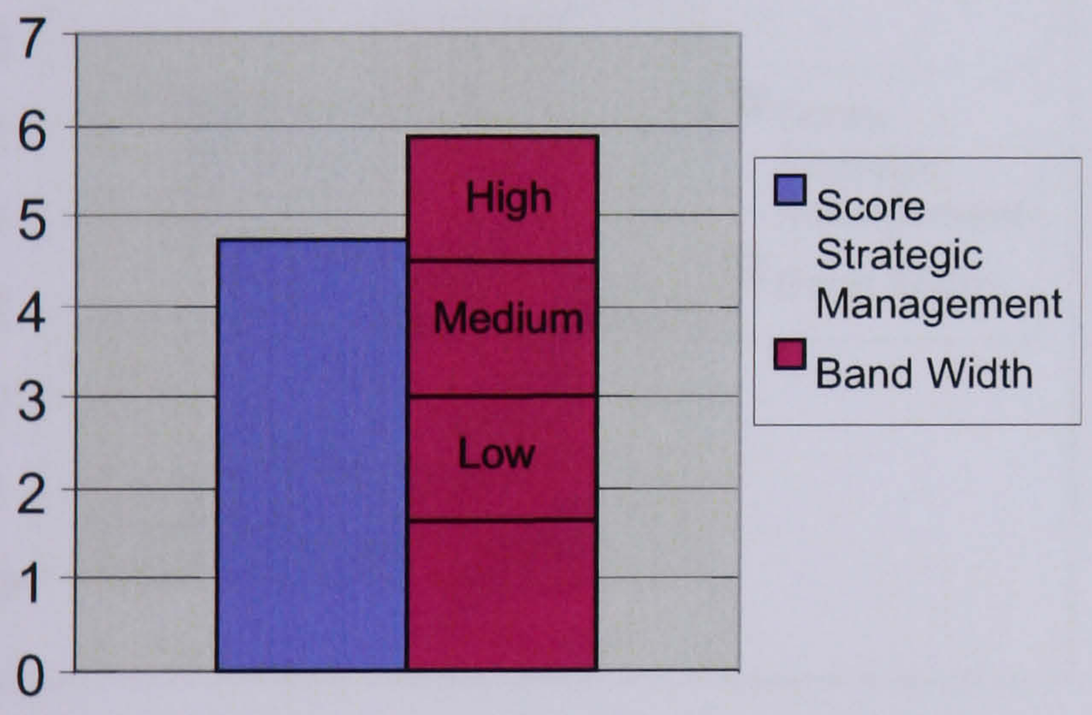
7.6.1.1 The Results of the Quantitative Part

Figure 133: Uncertainty Avoidance



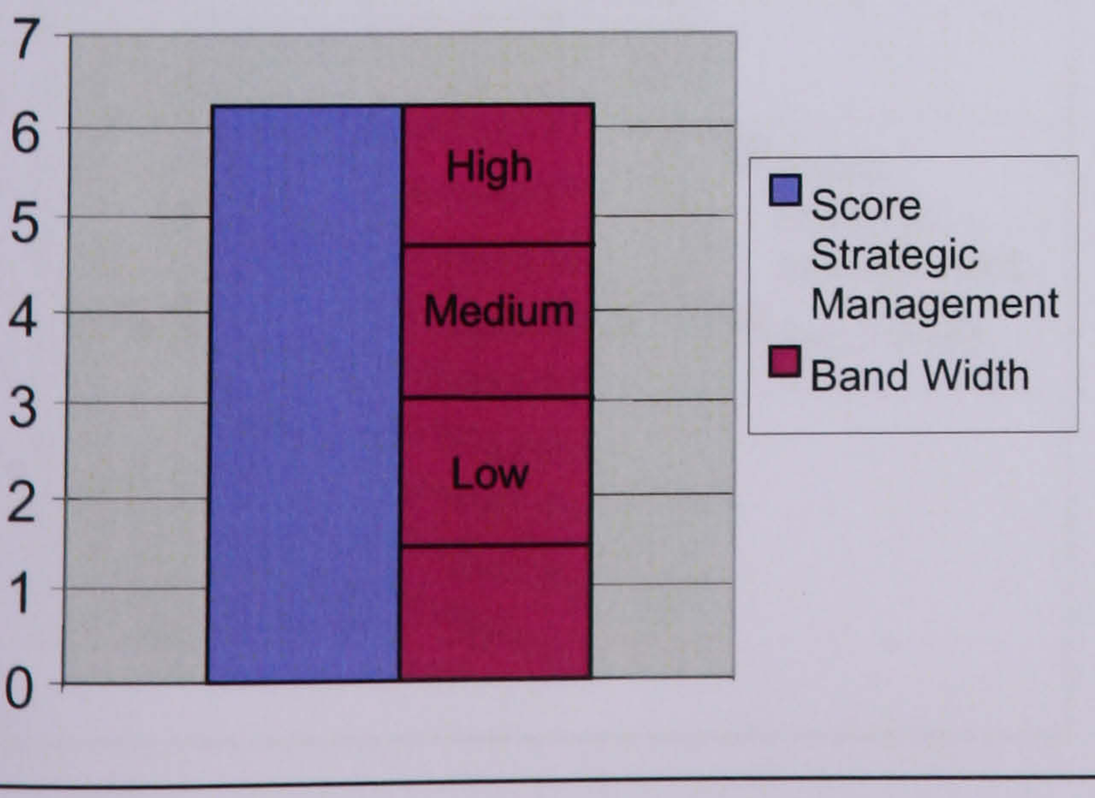
Uncertainty Avoidance is valued neutrally (3.63). This result is a consequence of two opposing influences. The first is the obvious need for members of this Cluster to be open for new solutions in order to keep the organisation competitive which necessarily leads to a rather low esteem of the values expressed by the Uncertainty Avoidance Dimension. This factor though, is moderated by the high responsibility members of this Cluster have, which prevents them from scoring low on the Uncertainty Avoidance scale.

Figure 134: Assertiveness



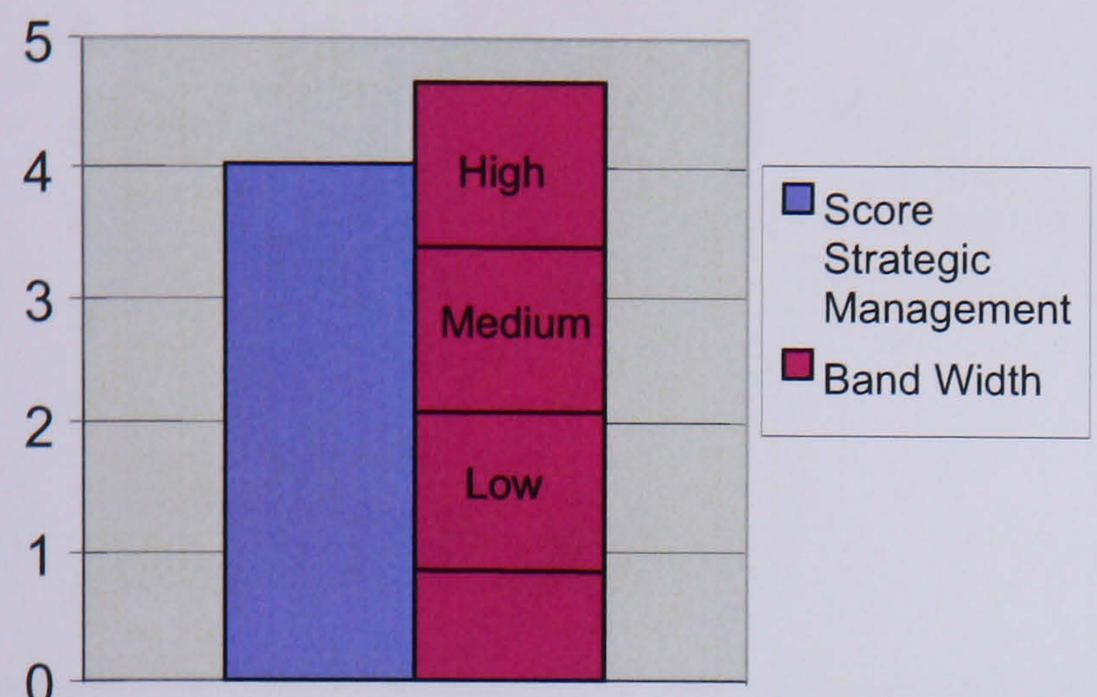
Assertiveness is considered to be moderately positive (4.73). This score is to be seen in connection with the need for members of this group to sometimes take decisions against opposition and to push these decisions through.

Figure 135: Future Orientation



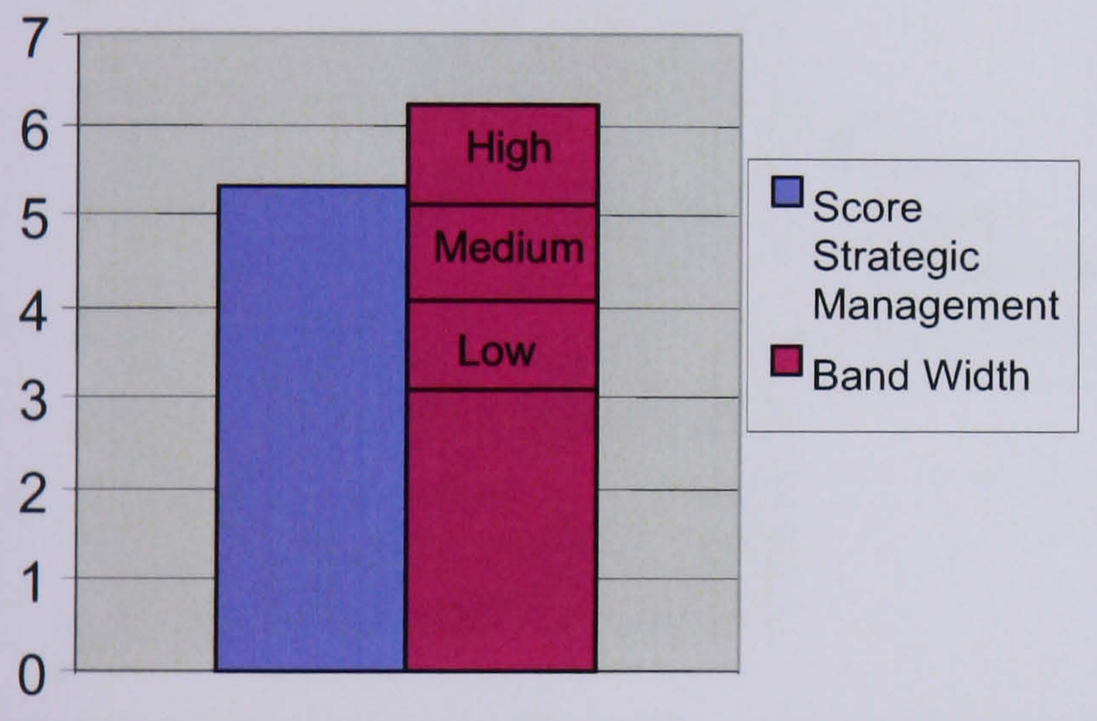
The **Future Orientation** Dimension gets the *highest* rating out of all Cultural Clusters from the Strategic Management Culture (6.23). The obvious need to constantly take long term decisions in order to assure the future of the organisation leads to this rating.

Figure 136: Power Distance



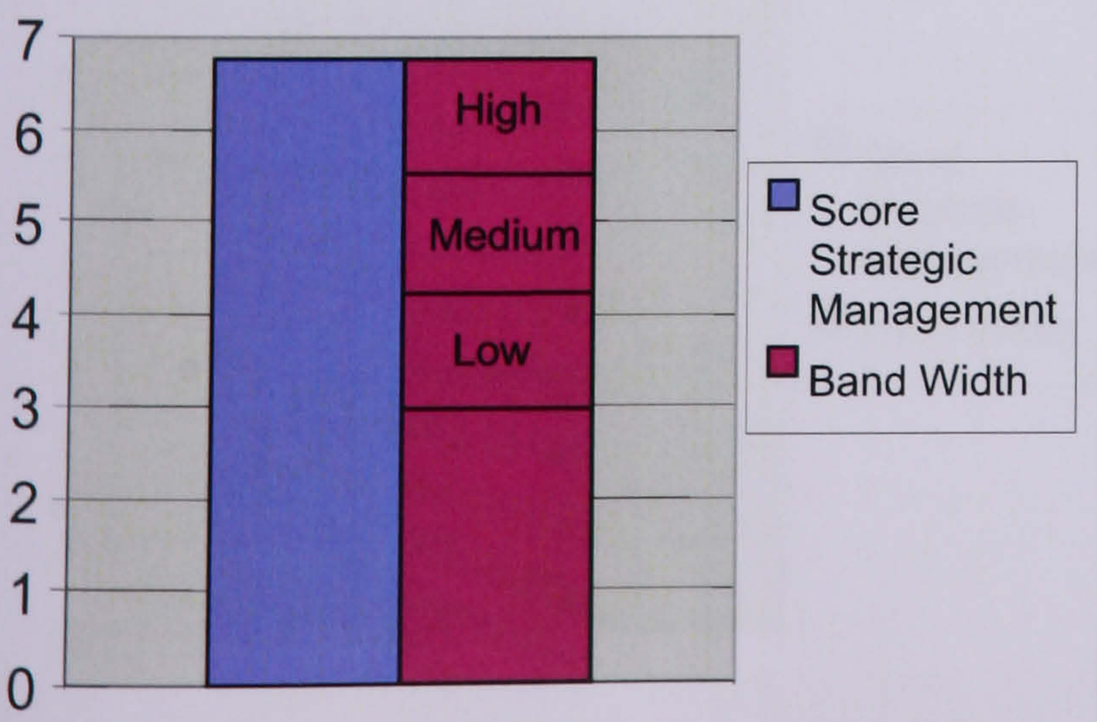
The values expressed with the **Power Distance** Dimension are considered to be positive (4.02). This result has to be seen in connection with the already stated need to sometimes be Assertive and take decisive action against possible opposition. This obviously leads to a positive view of the values expressed by the Power Distance Dimension.

Figure 137: Collectivism I



A similar logic is the reason for the score of the **Collectivism I** scale which is rated only moderately positive (5.3). Two influencing factors can be stated here. The first one is the already stated necessity to take decisions and to sometimes take them alone which leads to a rather negative view of the Collectivism I Dimension.
Nevertheless, this view is compensated by the understanding that to be truly successful in the current environment a functioning team is a prerequisite. These different aspects will be further investigated later in this chapter.

Figure 138: Performance Orientation



The **Performance Orientation** Dimension gets the *highest* rating out of all Cultural Clusters (6.75). Obviously the need for the members of this group to perform in an outstanding manner in their respective organisations leads to this result.

Figure 139: Gender Egalitarianism

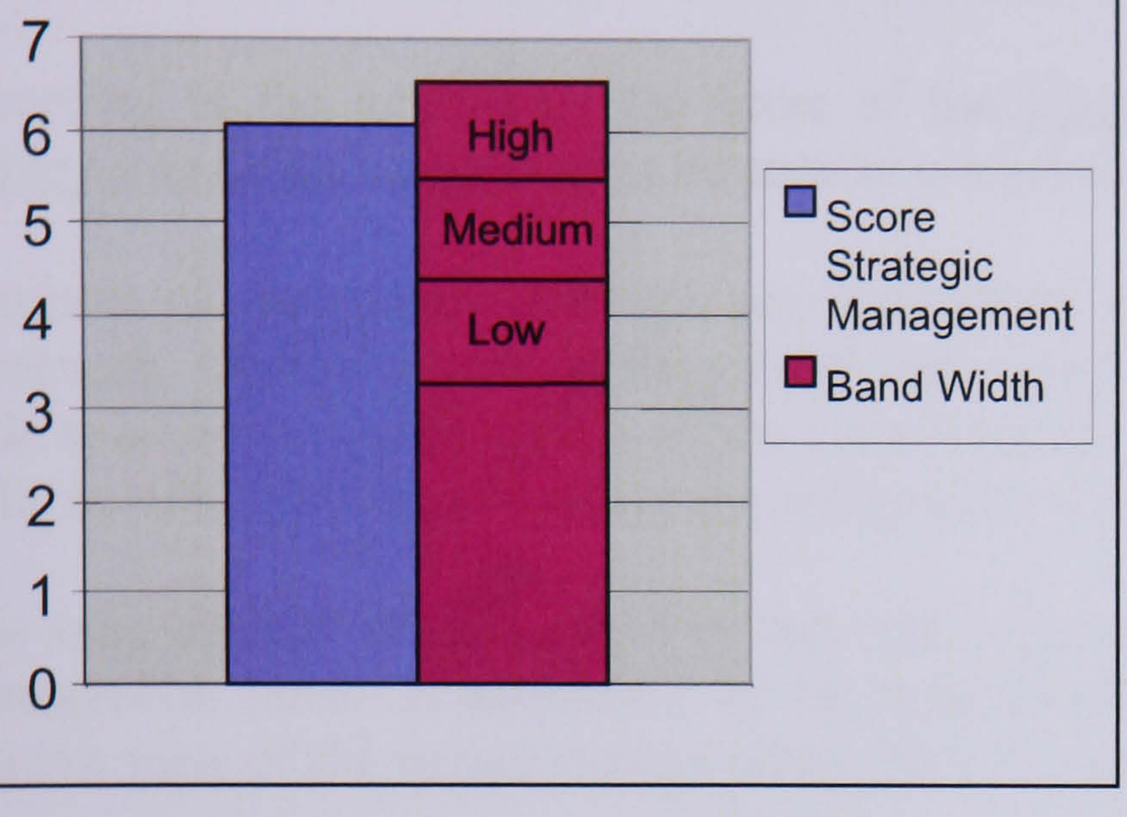
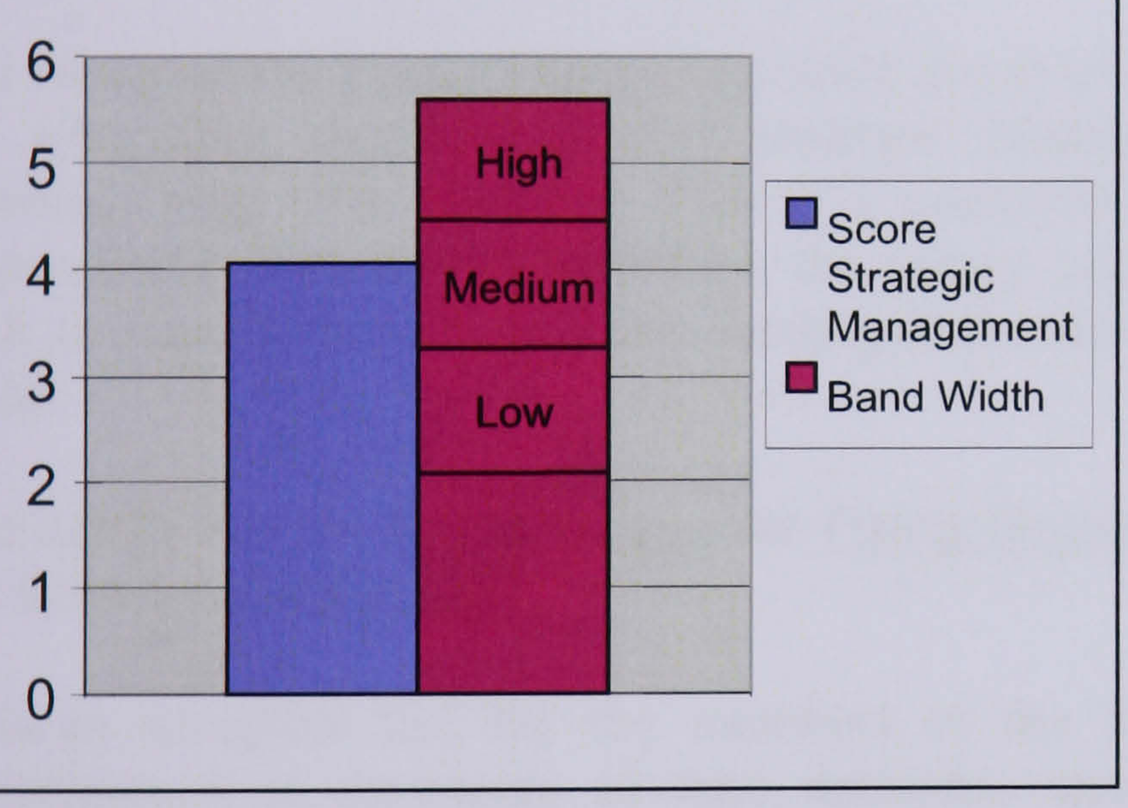
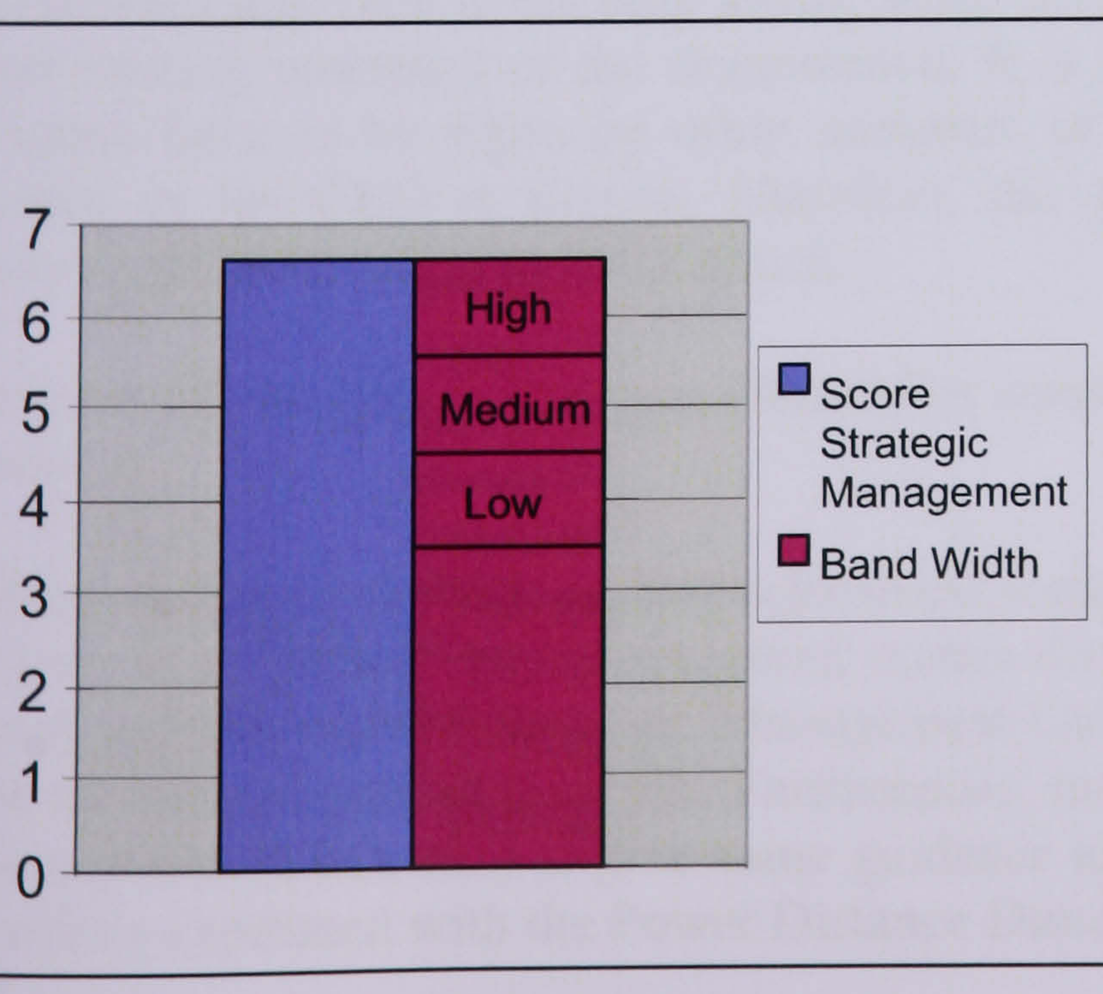


Figure 140: Human Orientation





Gender Egalitarianism is viewed positively (6.05). This rating can be traced back to the understanding that *true* success requires the optimum use of *all* available resources in an organisation. It is clear that such a view is not compatible with any kind of judgement due to a person's gender. On the other hand this fact is seen to be so obvious by this group that the rating itself does not truly reflect the actual feeling of the members of the Strategic Management. This aspect will be further detailed in the following as a number of interesting connections can be drawn to other Dimension, in particular the Performance Orientation Dimension.

Human Orientation is valued neutrally (4.07). Apparently the high emphasise of performance does not leave too much room for an orientation which would lead to a higher score in this Dimension. A number of further details concerning this explanation will be given later in this chapter.

The **Collectivism II** Dimension finally, gets the *highest* rating out of all Clusters (6.6). Members of this group are apparently very proud on what they do and they feel an extreme loyalty towards their *Professional Cluster*. Considering the relative position members of this group have in any organisation this result is hardly surprising.

7.6.1.2 The Results of the Qualitative Part

According to the interviews the score of the Uncertainty Avoidance and that of the Future Orientation scale have to be seen in connection.

Members of the current Culture see themselves to be subject to two counteracting influences. On the one hand they need and want to be open for new solutions. That leads to a rather negative view of the values expressed with the Uncertainty Avoidance scale, as new solutions usually come along with Uncertainty and instability.

This view though is moderated by the high responsibilities members of the Strategic Management have, as according to the interviewees that aspect leads to a somewhat positive view of the values expressed by the Uncertainty Avoidance scale.

These two counteracting factors *virtually neutralise* each other, leading to a neutral rating of the Uncertainty Avoidance scale.

The rating of the Future Orientation scale is connected to the above said. According to the interviews members of the Strategic Management Culture clearly appreciate thorough long term planning. This is a consequence of the already mentioned high responsibility they have. Therefore, the values expressed with the Future Orientation scale are seen to be very positive, leading to the shown outstandingly high rating of that scale.

The results for the Assertiveness, the Power Distance and for the Collectivism I scale are interconnected as well.

It is an accepted fact for the members of the Strategic Management Culture that sometimes it is necessary to take decisions against opposition. According to the interviewees this view is not only shared when it comes to pushing decisions through to lower ranking members of the organisation. It is also accepted in situations in which decisions have to be taken by other members of the organisation, e.g. a joint board decision or the CEO in person. Therefore, the Assertiveness Dimension received a relatively positive rating in this Culture.

The score of the Power Distance Dimension needs to be seen in connection with that reasoning.

Pushing decisions through against opposition sometimes requires the use of force. Use of force in a Professional environment comes down to the use of power. As already shown, members of the Strategic Management Culture consider that kind of behaviour to be an integral part of their job. Furthermore, members of the current Culture expect their superior (CEO, etc.) to give some guidance and "reason why" to them. Therefore, the values expressed with the Power Distance Dimension are seen to be positive.

Finally, the results of the Collectivism I scale have to be considered in connection with the above described two Dimensions. In principal team work is seen to be very positive by the members of the Strategic Management Culture. Due to the fact though that sometimes it is necessary to take swift and decisive action, a *sole reliance* on team work is viewed to be *counterproductive*. Therefore, the values expressed with the Collectivism I scale are seen to be moderately positive only.

The score of the Performance Orientation, the Gender Egalitarianism and the Human Orientation Dimensions build another group that has to be considered jointly.

Performance Orientation scores the highest out of all *Professional Cultures*. This is clearly confirmed by the statements of the interviews in which the need to perform outstandingly is mentioned at various occasions.

This already very strong statement though is supported by the results of the Gender Egalitarianism and the Human Orientation scale.

According to the interviewees Gender Based prejudices are so *obsolete* that there is no acceptance for such an attitude. Furthermore, the need to fully use all available resources in order to achieve the best possible outcome to a given problem clearly prohibits any gender based discrimination. This clearly goes along with the above given extreme Performance Orientation.

Human Orientation is not a priority for the members of the Strategic Management Culture. The reasoning for that given in the interviews is once again the prevailing Performance Orientation. Values such as warmth and tenderness apparently have no room in such an environment. They are neither seen to be positive, nor negative, but simply without any special meaning. Therefore, the Human Orientation Dimension rated only neutrally.

Following the interviewees, the extremely high score of the Collectivism II scale is a reflection of the view members of the Strategic Management Culture have about themselves. As they see it, it is them who constitute the key group for the success of their companies. Furthermore, they are very proud on what they and their fellow group members do. This in turn obviously leads not only to feelings of pride, but also to group loyalty, which is another contributing factor to that score of the Collectivism II scale.

7.6.1.3 Summarising Illustration of the Empirical Results

Technically the empirical results are of a highly satisfying nature for the present Cluster.

The results themselves show a quite interesting set of characteristics for the present Culture. Especially the high Performance Orientation and the relatively important role *Assertiveness* and *Power* play are very important aspects for the members of the current Culture.

In particular these two aspects need special attention in order to successfully integrate the members of the present Culture into their respective organisations. Considering the relative positions these individuals have, this is a goal of the *utmost* importance for every company.

In summary, it may be retained, however, that the results for the current Cluster are probably less surprising than those for some other *Professional Cultures* depicted in the current study.

7.6.2 An Integrative Solution to the Found Characteristics

In the following, an appropriate leadership and organisation solution will be proposed.

Obviously, one may argue about the purpose of such an undertaking, as the members of the Strategic Management Culture are placed in positions in which it appears as if there were no more need for leading them.

Nevertheless, even at the executive board level, appropriate leadership and organisational structures are needed to successfully integrate this very important group into the organisation. Furthermore, even at that level it is not always possible for the members of the Strategic Management Culture to create their own leadership and organisational approach as e.g. this may be imposed by some higher ranking authority. A typical example for that is the board of a subsidiary.

Therefore, even at such high levels of organisational echelons, it makes sense to have a clear idea about an appropriate leadership and organisation approach for the successful integration of the members of the present Culture into their respective companies.

7.6.2.1 The Appropriate Leadership Style

Considering the quantitative and the qualitative results simultaneously with reference to *House, et al.* (2004), an appropriate leadership style for the current Culture is based on the *Charismatic/Value-Based Leadership Style* (e.g. Bass, 1985, Burns 1978; House, et al., 2004; see also section 2.2.3), which is supported by elements of the *Team-Oriented* (e.g. Manz/Sims, 2001; House, et al., 2004; see also section 2.2.2) and the *Participative Leadership Style* (e.g. Lewin, 1948; Tannenbaum/Schmidt, 1958; House, et al., 2004; see also section 2.1.1).

Three out of four Core Cultural Dimensions relevant for the *Charismatic/Value-Based Leadership Style* point to it being part of the retained solution. This is strengthened by the fact that these three Dimensions show the highest score out of all *Professional Cultures* in absolute terms. Furthermore, the need for guidance and "reason why", even at the current relative position within the organisation, was expressed more than once in the course of the open interviews. Therefore, *Charismatic/Value-Based Leadership* is the *core* of the proposed solution.

Three out of the five Core Cultural Dimensions relevant for the *Team-Oriented Leadership Style* point towards this leadership style being favourable for the current Culture, whereas two are in the neutral area. This is again strengthened by the fact that these three Dimensions score the highest out of all *Professional Cultures* in absolute terms. Therefore, *Team-Orientation* plays a supportive but nevertheless very important role within the proposed solution.

Two out of the four relevant Core Cultural Dimensions are in favour of *Participative Leadership*, whereas one is in the neutral area and one in the negative area. Nevertheless, *Participative Leadership* needs to have a supportive role in the current context, as members of Strategic Management clearly expect to be heard when decisions are taken. Therefore, *Participative Leadership* will be part of the proposed solution.

Although *Human-Oriented* and *Self-Protective Leadership* would have to be included in the final solution on the basis of the quantitative part of the survey, these two leadership styles were discarded. This decision was taken after due consideration of the results of the qualitative part, which gave a number of strong indications as to these leadership styles not being part of an appropriate solution.

Hence, an appropriate leadership style for the Strategic Management Culture would look like the following:

The leader develops a *Vision* which is clearly inspiring and which gives higher meaning to the tasks carried out by the members of the current Culture. It is important that each and every individual feels to be of significant importance for the achievement of this *Vision*. The leaders have to be decisive when implementing the *Vision* and have to show integrity in their day to day actions.

When it comes to the implementation, though, this decisiveness must not be overdone, as the actual implementation has to include *Team-Oriented* and *Participative* elements. Members of the current Culture explicitly expect to be integrated into decisions.

Therefore, the actual implementation process should be done in an atmosphere of team work as proposed e.g. by *Manz/Sims* (2001; see also section 2.2.2). Here it is important that the leaders pick up the roles proposed in that approach which are that of a *coach*, a *referee* and an *entertainer*. Therefore, they have to explain, decide and sell their *Vision* to the members of the current Culture.

Furthermore, if e.g. concerns are expressed about the way of the actual implementation, or well founded objections exist, it is imperative to hear and take into consideration the opinion of the members of the Strategic Management Culture. These are the above mentioned participative elements which have to be included into the appropriate solution proposed here.

Hence, in summary, the leaders have to develop a captivating *Vision* which they implement for both the development of the initial *Vision* and its actual implementation by means of a clearly *Team-Oriented* approach and with the help of *Participative* elements.

7.6.2.2 The Appropriate Organisational Structure

The appropriate organisational structure has to be supportive of the above proposed solution.

In the current context, this means that despite the strong emphasis on *Visionary* leadership it is advisable to implement a strongly *Team-Oriented* organisational structure. It is important that the Strategic Management feels and acts like a team. That can best be achieved with an approach in the logic of *Complexity Theory* (Stacey, et al., 2000; Lewin/Regine, 2000; see also section 3.2.2).

The most significant factor is that despite the importance of the charismatic leader the organisation must not be based on a hierarchical solution. The task of the leader in this setting is, as mentioned by *Lewin/Regine* (2000), to be *allowing*, *accessible* and *attuned.* Therefore, it is advisable to create an organisation which clearly supports those roles.

Hence, hierarchical elements should cater for *highly exceptional* cases only. In general, an extremely flat to non-existing hierarchy should prevail. The superiority of this approach becomes clear when considering the empirical results shown above. By implementing a strictly *Team-Oriented* approach following *Complexity Theory* it is possible to satisfy simultaneously the Strategic Management's need for team orientation and participation.

But if in addition the leaders are able to successfully communicate their *Vision,* all requirements of the members of the current Culture share can be matched.

Therefore, the organisational solution for the Strategic Management Culture is rather simple and straightforward.

The appropriate solution is a predominantly *Team-Oriented* approach with virtually no hierarchical elements. The leaders' role in this organisation design is primarily that of a team member. Hence, the organisational design needs to be such that it clearly favours a *Team-Oriented* behaviour in particular of the respective leaders. This means that every team member has a very strong position within the team. Nevertheless, the organisation has to give the leaders the possibility to actually take decisions on their own if necessary due to some situational demands such as lack of intra-group agreement etc.

Consequently, the leadership position within this kind of organisation should only be *moderately* equipped with means of power, so that the leader is not tempted to pursue arbitrarily a solution based on the use of power.

In summary, it can be said that the appropriate organisational solution is very close to that proposed in the context of *Complexity Theory*. The main aspect to be kept in mind is the strong need of the current Culture for *Team-Orientation* and *Participation* in the various decision taking processes of the respective organisations.

7.6.2.3 Summary of the Possible Solution

The solution proposed in this section is focused significantly on *Team-Oriented* elements.

Despite the fact that the appropriate leadership style is based on *Charismatic/Value-Based Leadership*, *Team-Oriented* elements play a *key* role for the successful integration of the members of the Strategic Management Culture into their respective organisations.

Concerning the organisational solution, it is remarkable how close this solution is to the approach presented in the context of *Complexity Theory*.

The main aspect for this Culture is the necessity to *give each member* a voice within the actual decision finding and decision taking process. If at the same time it is possible to formulate a compelling *Vision*, a true activation of the potential of the Strategic Management will be possible.

Despite the relatively high demands the mixture between *Charismatic/Value-Based Leadership* on the one hand and *Team-Oriented* and *Participative Leadership* on the other puts on the leader, the implementation of the above mentioned approach should be attempted.

This is due to the *key importance* members of the current Culture have for their respective companies. Therefore, any measure which potentially increases the efficiency of the current group should be undertaken.

In summary, it can be said that the demands on the leader especially on a personal level are relatively high, whereas the proposed solution on the organisational level is relatively straightforward. Therefore, considerable attention has to be paid to the qualification and personal abilities of the leaders in Strategic Management.

7.6.3 Global Assessment of the Results for Cluster 12

The results of this final *Professional Culture* are highly interesting and extremely important, although somewhat less surprising than some of the results of preceding *Cultures* might have been.

One of the most interesting parts of this section is the fact that even at such a high level within the organisation people still *expect* leadership and a congruent organisation within their work environment.

Although the leadership style favoured is relatively cautionary, it is nevertheless expected from a leader to be present and to exhibit clear leadership if necessary. Even at the current level a *heterarchy* apparently is not overly appreciated.

Hence, it can be stated at this point that on *all* hierarchical levels and for *all Professional Cultures* present in the current survey, leadership and organisation are of *significant importance*. Furthermore, the kind of leadership and organisation varies within the different Cultures, as well as the balance between leadership and organisation.

In summary, the results of the Strategic Management Culture are highly interesting and reflect the relative position that members of this Culture have in their respective companies.

7.7 *An Integrative Approach for a Number of Common Cross-Cultural Encounters*

In this section, a selection of possible solutions for situations in which a number of Cultures have to work together in order to carry out a specific task will be presented.

The following list *does not* claim to be *exhaustive* as not all possible multi-cultural encounters can be treated at this point.

It is to be understood primarily as a *guideline* to how the different results of the current work can be combined in order to lead and organise a number of Cultures successfully at the same time.

Furthermore, it obviously gives a direct solution to a number of rather likely Cross-Cultural encounters in Professional life.

7.7.1 The Specially Qualified Production Experts and the Information Technology Experts

These two *Professional Cultures* (section 6.5 and section 6.3 respectively) have a number of similar views as to the way they expect their *leadership relationship* to be structured.

For both groups a *Charismatic/Value-Based* (e.g. Bass, 1985; Burns, 1978; House, et al., 2004; see also section 2.2.3) and a *Team-Oriented Leadership* approach (e.g. Manz/Sims, 2001; House, et al., 2004; see also section 2.2.2) are highly important.

This means that in case these two *Professional Cultures* have to work together, they would be very responsive to a *Team-Oriented Leadership Style*, which would be strongly supported by a convincing *Vision* emphasising the importance of succeeding in the task which is carried out by this bi-cultural group.

Taking into account the importance *Participative* (e.g. Lewin 1948; Tannenbaum/Schmidt, 1958; House, et al., 2004; see also section 2.1.1) and *Human-Oriented Leadership* (e.g. Gagné/Fleishman, 1959; Fleishman/Quaintance, 1984; Blake/Mouton, 1985; House, et al., 2004; see also section 2.1.2) have for the Specially Qualified Production Experts and the Information Technology Experts respectively, it is advisable to integrate these two leadership styles into the final solution, too.

Theoretically this can be achieved in a rather simple manner, as neither the Production Experts Culture has a negative view of *Human-Oriented Leadership*, nor the IT-Experts Culture a negative view of *Participative Leadership*. Therefore, it would be possible for a leader to join both approaches into a considerate, listening, warm and helpful leadership style.

In practice this combination may be a little bit more difficult to achieve, however. This is due to the fact that it is rather demanding for a leader to exhibit traits of *Charismatic/Value-Based*, *Team-Oriented*, *Participative* and *Human-Oriented Leadership* at the same time.

Nevertheless, in order to successfully lead a work team with the current composition it is advisable for the leader to strive to be as close as possible to the following leadership style:

The leaders develop a clear and compelling *Vision*. They have to live that *Vision* and have to lead by example. Furthermore, they need to use *Team-Oriented Leadership* in the sense of *Manz/Sims* (2001) for the actual *implementation* of the *Vision*. Finally, it is highly important that the leaders are available as a person if and when they are needed. The need for the leader as a person arises when there is either a need for *Participation* and/or *Human-Orientation* as described at various occasions throughout this work.

If a leader actually manages to combine and employ appropriately all these different leadership styles jointly, a superior leadership style would be achieved for the current combination of *Professional Cultures*. Despite the difficulties mentioned in actually living this combination, it is nevertheless highly beneficial for an organisation to have such a leader available if there is a need for the Specially Qualified Production Experts and the Information Technology Experts to work together.

Concerning the appropriate *organisation design*, an appropriate solution is rather simple to develop, as both Cultures rely on *Complexity Theory* (Stacey, et al., 2000; see also section 3.2.2) as the base for their appropriate organisation design.
Therefore, it is advisable to structure the organisation very much in line with that proposed by *Lewin/Regine* (2000; see also section 3.2.2), as this kind of organisation clearly supports the above developed appropriate leadership style.

It is of *crucial importance* to create an organisation which actually permits self governance of the work team and which gives the members of this work team the freedom to truly work together on the success of their respective tasks without outside interference. At the same time though it is *not advisable* to aim for a heterarchy as this is in clear opposition to the need for guidance expressed by both *Professional Cultures*. They still do expect their leader to be present and intervening if necessary e.g. if there is an external challenge with which the team can not deal directly, or a persistent lack of agreement within the team as to how to solve a specific problem.

In summary, it can be stated that the demands on the leaders are very high in the current situation. They have to exhibit outstanding leadership qualities in order to successfully lead these two *Professional Cultures* jointly. The required organisation design is a little more straightforward, but its implementation may still represent a challenge in classical organisations. Nevertheless, it is advisable to make this *extra effort*, as on the occasions on which these two Cultures work together, their success is usually of significant importance to the company concerned.

7.7.2 The Specially Qualified Production Experts and Innovation and Development

An appropriate *leadership solution* for a work team composed of Specially Qualified Production Experts (section 6.5) and members of the Innovation and Development Culture (section 7.1) can be relatively straightforward. This is due to the fact that the *differences* between both Cultures predominantly concern *details,* whereas the major aspects as far as leadership is concerned can be joined relatively simply.

As for both *Professional Cultures Charismatic/Value-Based Leadership* (e.g. Bass 1985; Burns, 1978; House, et al., 2004; see also section 2.2.3) represents the base for an appropriate leadership approach, it is necessary to use this leadership style as base for the solution retained for the present work team.

Participative Leadership (e.g. Lewin, 1948; Tannenbaum/Schmidt, 1958; House, et al., 2004; see also section 2.1.1) was another key leadership trait mentioned by both groups. This is due to the extremely high Professional knowledge present in both Cultures. Due to this qualification level, obviously members of both *Professional Cultures* expect to be integrated in the decision taking process. Hence, *Participative Leadership* will be part of the retained leadership solution.

Team-Oriented Leadership (e.g. Manz/Sims, 2001; House et al., 2004; see also section 2.2.2) is a little more problematical. Despite the fact that both groups consider this leadership approach to be important, they do have a slightly *differing* understanding of team work. For the Innovation and Development Culture it is very much understood in the sense outlined by *Manz/Sims* (2001), in which team work shows itself not only in an idea, but very concretely by the way members of this Culture work together. The Specially Qualified Production Experts, on the other hand, see *Team-Orientation* as more of an underlying idea which may also link geographically dispersed entities to behave like one team.
For practical matters though this different understanding is not necessarily problematic. This is due to the fact that even for the Production Experts an affinity towards *Team-Oriented Leadership* can be stated which simply needs to be slightly supported and focused on the respective teams by the respective leader.

The preference for *Human-Oriented Leadership* (e.g. Gagné/Fleishman, 1959; Fleishman/Quaintance, 1984; Blake/Mouton, 1985; House, et al., 2004; see also section 2.1.2) expressed by the members of the Innovation and Development Culture does not represent a major obstacle in the development of a joint leadership solution, as members of the Production Experts Culture have neither positive nor negative feelings about the content of this leadership style. Therefore, integration of *Human-Oriented Leadership* into the retained leadership solution can easily be undertaken.

In summary, an appropriate leadership solution would look like the following:

The leader develops a compelling *Vision* for the team. The implementation is undertaken with the help of a strictly *Team-Oriented* approach. For both the development of the *Vision* and regular day to day business, including the

implementation of that *Vision*, a *Participative* approach should be chosen by the leader. Finally, this approach needs to be rounded off by *Human-Oriented* elements such as warmth and care for the employees to satisfy the expectations of the Innovation and Development members of the team.

As far as an appropriate *organisation design* is concerned, the solution is even more straight forward, as both Professional Cultures rely heavily on the theoretical framework proposed by *Complexity Theory* (Stacey, et al., 2000; see also section 3.2.2).

Therefore, it is advisable to structure the organisation along the lines proposed by *Lewin/Regine* (2000; see also section 3.2.2). It is important to design the organisation in a way which supports the *Team-Orientation* of the people present in the current combination. At the same time, though, it is important that the organisation provides a position to the team leaders which gives them the possibility to actually live the leadership style described above.

This means, in particular, that there is still the need for a leader to be present and to be able to actually take decisions if necessary. In that context, the implementation of a heterarchy, even if it were possible, would constitute a serious flaw in the organisation design for the current setting.

Therefore, an appropriate organisation design would look like the following in the current setting.

Members of both Cultures should be put into teams, in which they have to work together in order to be successful in the completion of their task. The teams themselves should be able to work as *independently* as possible from the rest of the organisation. That also means that control mechanisms should be kept to a minimum and they should be goal-achievement oriented instead of process oriented. Nevertheless, it is necessary to place at the top of each team a leader who needs to have the power base to actually take decisions if necessary. This power base has to be structured in a way which also permits the leaders to take decisions regarding the whole team without always having to clear their decisions with some other superior before proceeding.

To sum up, it can be said that the current combination is very close in its requirements for an appropriate organisation design to that outlined in section 3.2.2 except for the fact that it is not advisable to even attempt to implement *heterarchy*. This is due to its clear contradiction to the expectations of the two *Professional Cultures* present in the current setting.

Finally, it can be stated that the leadership and organisation design proposed in this section is once again relatively demanding on the leadership level. This is due to the fact that the successful leader in the current environment needs to be able to combine a number of sometimes conflicting leadership styles. In particular, the highly complicated mixture of *Charismatic/Value-Based* on the one hand and *Participative* and *Team-Oriented Leadership* on the other is very demanding on the character of the leader.
As far as the organisational design is concerned, this is somewhat easier to implement, but nevertheless can pose a major challenge for more traditional organisations.

7.7.3 The Specially Qualified Production Experts and the Service Providers

For the current setting, the *leadership solution* is relatively simple to establish, as for both *Professional Cultures* (see sections 6.5 and 7.2 respectively for details) it is based on the *same* components only with differing emphasis on the different components.

Whereas *Charismatic/Value-Based Leadership* (e.g. Bass 1985; Burns, 1978; House, et al., 2004; see also section 2.2.3) is a key component for members of the Specially Qualified Production Experts, it only represents an extra for the Service Providers. Nevertheless, both Cultures having a positive view of this leadership style renders it part of the retained leadership solution.

Team-Oriented Leadership (e.g. Manz/Sims, 2001; House, et al., 2004; see also section 2.2.2) is highly important for both Cultures. As mentioned previously members of the Production Experts Culture understand *Team-Orientation* in a somewhat unconventional way. As already stated though, this understanding does not hamper them to integrate into a true team if the task asks for it. Therefore, *Team-Orientation* in the sense of *Manz/Sims* (2001) will be retained for the leadership solution of the present setting.

Participative Leadership (e.g. Lewin, 1948; Tannenbaum/Schmidt, 1958; House, et al., 2004; see also section 2.1.1) finally, represents the most important aspect in the leadership relationship for the Service Providers Culture. As it is also part of the appropriate leadership style for the Production Experts as outlined in section 6.5, it will be retained for the current setting as well.

Therefore, an appropriate leadership solution for the current setting would look like the following.

The leader develops a *Vision around the task* of the group. This is particularly important as on the one hand members of the Production Experts expect *Charismatic/Value-Based Leadership* to be part of "their" leadership. On the other this *Vision* has to be relatively close to the actual task at hand in order to appropriately reach the Service Providers.

Participative elements have to be included in both the development and implementation of the *Vision* and the regular day to day business in order to cater for the demands of both *Professional Cultures*, but in particular that of the Service Providers'.

Finally, *Team-Orientation* is very important in the day to day business to successfully melt these two distinct Cultures into one functioning entity.

In summary, joining these two *Professional Cultures* is relatively easy from a leadership point of view as both share the same key expectations only with a different emphasis when it comes to an appropriate leadership style.

As far as *organisation design* is concerned, *Complexity Theory* (Stacey, et al., 2000; Lewin/Regine, 2000; see also section 3.2.2) is once again the solution of choice. This is due to the fact that both *Professional Cultures* have a preference for an organisation designed according to this theoretical approach.

Both Cultures need independence and freedom to meet their expectations as far as organisation design is concerned. In addition the Service Providers often already have experience with working in Professional settings that are rather close to those proposed by *Complexity Theory* (Lewin/Regine, 2000; see also section 3.2.2 and section 7.2).

As already mentioned at various occasions throughout this work, the Production Experts do *not* see working in teams as a necessary prerequisite for successfully carrying out their tasks. Nevertheless, the stated preference for a *Team-Oriented* approach renders this *Professional Culture* very receptive to them being organised in teams as proposed by *Complexity Theory*.

Therefore, the appropriate organisation design is once again a rather straight forward adaptation of *Complexity Theory*. The important point is that the Service Providers and the Production Experts need to be put into an independently acting entity in which they have the freedom and feel the necessity to actually work together without interference from outside actors.

The importance of achieving this kind of team lies in the fact that when these two *Professional Cultures* work together, usually all the Professional knowledge of *every single* team member is needed. If e.g. a supply team is set up, it is *crucial* that both business and technical knowledge are available at 100% to reach a successful outcome.

Hence, it can be retained that *Complexity Theory* is the most promising approach to successfully organise a team consisting of Production Experts and Service Providers. The only aspect of *Complexity Theory* which should not be introduced is the creation of a true heterarchy as this clearly conflicts with the preferred organisation design of the Production Experts' Culture and does not have any positive co-notation for the Service Providers' Culture. Nevertheless, a rather flat hierarchy as proposed by *Complexity Theory* should be pursued as this caters for the expectations of both *Cultures* concerned.

In summary, it can be said that the retained joint *leadership* and *organisation solutions* are very close to those proposed for each *Professional Culture* individually. Obviously each *Culture* has a different focus of the various details. Nevertheless, both having the same key elements for a successful *leadership and organisation approach* in common is rather helpful for their integration into a joint team.

Finally, *Complexity Theory* proved once again its superiority when it comes to the organisational integration of different *Professional Cultures* into one functioning team.

7.7.4 The Specially Qualified Production Experts and the Operational Management

The appropriate joint *leadership solution* for the Production Experts (see section 6.5) and the Operational Management (see section 7.5) is very close to the isolated solutions for these two *Professional Cultures*. This is due to the fact that both often share a production related technical background. Therefore, differences in the isolated solutions are notable, but do not represent an insurmountable obstacle for the development of a joint solution.

Both *Professional Cultures* base their respective preferred leadership style on *Charismatic/Value-Based Leadership* (e.g. Bass 1985; Burns, 1978, House, et al., 2004; see also section 2.2.3). Both express the need for guidance and reason why, expressed in a compelling *Vision*.

Furthermore, both *Professional Cultures* have a strong preference for *Team-Oriented Leadership* (e.g. Manz/Sims, 2001; House, et al., 2004; see also section 2.2.2) when the task demands for it. Hence, the acceptance of a *Team-Based Approach* for the integration of these two Cultures is assured.

Participative Leadership (e.g. Lewin, 1948; Tannenbaum/Schmidt, 1958; House, et al., 2004; see also section 2.1.1) is viewed very positively by members of both *Professional Cultures*, too. This is mainly due to their Professional expertise and to a lesser degree their perceived importance for the whole organisation. Therefore, *Participative Leadership* needs to be part of the retained solution.

Finally, *Human-Oriented Leadership* (e.g. Gagné/Fleishman, 1959; Fleishman/Quaintance, 1984; Blake/Mouton, 1985; House, et al., 2004; see also section 2.1.2) is considered to be of some significance to the members of the Operational Management. In accordance with the results of section 7.5 this *Professional Culture* mainly expects the *Human-Orientation* of its leaders to show itself in the form of a group protection against external threats and a supportive behaviour of group members if needed. To the members of the Production Experts *Human-Orientation* is of no specific significance, neither positive nor negative. Hence *Human-Oriented Leadership* will be part of the retained solution.

Therefore, an appropriate leadership solution for a team consisting of Specially Qualified Production Experts and Operational Management looks like the following.

The leaders develop a compelling *Vision*, which clearly shows why the successful completion of the tasks the team has to carry out is of such vital importance to the organisation as a whole. They implement the *Vision* with the help of a *Team-Oriented* approach in the sense of *Manz/Sims* (2001). For both, the development of the *Vision* and its day to day implementation and realisation it is highly important that the leaders clearly take into consideration the ideas and suggestions of the team members. Finally they have to make sure, that their people feel protected and supported.

Due to the very similar preferences as far as leadership is concerned, it can be retained at this point that a leader who successfully runs one of these two *Professional Cultures* will most likely be able to successfully run both *Cultures* jointly.

As far as *organisation design* is concerned, matters are somewhat more complicated. This is due to the fact that the Operational Management Culture needs a joint design, consisting of the *Administrative Approach* (Fayol, 1984; see also section 3.1.1.2) and *Complexity Theory* (Stacey, et al., 2000; Lewin/Regine, 2000; see also section 3.2.2).

The main problem in this setting is the need expressed by the members of Operational Management for strategic leadership. This need gives a clear preference for an organisation which is very much in line with that proposed by *Fayol* (1984) for strategic matters, an in-between solution with *Complexity Theory* for matters which are not clearly operational and a *Complexity Theory* based approach for operational matters (for details see section 7.5).

A possible solution to this problem is the implementation of an organisation which is based on *Complexity Theory*, but deviates somewhat from that proposed by *Lewin/Regine* (2000).

This deviation mainly concerns the role of the leaders. They have to be significantly more present and in that aspect more powerful than they would have to be in a purely *Complexity Theory* based organisation. Therefore, for the sake of the members of the Operational Management Culture to a certain degree it is necessary to dilute the solution proposed by *Complexity Theory* without touching its core though.

On the other hand, if the solution proposed in section 7.5 for the Operational Management was to be directly implemented, serious dysfunctionalities would have to be expected as well. This is due to the strong emphasis the Production Experts put on the implementation of an organisation which is congruent with *Complexity Theory*.

Therefore, the role of the leaders is of the utmost importance in the current setting. They have to make sure, that they fulfil the expectations of both groups at the same time, which means that they will have to fill appropriately the manoeuvring room the organisation design gives them.

This design would have to look like the following.

Its base is *Complexity Theory*. Nevertheless, hierarchical elements have to be present in the organisational layout in order to give the members of the Operational Management the required guidance and support. At the same time it is necessary to implement structures which satisfy the expectations of the Production Experts. Therefore, the appropriate balance between the *Administrative Approach* and *Complexity Theory* is of the *utmost* importance.

In the current setting this appropriate balance would be to principally structure the organisation according to *Complexity Theory*. Nonetheless, the position of a powerful leader position has to be implemented into this design, so as to permit the leaders to take decisions if necessary.

In the present setting "if necessary" means that they will mostly restrict the use of this power to *strategic* decisions for which *no team internal solution* can be found. These decisions will have to adequately reflect positions of both *Professional Cultures*. In such situations they may be reasonably sure that acceptance among the Operational Management will be the highest. With this high acceptance of one Culture they may also expect members of the Production Experts to at least partially accept their decision.

In *virtually* all other situations it is advisable that the leaders keep as much as possible out of the way of their team members. The situations in which they will be needed will most likely involve members of the Operational Management Culture. If such assistance is necessary it should be given while keeping in mind the freedom members of the Production Experts Culture expect.

Hence, in summary, it can be retained the following.

The position of the leaders is of the utmost importance in the current setting. They will have to make sure that they always find the right balance between favouring *Complexity Theory* and favouring the *Administrative Approach* while pursuing the leadership style developed above. Finding this balance will probably turn out to be quite demanding, but together with the appropriate leadership style this is *the* key to the successful integration of these two *Professional Cultures*.

7.7.5 Information Technology Experts and Innovation and Development

The Information Technology Experts Culture (for details see section 6.3) and the Innovation and Development Culture (for details see section 7.1) share a number of traits, but also exhibit a number of differences as far as their preferred *leadership style* is concerned.

For instance, both share a high esteem for *Charismatic/Value-Based* (e.g. Bass 1985; Burns, 1978; House, et al., 2004; see also section 2.2.3), *Team-Oriented* (e.g. Manz/Sims, 2001; House, et al., 2004; see also section 2.2.2) and *Human-Oriented Leadership* (e.g. Gagné/Fleishman, 1959; Fleishman/Quaintance, 1984; Blake/Mouton, 1985; House, et al., 2004; see also section 2.1.2). The IT-Experts on the other hand value *Autonomous Leadership* (House, et al., 2004) relatively highly whereas Innovation and Development exhibits a relatively positive view of *Participative Leadership* (e.g. Lewin, 1948; Tannenbaum/Schmidt, 1958; House, et al., 2004; see also section 2.1.1).

In the current setting and in accordance with the empirical results it seems to be advisable to favour the leadership styles which are viewed positively by both *Professional Cultures* simultaneously and to add some elements of the *Participative Leadership Style*. If at all the *Autonomous Leadership Style* should be used, very cautiously only.

An appropriate leadership style would therefore look like the following.

The leaders develop a compelling *Vision* which demonstrates the importance the success of the team has for the whole company. They live the *Vision* and lead their people by example.

The *Vision* itself should be implemented by using a *Team-Oriented* approach. Giving team members the choice to participate in both the development of the *Vision* and its subsequent implementation and realisation is a plus, but no team member should feel forced to do so.

This is due to the fact that the IT-Experts do not express a particularly positive view of *Participative Leadership* which renders it advisable *not to force* them to *participate*. On the other hand members of the Innovation and Development Culture unambiguously expressed their preference for *Participative Leadership* which clearly shows that having the possibility to *participate* without being forced to do so is the best course of action in the current setting.

In addition, the leaders have to make sure that they develop a leadership relationship which permits for a warm, friendly and caring relationship. In order to achieve that *Human-Oriented Leadership* is extremely important and strongly favoured by both *Professional Cultures*.

In summary, it can be retained at this point that the appropriate *leadership style* for the current combination is once again rather demanding.

As it has been stated at various occasions throughout this work, in particular the combination between *Charismatic/Value-Based Leadership* on the one hand and *Team-Oriented*, *Participative*, and *Human-Oriented Leadership* on the other is very difficult to achieve. Nevertheless, this combination is the most appropriate way to lead a combination of the Information Technology Experts Culture and the Innovation and Development Culture successfully.

Concerning the appropriate *organisation design* a solution which is significantly easier to implement will be proposed.

As for both *Professional Cultures Complexity Theory* (Stacey, et al., 2000; Lewin/Regine, 2000; see also section 3.2.2) is the approach of choice an actual implementation of this approach should be undertaken. The team has to operate as independently as possible from the rest of the organisation and the perceived hierarchy should be very flat.

Nevertheless, given the fact that both Cultures are in a number of aspects relatively different, it is advisable to create a hierarchical leadership position, which possesses the power base to actually take decisions if needed. "If needed" means in this setting e.g. that an internal consensus by the members of the team is not possible or that the team needs somebody to represent it to the outside etc.

The respective leader though has to make sure not to misuse this power base and not to turn the organisation into a classical hierarchical organisation. The basic underlying orientation of the appropriate organisation design always has to be towards that proposed within the context of *Complexity Theory*.

Here again the competency of the leaders is of the utmost importance as it is up to them to choose the appropriate course of action and to make sure that the characteristics of the organisation are not altered from the above given ones.

As far as the organisation design is concerned, it is important that it gives the leaders the possibility to actually implement the organisational design outlined in *Complexity Theory*, while at the same time giving them the power to temporarily switch back to a more hierarchical solution.

Therefore, once again the leaders have an *extraordinary importance* for the success of the team. The organisation can only help them to achieve the results aimed for and is in that respect setting a rather loose framework for the leaders only. The leaders themselves have to make sure that the organisation and their leadership are in line with the above outlined expectations of the members of both *Professional Cultures*.

7.7.6 Innovation and Development and the Service Providers

An appropriate *leadership solution* for a team consisting of members of the Innovation and Development Culture (see section 7.1) and the Service Providers' Culture (see section 7.2) would have to incorporate elements of the *Participative* (e.g. Lewin, 1948; Tannenbaum/Schmidt, 1958; House, et al., 2004; see also section 2.1.1), *the Charismatic/Value-Based* (e.g Bass, 1985; Burns 1978; House, et al., 2004; see also section 2.2.3) and the *Team-Oriented Leadership Styles* (e.g. Manz/Sims, 2001; House, et al., 2004; see also section 2.2.2).

This is due to the fact that both *Professional Cultures* expect these leadership styles to be part of "their" leadership style. The problem in the current setting though is, that the different leadership styles are valued differently by the two Cultures. The base of the appropriate leadership solution is *Charismatic/Value-Based Leadership* for the Innovation and Development Culture, whereas the base for the appropriate solution for the Service Providers' Culture is *Participative Leadership*.

Therefore, for the retained solution it is not possible to concentrate on one leadership style, but it is necessary to join *Charismatic/Value-Based* and *Participative Leadership* in order to match the expectations of these two *Cultures*. Furthermore, *Team-Orientation* has to be part of that retained solution as it is valued positively by both Cultures.

Finally, *Human-Oriented Leadership* (e.g. Gagné/Fleishman, 1959; Fleishman/Quaintance, 1984; Blake/Mouton, 1985; House, et al., 2004; see also section 2.1.2) is to be part of the final solution as it is seen positively by the members of the Innovation and Development Culture and neutrally by those of the Service Providers' Culture.

Hence, an appropriate *leadership solution* for the current setting looks like the following.

The leaders develop a compelling *Vision jointly* with their team members. For the acceptance of this *Vision*, in particular by the Service Providers, it is highly important that the final *Vision* is the end product of a *Participative* development process. The leaders only have to make sure that the *Vision* itself is relatively closely connected to the task at hand, as otherwise it may not be sufficiently credible to the members of the Service Providers' Culture. On the other hand it still has to be *Visionary* enough to be compelling to the members of the Innovation and Development Culture. Therefore, finding the right balance for the *Vision* is one of the first major tasks of the leader in the current setting.

The actual implementation of the *Vision* as well as the following day to day business have to be carried out in a *Team-Oriented* setting in the sense of *Manz/Sims* (2001) and obviously in addition the continued use of *Participative Leadership*.

Finally, this should be supported by *Human-Oriented* elements so as to satisfy the expectations of the Innovation and Development Culture.

Joining all these leadership styles into one is obviously quite demanding. Nevertheless, the key to *successfully* lead members of both Cultures jointly lies in the correct application of the above developed leadership style.

The appropriate *organisation design* is once again based on *Complexity Theory* (Stacey, et al., 2000; Lewin/Regine, 2000; see also section 3.2.2).

This is due to the fact that both *Professional Cultures* favour this organisation design.

Therefore, the appropriate organisation design needs to give the team a maximum degree of freedom to carry out its tasks. The leadership position does not have to be overly strong as far as its power base is concerned. As the function of the leaders is mostly to help the team find and implement a superior solution to a given problem, they can not rely on power to push a decision through, but have to aim for acceptance and subsequent implementation of a found solution.

The organisational design should only provide in exceptional cases a possibility for the leader to actually push a decision through. At the same time though this does mean a rejection of a heterarchy as in particular the need of the members of the Innovation and Development Culture would not be overly matched with such an organisation design. In particular the expressed expectation for *Visionary* leadership clearly shows the need for a present and charismatic leader.

Finally, it is important that the overarching organisation design allows the leaders to actually implement the above described features. The leaders and their teams need to be able to really operate independently from the rest of the organisation. Control mechanisms for example should be avoided as much as possible and centred on *goal achievement* and alike.

In summary, it can be said that the here proposed solution for a combined team of members of the Innovation and Development Culture and the Service Providers' Culture requires a fairly *elaborated leadership style*, whereas the appropriate organisation design is rather *straight forward.*

The same phenomenon seen at various occasions in this section reoccurs. The demands on the leader in a Cross-Cultural setting are enormous, whereas the demands on the organisation design are not significantly more challenging than in various single Culture environments.

Therefore, once again it is of the utmost importance to choose the *right leaders* for the current setting and to provide them with the organisational tools necessary to successfully lead their teams.

7.7.7 The Information Technology Experts and the Service Providers

As far as an appropriate *leadership solution* for the Information Technology Experts (see section 6.3) and the Service Providers (see section 7.2) is concerned it should be based on the *Charismatic/Value-Based* (e.g. Bass, 1985; Burns, 1978; House, et al., 2004; see also section 2.2.3) and the *Participative Leadership Style* (e.g. Lewin, 1948; Tannenbaum/Schmidt, 1958; House, et al., 2004; see also section 2.1.1). Furthermore, the *Team-Oriented Leadership Style* (e.g. Manz/Sims, 2001; House, et al., 2004; see also section 2.2.2) represents a significant part of the retained solution. Finally, some elements of *Human-Oriented Leadership* should (e.g. Gagné/Fleishman, 1959; Fleishman/Quaintance, 1984; Blake Mouton, 1985; House, et al., 2004; see also section 2.1.2) and of *Autonomous Leadership* (House, et al., 2004) may be included.

The challenge for the appropriate leadership style in the current setting is very similar to the one in the previous section. This challenge is due to the need of the *Charismatic/Value-Based* and *Participative Leadership* to jointly built the core of the common leadership style.

Therefore, a similar approach for the development of the appropriate *leadership style* will be pursued.

The development of a compelling *Vision* is undertaken *jointly* between the leaders and their team members.

For the acceptance of this *Vision* by the Service Providers it is highly important that the final *Vision* is the end product of a *Participative* development process. None of the team members should be forced to participate though, as *Participative Leadership* is not part of the leadership style set of the IT-Experts Culture.

The leader has to make sure that the *Vision* itself is not overly removed from the task at hand, as otherwise it may not be sufficiently compelling for the members of the Service Providers' Culture. Nevertheless, it still has to be sufficiently *Visionary* in order to truly be a source of motivation for the Information Technology Experts' Culture. Therefore, finding the right balance between *Participative* and sufficiently, but not overly, *Visionary* elements in the leadership style is one of the major tasks of the leader in the current setting.

The implementation of the developed *Vision* as well as the following day to day business have to be carried out in a *Team-Oriented* environment. *Team-Orientation* was mentioned by members of both *Professional Cultures* to be an integral part of outstanding leadership.

Human-Orientation should be part of the retained leadership solution as members of the IT-Experts' Culture mentioned this leadership style to be an important aspect of "their" leadership style. The inclusion of *Human-Oriented Leadership* at the initiative of only one of the two Professional Culture present in this combination is possible because members of the Service Providers' Culture did not show an antipathy towards this kind of leadership.

Autonomous Leadership finally, may be included in the retained solution, if the leader has to be significantly different from other leaders in the organisation in order to live the following *appropriate leadership solution* for the current setting.

The leader develops in a *Participative* manner a *Vision* which is compelling to members of both *Professional Cultures*. Both the implementation of the *Vision* and the subsequent day to day business are strictly *Team-Oriented*. Finally, it is important that the leader is able to exhibit *Human-Oriented* behaviour such as warmth and empathy towards the team members. This is due to the fact that to the members of the IT-Experts Culture a healthy relationship to their superior is important. Furthermore, it may be expected that the resulting positive relationship to those team members who are receptive to *Human-Oriented Leadership* will also have beneficial consequences for the members of the Service Providers' Culture.

As far as an appropriate *organisation design* is concerned it needs to be based on *Complexity Theory* (Stacey, et al., 2000; Lewin/Regine, 2000; see also section 3.2.2) as for both *Professional Cultures* this represents the preferred organisation design.

This organisation design is also well compatible with the above developed leadership style as it gives the leader and the team members the freedom to built the described leadership relationship.

The actual implementation should be carried out according to *Lewin/Regine* (2000) with the implementation of true work teams. In that aspect the organisation design should be very much in accordance with that described in section 7.7.6.

In summary, it can be said that the current combination requires a relatively complicated *leadership style*. Nevertheless, here again it is necessary to actually live this *leadership style* if one wants to use all the resources the team has to offer.

As far as *organisation design* is concerned, once again the only possible solution to a joint approach lies in *Complexity Theory*. The fact that *Complexity Theory* proofed *again and again* to be the solution of choice in the current section will be examined further below. The implications of this finding are rather far reaching though and will be of significant importance for virtually all Cross-Cultural work teams. Therefore, it is advisable that even classic organisations make the extra effort to implement *Complexity Theory* based structures where appropriate.

7.7.8 The Service Providers and the Middle Administration

Finally, an example of a combination between two *Professional Cultures* that do *not* permit a joint solution to be given.

The characteristics of the Service Providers (section 7.2) and those of the Middle Administration (section 7.3) are so different that it would prove virtually impossible to create *leadership* and *organisation structures* that fit both *Professional Cultures* at the same time.

As far as *leadership* is concerned, an approach focused on the individual could possibly be a way to circumnavigate the differences in the Cultural traits of these two *Cultures*. The leaders would have to adapt their leadership style to the one developed for the Service Providers or Middle Administration respectively, depending on the actual situation. Therefore, depending on an individual being part of the Service Providers or the Middle Administration Culture, the leaders adopt the appropriate *Leadership Style*.

Despite the high inherent complexity that such a split in leadership behaviour incurs for the respective leader, this approach would be the *only way* to engender a valid leadership approach in the current setting. Therefore, despite its complexity, this approach represents at least a possibility of *leading* both *Professional Cultures* jointly.

More serious problems arise from the *incongruity of the organisation structures* expected by both *Professional Cultures*.

The Service Providers expect to be organised in an environment governed by *Complexity Theory* (Stacey, et al., 2000; Lewin/Regine, 2000; see also section 3.2.2), whereas the Middle Administration expects to be organised in an environment inspired by the work of *Weber* (1976; see also section 3.1.1.3).

The *significant differences* between these approaches render it *impossible* to fuse these approaches effectively into one joint approach. So would seem inadvisable to actually put both *Professional Cultures* into a single organisational environment.

Thus a possible solution to a setting in which the two *Professional Cultures* have to act jointly could e.g. be to keep them separated organisationally, but to give them one *joint leader* who can oversee that the efforts of *both Cultural Groups* lead into the same direction.

In summary, it can be said that it will not always be possible to find leadership structures and organisation designs which simultaneously fit two or more *Professional Cultures* in a cross-cultural setting. Therefore, it is highly important to always thoroughly check the characteristics of <u>each</u> *Professional Culture* concerned before joining a number of *Professional Cultures* in one team. Failure to do so will result in *at least* one of the *Professional Cultures* not being treated according to its characteristics, with the possible negative consequences mentioned at various times throughout this study.

7.7.9 Summarising Evaluation of Cross-Cultural Leadership and Organisation Design

Three main aspects should be retained from the above insight into the appropriate way to *lead and organise Cross-Cultural Teams*.

The first aspect is the apparent *frequent superiority* of an organisation design based on *Complexity Theory* (Stacey, et al., 2000; Lewin/Regine, 2000; see also section 3.2.2) when it comes to organising *Cross-Cultural Teams*.

This is due to the demonstrated flexibility such an *organisation design* has to adapt itself to the needs of the teams concerned. Obviously, this does not mean that the approach proposed by *Lewin/Regine* (2000) can be implemented directly. But it does mean that a well considered adaptation of *Complexity Theory* is at the core of a substantial number of functioning *Cross-Cultural Teams*.

A further highly important consequence of *Complexity Theory's flexibility* is that this flexibility permits the leaders of the concerned work team to adjust their *leadership style* to the requirements of the situation. As shown, leadership is highly demanding and hugely varying across the different *Cross-Cultural* settings. Therefore, it is of the utmost importance that the organisation design does not restrict the leaders in their leadership approach. As was also shown, even within one team it may be necessary to slightly alter the *leadership style* in order to match the *Professional Cultures* present in the team.

Hence, *leadership selection* and *training* are of the utmost importance in order to successfully lead *Cross-Cultural Teams*. In such settings the competence of the respective leaders is the key to success or failure as they have to appropriately occupy the role given to them by the respective organisation design and the requirements of their Professional environment.

Finally, it has to be retained that it may not always be possible to join two or more *Professional Cultures* to make one single team. These situations arise when the characteristics of the *Cultures* to be joined are as contradictory as those described in section 7.7.8. In such situations forcing different *Cultures* into one team has potentially *disastrous consequences* and should therefore *not* be attempted.

This last finding once again clearly demonstrates the importance of research into *Professional Cultures*, both from an academic and a practical point of view. Neglecting the differences in Cultural perceptions based on the respective *Professions* leads to the *same* potential dysfunctionalities as neglecting differences in *Organisational* or *National Cultures*.

7.8 ***Final Assessment of the Found Results for the Different Clusters***

Probably the most important point about the findings outlined in this chapter is the fact that *Professional Cultures* are not structured along what is usually referred to as Professions or occupations, but along *functional* lines. This became especially clear with the engineers, who are split evenly into two groups, but also isolated from most other *Professional Cultures* in the current work.

Nevertheless, Professional functions do shape *genuine* Cultures according to the results of the current study. Therefore, **Hypothesis 1** (for details please refer to section 4.1.2) is clearly supported by the results of the current study. In how far it is actually correct has to be left to future research; its basic statement, though, is *significantly strengthened* by the results of the current study.

These findings alone are extremely important, as they demonstrate that the *function* which is carried out by a person clearly shapes that person's Cultural system. Therefore, it can be stated at this point that the construct of *Professional Cultures* as introduced in previous chapters *does* exist and that it needs to be taken into account in addition to *National* and *Organisational Cultures* if one wants to get a more holistic picture of a person's *Cultural Setting*. Therefore, **Hypothesis 3** (for details please refer to section 4.2.3) can be considered to be confirmed by the empirical results gained in the course of the current study.

A further important finding concerns the complex of cross-functional or as referred to in the current work Cross-Cultural work teams. It could be demonstrated that it is highly important to thoroughly analyse the characteristics of each *Professional Culture* present in the team in order to make sure that these *Cultures* can work together and if they can, what kind of leadership and organisation they need.

Furthermore, it could be clearly demonstrated that it is of the utmost importance to have *outstanding* leadership in Cross-Cultural settings. This aspect is specifically important for setting up virtually any kind of project, as most likely a project type environment will tap into the competence of more than one *Professional Culture*. As demonstrated, it is *vital* for the success of such teams that the leader is able to exhibit a number of different leadership attributes and fuse them into a flexible and situation adequate leadership style.

In that context it is important to note that the organisational design for such environments will in all probability be centred around *Complexity Theory,* as apparently this is the *only* organisational design that is able to give the necessary degree of freedom to the teams concerned.

Finally, it is important to note that it will *not* always be possible to combine two or more *Professional Cultures* efficiently in one team. These situations arise if the characteristics of the *Cultures* concerned are too different to find a solution which can cater for all of them at the same time. Forcing a joint team in such situation will most likely have disastrous consequences for all parties concerned.

Therefore, another interesting result is the insight that sometimes work teams are beneficial and sometimes they are not. This is true for both single Cultural settings and Cross-Cultural settings. Hence, *before* implementing a team structure it is necessary to *check* for the *appropriateness* of this setting.

Jointly all these points clearly demonstrate the importance that research into the construct of *Professional Cultures* and its subsequent appropriate use has both for academic and practical purposes. Neglecting the differences between the Cultural traits each *Profession* has potentially leaves large parts of the resources of each organisation untapped; a situation which is obviously to be avoided.

To close this chapter, an overview of the results lined out in this and the preceding chapter will be given in a graphical form. The following figures show the relative position of each *Professional Culture* on each of the *Core Cultural Dimensions*. A numerical overview of the results is given in Appendix three.

Figure 142: All the Results of the Uncertainty Avoidance Dimension

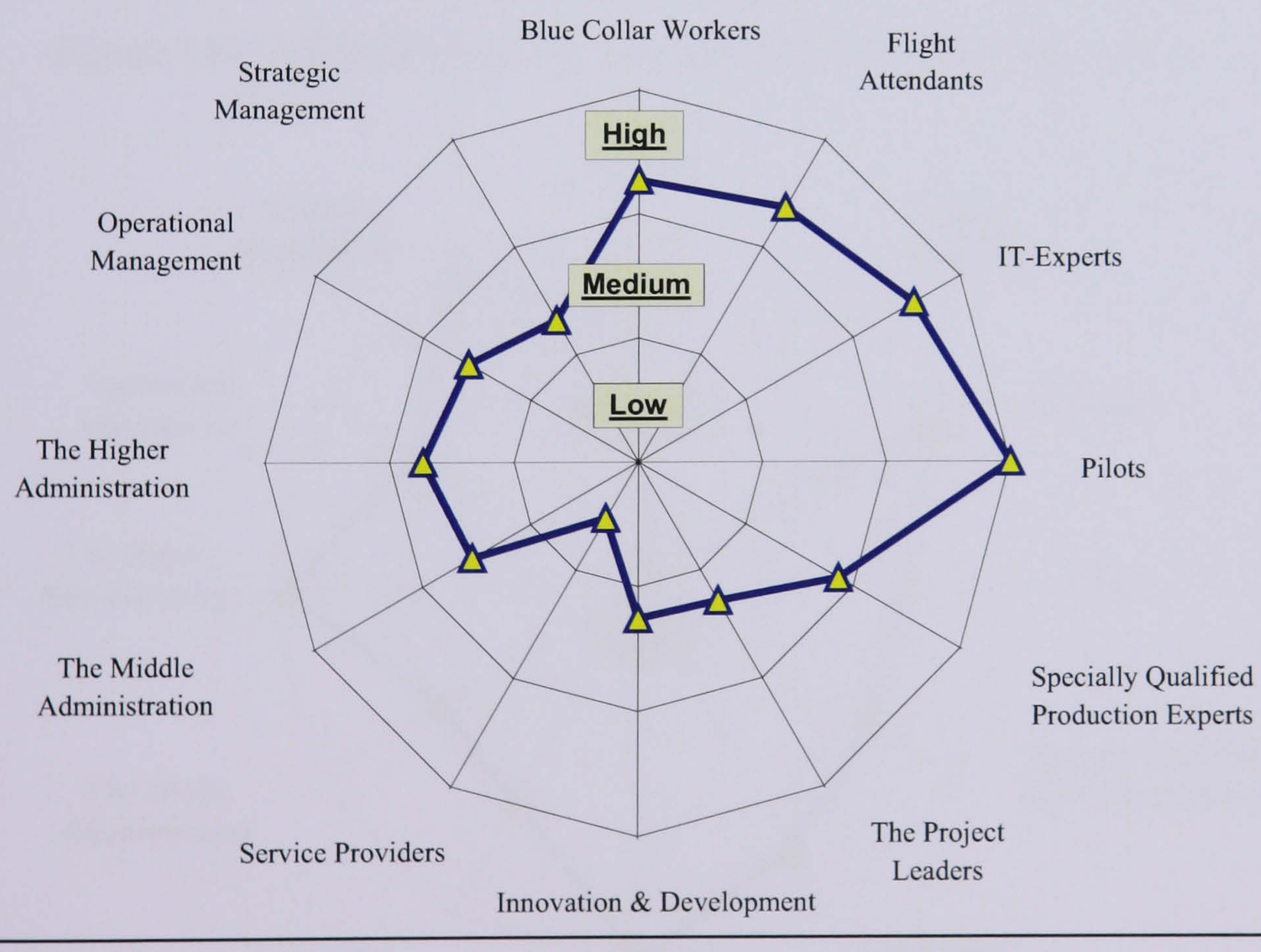


Figure 143: All the Results of the Assertiveness Dimension

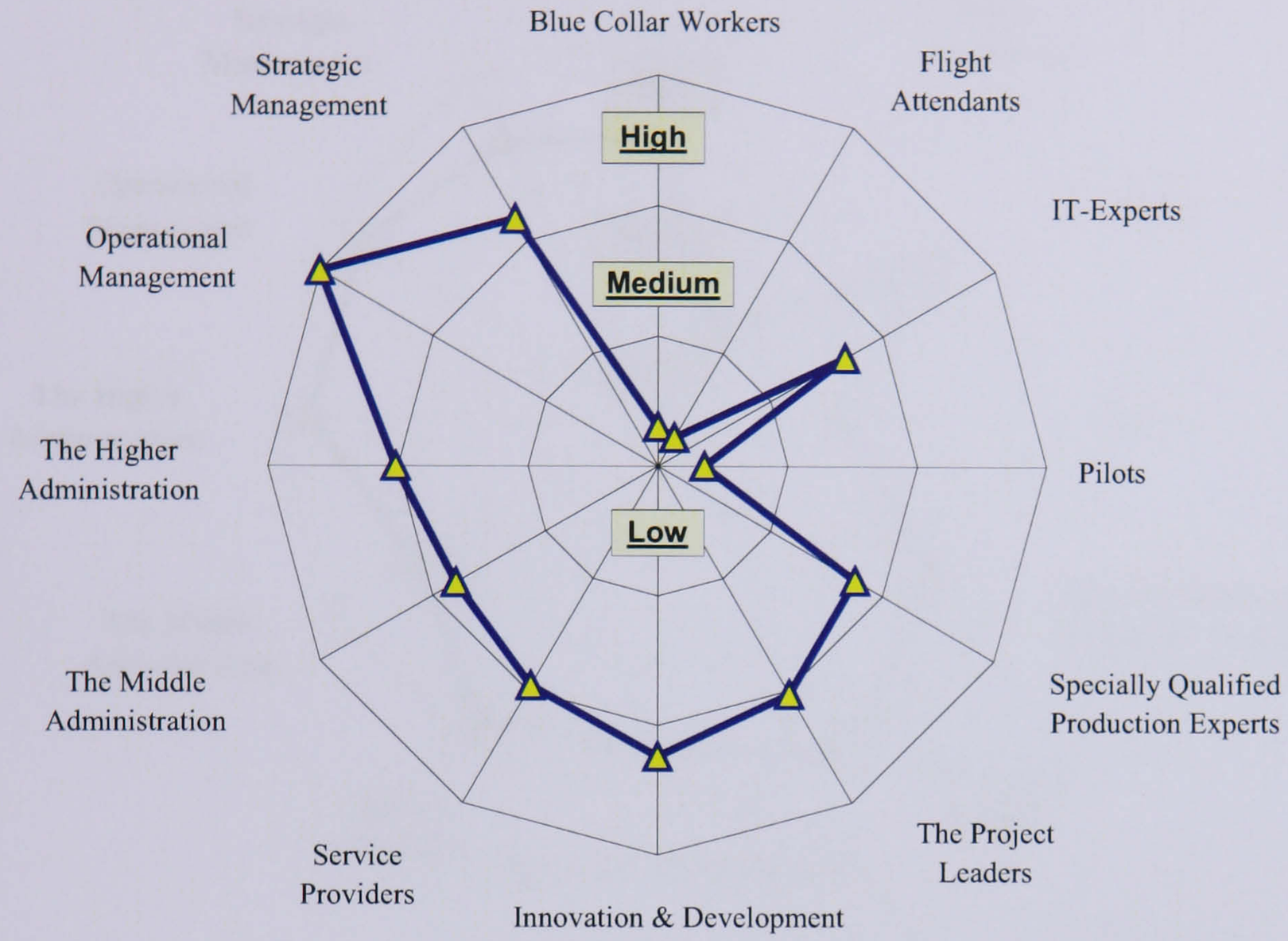


Figure 144: All the Results of the Future Orientation Dimension

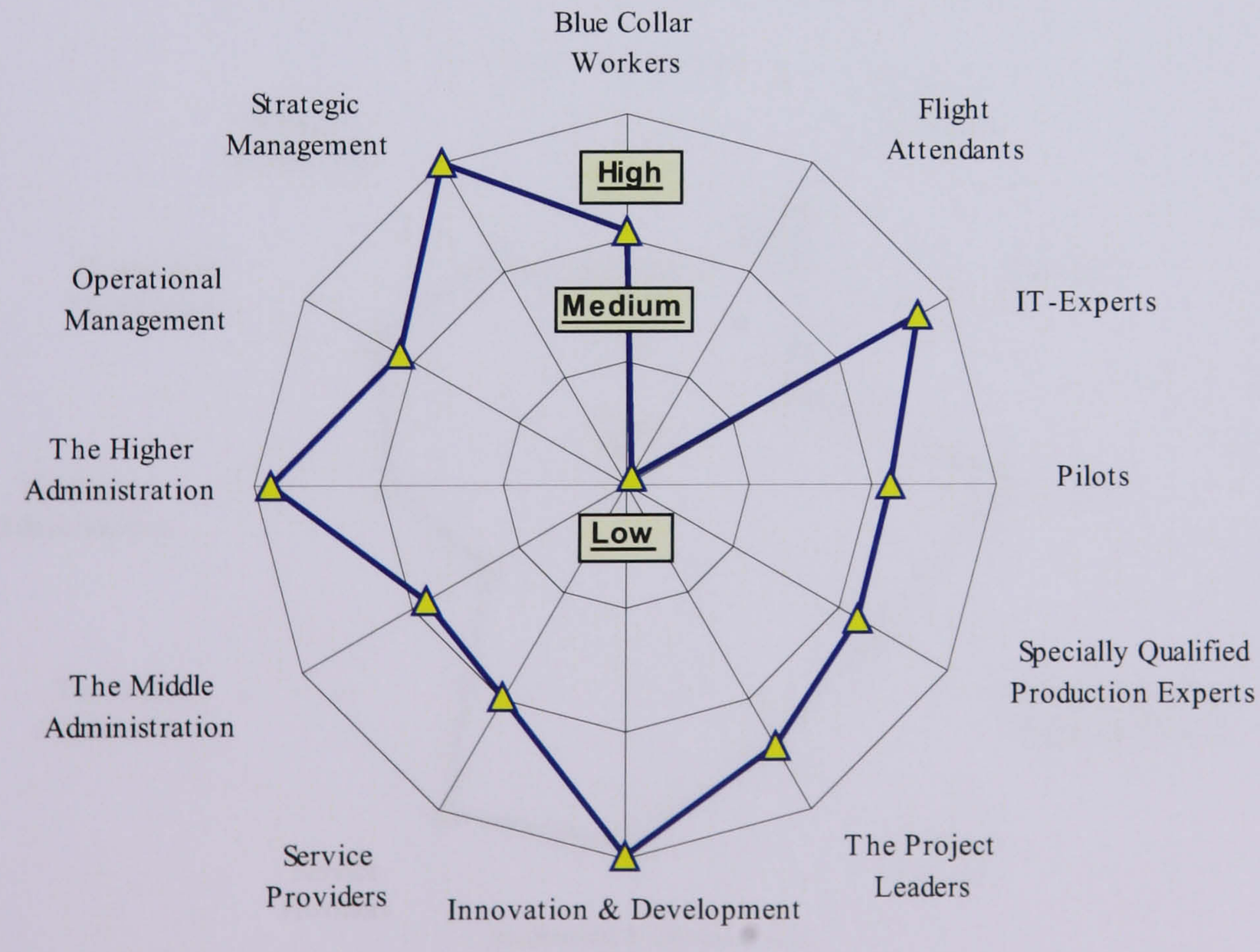


Figure 145: All the Results of the Power Distance Dimension

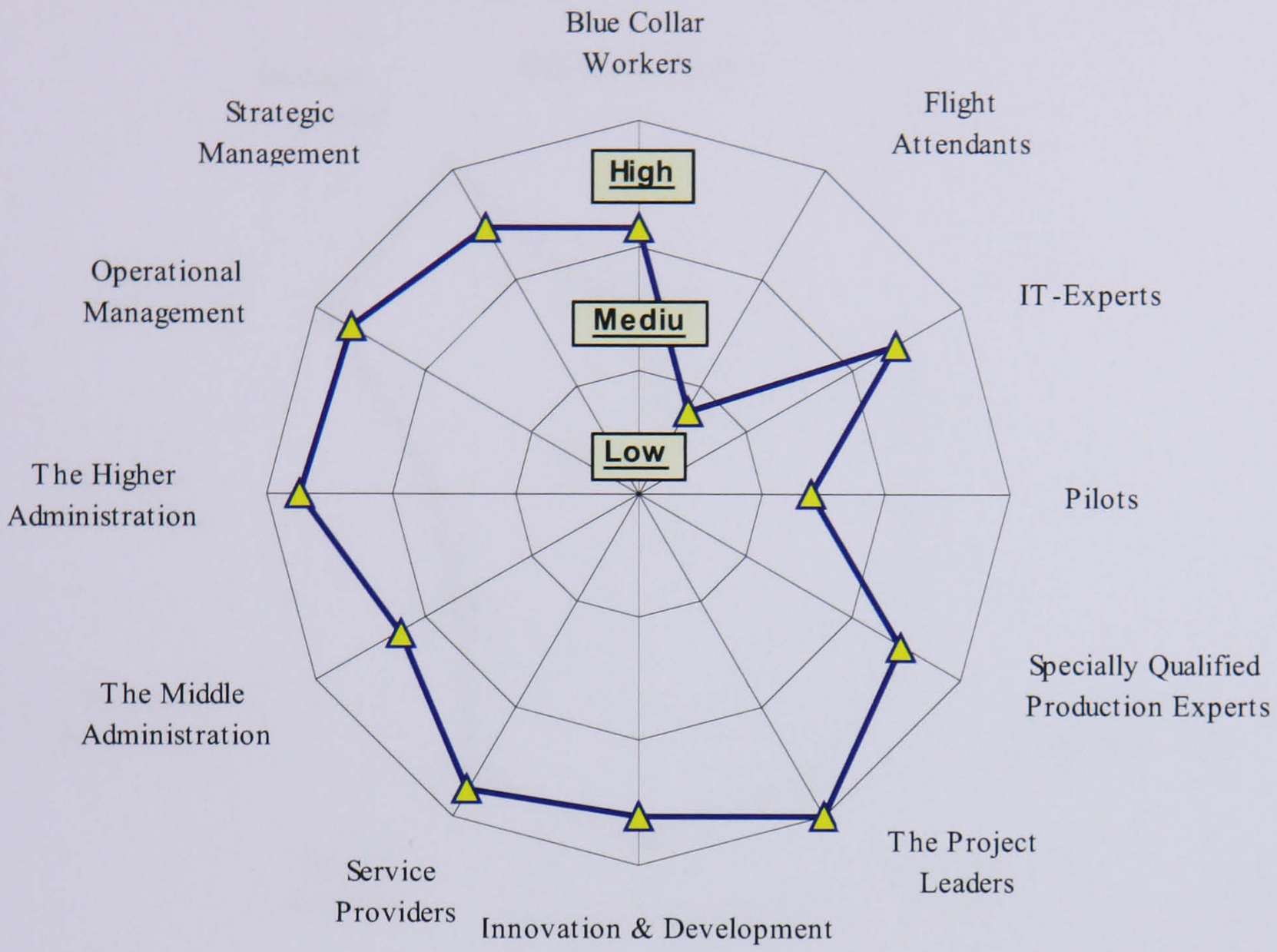


Figure 146: All the Results of the Collectivism I Dimension

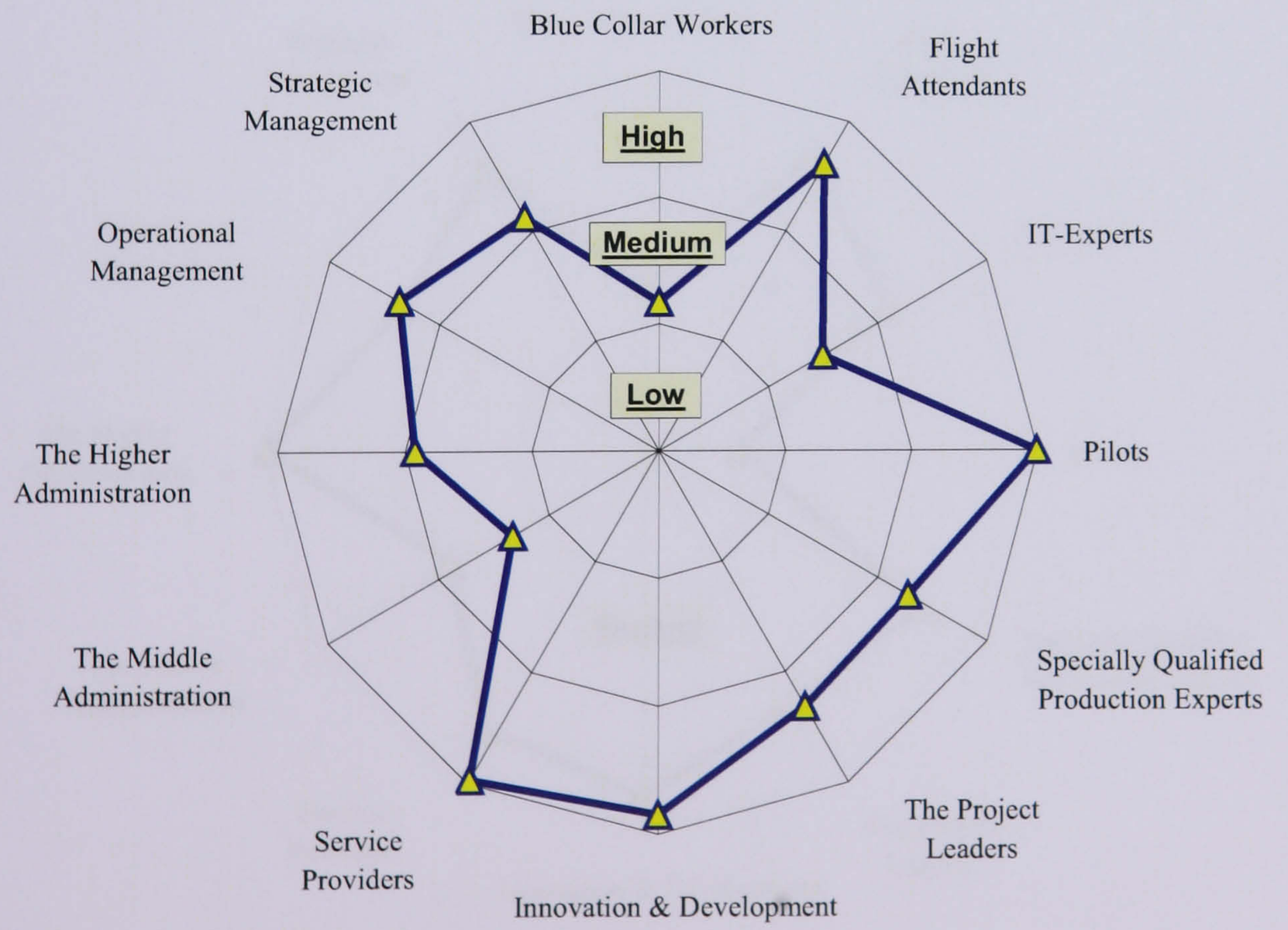


Figure 147: All the Results of the Performance Orientation Dimension

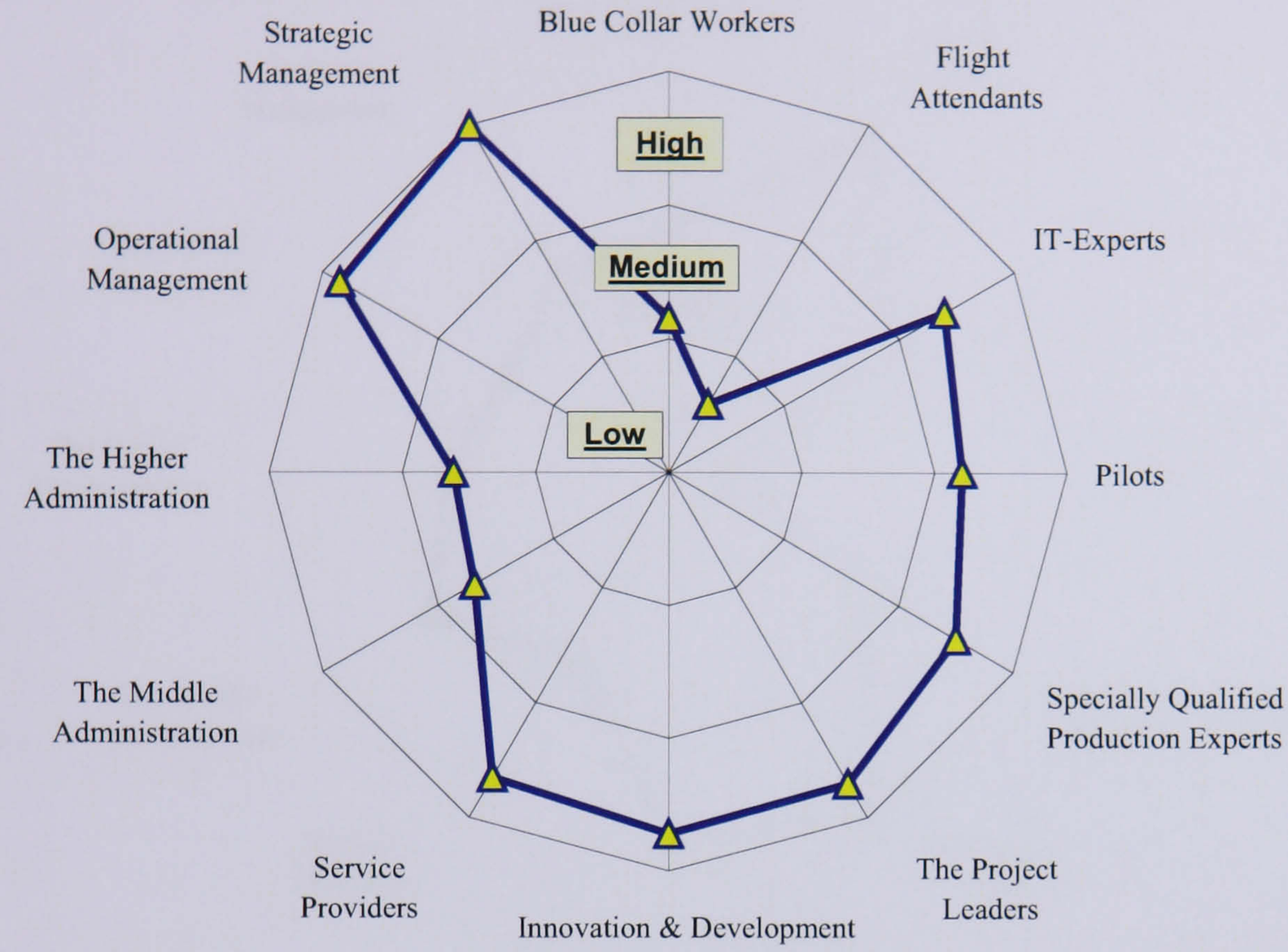


Figure 148: All the Results of the Gender Egalitarianism Dimension

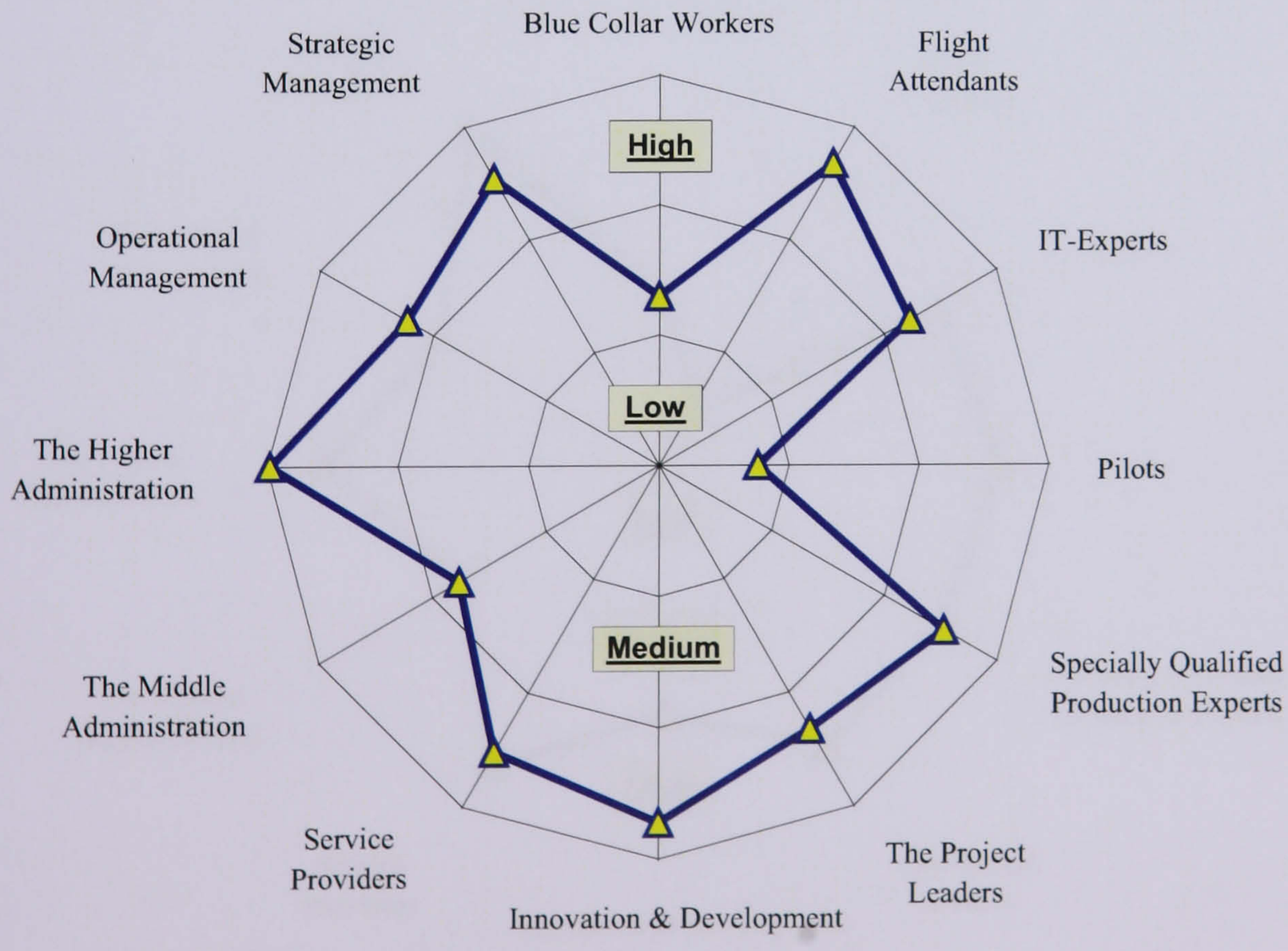


Figure 149: All the Results of the Human Orientation Dimension

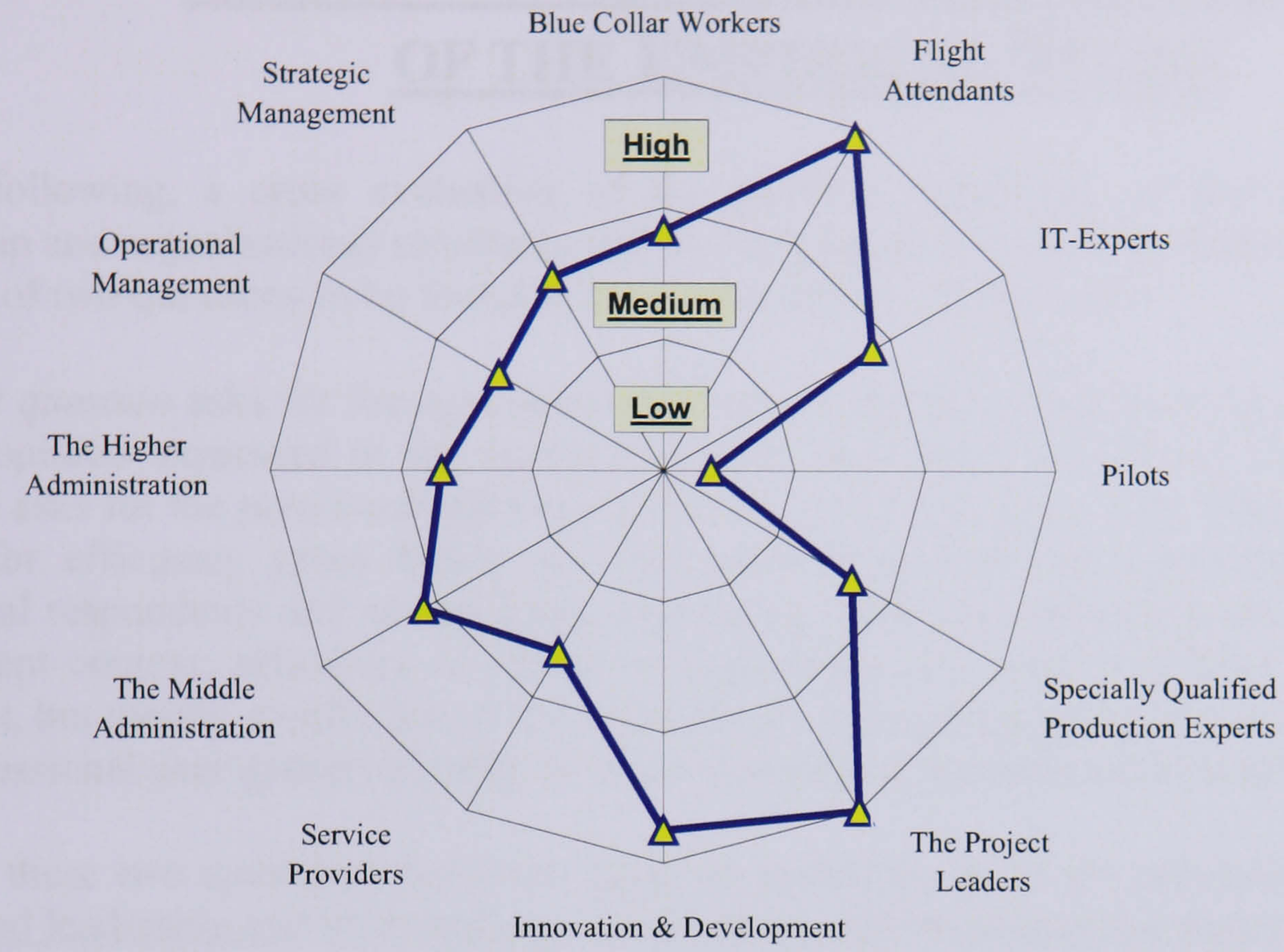
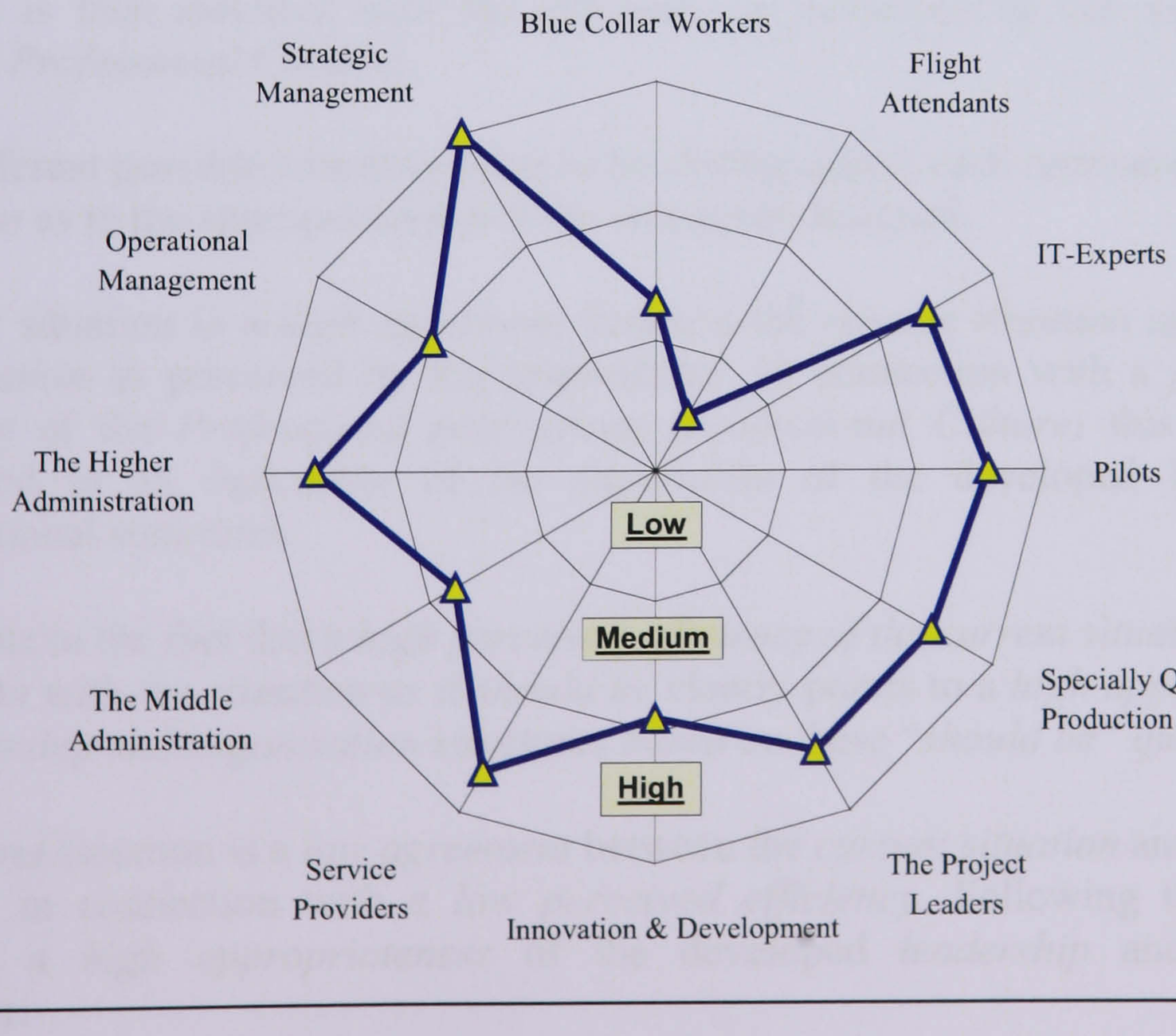


Figure 150: All the Results of the Collectivism II Dimension



8 A CROSS EVALUATION OF THE RESULTS OF THE EMPIRICAL STUDY

In the following, a cross evaluation of the possible superiority of the developed leadership and organisational structures will be undertaken. This will be carried out with the help of two questions to be found in the standardised questionnaire.

The *first question* asks for the *agreement* between the *current situation as it is* and the overall opinion expressed in the questionnaire of *how things should be*. The *second question* asks for the *perceived efficiency* of the *Professional peer group*. Therefore, the values for efficiency given below are *exclusively* based on the assessment of the individual respondents and not on some objectively valid measurement scale. Thus, in the current context, efficiency is not to be understood as a clearly defined scientific construct, but merely *a reflection of the respondent's opinion* regarding the efficiency of the Professional peer-group (see also the exact wording of question six in appendix 2).

Linking these two questions, however, gives an *indication* as to the superiority of the developed leadership and organisational structures as will be pointed out below.

In the context of the following explanations it has to be kept in mind that the leadership and organisational structures proposed for the different *Professional Cultures* are *directly related* to the answers as to how things *should be*. Therefore, these "*should be" answers* represent the *link* between the *developed structures* and the different *current situations* in which the various *Professional Cultures* find themselves. This *current* situation is then matched with the *efficiency as perceived* by the members of the different *Professional Cultures*.

Four different possible situations have to be distinguished, each representing a different indication as to the appropriateness of the structures designed.

The *first* situation is a *high agreement* between the *current situation* and the *"should be" situation* as perceived by the respondents. In connection with a *perceived high efficiency* of the *Professional peer group (Professional Culture)* this result can be interpreted as an *indication* of the *superiority* of the developed leadership and organisational structures.

This is due to the fact that a *high perceived efficiency of the current situation* which is in *agreement* with the *situation as it should be* clearly points to a *high appropriateness* of the *leadership* and *organisation* structures *based* on these "*should be" questions*.

The *second* situation is a *low agreement* between the *current situation* and the *should be situation* in connection with a *low perceived efficiency*. Following the above, this indicates a *high appropriateness* of the developed *leadership* and *organisation structures*.

This assessment is due to the fact that if the *agreement* between the *current situation* and the *should be situation* is low the *current leadership* and *organisation structures* are also most likely *different* from the herein *proposed solution*. In connection with the *low perceived efficiency,* this can be interpreted as an *indication* of the *superiority* of the *developed* and an *inferiority* of the *current* structures, although this is *weaker* than in the first situation.

In this situation the indication is weaker because of the fact that it shows only that the current situation is perceived to be sub-optimal while at the same time differing from the one proposed in chapter six and seven. *Nevertheless*, in connection with the strong empirical base of the solution developed in those chapters, *this result* can be seen as an *indication* for the *soundness* of the *leadership and organisation approach developed* there.

The *third* situation is a *low agreement* between the *should be* situation and the *current* situation in connection with a *high perceived efficiency*. This situation is not as easily interpretable as the former two because of the fact that this result *does not give* any further *indication* as to the *appropriateness* of the l*eadership* and *organisation structures developed* in chapters six and seven. In addition, such a result would indicate that there is *at least* one more set of appropriate leadership and organisation designs besides the one proposed in chapters six and seven.

Obviously, such a result *does not exclude* the possibility that the *leadership and organisation designs* developed in *chapters six* and *seven* are *appropriate*, but it would show that *they are not* the *sole* leadership and organisational solution appropriate for the *Professional Culture* concerned. Therefore, in these situations *no clear statement* as to the *superiority* of the developed structures can be given.

The *fourth* and last situation is a *high agreement* between the *should be* and the *current* situation in connection with a *low perceived efficiency*. Following the above, this would indicate that the *developed leadership and organisation structures do not* represent an *advantageous approach*.

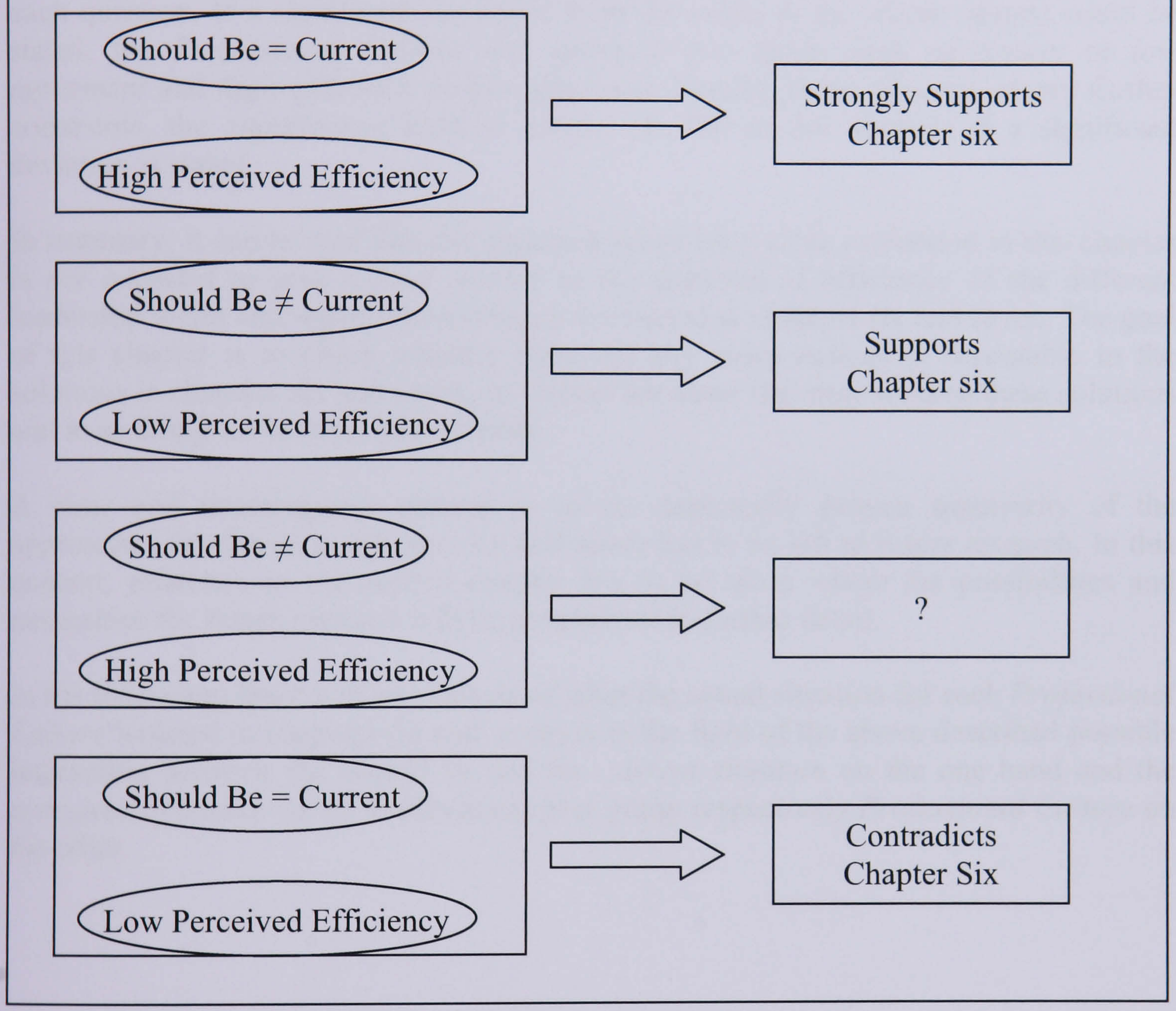
This result ensues from the fact that these *structures* are *developed based* on the *should be* answers which are *in accordance* with the *current situation* as it is, which in turn is *perceived to be inferior*.

Clearly, it is also possible that a *Professional Culture* rates a question neither positively nor negatively. In these situations a cautious interpretation under due consideration of all available empirical data will be undertaken. To be sure, this situation is the least desirable one as it implies the weakest statements about the topic of interest.

Nevertheless – as will be demonstrated – even in these situations it is possible to extract some meaningful information about the respective *Professional Cultures* and their perception of their Professional environment and its efficiency.

The following figure gives an overview of the four possible combinations of positive and negative ratings on the *agreement scale* (agreement between "should be" and "is") and the *efficiency scale* (perceived efficiency of the direct Professional environment) and their implications for the leadership and organisational structures developed in chapters six and seven.

Figure 143: The Possible Results in an Overview



Technically the decision as to *efficiency* and *agreement* being low or high was carried out with the help of a statistical analysis which is based on the so called *t-test* (e.g. Schlittgen, 2000; Kühnel/Krebs, 2001; Hartung, 2002).

This test provides information on the relationship between parameters. In the present case it was used to check if the value given by each *Professional Culture* to the *"agreement"* and the *"efficiency"* scale differed *significantly* from the overall mean exhibited by each of these two scales within the whole sample.

The *t-test* is the most appropriate test in the current environment, as it clearly answers the question of whether a given value differs *statistically significantly* from the sample mean (Bühl/Zöfel, 2002). Furthermore, it is quite robust towards deviations from a normal distribution. Despite the fact that, due to the large sample size (340), normal distribution can be *assumed*, this trait of the *t-test* is another aspect *favourable* for its choice.

Therefore, a *t-test* was run for the values given by each *Professional Culture* for both questions. The test itself used the average rating each *Professional Culture* showed for each question. If a significant deviation from the mean of the whole sample could be stated, the *Professional Culture* was grouped into either *high agreement* or *low agreement* and *high efficiency* or *low efficiency*. Finally, in the absence of any further comments, the *significance level is always at .000* in this section, if a significant deviation is stated.

In summary, it can be said that the approach taken for a cross evaluation in this chapter is *not intended* to give a *final answer* to the question of efficiency of the different leadership styles and organisation designs developed in chapters six and seven. The goal of this chapter is to check whether there are any more *indicators* favourable to the solutions in chapters six and seven, or if there are some that may weaken these solutions and in so doing make them questionable.

A clear and unambiguous answer as to an empirically proven superiority of the approaches developed in chapters six and seven has to be left to future research. In this context, reference to the current chapter has to be taken where the possibilities and necessities for future research will be pointed out in further detail.

In the following, there will be analysis of what the actual situation for each *Professional Culture* isolated in chapters six and seven is in the light of the above described possible interaction between the *should be* and the *current situation* on the one hand and the *perceived efficiency* of the Professional peer group respectively *Professional Culture* on the other.

8.1 The Blue Collar Workers

The Blue Collar Workers rated the question for the *agreement* between the current situation as *it is* and the one they think *should be* with an average of 2.4 (highest would have been 1, lowest 7). This *does not* represent a *significant deviation* from the overall mean of 2.4765.

Therefore, the Blue Collar Workers are neither part of the high agreement nor the low agreement group. Considering the results of the open interviews as described in chapter six, this score can be interpreted as the opinion that there is partial agreement and partial disagreement between the situation as *it is* and as *it should be* in this *Professional Culture*.

The rating of the question regarding the *efficiency* of the Professional peer group is with 2.72 *significantly lower* than the average which is 2.35 (1 is the highest and 7 the lowest possible rating).

Therefore, the Blue Collar Workers are part of those *Professional Cultures* that consider their work *efficiency* to be *relatively low*.

Following the above described line of argument these results indicate a *strengthening* of the results of chapter six and the developed leadership and organisation structures.

This is due to the fact that the *partial disagreement* between the *current situation* and the one that *should be* is an indicator for the leadership and organisational designs not being in accordance with those developed in chapter six. This result in connection with the *low perceived work efficiency* of the Blue Collar Workers' *Professional Culture* leads to a strengthening of the result of chapter six.

In summary, it can be said that the joint evaluation of the perceived efficiency and the agreement between the current and the should be situation points to a confirmation of the results of chapter six. This confirmation is not overly strong, as the low efficiency is paired with a neutral rating of the *agreement scale*.

Nevertheless, considering all empirical results, this partially negative view of the current situation in connection with the negative perceived efficiency has to be seen as a favourable indicator for the superiority of the leadership and organisation styles developed in chapter six.

8.2 ***The Flight Attendants***

The Flight Attendants see a *high agreement* between the situation as *it is* and as *it should be*. They rate this question with 1.6 which is *significantly* higher than the overall average of 2.4765.

This result strongly suggests that the leadership and organisation structures in use are relatively close to those developed in chapter six. This interpretation is strengthened by the fact that the score of 1.6 on *this scale is the second highest* of the whole sample after that of the Pilots.

The perceived efficiency of the Flight Attendants' *Professional Culture* is with 1.56 just as positive as the average of the whole sample is 2.35. This *score is once more the second highest* after that of the Pilots.

Jointly, these two results *strongly support* the findings of *chapter six*.

This is due to the fact that the very high agreement between the situation as it is and as it should be is a strong indication for the leadership and organisation design in use being relatively close to that developed in the previous chapter.

This *closeness* in connection with the very *positively perceived efficiency* indicates a *superiority* of the structures developed in chapter six.

In summary, it can be retained that the Flight Attendants perceive their *Professional Culture* to be relatively efficient.

Furthermore, a very high agreement between the way the Flight Attendants would like their Professional environment to be structured and the way they perceive it is structured can be stated.

In summary, it can be retained that the *results of this section strongly support those of chapter six* indicating that the leadership and organisation design developed in fact do represent a superior approach to the needs and characteristics of the Flight Attendants' *Professional Culture*.

8.3 ***The Information Technology Experts***

According to the empirical results, the agreement between the situation as *it should be* in the opinion of the Information Technology Experts and the way *it is*, is relatively low with a score of 2.85. This represents a *significant* deviation from the overall mean of 2.4765.

Therefore, members of the Information Technology Experts' *Professional Culture* see a *significant* deviation from the way they think things should be and the way they actually are.

In addition, a *non-significant* deviation from the overall mean can be stated concerning the *perceived efficiency* of the present *Professional Culture*. The value of 2.5 is located within the lower end of the non-significant area around the overall mean which is 2.35.

Jointly, these two factors can be considered to be *favourable* towards the findings described in *chapter six*.

Following the usual line of argument, a low agreement between the situation as it is and as it should be points implicitly to a difference between the leadership and organisation structures developed in the previous chapter.

Moreover, considering the at most neutrally perceived efficiency of the current *Professional Culture*, serious doubts surface as to the appropriateness of the leadership and organisational structures in use.

Therefore, according to the results of the present chapter, a leadership and organisation approach which is centred around the one developed in chapter six seems to be advisable.

In summary, it can be retained that the Information Technology Experts' *Professional Culture* is a relatively weak example for the second possible situation (current ≠ should be & low perceived efficiency) described in the introduction to this chapter.

Nevertheless, the results presented here point to the leadership and organisational solution developed in chapter six as being superior and the most appropriate for the needs of the Information Technology Experts' *Professional Culture*.

8.4 ***The Pilots***

The Pilots see a very *high agreement* between the way they think their Professional environment *should be* and the way they think *it is* structured. The value of 1.4706 is not only a significant deviation from the overall mean, but also the *highest value* of all *Professional Cultures* present in the current sample.

The *efficiency perceived* by the Pilots of their own *Professional Culture* is very *high* as well. Here again the value of 1.5098 not only represents a *significant* deviation from the overall mean, but is also the highest score out of all *Professional Cultures* in this study.

These two factors taken together *strongly support* the findings laid out in chapter six.

The extremely high agreement between the situation as it is and the one that should be according to the Pilots is a strong indicator for the *current leadership* and *organisation* structures being in *agreement* with those proposed in chapter six.

The also stated extremely high perceived efficiency indicates that the approach used to *lead and organise* this *Professional Culture* leads to *highly satisfying results*.

Hence, the empiricals of the current section indicate that the leadership and organisation structures developed in chapter six do indeed represent a superior approach for the current *Professional Culture*.

In summary, it can be retained that once again the Pilots' *Professional Culture* produces very clear and unambiguous results. Clearly, Pilots embrace their current situation as being extremely close to the one they wish to have. Furthermore, they consider this situation to be highly efficient.

Therefore, the results of the current section strongly support those gained in chapter six, which in turn supports the leadership and organisational solution for the needs of the Pilots' *Professional Culture* proposed in that chapter.

8.5 ***The Specially Qualified Production Experts***

Unfortunately, the ratings given by the Specially Qualified Production Experts are rather unsatisfying in the current context.

The scores for both questions *do not differ significantly* from the respective overall average. They are both positioned well within the neutral band around the respective overall means.

The *agreement* between the current and the should be situation is *slightly above average only*. The score is 2.3784 in comparison to 2.4765 for the overall mean.

The score for the perceived *efficiency* is positioned *slightly below average only*. The score is 2.4054 in comparison to 2.35 for the overall mean.

These two factors together lead to a rather ambiguous overall picture.

According to the empirical results there is some agreement and some disagreement between the current and the should be situation mixed with a relatively moderate perceived efficiency.

Therefore, the results in this section do not contradict those gained in chapter six, but they do not clearly support them, either.

Apparently, there are some significant similarities and some significant differences between the *situation as it is* and *the one preferred by the members of this Professional Culture*. As the leadership and organisation structures are based on the preferred situation, it may be assumed that those structures also differ only marginally from those actually in use.

In connection with the only moderately efficient work environment for this *Professional Culture,* it is safe to assume that this situation could be improved. Unfortunately, considering only the results of the current section, it is not clear if that improvement could be carried out with the help of the leadership and organisation structures proposed in chapter six, or by other structures.

Nevertheless, following the *clear and unambiguous results* depicted in chapter six, it still seems to be advantageous to implement the structures developed there.

In summary, it can be retained that the results in this section for the Specially Qualified Production Experts' *Professional Culture* do *not* give any further indication concerning the possible superiority of the developed leadership and organisational structures. But neither do they contradict them. Hence, in connection with the high quality of the empirical results of chapter six the suggestion will be upheld that these structures are actually superior to those in current use.

8.6 ***The Project Leaders***

The score on the *agreement scale* for the Project Leaders' *Professional Culture* is located in the neutral band. Its numerical value with 2.5556 is slightly below the overall average of 2.4765 only. Therefore, *no statistically significant deviation* from the overall mean can be stated.

The score for the *perceived efficiency scale* is located in the negative area. The score of 2.7222 is *significantly below* the overall average of 2.35.

These values support the findings of chapter six, but unfortunately to only a rather limited degree.

The neutral to *slightly negative rating* on the *agreement scale* shows that there are noticeable differences between the situation as it should be according to the Project Leaders and the situation as it is perceived in reality. Following the above described line of argument, this indicates that there are *indeed differences* between the leadership and organisational structures developed in chapter six and those in current use, if only to a limited degree.

Considering now the *low perceived efficiency* in this group indicates that the way this *Professional Culture* is led and organised has potential for improvement.

Under due consideration of the results gained in this chapter and in chapter six, this improvement can apparently be best achieved with the leadership and organisation structures depicted in that chapter. The results of the current section are obviously not as unambiguous as those e.g. for the Pilots' *Professional Culture*, but they nevertheless point to the support of the above developed leadership style and organisational design.

In summary, it can be retained that the members of the Project Leaders' *Professional Culture* do see potential for improvement. Furthermore, they see disparities between the way they consider their Professional environment to be optimally structured and the way it actually is structured.

Therefore, the *results* of the current section *do strengthen* the findings of *chapter six* and *support* the *leadership* and *organisational* structures *developed* therein.

8.7 ***Innovation and Development***

Members of the Innovation and Development *Professional Culture* rate both questions in the significantly positive area.

The *agreement scale* is scored with a value of 2.3077 *significantly higher* than the overall mean of 2.4765. The significance level, though, is lower than usual with a value of .041.

The *perceived efficiency scale* is *statistically significantly* above the overall mean with a score of 2.1154. The significance level here is slightly higher than for the agreement scale, approaching with a value of .003 the optimum of .000.

These two results *clearly support the findings of chapter seven.*

Following again the above line of argument, it can be stated that the high degree of agreement between the situation as it is and as it should be according to the members of the Innovation and Development *Professional Culture* leads to the assumption that the prevailing *leadership and organisation* structures are relatively *close* to those developed in *chapter seven.*

Apparently, these structures lead to a *high perceived efficiency* which indicates that they are appropriate to the current *Professional Cultures.*

Therefore, the findings of this section clearly strengthen the results gained in chapter seven and support the developed leadership and organisational structures.

In summary, it can be retained that the current *Professional Culture* is another example for the clear and unambiguous support of the results of chapter seven.

In that sense, the Innovation and Development *Professional Culture* is well in line with those of the Pilots and the Flight Attendants.

8.8 ***The Service Providers***

The Service Providers' *Professional Culture* is an example of a Culture which scores both questions in the *significantly lower* area of the respective scales.

The *agreement scale* is valued with 4.6552. This value not only shows a *significant disagreement* between the *situation as it is* perceived by the Service Providers and the way they *consider it to be appropriate* to their Culture, but it also represents the *lowest value in absolute terms* of all *Professional Cultures* sampled.

The *perceived efficiency scale* also is clearly positioned in the *negative area*. Its score of 3.0345 is not only significantly lower than the overall mean, but furthermore, it is the *second lowest* value in *absolute terms*.

Jointly, these results *support* the *findings* laid out in *chapter seven,* as will be pointed out in the following.

As a consequence of the fact that the statements of the current *Professional Culture* show considerable *differences* between the *should be* situation and the *current situation,* the support for the results of chapter seven is not as clear cut as in the previous section. As already pointed out earlier, this is due to the fact that in connection with the *low perceived efficiency* this result only shows that the *current structures* are apparently *sub-optimal*.

Nevertheless, considering the empirical evidence depicted in chapter seven, the strong rejection of the currently prevailing situation and the above given line of argument regarding leadership and organisational structures, the results of the current section *strongly indicate* that the structures developed in *chapter seven* are *advantageous* and therefore *advisable*.

Hence in summary, it can be retained that the current situation is seen extremely *negatively* and considered to be *inefficient* by the members of the Innovation and Development *Professional Culture*.

Therefore, the *results* of the current section clearly *strengthen* the results gained in *chapter seven* although in a more indirect way than e.g. those of the previous section.

8.9 ***The Middle Administration***

The *agreement scale* is scored in the *neutral area* by the members of the Middle Administration. The score of 2.45 is very close to the overall average of 2.4765. Therefore, apparently both similarities and differences exist in comparison to the should be situation.

The *perceived efficiency scale* is rated in the *negative area*. The value of 2.55 is significantly lower than the average of 2.35. The significance level itself is a little lower than usual, but with .012 well *within the significant area*.

Jointly, these results support the findings of chapter seven, but only to a very limited degree.

The line of argument is comparable to that in the previous section. Apparently there are *differences* between the *situation as it is* and *as it should be*. As the should be situation is the base for the development of the various leadership and organisational structures, it is assumed that the leadership and organisational structures in use differ from those developed in chapter seven. This is paired with a relatively *low perceived efficiency*.

Following the logic of this chapter, the simultaneous occurrence of differences between the proposed leadership and organisational structures on the one hand and low perceived efficiency on the other is an *indicator* for the superiority of the structures developed in chapter seven.

It has to be retained, however, that the differences between the should be and the current situation are relatively small. Therefore, the strength of the argument is somewhat limited.

Nevertheless, in connection with and under due consideration of the empirical results of *chapter seven*, the *recommendations* will be *upheld* as to the appropriate leadership and organisational structures for this *Professional Culture*.

In summary, it can be said that the results of the current *Professional Culture* are an example for a relatively ambiguous picture of the evaluation of the results of chapter seven undertaken here. Despite this ambiguity, though, the results still to a certain extent support the statement that the leadership style and the organisation design developed in the previous chapter are an appropriate approach to leading and organising the members of the Middle Administration Culture.

8.10 ***The Higher Administration***

Both scales are rated in the *negative area* by the members of the Higher Administration *Professional Culture.*

The *agreement scale* receives a score of 3.3913 which is not only positioned in the significantly *negative area*, but also the second lowest value of the whole sample in absolute terms.

The *perceived effectiveness* scale is also located in the *negative area.* Here again, the value of 3.3043 is not only significantly lower than the overall average of 2.35, but in addition it represents *the lowest value* of the whole sample in absolute terms.

These results clearly indicate that there are significant differences between the way the Higher Administration expects its Professional environment to be structured and the way it actually is structured. In addition they show a significant lack of perceived efficiency.

Following the above described line of argument this combination strongly indicates a *sub-optimal structure* of leadership and organisation in the Professional environment of the Higher Administration.

Joining these results with those of chapter seven, there is also indication that the leadership and organisational structures developed in that chapter indeed are superior to those in current use.

In summary, it can be retained that the results of the current section *clearly support* the results of chapter seven. The extremely negative ratings received by both scales strongly suggest that there is ample room for improvement in the Professional environment of the Higher Administration.

Under due consideration of the results of chapter seven and the current section, the recommendation to implement these improvements with the use of the leadership and organisational structures developed in this study is *clearly strengthened.*

8.11 ***The Operational Management***

The Operational Management *Professional Culture* rated both scales in the negative area.

The *agreement scale* was valued at 2.7619. This score is *significantly lower* than the overall average of 2.4765. Although the significance level itself is slightly lower than usual, it is still well within the significant area with a significance level of .001.

The *perceived efficiency* scale is also located in the *negative area* with a value of 2.8095. This represents a *significant deviation* from the overall average of 2.35 and clearly shows that the members of the Operational Management *do not perceive* their Professional environment to be *sufficiently efficient*.

As before, these results indicate a clear discrepancy between the expectations of the current *Professional Culture* and the found reality, paired with a relatively low perceived efficiency.

Following the usual line of argument, these results indicate that the leadership and organisational structures appear to be *less than optimal*, which infers *significant* potential for improvement.

Joining the results of the current section and those of chapter seven indicates that the improvements necessary can best be achieved with the leadership and organisational approach depicted in chapter seven.

In summary, it can be retained that the current *Professional Culture* is another example for the *indirect* support of the results of chapter seven.

Despite the fact that a direct support as depicted in the introduction with "the first situation" would be preferable, the clarity of the results of the current section unambiguously supports those of chapter seven.

Therefore, the recommendation to *implement* the *approach developed in chapter seven* is strengthened and consequently *upheld*.

8.12 ***The Strategic Management***

The picture that evolves when analysing the data for the Strategic Management's *Professional Culture* is not as unambiguous as in previous sections. This is due to the fact that only the *agreement scale* is *significantly* differing from the overall mean, whereas the *perceived efficiency* scale is located in the *neutral* area.

The score for the *agreement scale* is 2.8. This score is *significantly lower* than the overall mean of 2.4765, clearly indicating *significant differences* between the Professional environment preferred by the members of the Strategic Management's *Professional Culture* and the one currently experienced by them.

The score for the *perceived efficiency* though is with a value of 2.4 *only marginally lower* than the overall mean of 2.35. Therefore, some potential for improvement seems to exist, but not as unequivocally as in previous sections.

Hence, the results of this section are not as supportive of those of chapter seven as in previous sections.

Nevertheless, the only moderate efficiency, paired with the clear *discrepancy* between the situation as *it should be* and *the prevailing one* according to the members of the Strategic Management's *Professional Culture*, indicates that the approach proposed in chapter seven is indeed advantageous.

In summary, it can be retained that the need for improvement for the current Professional environment exists only to a limited degree. Nevertheless, this need does exist and should be taken care of, considering the extreme importance of the members of the current *Professional Culture* for their respective organisations.

Therefore, the recommendation to *implement* the *leadership and organisational structures* developed in chapter seven is once again *supported* and strengthened, and will thus be *upheld.*

8.13 ***Closing Remarks***

The results of the current chapter *all support* to varying degrees the results of chapters six and seven. Although some *Professional Cultures* did show a somewhat ambiguous picture, not a single one of them contradicted the different approaches proposed in chapters six and seven.

As already implied, the data available for this chapter is not sufficient to actually *prove* the possible superiority of the leadership and organisational designs developed in chapters six and seven. Nevertheless, the *overall tendency* to confirm the different results of chapters six and seven is definitely encouraging. Therefore, chapter eight is another *strong sign* for the soundness of the approach chosen in chapters six and seven and its results.

In summary, it can be said that by joining chapters six, seven and eight it is possible to significantly strengthen the results and statements of chapters six and seven. Therefore, the various leadership and organisational approaches developed and depicted in chapters six and seven were all significantly strengthened by the results of the current chapter.

In that logic, chapter eight can be seen as a first step for the actual confirmation of the possible superiority of the leadership styles and organisational designs developed in the previous chapters.

To close this chapter an *overview* of the results of the current chapter will be given:

Table 10: The Numerical Values Regarding
Perceived Efficiency and Agreement in an Overview

	The Agreement Scale Mean = 2.4765	The Perceived Efficiency Scale Mean = 2.35
The Blue Collar Workers	$2.4^{=*}$	$2.72^{\downarrow *}$
The Flight Attendants	$1.6^{\uparrow *}$	$1.56^{\uparrow}$
The IT-Experts	$2.85^{\downarrow}$	$2.5^{=}$
The Pilots	$\underline{1.4706^{\uparrow **}}$	$\underline{1.5098^{\uparrow}}$
The Production Experts	$2.3784^{=}$	$2.4054^{=}$
The Project Leaders	$2.5556^{=}$	$2.7222^{\downarrow}$
Innovation & Development	$2.3077^{\uparrow}$	$2.1154^{\uparrow}$
The Service Providers	$\underline{4.6552^{\downarrow **}}$	$3.0345^{\downarrow}$
The Middle Administration	$2.45^{=}$	$2.55^{\downarrow}$
The Higher Administration	$3.3913^{\downarrow}$	$\underline{3.3043^{\downarrow}}$
The OP Management	$2.7619^{\downarrow}$	$2.8095^{\downarrow}$
The Strategic Management	$2.8^{\downarrow}$	$2.4^{=}$

* (=,↑↓) indicate the respective value is *not* statistically significantly different from the indicated mean (=); stattistically significantly *higher* (↑); statistically significantly *lower* (↓)

** values underlined are either the *highest* (**↑) or the *lowest* (**↓) of the respective question

PART C

THE FURTHER IMPLICATIONS

9 SUMMARY AND PROSPECT

In this chapter, a final evaluation of the results and their further implications will be given.

In order to do that, initially the developed leadership and organisational structures will be analysed to check in how far these structures are relevant *beyond* the boundaries of the current study.

This is particularly important as preparation for the further analysis of the relevance of the survey from both an academic and practical point of view undertaken subsequently.

The following two sections will give a joint comprehensive overview of the importance the current study has for academia and practice and will thus put it into a significantly broader context.

Also indications as to the necessity of further research will be given in order to facilitate future access to the research topic treated in this survey.

Hence the role of the current chapter is *two-fold.*

On the one hand, it will give final thoughts directly concerning the various insights gained in the course of this study.

On the other, it will point out which aspects of the research topic raised need more in-depth research in the future, so as to broaden and deepen these very insights.

So the current chapter is at the same time closing the present study and creating a bridge to facilitate future research in the area of *Professional Culture* in particular and the concept of Cultures in general as defined previously.

9.1 ***The Developed Leadership and Organisational Structures, a General Solution? Some Concluding thoughts***

One of the most important questions arising out of this study is whether the leadership and organisational structures developed in the context of the current research project can be generalised *beyond* the boundaries of the present study.

Although this topic could have been treated within the following section in the context of the general relevance of the current study, it was opted to treat this particular topic in a genuine section.

This decision is a consequence of the centrality of the topic of leadership and organisation for both academia and practice.

The main question in this context is whether the characteristics of the aviation industry on the one hand and the characteristics of the employees sampled on the other are such that the results gathered in this survey are not just a product of these self-same particularities of the aviation industry.

These questions have already been raised a number of times throughout the current work.

Nevertheless, under due consideration of the results, a final examination will be undertaken, as these results facilitate a more detailed and sound analysis as to the possibility of generalising the findings of this study.

Therefore, this section will generate some additional insights which are complementary to those already given in previous chapters. In consequence, the present section, in conjunction with previous chapters, will generate a broader picture of the relevance of the leadership and organisational structures developed.

In order to facilitate this undertaking a quick overview of the *key results* depicted in *chapters six and seven* will be given at this point.

- The *Blue Collar Workers* (see section 6.1 for details) necessitate a *leadership style*, which can be subsumed under the term *Patriarchal Leadership*; a leadership style which gives *clear guidance* and exhibits *supportive* and *protective* behaviour towards the employees.
  According to the results portrayed above, the appropriate *organisational structure* is based on a *hierarchical solution* in the sense of the *Administrative Approach* according to *Fayol* (1984), which supports the *Patriarchal Leaders* in their leadership task and clearly puts them in charge of the decision taking process within the group; a truly Team-Based Organisation is not advisable.

- Together with the Pilots the *Flight Attendants* exhibit an idiosyncrasy which is a direct consequence of the specific work environment in which they live: the distinction between a *micro* and a *macro-level* of leadership and organisation. As can be seen in section 6.2, the *micro-level* focuses on the individual flight crew, whereas the *macro-level* focuses on the different divisions of a company in which the corps of *Flight Attendants* is organised. The appropriate *leadership style* on the *micro-level* is based on behaviour which emphasises the following of published rules and procedures in order to provide a maximum level of *protection* for the individual flight crew member by sticking to these published rules, so as to create a "worry-free" work environment. Furthermore, it is necessary for the leader to exhibit a *Participative* and *Human-Oriented Leadership Style,* as a harmonious and conflict-free working environment is also highly important to the members of the current *Professional Culture*; where applicable *Team-Oriented* elements should be included.
  Due to the rather limited occasions on which direct leadership is necessary on the *macro-level,* it is sufficient for the leader to employ a *"Management by Exception Approach"* in which the respective leader interacts with the subordinates only in case of arising problems.
  The appropriate *organisation design* is based on *Bureaucratic Rule* according to *Weber* (1976), which postulates that the organisation should be based on a detailed framework of pre-established written rules and procedures which replaces direct leadership wherever possible. Only such parts of the work process of the Flight Attendants which are clearly inaccessible to prescribed rules and procedures should be left to direct leadership, such as e.g. certain parts of the interaction between passengers and crew.

- The *Information Technology Experts* (see section 6.3 for details) favour a *leadership approach* which takes into account both their need for guidance and good interpersonal relationships on the one hand and a need of freedom on the other. Therefore, it is virtually *equally* based on the *Charismatic* and the *Team-Oriented Leadership Style*. This base should be enriched by a distinct *Human-Orientation* of the leaders, in which they exhibit care and concern for their employees in order to create the above-mentioned good interpersonal relationships.
  Following the results depicted in chapter six, the *organisational design* favoured has to support the leadership style described and be in line with the characteristics of this *Professional Culture*. Therefore, independently acting work teams should be created in which the respective leader can implement the above described leadership style; this approach is rooted in the theoretical framework depicted in the context of *Complexity Theory*.

- Regarding the *Pilots* (see section 6.4 for details), an analogous distinction to that of the Flight Attendants, into a micro- and a macro-level, has to be made.
  On the *micro-level* of *leadership*, which incorporates the Flight Crew, it is advisable for the leader (the Captain) to be focused on the creation of a *positive work atmosphere*. This relatively limited focus is based on the fact that most aspects of a Pilot's life are governed by pre-established rules and procedures, which renders most parts of direct leadership rather obsolete. Hence, the Captain should pursue a leadership style which is based on *Team-Orientation* and *Participative* decision taking. This should be rounded off by the leader's distinct *Human-Orientation*, in order to facilitate the implementation of the above mentioned positive work atmosphere.
  On the *macro-level* (higher Pilots' management), this picture changes dramatically. Here, direct leadership loses most of its importance. This is due to the fact that direct and regular interactions between the individual Pilots and their management will often be rather hard to realise, on the one hand, as a consequence of the size of the respective departments. On the other, the need for direct leadership is quite limited, as most parts of the Pilots' work environment can be organised more efficiently by indirect leadership with the help of rules and procedures. The role of the leader is centred mainly on the creation of a viable *Vision* which takes the characteristics of this *Professional Culture* into account. Other aspects of direct leadership lose most of their importance, which is why indirect leadership through organisation is of such importance in the current setting.
  The appropriate *organisation design* for the current *Professional Culture* should be based on the *Bureaucratic Rule* according to *Weber* (1976). The reason for this is the extremely high acceptance of prescribed rules and procedures within the Pilots' Culture, this being a direct consequence of their specific work environment. Hence, *maximum* use should be made of this possibility in order to efficiently integrate the *Pilots' Professional Culture* into the organisation.

- The *Specially Qualified Production Experts* (see section 6.5 for details) require a rather demanding *leadership style* in order to match their expectations of guidance, freedom and perceived importance of themselves for the production process. Consequently, it is necessary for the leader to create a viable *Vision*, which should be implemented in a *Team-Oriented* and *Participative* atmosphere. *Team-Orientation* and *Participation* are important mainly in order to increase the acceptance of the *Vision* and to ensure that a free exchange of ideas and information can take place within the corps of Production Experts.
  The appropriate *organisation design* is based on the theoretical framework of *Complexity Theory*. Therefore a maximum degree of freedom should be given by the organisation to the respective Production Experts, so as to permit them to lead their departments efficiently. Furthermore, this freedom should also include the possibility of directly tapping into the competencies of other entities; *"Integration through Lateral Organisation"* is a possible approach to these demands.

- The appropriate *leadership style* for the *Project Leaders* (see section 6.6 for details) revolves around a compelling *Vision* which clearly demonstrates the importance which the Project has for the future success of the company. This *Vision* should then be implemented by transferring as much decision competency as possible to the respective Project Leaders. Finally, the leader has to strive for good interpersonal relationships with the individual Project Leaders. The *organisational framework* for the integration of the Project should be as loose as possible. Once again the theoretical base can be found in *Complexity Theory*, whereas the actual implementation should be in the logic of *"Loosely Coupled Systems"*. This means that the organisational guidance for the individual Project Managers should be restricted to the setting of an overall goal for the Project and subsequent occasional checks regarding the degree of achievement of this goal.

- The members of the *Innovation and Development* Culture (see section 7.1 for details) favour a *leadership style* which is focused on the creation and implementation of a compelling *Vision*. The self-image of the members of the current Culture in connection with their objective importance renders both *Team-Orientation* and *Participation* highly important for both the actual implementation of this *Vision* and subsequent day-to-day business. Finally, members of the Innovation and Development Culture consider good interpersonal relationships to be highly advantageous. So the leaders have to make sure that they create a work environment which favours the development of such relationships; understanding, care and helpfulness are key words in this context. The appropriate *organisation design* should be based on *Complexity Theory*. Hence, independently acting teams which receive as much independency as possible should be created. This will result in a relatively flat hierarchy, that values competencies and knowledge; a combination highly important in any innovative process.

- The *Service Providers* (see section 7.2 for details) are governed by collective values and are, in addition, highly consensus driven. Therefore, the appropriate *leadership style* is centred around these values, relying heavily on *Participative* and *Team-Oriented Leadership*. Especially *Participation* is of crucial importance, as only a *Participative decision taking process* can ensure a maximum degree of acceptance of a decision taken. In addition, a *Vision* should be developed for the members of the current Culture in order to strengthen and support this consensus driven leadership relationship.
  The appropriate *organisation design* has to take these core values into consideration, which leads to *Complexity Theory* being the organisational approach of choice. The actual implementation should be undertaken with the help of work teams in the form of *Lateral Organisation* (e.g. *Loosely Coupled Systems*) or, if possible, even the so-called *Virtual Organisation,* to facilitate a maximum degree of Professional *freedom* and individual *participation*.

- The *Middle Administration Culture* (see section 7.3 for details) represents an example of a Culture which necessitates almost *no direct leadership* at all. Members of this Culture rely heavily on indirect leadership. A direct intervention by the leader is only required in case of unsatisfactory results of the employees; *"Management by Exception"* is the key approach in these situations. The appropriate *organisation design* is based on *Bureaucratic Organisation according* to *Weber* (1976). This is due to the high appreciation that Members of the current Culture have for a rules and regulations based work environment. Therefore, maximum use should be made of the possibilities of structuring this work environment along pre-established procedures.

- The *Higher Administration* Culture (see section 7.4 for details) is another example of a Culture with a very *low appreciation* of *direct leadership*. The similarities to the members of the Middle Administration are striking in that aspect. A leader should develop a *Vision* which shows the importance of the task carried out by the members of the current Culture, whilst sticking to a clear *"Management by Exception"* approach for actual day-to-day business. Thanks to the high motivation of the Higher Administration to appropriately carry out their work though, such interventions will only rarely be necessary.
  The appropriate *organisational design* is analogous to that for the Middle Administration. The main difference is that the *Bureaucratic Organisation* retained has to take into account the rather *high qualification level* of the members of the Higher Administration Culture. Therefore, it is necessary to design the organisation and its rules and regulations in such a way that enough room is left for the individual members of the Higher Administration Culture to actually *shape their own decisions* without being overly restrained by the underlying *Bureaucratic Organisation*.

- The *Operational Management* Culture (see section 7.5 for details) requires a relatively complex *leadership approach*. On the one hand, members of the Operational Management Culture express the need for guidance and "reason why" which can best be matched with a *Charismatic* leader. On the other, they expect to be included in the decision-taking process as regards operational decisions, which necessitates *Participative Leadership* elements. In addition, a *Team-Oriented* work environment is appreciated when the task structure makes it possible. The whole complex needs to be rounded off by a leader who is willing and able to protect the employees against externally induced fears and problems which implies the need for some *Human-Orientated Leadership* elements.

The appropriate *organisational design* is a reflection of these rather complicated leadership requirements. Initially, it is necessary to come to a clear-cut *distinction* between *operational* and *strategic decisions*. On the *operational level,* the organisation should be based on the theoretical framework provided by *Complexity Theory* which leads to giving as much decision competency as possible into the hands of the individual Operational Manager. *Strategically, however,* the *need for guidance and "reason why"* clearly supersedes any other aspect, which in turn leads to a clearly hierarchical solution in the sense of the *Administrative Approach* according to *Fayol* (1984). For those situations, finally, which are *neither* clearly *operational nor strategic,* the organisation also has to cater for a joint approach of the leader and the employees.

- The *Strategic Management Culture* (see section 7.6 for details), requires a relatively straight forward *leadership style*. Strategic Managers expect their leader to develop a captivating *Vision*. The development should be undertaken in a *Participative* environment, as its subsequent implementation should be, including the following day-to-day business. In addition to the *Participative* elements, the actual day-to-day business should be dealt with in a highly *Team-Oriented* atmosphere.
  The appropriate *organisation design* is a reflection of the need expressed by the Strategic Managers for *Participation* and *Team-Orientation*. Therefore, *Complexity Theory* is once again the theoretical approach of choice, leading to an organisational design that shows a very flat hierarchy and strongly *Team-Oriented* work environment which takes into consideration all competencies and opinions present in the team. In principle, a *consensus driven decision-taking process* should be pursued; only in *exceptional circumstances* should a decision governed by the prevailing opinion of the leader be considered. Therefore, the organisational design should provide for these exceptional circumstances only – the power base necessary for a leader to unilaterally push a decision through.

- The insights gained in the course of the evaluation undertaken of a *Cross-Cultural Leadership and Organisation Design* (see section 7.7 for details) showed that *every work group* composed of more than one *Professional Culture* needs an *individual* and most of the time rather demanding *leadership style* in order to cater for the different and sometimes contradicting demands of the various Cultures present in the group.
  Organisationally, these demands imply that it is necessary to provide a structure that is as flexible as possible which permits the leader to actually live the appropriate leadership style. The only possible way to achieve that is the implementation of a *Complexity Theory* based approach, which is best adapted to suite such a demanding environment.
  Finally, the results clearly show that it is *not always possible* to join two or more *Professional Cultures* into one integrated work team if the characteristics of these Cultures are too different and/or contradictory. This final insight is of *key* importance, as it demonstrates once again that reorganising work into Teams at all costs is *not the solution of choice*.

In the following these *results* will be *evaluated* to determine in how far they may present a *general solution* beyond the boundaries of the current work.

As demonstrated in section 1.1, the decision to choose the aviation industry was based on the *specific characteristics* this industry has to offer.

As mentioned there, the demands on leadership and organisation are rather significant. This in turn leads to problems within the leadership and organisational structures surfacing more clearly than in most other industries.

This again is a highly advantageous trait for identifying and isolating these problems subsequently developing appropriate solutions.

It does not, however, hinder the generalisability of the solutions found. This is due to the fact that in a less demanding environment the nature of the demands on leadership and organisation does not change, but only loses some of the significant importance it exhibits in the current environment.

Furthermore, the structure of the aviation industry allows a significant number of *different business aspects* to be included in this survey, while staying within the boundaries of the industry. As can be seen with reference to the appropriate chapters, these aspects include e.g. manufacturing on various levels, service tasks on both the business to business and the business to consumer level, companies of various sizes etc.

Thus the variety of occupations encountered within the aviation industry is as such that it encompasses significant portions of any workforce within most other industries. This aspect also supports the generalisability of the results of this study.

Finally, due to its global nature, the aviation industry also permitted the inclusion of a *wide variety* of geographically dispersed entities, which further increases the quality of the findings depicted above.

In conclusion, the aviation industry can be considered to be appropriate for achieving the different goals of the current study itself.

In addition, the nature of the aviation industry as described throughout this work shows that it represents a kind of overarching model whose core elements, of which "composition of work force", and "appropriate leadership and organisational structures" are a part, is mirrored partially or even in its entirety in other industries. Considering the above described diversity within the aviation industry, it will only in specific situations occur that another industry is faced with leadership and organisational demands that were not treated within the current environment.

Furthermore, *National* and *Organisational* diversity and consequently the diversity within the work force deemed necessary could, as shown throughout the current work, be easily achieved by focusing on the aviation industry.

This statement is strengthened by the results of the current survey as detailed in chapters six and seven.

The diversity of the *Professional Cultures* observed could not have been achieved if the underlying population had represented only a relatively homogeneous minority of the work force to be found in business environments in general and the business environment of the aviation industry in particular.

Therefore, this diversity is a clear indication for this study having incorporated significant parts of the Professional environment created by the aviation industry.

The *Professional Cultures* themselves represent a large variety of functions to be found not only within the aviation industry, but in virtually any kind of organisation in both the *public and private sectors*. This indicates once again that the results achieved are not restricted to the current industry, but should also be valid in other industries.

It must be left to future research to judge whether the variety of *Professional Cultures* isolated is indeed exhaustive. Nevertheless, it has to be retained at this point that at least a large part of the *Professional Cultures* to be found in various business environments, their characteristics and their requirements regarding leadership and organisation, is reflected within the current study.

In connection with the demonstrated *satisfactory quality* of the *results* gathered in chapters six and seven, this points to the possibility of extending the validity of the developed leadership and organisational structures to other industries.

Thus, the main task for future research is *two-fold.*

On the one hand, it is necessary to check the actual superiority of the developed leadership and organisational structures, i.e. if they actually do function as intended.

Such a survey would have to go *significantly* beyond the initial evaluation undertaken in chapter eight. It would need to include a variety of aspects such as motivational factors on the side of the employees, possible efficiency gains due to the actual implementation of the various structures developed, etc.

On the other hand, it is necessary to check whether the results gathered in the context of the aviation industry can be reproduced in other industries.

Despite the fact that it seems rather likely that the developed leadership and organisational structures can be transferred to other industries, it would nevertheless be helpful and highly instructive to base this statement on a broader and more in-depth empirical analysis.

Therefore, future research would have to be broadened to include other industries and deepened within the aviation industry to verify and extend the findings gathered in this work.

Nevertheless, to sum up, it can be retained that the leadership and organisational structures developed in the current study appear to be *valid* and *advantageous* in other industries as well.

Hence, following the above question whether the developed leadership and organisational structures may be considered to be a general solution will be answered *positively*. The main task of future research in the context of leadership and organisation regarding *Professional Cultures* will therefore be the validation or non-validation of the above given statement.

9.2 ***The Relevance of the Current Study Considering Academic and Practical Aspects***

In the following, the general relevance of the research project undertaken and its results will be treated in more detail, starting with the academic relevance.

The current study is in a number of ways *important* for the academic world, extending from basic academic research into a new area of knowledge to more practical considerations in leadership and organisation theory.

The basic research that was undertaken is of *significant* relevance, as it broadens and deepens the knowledge base regarding Cultures in a Professional environment. This is particularly important, as existing research is concentrated on single Professions and their traits, without however providing any broader impression of *Professional Cultures* and their requirements in general. The main problem with this approach is the fact that it can not cope with the phenomenon encountered in the current study that *Professional Cultures* structure themselves along functional lines and not "job titles".

Furthermore, it could be demonstrated that after due adaptation, the research tools developed for the complex of *Organisational Cultures* can also be employed successfully in research into *Professional Cultures*.

This is particularly important for future research, as it demonstrates a relatively *economic* way of designing and implementing means for research into the complex of *Professional Cultures*. As previously mentioned, existing literature already points to this possibility.

Nevertheless, the extensive *empirical base* now existing clearly enhances the viability of this approach, which in turn appreciably facilitates future research.

Another rather important aspect is the introduction of a *third* Cultural construct into the complex of Cultures, in addition to those of *National and Organisational Culture*. This is highly advantageous, as it closes a significant gap in the knowledge base regarding Cultures in the work place.

This in turn represents an important step forward for leadership and organisational theory and research. This is due to the relevance which Cultural research has gained over the past years for the development of leadership and organisational structures. But focusing these Cultural influences solely on *National* and *Organisational Cultures* leaves a significant number of influencing factors out of the respective research efforts.

As demonstrated, leadership and organisational structures which are not adjusted to the Cultural background of the employees concerned are most likely to produce sub-optimal results (e.g. House, 2004). Hence, it is necessary for academia to develop appropriate leadership and organisational structures, in order to fully grasp the Cultural environment to be encountered in the Professional world.

To be able to develop these appropriate structures, however, it is equally necessary for academia to have a *complete and sound theoretical knowledge base*. Therefore, the basic research undertaken with the introduction of *Professional Cultures* will be highly *beneficial* for academia in various aspects in the future. It provides a significantly more *holistic* picture of the processes taking place in the work place, permitting more appropriate and thus superior research approaches.

In this context it would also prove to be useful for future research to examine the interrelationships that exist between the constructs of *National*, *Organisational* and *Professional Culture*. In particular, it would be highly beneficial to check for the influences that the different constructs have on one another. Especially the different dynamics that may evolve if the Cultural constructs are e.g. highly similar in their orientation and therefore supportive of each other, or highly dissimilar, which would imply conflicts in the individuals' cultural system, etc., would deserve further attention from the academic world.

Beyond these basic considerations, however, the present research project also provides a number of highly interesting *insights* into the more *application-oriented* research areas of leadership and organisation.

According to the empiricals of this study, it is not advisable to develop leadership and organisational structures without taking the respective *Professional Cultures* into consideration. So an approach which postulates that certain leadership and organisational traits are *always* and in any setting appropriate can not be upheld after due consideration of the above results.

One interesting aspect in this context is that the deviations from current main stream convictions regarding leadership and organisation become *more pronounced* when moving away from the population usually surveyed in leadership and organisation research.

The population usually surveyed is located in the upper-middle to upper echelons of the organisations being surveyed. The results of these *Professional Cultures* are relatively close to those that can be found in existing literature. When moving away from these employees, though, this picture changes *dramatically*.

As can be seen in chapters six and seven, some *Professional Cultures* prefer leadership and organisational structures that have not been deemed be appropriate to any Professional group for quite some time.

The relatively strict focus on a rather limited portion of the work force to be found in an organisation seems to be at the source of certain convictions such as the quasi "universally superior nature" of *Team-Oriented Leadership*.

From an academic point of view, the verdict that appropriate leadership and organisational structures are apparently highly varying across different *Professional functions* indeed needs to be investigated further in future research.

To sum up, it can therefore be retained at this point that, as far as academia is concerned, the current research project is of *significant importance* for both *basic research* and *application-oriented research*.

For *practitioners*, the results themselves are of *primary importance*. This is due to the fact that they can be structured like a manual in order to help leaders in both leadership and organisational matters.

As already mentioned, the results can be used in the context of a large variety of different Professional decisions such as personnel selection and training, organisation development and change, project management etc.

Thus it is of the utmost importance that academia provides practitioners with appropriate solutions in order to permit them to successfully lead and organise their respective entities.

The important point of this aspect is that despite the fact that the current research project focuses for a significant part on academic basic research it also provides answers for very practical problems. Therefore, it clearly demonstrates that academia and practice can and should cooperate, as the gained insights are highly beneficial for both.

On the one hand, it would have been impossible to gather the data in the necessary quality and quantity without the cooperation of the industry. On the other, the industry will be able to take significant advantage of the various insights gained in the course of this work.

Hence, the current study is of *significant relevance* for both *academia* and *practice*. It paves the way for a new and more appropriate approach to Cultural research on the one hand and leadership and organisation theory, research and practice on the other.

In summary, it can be said that the joining of the construct of *Professional Culture* with those of *National* and *Organisational Culture* will have highly beneficial consequences for all parties concerned, from both academia and practice. Therefore, the relevance of the current study for both academia and practice can not be overestimated and should lead to this study *significantly* helping future research in this highly interesting and important field.

9.3 ***Final Word and Prospect***

The current work has given the reader a multitude of new and sometimes most likely surprising insights.

Indeed, the introduction of a completely new field of knowledge into the academic world and the subsequent use of these results are sometimes of necessity surprising.

Due to its novelty and importance, future research in this newly created field of knowledge will be highly beneficial for all parties concerned.

This is true for both academia and practice.

Especially the complex of Cultural research in a business context should gain great benefits from the various insights described above. This is due to the fact that apparently for the first time all relevant culturally influencing factors in the work field are being identified. This should in turn lead to sometimes radically different and in any case superior results than it was possible in the past.

The same is true for practitioners. The very specific answers given in this work regarding different *Professional Cultures* and how to lead and organise them will be of tremendous use when applied to practical challenges.

Therefore it is of the utmost importance that future research picks up the work presented here.

Especially the verification of the actual appropriateness of the leadership styles and organisation structures developed and the potential to generalise these findings will be highly important for practitioners.

For academia, the pursuit of the topic of *Professional Cultures* and the possible identification of other *Professional Cultures* and their characteristics should be a priority. This is especially true, as this basic research will be extremely beneficial to areas such as leadership and organisation theory and research in particular and *application-oriented* areas of academia in general.

Therefore, the current work has produced highly interesting and important results for the whole academic "*value creation chain*" beginning with *basic research*, including *application-oriented research* and reaching as far as the *direct application* of these results by practitioners. Furthermore, it has opened the door to a highly beneficial new perspective for academia and practitioners which should provide both with radically *new* and *enhanced* perspectives and solutions regarding the complexes treated in the current work.

APPENDIX

Appendix 1: The Link between Leadership and Organisation

In the following, a description of the relationship between leadership and organisation will be given. In order to reach this goal, a number of aspects have to be considered (Weibler, 2001, pp.103ff.).

Firstly, both leadership and organisation can be seen as aiming to influence the individual's *behaviour* in some intended sense. The way this goal is to be reached varies, however, as organisations and their rules are not bound to specific persons, whereas leadership is. This evidently has consequences for the way the influence is exercised.

- *Organisations* influence individuals *prior* to a specific situation, whereas *leadership* is usually exercised in *response* to a specific situation
- *Organisational* influence is targeted not explicitly at persons, but at *posts*; *leadership* in the contrary is targeted at specific *persons* and their actions
- *Organisations* influence people in a *non-personal* way through rules and regulations, whereas *leadership* is by definition a *personal* act.

The main question now is why there is a need for leadership at all, i.e. why a focus on leading individuals solely through the organisation is apparently insufficient.
The *following reasons* offer a feasible answer to this question:
Organisation coordinates the actions of people without explicitly knowing these people. Therefore it is not always assured that the place the organisation reserves for the individual really suits this individual. Furthermore, it is possible that, at least temporarily, the individual's goals are not in accordance with the organisation's goals. Both of these possibilities lead to the need for corrective action of some sort, which is dependant on the situation and the people concerned. Finally, organisations are social entities, which leads to the need to integrate this entity beyond mere technical integration, to give the people a "reason why" of the organisation and for being part of this entire organisation.

The relationship between organisation and leadership can therefore be seen as follows:
On the one hand, organisation defines a structured leadership space. This is due to the fact that without at least some sort of organisation there is no one to lead and thus no leader.
On the other hand, however, organisation needs to be explained, put into reality, and changed. Rules and regulations are not always comprehensible per se. Furthermore, the realisation of the theoretical construct "organisation" is the task of individuals leading other individuals not only to understand, but also to internalise and live this organisation. Depending on the type of organisation as seen above, this also implies that change has to be initiated and implemented by specific people, which is another reason for leadership to be present.

In conclusion, it can be said that leadership and organisation are mutually dependent, but are also able to substitute each other to a certain degree. These degrees vary, of course; depending on the organisation type present; for example, a hierarchical organisation will have a genuinely different distribution of leadership and organisation in comparison with an organisation which resembles the model of *Complexity Theory*. Nevertheless, it can be stated that leadership without organisation is as impossible as organisation without leadership.

Appendix 2: The Standardised Questionnaire

Part A (The Core Cultural Dimensions):

1. In order to reach appropriate professional behaviour, orderliness and consistency should be stressed, even at the expense of experimentation and innovation.

Strongly agree			Neither agree nor disagree			Strongly disagree
1	2	3	4	5	6	7

2. Members of your profession should be encouraged to be:

aggressive						non-aggressive
1	2	3	4	5	6	7

3. Members of your profession who are to be successful should:

plan ahead						take life events as they occur
1	2	3	4	5	6	7

4. In your professional group, a person's influence should be based primarily on:

one's ability and contribution to the organization						the authority of one's position
1	2	3	4	5	6	7

5. I believe that when dealing with members of my profession, managers should generally encourage group loyalty even if individual goals suffer.

Strongly agree			Neither agree nor disagree			Strongly disagree
1	2	3	4	5	6	7

6. In your profession, meetings should be:

planned well in advance (2 or more weeks in advance)						spontaneous (planned less than an hour in advance)
1	2	3	4	5	6	7

7. Members of your profession should be encouraged to be:

dominant						non-dominant
1	2	3	4	5	6	7

8. Members of your profession should be encouraged to be:

tough						tender
1	2	3	4	5	6	7

9. Members of your profession should be encouraged to strive for continuously improved performance.

Strongly agree			Neither agree nor disagree			Strongly disagree
1	2	3	4	5	6	7

10. A member of your profession whose work is highly structured with few unexpected events:

has a lot to be thankful for						is missing a lot of excitement
1	2	3	4	5	6	7

11. In your profession, men should be encouraged to participate in professional development activities more than women.

Strongly agree			Neither agree nor disagree			Strongly disagree
1	2	3	4	5	6	7

12. In your profession, job requirements and instructions should be spelled out in detail so employees know what they are expected to do and managers should provide detailed instructions.

Strongly agree			Neither agree nor disagree			Strongly disagree
1	2	3	4	5	6	7

13. In your profession, being innovative to improve performance should be:

substantially rewarded			somewhat rewarded			not rewarded
1	2	3	4	5	6	7

14. Members of your profession should be encouraged to be:

very sensitive toward others						not at all sensitive toward others
1	2	3	4	5	6	7

15. Concerning the professional group you are a member of, managers should take pride in the individual accomplishments of group members.

Strongly agree			Neither agree nor disagree			Strongly disagree
1	2	3	4	5	6	7

16. I believe that dealing with members of my profession, work would be more effectively managed if there were

many more women in positions of authority than there are now			about the same number of women in positions of authority as there are now			many less women in positions of authority than there are now
1	2	3	4	5	6	7

17. In your understanding, rank and position in the hierarchy should have special privileges.

Strongly agree			Neither agree nor disagree			Strongly disagree
1	2	3	4	5	6	7

18. I believe that in my profession, being accepted by the other members of the professional group should be very important.

Strongly agree			Neither agree nor disagree			Strongly disagree
1	2	3	4	5	6	7

19. How important should it be to members of your profession that your profession is viewed positively by persons in other professions?

It should not be important at all			It should be moderately important			It should be very important
1	2	3	4	5	6	7

20. Members of your profession <u>should</u>:

worry about current crises						plan for the future
1	2	3	4	5	6	7

21. How much <u>should</u> it bother members of your profession if an outsider publicly made negative comments about the profession?

It should not bother them at all			It should bother them a moderate amount			It should bother them a great deal
1	2	3	4	5	6	7

22. Members of your profession <u>should</u> be encouraged to be:

very tolerant of mistakes						not at all tolerant of mistakes
1	2	3	4	5	6	7

23. Members of your profession <u>should</u> set challenging work goals for themselves.

Strongly agree			Neither agree nor disagree			Strongly disagree
1	2	3	4	5	6	7

24. In your understanding, important organisational decisions <u>should</u> be made by:

management						Fellow professional
1	2	3	4	5	6	7

25. I believe that among members of my profession, time devoted to reaching consensus is:

a waste of time			sometimes wasted and sometimes well-spent			time well spent
1	2	3	4	5	6	7

26. When in disagreement with superiors, subordinates <u>should</u> generally go along with what superiors say or want.

Strongly agree			Neither agree nor disagree			Strongly disagree
1	2	3	4	5	6	7

27. Members of your profession should:

take no pride in exercising this profession		take a moderate amount of pride in exercising this profession				take a great deal of pride in exercising this profession
1	2	3	4	5	6	7

28. Members of your profession should work on:

only individual projects			some individual and some team projects			only team projects
1	2	3	4	5	6	7

29. In your profession, it should be worse for a man to fail in his job than for a woman to fail in her job.

Strongly agree			Neither agree nor disagree			Strongly disagree
1	2	3	4	5	6	7

30. Members of your profession should in general be encouraged to be:

very generous						not at all generous
1	2	3	4	5	6	7

31. In summary, I think that my view of how things should be as expressed in the answers above, is largely in accordance with my professional situation as it is today.

Strongly agree			Neither agree nor disagree			Strongly disagree
1	2	3	4	5	6	7

Part B (The Demographical Questions):

In the following, 8 general questions are asked. These are used to render the answers of Part A accessible to a useful interpretation. There will be *no* further use to this data.

1. Which part of the industry are you in?

Supplier of components to the aviation industry | Producer of "final" products | Low-cost Airline | Network Airline

2. Please indicate your ***main*** professional/occupational background (e.g. marketing, technician, buyer). Please avoid general designations such as administration, management, worker and alike. Choose for your statement the occupation you carried out the longest including times spend for education/training. Please be as precise as possible.

_____

3. How many years did your professional training/education take? If more than one profession acquired please indicate for the one marked in question two.

☐ 1 year and less ☐ 2 years and less ☐ 3 years and less ☐ 4 years and less ☐ 5 years and less ☐ more than 5 years

4. For how many years have you been working in your profession? If you worked in more than one profession throughout your career please mark the one you indicated in question two.

☐ 2 years and less ☐ 5 years and less ☐ 10 years and less ☐ 15 years and less ☐ 20 years and less ☐ more than 20 years

5. Do you have to fulfil any significant tasks that are beyond the boundaries of your profession (e.g. administration, management)?

☐ Yes _____ which? ☐ No

6. In summary,, I consider my professional peer group (e.g. my fellow engineers in a development department) to be rather efficient.

Strongly agree			Neither agree nor disagree			Strongly disagree
1	2	3	4	5	6	7

7. What is your nationality?

☐ German ☐ French ☐ Italian ☐ Spanish ☐ Swiss ☐ UK ☐ US ☐ other (please indicate) _____

8. What is your sex?

☐ Male ☐ Female

Are you interested in taking part in a personal interview of about 20-30min and/or receiving the results of this survey? If yes please indicate your e-mail address below or contact me directly at marclumpe@aol.com or phone +49/171/644 1554.

☐ Interested in participating in an Interview ☐ Interested in the results

Your e-mail address: _____

Appendix 3: All the Numerical Results in an Overview

In the following an overview of the numerical values and their relative position towards each other will be given. The colour encoding of the values means:

- → Value is located within the *"High"* area of that Cultural Dimension
- → Value is located in the *"Medium"* area of that Cultural Dimension
- → Value is located in the *"Low"* area of that Cultural Dimension

	Uncertainty Avoidance 6.45≥High ≥ 4.77 4.77>Medium≥3.11 3.11>Low≥1.43	**Assertiveness** 5.87≥High≥4.46 4.46>Medium≥3.05 3.05>Low≥1.64	**Future Orientation** 6.23≥High≥4.67 4.67>Medium≥3.1 3.1>Low≥1.53	**Power Distance** 4.67≥High≥3.4 3.4>Medium≥2.14 2.14>Low≥0.87	**Collectivism I** 6.24≥High≥5.16 5.16>Medium≥4.08 4.08>Low≥3.0
Blue Collar Workers	5.23	2.07	4.76	3.6	4.27
Flight Attendants	5.39	1.99	1.66	1.86	5.82
IT-Specialists	5.72	3.98	5.82	3.9	4.62
Pilots	6.45	2.14	4.88	2.63	6.24
Production Experts	4.54	4.12	4.92	3.97	5.46
Project Leaders	3.57	4.5	5.35	4.67	5.5
Innovation & Development	3.53	4.79	6.22	4.17	6.08
Service Providers	2.3	4.39	4.6	4.38	6.21
Middle Administration	4.0	4.17	4.43	3.7	4.43
Higher Administration	4.32	4.48	6.03	4.35	5.08
Operational Management	4.06	5.87	4.84	4.27	5.56
Strategic Management	3.63	4.73	6.23	4.02	5.3

	Performance Orientation 6.75≥High ≥ 5.5 5.5>Medium≥4.26 4.26>Low≥3.01	Gender Egalitarianism 6.52≥High≥5.45 5.45>Medium≥4.39 4.39>Low≥3.33	Human Orientation 5.59≥High≥4.42 4.42>Medium≥3.25 3.25>Low≥2.08	Collectivism II 6.6≥High≥5.57 5.57>Medium≥4.54 4.54>Low≥3.51
Blue Collar Workers	4.45	4.72	4.21	4.85
Flight Attendants	3.75	6.19	5.5	4.02
IT-Specialists	6.0	5.72	4.23	6.0
Pilots	5.77	4.14	2.5	6.16
Production Experts	6.14	6.04	4.03	6.04
Project Leaders	6.39	5.81	5.59	6.06
Innovation & Development	6.41	6.24	5.29	5.46
Service Providers	6.32	6.02	3.95	6.23
Middle Administration	5.12	5.22	4.55	5.34
Higher Administration	5.03	6.52	4.06	6.2
Operational Management	6.57	5.71	3.78	5.56
Strategic Management	6.75	6.05	4.07	6.6

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