

CRANFIELD UNIVERSITY

Mohit Mehta

On Adaptation in the Adoption Process of Management Innovations
within Organisations

School of Management
Ph.D. Leadership and Management

Doctor of Philosophy
Academic Year: 2018 - 2019

Supervisor: Professor Patrick Reinmoeller
February, 2019

CRANFIELD UNIVERSITY

School of Management
Ph. D. Leadership and Management

Doctor of Philosophy

Academic Year 2018 - 2019

Mohit Mehta

On Adaptation in the Adoption Process of Management Innovations
within Organisations

Supervisor: Professor Patrick Reinmoeller
February, 2019

This thesis is submitted in partial fulfilment of the requirements for
the degree of Doctor of Philosophy

© Cranfield University 2019. All rights reserved. No part of this
publication may be reproduced without the written permission of the
copyright owner.

ABSTRACT

Adopting management innovations is complex. A high percentage of management innovations fail to deliver, but not enough literature explains why this is the case. This dissertation aims to extend the understanding around the adaptation of management innovations within the adoption process. This is a paper-based dissertation, where all papers contribute at some level towards the same underlying purpose, to advance what we know about adaptation of management innovations during the introduction into an organisational context, the challenges this entails, and guidance that can help practitioners when selecting or, implementing such an innovation in their organisation.

In a relatively new area, this dissertation first reviews the extant literature on management innovations with a focus on adoption and adaptation. Synthesising from the literature, the dissertation establishes clear classification criteria for management innovations. This is followed by an empirical study, which draws upon template analysis to structure qualitative data gathered with seven groups in total 90 senior industry practitioners, who shared their experience with management innovations, and their views on main challenges and key success factors of the adoption of management innovation in organisations. The analysis and step-wise synthesis of the responses highlighted the enhanced role of being connected with the purpose, managing a synchronised effort towards goals, and careful handling of new localised learning which is generated when a new management innovation is being adopted. The last paper presents a model for adaptation and implementation of new management innovation practice in an organisation. The model utilises the foundations of organisational routines literature to introduce a team-level construct in “team responsiveness” and links it with an organisation’s ability to accept or reject an incoming management innovation. The simulation model leads to multiple propositions on how team responsiveness is linked to a successful adoption of a management innovation. The study contributes by extending theory and preparing it for further empirical testing. Overall this dissertation contributes to the literature by organising extant research and identifying lacunae in what is known about the adaptation of

management innovations. This thesis also extends theory by developing a grounded conceptual model to explain main enablers and challenges with adaptation of management innovations. Finally, this thesis contributes to the literature by constructing a simulation model to unveil the important role of team responsiveness and to derive propositions on its impact on adoption.

Keywords:

Management innovation, new management practices, adoption, adaptation, simulation modelling, change management

This thesis is lovingly dedicated to my mother,
Smt. Raj Rani Mehta
for her constant belief in my abilities and in me.

ACKNOWLEDGEMENTS

Working towards a thesis and writing a dissertation is a challenging but rewarding process. This journey required consistent professional and personal support from my supervisory team, colleagues, friends and family. I would like to extend my gratitude and thank the many people who helped and supported me through this journey.

First and foremost, I would like to express my heartfelt gratitude to my mentor and supervisor Professor Patrick Reinmoeller. Patrick's encouragement and guidance has been a constant source of belief and energy throughout this process. I came to know Patrick during my MBA at Cranfield and since then it has only been a pleasure to get guidance and direction from him. These interactions have only left me energised and with new sparks for progress in my research work. Your excitement and willingness to provide feedback made the completion of this research an enjoyable experience. For your support and advise, I am truly grateful.

Next, I would like to thank my supervisory committee, Dr. Monica Franco-Santos, Dr. Neil Turner, and Dr. Around Franken. Each of the members in my committee helped with their unique expertise, knowledge and point of view for me to get the best perspective of the problem at hand. All the input has helped me shape the thesis and I am thankful for having such a supportive committee.

Since, the research in social sciences is a very different ball game for an individual coming with my background in mathematics and computer science, I have benefitted tremendously from the research preparatory programme at Cranfield led by Dr. Jonathan Lupson, Dr. Colin Pilbeam, Professor David Denyer and Professor Emma Parry. The preparatory programme as part of the M.Res. cohort was instrumental in developing my understanding and confidence with the new skills necessary for social sciences.

Such a long journey cannot be completed without the support of peers. I would like to thank my colleagues and friends Alessandro Guidici, Carmine Basile, Anurag Tewari, Pankaj Chandorkar and all my friends and colleagues, past and

present at the Cranfield School of Management. Similarly, I also wish to thank all my colleagues at my workplace, humanLearning Limited for their support and encouragement through this process. And the colleagues at the Research Office and the Management Information Research Centre (MIRC) for their constant support and availability whenever I required help with something. In particular, I would like to thank Debbie Bramwell at the Research Office, and Karen Stokes at MIRC.

Last but not least, I would like to thank my parents for their constant support and encouragement during this journey and always. Special thanks to my wife Jina and daughter Naomii for their understanding and sacrifice, letting me spend weekends and every opportunity I got towards this effort, taking precious family time away which actually belonged to them. I promise I will make it up to you...

Thank you all!

TABLE OF CONTENTS

ABSTRACT	i
ACKNOWLEDGEMENTS	iv
LIST OF FIGURES	ix
LIST OF TABLES	x
1 Introduction	12
1.1 Research Topic: Investigating the process of adaptations for management innovation adoption	12
1.2 What is adaptation and why is it important?	13
1.3 Dissertation overview	14
1.3.1 How the chapters connect with each other?	15
1.4 Paper abstracts	17
1.5 Declaration of contributions	19
1.6 References	22
2 Management innovations and adaptations in the adoption process – A systematic review of the literature	25
2.1 Abstract	25
2.2 Introduction	25
2.2.1 What is Management Innovation (MI)?	26
2.3 Method of Literature Review	27
2.3.1 Search protocol	27
2.4 Reviewing the literature on management innovations	31
2.4.1 Studies in management innovations	31
2.4.2 Where do MIs originate?	32
2.4.3 New to the state-of-the-art vs new to the firm	34
2.4.4 Why do firms adopt new MI practices?	35
2.4.5 How do MIs disseminate and diffuse?	36
2.4.6 Why is adaptation necessary?	37
2.5 Synthesis, research questions and propositions	39
2.5.1 Developing a classification criterion	41
2.5.2 MI implementation failures	43
2.5.3 MI adaptation	44
2.5.4 Problem setting	46
2.5.5 Research questions and propositions	48
2.6 Discussion and implications	54
2.6.1 Managerial implications	55
2.7 References	57
2.8 Appendices	63
2.8.1 Core articles on management innovations	63
2.8.2 Publication sources for steps 4 and 5 within the SLR	65
2.8.3 Yearly distribution for the articles in steps 4 and 5 within the SLR	67

2.8.4 Data extraction framework.....	68
2.8.5 Extracted data from key papers.....	69
3 Adoption of management ideas and innovations – An exploratory study of the adaptation process	89
3.1 Abstract.....	89
3.2 Introduction	89
3.3 Theoretical context.....	91
3.4 Methods	93
3.4.1 Data collection	93
3.4.2 Data analysis	98
3.5 Findings and discussion	100
3.5.1 Purposeful grounded execution	108
3.5.2 Organisational inertia.....	110
3.5.3 Contextual orchestration for success.....	112
3.5.4 Creation of new knowledge	114
3.6 A generative model for new knowledge creation.....	116
3.6.1 Enhanced role of leadership to connect on purpose.....	118
3.6.2 Strong need for contextual orchestration	119
3.6.3 Continual generation of new knowledge	120
3.7 Conclusion	121
3.8 References.....	123
3.9 Appendices	130
3.9.1 The questionnaire	130
3.9.2 First-order categories from NVivo	132
3.9.3 Brief introduction to template analysis	134
3.9.4 Management practices	135
4 Modelling responsiveness: How teams lead successful implementation of management innovations.....	137
4.1 Abstract.....	137
4.2 Introduction	138
4.3 Definitions and background literature	139
4.3.1 Complexities in the adaptation of MIs	139
4.4 Methodology, construct and the propositions	143
4.4.1 Modelling with stochastic simulations	143
4.4.2 Formulation of a theoretical construct.....	144
4.4.3 The significance of the team responsiveness construct.....	150
4.4.4 Practice adaptation and capability development.....	151
4.4.5 Propositions	153
4.5 A model for team responsiveness	157
4.5.1 Algorithm	160
4.6 Results	163
4.7 Discussion.....	167

4.7.1 Assumptions and limitations	170
4.7.2 Managerial implications	171
4.8 Conclusions and avenues for future research	172
4.9 References.....	176
4.10 Appendices	183
4.10.1 Structural design and data structures	183
4.10.2 Sensitivity analysis: results with other practice absorption levels ..	186
5 General discussion and conclusion	191
5.1 Linking management innovation with other innovation literature	191
5.2 Main findings and contributions.....	195
5.2.1 Classification criteria for management in innovations.....	195
5.2.2 Considerations when adapting a management innovation	196
5.2.3 Model for team responsiveness to aid MI adaptation.....	197
5.3 Implications for practice and reflections	198
5.4 Reflections on the PhD journey.....	203
5.5 Conclusion	207
5.6 References.....	209

LIST OF FIGURES

Figure 1: Distribution of contribution groups	31
Figure 2: MI generation and adoption processes.....	33
Figure 3: Mapping the research literature for MI	47
Figure 4: How much adaptation is necessary?	50
Figure 5: Data structure 1	101
Figure 6: Data structure 2	102
Figure 7: Generative process for new localised knowledge.....	118
Figure 8: MI adoption process	140
Figure 9: Independent factors which could be determinant of team responsiveness	148
Figure 10: Practice adaptation and capability development for practice adoption	152
Figure 11: Practice adaptation simulation model	163
Figure 12: Organisational team responsiveness vs Practice learning.....	164
Figure 13: Organisational team responsiveness vs Iteration count.....	165
Figure 14: Range of organisational team responsiveness vs Practice adaptation gain	167
Figure 15: Practice and teams data structure for the model	183

LIST OF TABLES

Table 1: Research database search results.....	28
Table 2: Scale of centrality (Lane, Koka and Pathak, 2006)	30
Table 3: Article counts with the process	30
Table 4: Research orientations and coverage within MI literature	32
Table 5: Overview of the MI landscape in terms of conceptual categorisation..	42
Table 6: Rationales for MI failures at different adoption phases	44
Table 7: Dimensions for successful adoption of MI.....	48
Table 8: Questionnaire respondents' profile and objectives	97
Table 9: Pre-coding template.....	99
Table 10: Representative quotes for each second-order theme on hinderances in practice adaptation.....	103
Table 11: Aggregate dimensions and their working definitions.....	108
Table 12: Environmental dynamism vs Team responsiveness	149

1 Introduction

1.1 Research Topic: Investigating the process of adaptations for management innovation adoption

Innovation today is high on every corporate agenda (Christensen, Anthony and Roth, 2004). While technological and R&D type innovations remain important, this thesis focusses on another particular type of innovation, that has gathered much attention, the so-called management innovation. Birkinshaw, Hamel and Mol (2008) define management innovation as "the invention and implementation of a management practice, process, structure or techniques which is new to the state of the art and has been developed to further organisation goals", while Damanpour and Aravind (2012: 429) define it as "new approaches in knowledge for performing the work of management and new processes that produce changes in the organisation's strategy, structure, administrative procedures, and systems". It has been noted that on the whole management innovation is probably as important to social and economic progress as Technology Innovation¹ (Birkinshaw and Mol, 2006).

Well known examples of management innovation (MI) include: Motorola's Six Sigma; Analog Devices Balanced Scorecard, Balanced Scorecard, Activity Based Costing (ABC), Toyota Production System (TPS), Total Quality Management (TQM) and the Modern Assembly Line etc. The objective of MIs is usually value creation and most often finding new ways to leverage existing organisational resources and infrastructure, or in some cases developing new ones as necessary to leverage on the existing ones (Volberda, Van Den Bosch

¹ On the distinction with Technology Innovations, it is important to note that Management Innovations are not ideas originating from experiments in a laboratory, but instead something which evolves out of necessity and within an organisational context (Birkinshaw & Mol, 2006). Technology practice can be codified (Birkinshaw & Mol, 2006) and thus transferred, whereas Management Innovations are much deeper and a simple transfer of top-level practice usually does not work (Lillrank, 1995).

and Heij, 2013). Some recent examples of management innovations range from adopting new ways of working by Vodafone (Maitland and Thomson, 2011) to adopting agile development practices as a new software engineering methodology by software organisations (Lee and Xia, 2010).

While some organisations are able integrate these management practices successfully and acquire sustainable competitive advantages doing so, many fail to do so. This failure to integrate an MI practice is known (Beer, 2003; Beer and Nohria, 2000; Choi and Behling, 1997; Decker et al., 2012; Dooley and Flor, 1998; Hughes, 2011; Jacobs, Witteloostuijn and Christe-Zeyse, 2013; Michel, By and Burnes, 2013), yet the reason for this small success rate is not.

As a precursor, before I describe the structure and overview of this dissertation it is important to briefly touch upon the question: What is adaptation and why is it necessary? This will set up the context for why it is important to understand the process.

1.2 What is adaptation and why is it important?

To look into the adaptations, we need to first look into the Adoption process. Adoption is a process by which an organisation searches for a solution for a business need, follows a selection process among available management innovations, adapts the innovation to its organisational context, and institutionalises it (Damanpour and Schneider, 2006; Klein and Sorra, 1996). Adaptation is an penultimate step in this process, by which the target organisation carries a series of changes to the practice or, to the organisational context to be able implement and integrate this new management innovation practice. Ansari et al. (2010: 71) define adaptation as “...the process by which an adopter strives to create a better fit between an external practice and the adopter's particular needs to increase its “zone of acceptance” during implementation.” Thus, adaptation is an important process which is aimed to deliver a fit between the management practice and the organisational context.

An adaptation may be required due to a number of reasons. Organisations, in order to generate a positive outcome usually attempt to integrate the new practice with their existing capabilities, technology and culture. Some organisations may lack a set of capabilities necessary for implementing the practice (Henderson and Clark, 1990). If these are difficult to acquire an organisation may resort to modifying or reducing the management practice in order to make it fit its existing set of capabilities. Management innovations typically have higher levels of complexity and need higher social engagement and absorption to be successful (Lillrank, 1995). Now, since every organisation is unique in its socio-cultural and technical make-up, implementing a management innovation practice without adaptation to local context is fraught with risk (Wood and Caldas, 2002). Not surprisingly, it has also been noted that management innovations cannot be copied and implemented verbatim (Ansari, Fiss and Zajac, 2010; Lillrank, 1995; Rogers, 1995). In the absence of firm guidance, organisations try to recombine available “templates” available at the time of adoption (Kennedy and Fiss, 2009; Westphal, Gulati and Shortell, 1997).

1.3 Dissertation overview

In this paper-based dissertation, I contribute to deeper understanding of the adaptation process when adopting a management innovation. This doctoral thesis is written using a “3-paper format” and comprises of this introduction, one paper as a systematic literature review and two further studies - one inductive qualitative study using template analysis (King, 2004), and another on a conceptual model for adaptation process using simulation methods (Law and Kelton, 1991). I conclude the dissertation with a conclusions chapter where I discuss the contributions and main findings from my work.

All three paper chapters are not linearly connected, but they build on previous work and are linked by a common thread. Curiosity regarding the MI adaptation process led to increasing understanding moving from the literature review to qualitative empirical work and a simulation study, which helps further conceptualisation.

1.3.1 How the chapters connect with each other?

In this dissertation, I investigate for improved understanding of the MI adoption processes for realised results (positive or negative), specifically focusing on the adaptation phase within the process of management innovation adoption. In order to achieve this, I need to further expand on why improving the understanding of MI adaptation is an important activity, especially on the high failure rates and the considerable investment such large-scale endeavours require.

Since all management innovations require some sort of adaptations to local organisational context to be effective (Ansari, Fiss and Zajac, 2010; Lillrank, 1995; Rogers, 1995), something is amiss in the understanding of this adaptation process. In order to progress towards deeper understanding, I first conducted a systematic literature review (SLR) on management innovations and their rationale, antecedents and other available research around their adoption processes. This review is important to build an understanding and appreciation of extant research and opportunities to contribute to research body of knowledge. The review also looked into how the diffusion of management innovation can be seen from an evolutionary perspective (Lillrank, 1995) and how management innovations themselves adapt over time to be even more successful and resilient in further diffusion across organisations (O'Mahoney, 2007), but the main focus areas for the review is adaptation of MIs and the extant literature around it.

The SLR process (Briner and Denyer, 2012) provided a rich understanding of the MI literature. An important revelation of the process is the understanding that management innovations have strong tacit and social components, and thus are complex and involved endeavours, yet there remains a lack of research exploring this insight. MI are very unlike technology type innovation, it takes time and the teams correspondingly have to transfer the learning into routines of practice to be successful. The process raised some interesting questions for future research: How do MI Adaptations (to the practice and to the organisational contexts) affect its expected outcomes? How does social and cultural distance

between the origination and the adopting organisation affect the amount of adaptation? And How does the amount of available knowledge around the management innovation practice inform the adaptation process?

However, a simpler question emerged, which I felt should be answered first. Given lots of similarities between a MI change process and a typical organisational change, is there something that managers should pay special attention to? Given the high failure rates of MI adaptation, is there something which practicing managers perceive to be key success factors when bringing in a management innovation? This formed the basis for our second study.

The second study is an inductive qualitative exploration of the adaptation process within an organisation. The focus is kept at understanding the organisational forces (both positive and negative) as perceived by practicing managers when a new management innovation practice is being introduced within an organisation. The study involved seven (7) groups of senior management practitioners. The qualitative analysis of data obtained from 90 respondents was carried out using the template analysis process (King, 2004). In addition, the results were validated progressively with every group from group 4 onwards. The analysis revealed reflection and recommendations emphasising management focus regarding an enhanced role of leadership with the purpose, strong need for contextual orchestration and continual generation of new knowledge, in order to increase the success chances in adopting a management innovation.

Working on this SLR and the qualitative study, I repeatedly noticed that the literature had pointed repeatedly to high failure rates for management innovations. Given a practice, seemingly some organisations are able to successfully integrate the practice to productive ends, while others fail to do so. As part the qualitative study multiple internal factors were mentioned by the respondents which could be hinderances for the adopting organisation to successfully adapt a practice within its context. This observation begged the question, is there something internal to the organisation that plays a part in the success or failure of an incoming practice. Can we propose such a construct and test it? This informs my third study.

This study develops a model for how a management innovation is adapted and absorbed within an organisation. For this purpose, the study proposes a team-level construct of Team Responsiveness (TR), which is defined as the effectiveness with which internal teams internalise and deliver on requests. The study builds on the literature of organisational routines in order to model this construct. The model involves both modification to the practice, and modifications to the organisations' capabilities to be able to successfully integrate a practice. The study enhances theory with multiple propositions around an organisations' ability to accept or reject a practice and the role of TR in this adoption process, and then validates them using simulation modelling and prepares thus further empirical testing.

1.4 Paper abstracts

This section lists the abstract for the three papers, which I detail in Chapters 2, 3 and 4.

Paper 1: Management Innovations and Adaptations in the Adoption Process: A systematic review of the literature

This systematic review helps understand the wider management innovation literature, and specifically what is known about the adaptation process for MI practices that is prone to fail. The review highlights an adaptation dichotomy between 'too little' and 'too much' change of a management practice when it is adapted for adoption. Grounded in the literature, we propose that the benefits a practice may deliver follow an inverted-U curve with respect to the changes it is subjected to before implementation. Further, we propose that such changes are directly proportional to the social and cultural distance between the originating and adopting organisation. We also propose a proportional link with the degree of specification build and developed around the practice, as it has been practised between and within other organisations.

Paper 2: Adoption of management ideas and innovations – An exploratory study of the adaptation process

Change management processes are well covered in the literature but this coverage does not offer much insight into situations where the content of the change process are management innovations, and the challenges entailed. This study contributes to the change management literature by specifying challenges related to the adoption of management innovation and possible solutions. A secondary contribution is to the literature on management innovation, by elucidating how adoption processes can fail or be facilitated. This study builds senior management practitioners' reflections on organisational reactions to management innovations to increase understanding of the specific adoption and adaptation process of management innovation. The qualitative data was gathered with an exploratory questionnaire with open-ended questions answered by a total of ninety respondents and validated by a peer group. The questionnaire elicited how the adoption and adaptation of management practices works in practice. The resulting data was subjected to the template analysis process. This study proposes a generative model for the adaptation of management innovation through the creation of new localised knowledge. This model provides guidance on where practitioners may want to pay particular attention during the process.

Paper 3: Modelling responsiveness: How teams lead successful implementation of management innovations:

Based on foundations of the organisational routines literature, this study develops a model and examines how a new management practice is adapted and assimilated within an organisation. The high rate of failure of a new management practice after adoption is an important consideration for organisations because it involves considerable resources investment. Although some research has focused on specific new management practices, the literature does not provide quantitative models that could provide guidelines for implementation efforts. In order to achieve this, this study first introduces the team-level construct of team responsiveness defined as the effectiveness with which internal teams internalise and deliver on requests. Second, this study develops propositions on the link between team responsiveness and an organisation's ability to accept or reject new management practices, on the impact of team responsiveness on practice

success and failure, the impact of team responsiveness on the range of practice choices available (before adaptation), and team responsiveness scores' variation on the implementation impact. By introducing and integrating team responsiveness, this study enhances theory and prepares the extended theory for empirical testing. Further suggestions for research and managerial implications are made.

1.5 Declaration of contributions

Here I declare my contributions to the papers-based chapters in this dissertation. In this section I also acknowledge the contribution of my thesis supervisor and the supervisory panel members. Chapters 2-4 have been structured as full papers therefore references and appendices are part of the chapters themselves. An earlier manuscript of these chapters was also submitted internally for the 1st, 2nd and 3rd review of my PhD programme.

Chapter 1

This chapter describes the research topic of this dissertation. After briefly introducing management innovations, it presents the adaptation process, its importance and why is it necessary. The chapter also introduces the reader to the structure of the report, and the connections between different chapters and how they came about during this journey. The chapter ends with listing of the paper abstracts and the declaration of my contributions in this work.

Chapter 2

This chapter is my first paper-based study. It is a Systematic Literature Review for understanding extant literature around management innovations. I took the inspiration for the tools and process for the review using Lane, Koka and Pathak (2006). The discussion with my supervisor during this period were invaluable in order to structure and learn the ropes around academic research, and also to find a method and style to present the review results. I did all the required work, research, analysis, synthesis and wrote the paper manuscript. My supervisor provided me feedback on my work as I went through multiple iterations through

the process. I also had feedback from my supervisory panel when it was reviewed and the feedback incorporated back into this work.

Chapter 3

This chapter is my second paper-based study. Coming primarily from a quantitative background, this piece was commissioned as a personal challenge in order to do good quality qualitative work and develop my qualitative skills in the process. In this study I investigate around the management innovation adoption and adaptation process as perceived by practicing managers. The respondents were senior executives attending executive education. In doing so, the analysis allowed constructing a grounded model specifying guidance for practicing managers and leaders to be considered when engaging to adapt a new management innovation. The analysis and its synthesis into the thematic categories were done by me under my supervisor's guidance over multiple rounds of discussions and revisions.

Chapter 4

This chapter is the third and final study in my dissertation. In this chapter I model how the changes to an MI practice and development of organisational capabilities go together in order for an organisation to adapt and learn the new practice. This process is modelled using a construct "Team Responsiveness" and various propositions were put forward for decisions around the practice choices and effect of team TR variations in the success/failure and the rate of new management innovation practice absorption. With some existing background of simulation modelling, I came up with the idea for this paper and received support and invaluable critique from my supervisor as I progressed. I wrote the manuscript under iterative reviews and feedback from my supervisor and my supervisory panel.

Chapter 5

This last chapter of this dissertation summarises the main findings and my contributions.

The dissertation has been completely written by me but has gained from discussions with my supervisor.

Additional work:

During the doctoral work, in addition to the above, I have also been fortunate to work with my supervisor and Professor Shahzad Ansari at Judge Business School, University of Cambridge to collaborate on a book chapter for the Oxford Handbook of Management Ideas (expected March 2019).

Reinmoeller, P., Ansari, S., and Mehta, M. (2019) 'The Re-adoption Of Management Ideas: How They Come, How They Go, And Why Some Come Back', in Sturdy, A. et al, The handbook of Management Ideas, Oxford, Oxford University Press.

1.6 References

- Ansari, S.M., Fiss, P.C. and Zajac, E.J. (2010) 'Made to fit: How practices vary as they diffuse', *Academy of Management Review*, 35(1), pp. 67–92.
- Beer, M. (2003) 'Why Total Quality Management Programs Do Not Persist: The Role of Management Quality and Implications for Leading a TQM Transformation.', *Decision Sciences*, 34(4), pp. 623–642.
- Beer, M. and Nohria, N. (2000) 'Cracking the code of change.', *Harvard Business Review*, 78(3), pp. 133–141.
- Birkinshaw, J., Hamel, G. and Mol, M.J. (2008) 'Management Innovation', *Academy of Management Review*, 33(4), pp. 825–845.
- Birkinshaw, J. and Mol, M.J. (2006) 'How Management Innovation Happens.', *MIT Sloan Management Review*, 47(4), pp. 81–88.
- Briner, R.B. and Denyer, D. (2012) 'Systematic Review and Evidence Synthesis as a Practice and Scholarship Tool', *The Oxford Handbook of Evidence-Based Management*, (January), pp. 112–129.
- Choi, T. and Behling, O. (1997) 'Top managers and TQM success: One more look after all these years.', *The Academy of Management Executive*, 11(1), pp. 37–47.
- Christensen, C., Anthony, S. and Roth, E. (2004) *Seeing what's next*. Boston, Mass.: Harvard Business School Press.
- Damanpour, F. and Aravind, D. (2012) 'Managerial Innovation: Conceptions, Processes, and Antecedents', *Management and Organization Review*, 8(2), pp. 423–454.
- Damanpour, F. and Schneider, M. (2006) 'Phases of the Adoption of Innovation in Organizations: Effects of Environment, Organization and Top Managers¹', *British Journal of Management*, 17(3), pp. 215–236.
- Decker, P., Durrand, R., Mayfield, C., McCormack, C., Skinner, D. and Perdue, G. (2012) 'Predicting Implementation Failure in Organization Change', *Journal of Organizational Culture, Communications and Conflict*, 16(2), pp. 39–59.
- Dooley, K. and Flor, R. (1998) 'Perceptions of success and failure in TQM initiatives', *Journal of Quality Management*, 3(2), pp. 157–174.
- Henderson, R. and Clark, K. (1990) 'Architectural innovation: The reconfiguration of existing product technologies and the failure of established firms', *Administrative Science Quarterly*, 35(1), pp. 9–30.
- Hughes, M. (2011) 'Do 70 Per Cent of All Organizational Change Initiatives Really Fail?', *Journal of Change Management*, 11(4), pp. 451–464.
- Jacobs, G., Witteloostuijn, A. van and Christe-Zeyse, J. (2013) 'A theoretical framework of organizational change', *Journal of Organizational Change*

Management, 26(5), pp. 772–792.

Kennedy, M.T. and Fiss, P.C. (2009) 'Institutionalization, framing, and diffusion: the logic of TQM adoption and implementation decisions among U.S. hospitals', *Academy of Management Journal*, 52(5), pp. 897–918.

King, N. (2004) 'Using templates in the thematic analysis of texts', in Cassell, C. and Symon, G. (eds.) *Essential Guide to Qualitative Methods in Organizational Research*. London: Sage Publications Ltd, pp. 256–270.

Klein, K.J. and Sorra, J.S. (1996) 'The Challenge of Innovation Implementation', *The Academy of Management Review*, 21(4), pp. 1055–1080.

Lane, P.J., Koka, B.R. and Pathak, S. (2006) 'The Reification of Absorptive Capacity: A Critical Review and Rejuvenation of the Construct', *Academy of Management Review*, 31(4), pp. 833–863.

Law, A.M. and Kelton, D.W. (1991) *Simulation Modeling and Analysis*. 2nd edn. New York: McGraw-Hill.

Lee, G. and Xia, W. (2010) 'Toward agile: an integrated analysis of quantitative and qualitative field data on software development agility', *MIS Quarterly*, 34(1), pp. 87–114.

Lillrank, P. (1995) 'The Transfer of Management Innovations from Japan.', *Organization Studies*, 16(6) De Gruyter, pp. 971–989.

Maitland, A. and Thomson, P. (2011) *Future work: How businesses can adapt and thrive in the new world of work*. Palgrave Macmillan.

Michel, A., By, R.T. and Burnes, B. (2013) 'The limitations of dispositional resistance in relation to organizational change', *Management Decision*, 51(4), pp. 761–780.

O'Mahoney, J. (2007) 'The diffusion of management innovations: The possibilities and limitations of memetics', *Journal of Management Studies*, 44(8), pp. 1324–1348.

Rogers, E.M. (1995) *Diffusion of innovations*. New York: The Free Press.

Volberda, H.W., Van Den Bosch, F.A.J. and Heij, C. V. (2013) 'Management Innovation: Management as Fertile Ground for Innovation', *European Management Review*, 10(1), pp. 1–15.

Westphal, J., Gulati, R. and Shortell, S. (1997) 'Customization or conformity? An institutional and network perspective on the content and consequences of TQM adoption', *Administrative Science Quarterly*, 42, pp. 366–394.

Wood, T. and Caldas, M.P. (2002) 'Adopting imported managerial expertise in developing countries: The Brazilian experience.', *Academy of Management Executive*, 16(2), pp. 18–32.

2 Management innovations and adaptations in the adoption process – A systematic review of the literature

2.1 Abstract

This systematic review helps understand the wider management innovation literature, and specifically what is known about the adaptation process for MI practices that is prone to fail. The review highlights an adaptation dichotomy between ‘too little’ and ‘too much’ change of a management innovation when it is adapted for adoption. Grounded in the literature, we propose that the benefits a practice may deliver follow an inverted-U curve with respect to the changes it is subjected to before implementation. Further, we propose that such changes are directly proportional to the social and cultural distance between the originating and adopting organisation. We also propose a proportional link with the degree of specification build and developed into the practice, as it has become practised between and within other organisations.

Keywords:

Management Innovations, Adaptation, Adoption

2.2 Introduction

Organisations are keen to find new opportunities for increasing productivity and efficiency in order to gain an advantage in competing with their peers. In this attempt, they have been bringing in and adopting management innovations (Roberts, 2004; Wischnevsky and Damanpour, 2006). Such innovations are not easy to copy and generate a long-term and lasting competitive advantage (Gebauer, 2011; Mol and Birkinshaw, 2009; Roberts and Amit, 2003). It has also been noticed that although some of these management innovations make a positive and measurable change, a large number of them, unfortunately, fail to deliver advantages (Dooley and Flor, 1998; O'Mahoney, 2007) due to a variety of reasons. For example, the failure rate of implementing TQM, one of the most popular MI in the 1980s and 1990s has been cited at around 63% (Choi and Behling, 1997). As such high failure rate has not been improving (Jacobs, Witteloostuijn and Christe-Zeyse, 2013; Michel, By and Burnes, 2013), the

broader context for our review. Our systematic literature review aims at understanding what is known about MI and how changes to an incoming MI affects the adoption and its outcomes.

The objective of this literature review is to develop an overview of management innovation research and summarise potential questions and issues. This paper reviews and extends the discussion of management innovation and its effectiveness (e.g. Ansari, Fiss and Zajac, 2010; Damanpour, Walker and Avellaneda, 2009; Mol and Birkinshaw, 2009; Vaccaro et al., 2012) by suggesting how the adaptation process influences management innovation outcome. We consider three specific questions regarding research opportunities, the adoption process of management innovations and practical implications, aimed at better understanding current research on management innovation and its outcomes to make the following specific contributions:

- a) Provide a comprehensive overview of the state of the art on management innovations and associated research summarising contributions, extant knowledge, inconsistencies and research opportunities.
- b) Based on the identified areas of possible research and research opportunities, the paper suggests paths for promising research on management innovations, the adoption process of management innovation and, with a particular emphasis, on the adaptation stage of the adoption process.
- c) Based on extant research and the research opportunities, the paper consolidates known managerial implications and highlights implications as well as limitations to improve understanding of the MI adoption process to inform practice.

2.2.1 What is Management Innovation (MI)?

Birkinshaw et al., (2008: 825) have defined MI as "the invention and implementation of a management practice, process, structure or techniques which is new to the state of the art and has been developed to further organisation goals". On similar lines Kimberly & Evanisko (1981: 86) define MI as "any program, product or technique which represents a significant departure from the

state of the art of management at the time it first appears and which affects the nature, location, quality, or quantity of information that is available in the decision-making process". Typical examples of MI include six sigma methodology (promoted by Motorola) was introduced to provide a quantitative approach to quality control in manufacturing and other industries (Ansari, Reinecke and Spaan, 2014; Birkinshaw and Mol, 2006), "Balanced Scorecard" monitoring includes financial and non-financial business performance metrics for a limited set of business activities and is meant to keep control of these and managing their consequences (Birkinshaw, Hamel and Mol, 2008).

The method and the process adopted to deliver this systematic literature review is described in the next section.

2.3 Method of Literature Review

Reviews of existing research are widely used to summarise research, open up new areas for contribution and influence practice (Briner, Denyer and Rousseau, 2009). Although starting from medicine, these methods now have permeated many other disciplines including management (Briner and Denyer, 2012; Tranfield, Denyer and Smart, 2003). A systematic review is a comprehensive, search operations for collecting and synthesising relevant evidence that follows pre-set rules to ensure replicability. After specifying a review question, search of electronic databases of scholarly publications with keyword/search strings helps identify relevant studies

In this vein, our review process was designed systematically map the extant literature on management innovations especially focusing on the adoption and adaptation process. Below the steps followed, the selection/reduction criteria and sources considered are documented.

2.3.1 Search protocol

We used the following search protocol for our literature review:

Step 1: A search was conducted on the Title, Abstracts and Keywords for “Management Innovat*” OR “Managerial Innovat*” OR “Administrative Innovat*”², within the EBSCO, Scopus and ABI Inform / ProQuest research databases. These three databases were chosen due to their recognised quality and reliability, and availability of access. The search was configured to be limited to peer-reviewed articles within scholarly journals. No search restriction was enforced for the time period.

Database	Article Count
EBSCO	590
Scopus	428
ABI/Inform ProQuest	619
Total	1637
Total (without duplicates)	1109

Table 1: Research database search results

Step 2: All the references were exported to RefWorks 2.0. This helped to merge all the individual searches into a single unified dataset so that “exact” and “almost similar” duplicates could be eliminated. Total count after duplicate elimination was 1109.

Step 3: With the unified list, all titles of the articles were reviewed with a view to eliminating the irrelevant. Most of the eliminations here belonged to the following categories: a) Articles linked to management of innovation (which is not the same as management innovation), process innovation, organisational design etc.; b) Clear irrelevance with respect to the domain, e.g. engineering³, medicine,

² It was discovered that Innovativeness would be missed if the search has been done for "Innovation*". Innovativeness is an attribute of a person, team, group or organisation to be innovative or original, the skill and imagination to create new things. The unit for our research is a management practice which in itself may not be self-organising or adapting, but this omission may have some significance, as management’s innovativeness in adaptation process (which we are interested in) may be a future operational variable or part of a construct in some shape or form.

³ Examples of engineering exclusions: Matches like “energy management innovation” or, “waste management innovation”, where it as more about energy or waste

agriculture, environmental etc.; or, c) Clear irrelevance as worded and implying out of scope research areas e.g. “safety management innovation”, “public management innovation”, “brand management innovation”, “human resource management innovation”, “enterprise management innovation”, “IT management innovation”, “knowledge management innovation” etc. This further reduced the selection to 209.

Step 4: The next step was to read the abstracts of all outstanding articles in order to filter out the ones, which were clearly out of area and scope. Filtering at this step followed Lane, Koka and Pathak (2006), which meant only papers fulfilling the following criterion were included:

- Only papers closely related to management innovation, its adoption and adaptation were included. (This was so because the previous step of filtering by title had allowed certain papers, which should clearly have been filtered out, basically where the title did not reflect clear exclusion due to being out of scope.)
- Must be published in peer-reviewed scholarly journals⁴.

This reduced the list further to 63.

Step 5: These articles were read in full and assessed using the scale of centrality built on Lane, Koka and Pathak (2006).

management.

⁴ One exception was made here with (Hamel, 2006), which was included because of its timeliness and relevance to spawn academic research in management innovations.

Centrality	Defined as...	No of Papers
High (3)	Definite extension of the theory	8
Medium (2)	Used for significant theory development or empirical contribution	8
Low (1)	Some evidence of contribution but used substantially in other ways.	7
N/A (0)	No substantial contribution to theory or empirical manner.	40

Table 2: Scale of centrality (Lane, Koka and Pathak, 2006)

Following this process, only the papers with High, Medium or Low centrality scores were retained. This reduced the count to 23. This set of articles represents the foundational studies on management innovations, adoption and the adaptation process (see 2.8.1). The articles covered a period from 1981 to 2017.

The reduction of the article count at every step in the process was as follows⁵:

Step	Article Count
1	1637
2	1109
3	209
4	63
5	23

Table 3: Article counts with the process

These articles could further be categorised into four groups based on their area of contributions: conceptual (theory building), empirical (pure hypothesis testing on existing theory), mixed (theory extension + some empirical testing), and a fourth category of descriptive articles, which included literature review on management innovations.

⁵ The breakup for step 4 and 5 in terms of sources, as well the yearly distribution of these publications is available in appendix 2.8.2 and 2.8.3.

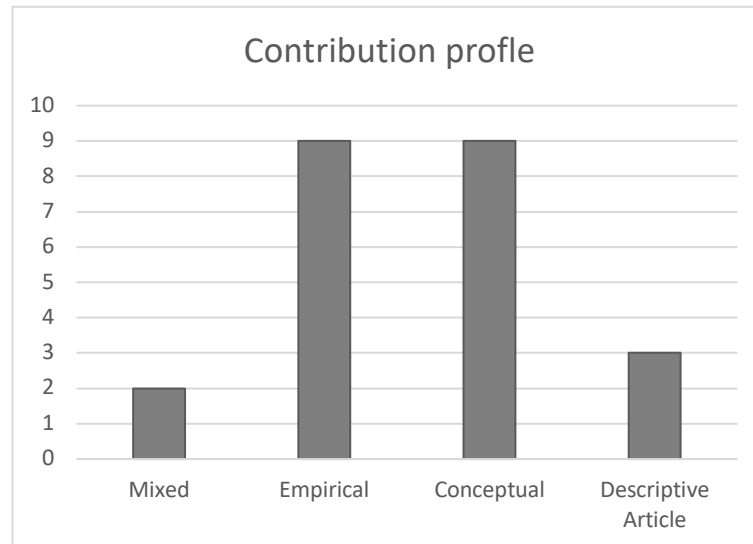


Figure 1: Distribution of contribution groups

2.4 Reviewing the literature on management innovations

In this section, we structure what is known about MI by first looking at the theoretical perspectives used to study management innovations. We then move to various processes starting with where MI originates, MI newness, reasons for adoption, diffusion, adaptation and why adaptation is necessary. For my research, I intend to look into the adaptations of management innovations, why they are necessary and raise an enquiry if there is an optimal level of change.

2.4.1 Studies in management innovations

Management innovation has been researched and investigated using many different lenses. Birkinshaw et al. (2008) proposed a typology of MI research including four perspectives: institutional, fashion, cultural and rational. The institutional level covers the research where the rationale is primarily the push for new ideas based on the current socio-economic needs. These environmental conditions govern and solicit the need for change in the organisational practice of management with a view to improving it (Gopalakrishnan and Damanpour, 1997). MIs can also be understood from a sociological perspective of management fashions. This perspective primarily covers the dynamic interactions between actors and proponents of these MI ideas and thereby advocating the adoption and use of these novel practices within an organisation

(Abrahamson, 1991). The diffusion of MI practices has also been widely studied. The cultural aspect covers the diffusion of these within an organisation and if relatively successful, how it eases into other organisations and participants within the sector (McCabe, 2002). Not leaving out the rational side of this, which looks into why these initiatives work and how the management innovation believers got their way for an organisation to adopt them and thrive (Damanpour, 1987).

The following table lists some theoretical perspectives covered within the research literature on management innovation.

Theoretical Perspective	View	Authors
Institutional theory	Institutional conditions associated with the invention and diffusion of MIs.	Gopalakrishnan and Damanpour (1997) Damanpour and Wischnevsky (2006) Tolbert and Zucker (1983) Kennedy and Fiss (2009) Mol and Birkinshaw (2009)
Sociological Theory / Fashion Perspective	Proponents and suppliers of new MI ideas.	Abrahamson (1991) Abrahamson (1996) Staw and Epstein (2000)
Cultural Perspective	Effect of cultural conditions in shaping an MI.	McCabe (2002) Zbaracki (1998)
Rational theory	Role of managers in creating and implementing new practices.	Damanpour (1987) Kimberly and Evanisko (1981)

Table 4: Research orientations and coverage within MI literature

2.4.2 Where do MIs originate?

Extant MI research illustrates two kind of processes: the generation process and the adoption process (Damanpour, 2014; Damanpour and Aravind, 2012).

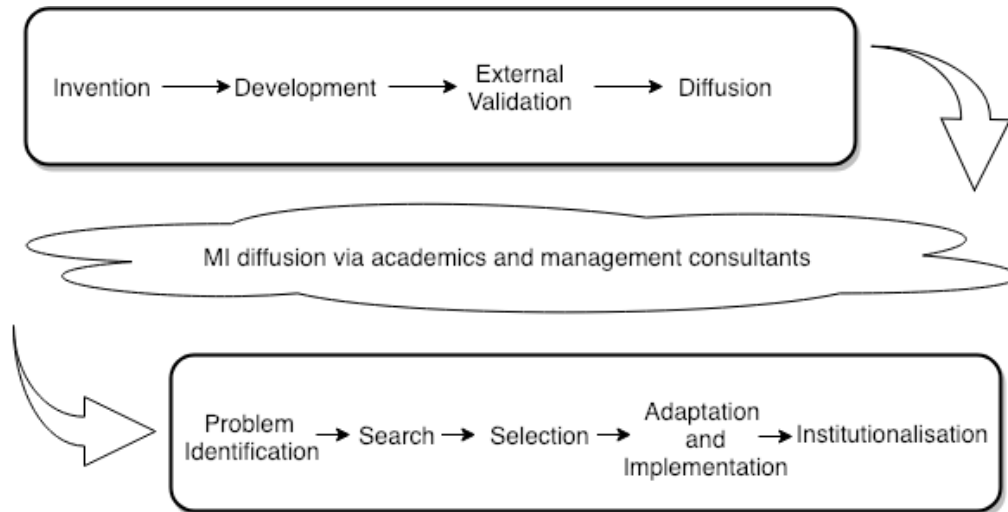


Figure 2: MI generation and adoption processes

The generation process involves (a) in-house research and development for new management ideas, (b) multiple iterations to make them work, (c) bringing in academics and consultants to validate, and (d) finally transfer externally to other organisations (Birkinshaw and Mol, 2006; Roberts, 2007). On the other hand, the adoption process requires a firm to (a) search for a practice which solves a business need (Mol and Birkinshaw, 2009), (b) to go through a selection process among available options, (c) adapt/modify the practice to the local organisational context with implementation, and then (d) institutionalise it (Damanpour and Schneider, 2006; Klein and Sorra, 1996). Wischnevsky & Damanpour (2006) have compared innovation-generating and innovation-adopting organisations and concluded that innovation generating organisations are generally smaller and younger than innovation adopting organisations. More specifically ideation and newness are usually originating from entrepreneurial organisations or autonomous units within large organisations, while the adoptions are usually seen within larger established organisations.

However, as our review shows, in between both these process, there lies the diffusion research, which positions MI for transfer through organisational boundaries and sectors (Abrahamson, 1991; O'Mahoney, 2007; Tolbert and Zucker, 1983). At a conceptual level, this generation and the adoption processes can be characterised differently as in push vs. pull, supply vs. demand, inside-out vs. outside-in, organic vs. mechanistic etc. (Damanpour and Aravind, 2012).

2.4.3 New to the state-of-the-art vs new to the firm

Birkinshaw et al.'s (2008) definition relates mainly to the generation process, which would explain the "new to the state of the art" part of the definition, because the generation process is about generating a new management innovation in-house. This study focuses on the adoption process, which is a process used to describe bringing an existing MI to an organisation. Modifying the above phrase to "new to the firm", an incoming management innovation can be considered as a special type of change programme which helps further organisational goals, by altering management process, practices, structure or, techniques. The rationale for this re-definition is that when MIs are considered, they have usually already proven their worth elsewhere. Further, sticking to "new to the state of the art" would have covered a very narrow selection of such innovation initiatives, and excluded all practice diffusion within the industry. Bringing in practices that are new, practice adaptation becomes an important constituent of the adoption process.

The same research group in their later article (Mol & Birkinshaw 2009: 1), define management innovation "as the introduction of management practices that are new to the firm and intended to enhance firm performance". This agrees with "new to the firm" path (as opposed to new MI invention) as the practices in question are management innovations, which would be a departure from the traditional way management activities are carried out within the adopting organisation.

It is important to note that organisational changes due to MI implementation are a special subset within the gamut of organisational change (Currie, 1999; Damanpour and Wischnevsky, 2006). The difference according to Slappendel (1996), is the amount of proportional change because of the "newness" aspect within the MI implementation. In other words, tweaking an existing working system to better integrate or, bringing some sort of increased automation in an organisation is not necessarily a management innovation. It has to have a significant proportion of new arrangement/capability/development, which changes the way management was performed in the past. For example, while

adopting agile practices for software development will be classed as MIs, a new way of filling out a time sheet or using an improved billing system may not.

2.4.4 Why do firms adopt new MI practices?

This section summarises the rationale for organisations to adopt MI practices from the reviewed articles. From an institutional theory and rational perspective, the primary reason for firms to adopt an MI practice is their dissatisfaction with the status quo (Birkinshaw and Mol, 2006). These can be wide ranging from a simple but recurring "out of order" operational issue to an emergency (crisis) situation at hand requiring a fresh and immediate review of the current management processes. It has also been stated that some organisations bring in new practices for internally or externally driven expectation for better performance levels. Overall, the rational perspective underpins an underlying assumption that firms are adopting management innovations for efficiency/productivity reasons i.e. to fill a performance gap in the business (Abrahamson, 1991; Teece, 1980; Tolbert and Zucker, 1983). This also assumes the firms are free to bring in management innovations without "peer pressure", which may not be the case, as we see next.

Contrary to the above assumption, we can see that in certain cases such peer pressure may actually be originating from an overall improvement in industry bar (Kennedy and Fiss, 2009), or against a social pressure to achieve a mandatory qualifying criteria, e.g. pre-conditions for institutional, governmental or third-sector funding (Gopalakrishnan and Damanpour, 1997). Corroborating this, Walker et al. (2010) have claimed that this social pressure is even stronger in public sector firms because of associated funding dependency and its need to be perceived active. Some organisations may also be aspiring for higher visibility or social and symbolic status (Jarzabkowski, 2004), even to the extent of gaining a first mover advantage (Mol and Birkinshaw, 2009; Staw and Epstein, 2000).

Beyond performance or social legitimacy, Abrahamson (1991) states that sometimes organisations are not clear of why they are adopting particular MI practices. This gives rise to the fashion perspective, which challenges the rational perspective that is unable to explain why some organisations choose popular MIs

with high failure rate over other better-performing ones (Staw and Epstein, 2000), suggesting that this choice is often peer-influenced by other organisations within the industry sector, and terming it, the bandwagon effect.

Further to this, Kennedy & Fiss (2009) build on the Tolbert & Zucker's (1983) two-stage model, which claimed the primary driver for early adopters to bring in new management innovations is economic/operational efficiencies, while for late adopters it is the legitimacy. In their work, Kennedy & Fiss (2009) reframe the adoption argument to be based on opportunities and threats within the business sector. They hypothesised and tested that in both the situations valid rationale exists for the early or late adopters to adopt practices for both efficiency and coercive pressure reasons. If the industry bar has been raised even late adopters have the motivation to improve performance for efficiency reasons, and similarly, even early adopters may still display social legitimacy by adopting unproven practices to maintain a positive industry impression. This also appears to re-affirm Abrahamson's (1996) view that management fashion has a role to play in the diffusion of management innovations.

This raises a couple of interesting observations. Firstly, by the adoption of new practices by a handful of organisations, a promising practice can become an industry norm raising the performance bar for all within the industry sector. This makes the adoption of a new practice a necessity to maintain competitive parity within the sector. Secondly, in terms of adoption rationale, it is not the merit alone which decides whether a particular practice will be adopted, but also how it is framed can make a large difference. This framing of an MI (Birkinshaw, Hamel and Mol, 2008) to increase its chances of adoption is also worthy of further investigation from an institutional perspective.

2.4.5 How do MIs disseminate and diffuse?

Diffusion theory (Abrahamson, 1991; Fiss, Kennedy and Davis, 2012; Rogers, 1995) examines the transfer of organisational innovations over organisational, cultural and national boundaries. Lillrank (1995) argues that while diffusion of technological innovation is quite common and can happen in relatively short time with minimal variations, the same cannot be said for organisational innovations

which are difficult to transfer and need to meet local conditions by way of modifications, which can often take years. Management innovation practices cannot be transferred by just copying the practices. Since, the practices are usually an evolved form, under the organisational context, they carry embedded principles and the underlying theoretical context which the originating organisation was intending to solve. Studying two case studies related to adoption of the Eastern and Western practices Quality Control Circle (QCC) and Time Based Competition (TBC), Lillrank (1995) suggests to move the innovation to a higher level of abstraction, transfer and then reapply and recreate with due consideration to local conditions within the adopting organisation.

“[T]he larger the distance (between the source and the adopter) the more is lost due to misunderstanding, incomplete information and essential parts of the original context which are missed” (Lillrank 1995: 974).

The author suggests carrying iterative stages of application over multiple learning cycles until the abstraction level is matched to the destination environment. Among the reviewed studies, this study is unique because it informs practitioners of the complexity of the adoption of management innovations and proposes a way to tackle them to achieve intended objectives.

2.4.6 Why is adaptation necessary?

Adaptation is the process by which either the management innovation, or the adopting organisation undergoes a series of changes, which may make fit with the organisational context of the adopting firm better or worse, in explicit but often tacit ways. Reviewing the literature, changes to a management innovation or the organisation may be necessary due to a wide variety of reasons. For example, a change of the innovation practice may be required when particular capabilities, which are essential for its adoption, are not present within an organisation (Henderson and Clark, 1990). In this scenario, if these capabilities are difficult to acquire then an organisation may resort to modifying the management innovation practice to conform to their existing capabilities. Another important criterion closely related to the need for adaptation is the amount of tacit knowledge

contained within an MI. The complexity of the MI as the number of different types of human interfaces and role plays within the innovation (Lillrank, 1995), and the level of tacit knowledge build into the innovation has been noted to have an impact on the extent of changes necessary (Szulanski and Winter, 2002; Winter and Szulanski, 2001). Here, the tacit component originates from the fact that local organisational cultures have a direct impact on the assumptions and beliefs which are embedded in the problem space but cannot be explicitly recorded as such. The problem is further compounded as the tacit knowledge develops through multiple "trial and error" runs in the early phases of MI development, and if ignored during subsequent adoptions, has a potential to alter MI in significant ways (Zbaracki, 1998).

From the rational perspective of realised benefits, then adaptation of the new practice and the organisation is an important process which delivers a strategic fit between the practice and the target organisational context. However, as cognitive factors and social factors like framing and peer pressure may find expression in encultured routines these may turn adaptation of the practice or the organisation into a harmful process that may damage both.

In reviewing the adaptation logic for a practice, one can notice that every organisation is unique in its technical and social construction i.e. its capabilities, culture and beliefs, and therefore implementing a management innovation without adapting to local circumstances and context can be a risk (Nyström et al., 2013; Wood and Caldas, 2002). This risk can be mitigated to some extent by encouraging customisation of the innovation to suit local conditions and situations (Rogers, 1995).

Management innovations are typically higher on social interface compared to technological innovations, whereby they bring in the complexity of cultural norms and politics. Management innovations typically are rich in embedded tacit knowledge, and thus it is difficult to codify them, which makes copying far from straightforward. As an example, TQM originated in the manufacturing industry (McCabe and Wilkinson, 1998) before spreading to the services industry. This abstraction makes them more open to wrong interpretation resulting in an

incorrect implementation, re-enforcing the understanding that when an innovation is complex, the more demand and attention it will require from the promoters to make it work. Once, it has been established that no MI is copied and implemented verbatim by the adopting organisation (Lillrank, 1995; Rogers, 1995). This immediately raises three questions: 1) Why are adaptations necessary? 2) What are the boundary conditions of adaptation of practice and organisation? 3) How can this adaptation be best accomplished? We develop this further, later in this study.

2.5 Synthesis, research questions and propositions

Resulting from the systematic review, multiple areas around the adaptation process offer opportunities for future contributions. We briefly update on the necessity for adaptation as evident from the extant literature, the difficulties in measurement of delivered benefits, relatively longer time period to realise these benefits, and need for cultural absorption to be an effective implementation.

Although, firms regularly adopt management innovations to improve upon the efficiency and effectiveness of their business, they seldom yield their expected benefits (Dooley and Flor, 1998; O'Mahoney, 2007). One of the reasons for this is that the phenomenon of adaptation of MI to suit organisational contexts is not very well understood (Ansari, Fiss and Zajac, 2010; Mamman, 2009; Rogers, 1995). Similarly, practice changes originating from the inter-organisational diffusion of MI seem to have been given some research attention (Hill and Wilkinson, 1995; Lillrank, 1995; Reed, Lemak and Montgomery, 1996; Westphal, Gulati and Shortell, 1997), yet the same cannot be said for local organisational changes to suit the practice. There were only a handful of papers, which touch this (Ansari, Reinecke and Spaan, 2014; Gondo and Amis, 2013), and some others which cite this as an area for future research (Ansari, Fiss and Zajac, 2010; Fiss, Kennedy and Davis, 2012). Rogers (1995) even suggests that this adaptation is very common and in reality, most management innovations receive some sort of tuning before and after implementations, yet did not investigate and expand on the concept.

It also emerges that the productivity and efficiency improvements gained from MI implementation are difficult to measure in isolation. This is because such changes are usually accompanied by myriad other changes to make the whole proposition and change successful (Birkinshaw, Hamel and Mol, 2008; Damanpour and Aravind, 2012). Further, MI implementations usually take time to realise and thus require a longitudinal study for achieving results and establishing effectiveness. This is vital for discovering causality, interdependencies, process dimensions and the emergent benefits (Camisón and Villar-López, 2014; Volberda, Van Den Bosch and Heij, 2013). Related to this, it has been noted that MI changes require cultural acceptance to bring in desired effectiveness (Kwahk and Lee, 2008), which further adds to the risk of losing out on the full potential on adoption.

On balance, we believe that research into MI's local organisational adaptation to suit organisational contexts, in order to influence the expected outcomes appears an important problem to investigate. This is also cited as an area for future work in (Ansari, Fiss and Zajac, 2010). We want to investigate the adaptation process and specifically what generates the differences between these realised results against the expected. It is shown that MI practices require adaptations to fit an organisation, delivering on its benefits, but scant work is available around how to go about it, or how much is enough? This is a delicate balance so that a change is made to better absorb the practice, and at the same time not to distort to lose its benefits. Ansari et al. (2010: 86) also asks "If corporate practices are frequently adapted, at what point do they become a different entity and should no longer be thought of as the same practice?"

In the next sub-sections of this paper, we first develop a classification criterion for management innovations, then review the literature on typical causes of MI practice failures and then progressively developing a problem context and statement around practice adaptations leading to the research question and some propositions.

2.5.1 Developing a classification criterion

Due to the newness and novelty of MI as a research field, there exists an amount of fuzziness in its definition and understanding, and do not seem to offer enough clarity on what could and could not be treated as an MI.

We believe there are three points, worthy of discussion here. The first key observation from the literature is, that management innovations involve significant changes to how the work of management is performed e.g. large-scale adaptations to value-adding services to management activities with an aim for improving efficiency or effectiveness. Several scholars (Hamel, 2006; Kimberly and Evanisko, 1981) seem to think so and have focused on adding a dimension of significant departure, but this is not apparent in Birkinshaw et al.'s (2008) definition. Secondly, while Birkinshaw et al.'s (2008) definition above indicates invention and new to the state of the art as an important tenets of a management practice being considered a management innovation, Ansari et al.'s (2010) paper suggests firms may be able to draw on MI practices which have been successful elsewhere. And finally, Ke and Wei (2008) and Lillrank (1995) emphasise strong links with social and cultural embeddedness as an essential property for any management innovation.

Before we present the classification criteria, another little step will help here. Within the research literature, we can see a continuum of conceptual abstractions (theoretical <-> operational) within the MI landscape (Birkinshaw, Hamel and Mol, 2008), which could also explain for the difficulties in different practices being termed as a management innovation. The distinction between process, practice, techniques and structure is not only conceptually distinct, but also difficult to be taken forward empirically for a test as a collective, and even the findings may not be generalisable to such an extent. In this light, we believe the positioning of MI could follow a categorisation as follows:

Conceptual Categories	Orientation	Literature
Management Ideas	Theoretical	Learning Organisation (Argyris and Schon, 1978; Senge, 1990); Management Rhetoric (Abrahamson, 1996) etc.
Management Structures	Structural	Divisional M-form (Chandler, 1962; Modern research lab (Hargadon, 2003) (both cited in Birkinshaw et al. 2008)
Management Processes and Techniques	Operational	Total Quality Management (Zbaracki, 1998); Toyota Production System (Cusumano, 1988); Intel's Copy Exactly (Terwiesch and Xu, 2004)

Table 5: Overview of the MI landscape in terms of conceptual categorisation

The first two categories in the above are abstract, that a classification into these may not be straightforward, but a classification into the third category into an operational management innovation should be possible. We propose the following criteria towards this purpose:

[a] MI constitutes a “proportionally” higher amount of change with regards to the “newness” dimension of the practice (Hamel, 2006; Slappendel, 1996).

[b] MI contains a “proportionally” higher order of implicit complexity due to a high level of specification and tacit content (Lillrank, 1995). This makes MI susceptible to change and modifications due to misinterpretation, very unlike hard innovations like computer software, product innovations, or operational processes which are not very amenable to change.

[c] MI cannot be structured as a series of steps to copy verbatim and achieve similar results. In other words, series of actions cannot be listed which helps reach a specific aim, such as what could be possible for a technology transfer exercise) (Lillrank, 1995).

2.5.2 MI implementation failures

The rationale for why some of the MI implementations end up ineffective warrants more research. The failure causes for a typical implementation, which has proven to work in the original setup, but fails to deliver intended benefits elsewhere, is an interesting and important problem to investigate.

The literature pointed out several areas and reasons for new practice failures. These are illustrated below against the adoption process (Damanpour and Schneider, 2006; Klein and Sorra, 1996) phase they belong to:

Adoption Phase	Attributable causes of Failure	Authors
Awareness	Incorrect problem formulation	No literature found
Search	Insufficient reference group	(Mol and Birkinshaw, 2009)
Selection	In-sufficient fit assessment (technical/structural)	No literature found
	Leadership commitment	(Beer, 2003; Choi & Behling, 1997)
	Unrealistic expectations	(Dooley and Flor, 1998)
Adaptation	Practice Adaptation (changes)	(Lillrank, 1995; Westphal, Gulati and Shortell, 1997)
	Failure to recognise the complexity	(Lillrank, 1995; Strebel, 1996)
	Active (practice) reduction	(Hill and Wilkinson, 1995)
	Over-emphasis on process instead of philosophy	(Reed, Lemak and Montgomery, 1996)
	Abstraction and complexity	(Lillrank, 1995)
	Budgetary constraints	(Hendricks and Singhal, 1997)
Institutionalisation	Incorrect metrics	No literature found

	Insufficient training	(Strebel, 1996)
	The absence of management buy-in	(Beer, 2003; Choi and Behling, 1997)
	(Older) practice still available (De-coupling)	(Levin, 2006)

Table 6: Rationales for MI failures at different adoption phases

Although a lot has been said about failure cases on various adoption phases, the same cannot be said about the following two key realities. Firstly, how do organisations go about adapting the incoming MI practices to reduce their chances of failures? Is there a framework, which exists or can be established to define the process for this change? Within a context of high uncertainty on the benefits of a new practice and its cultural and social absorption, are there any factors, which can act as moderators/mediators to make a successful win? And secondly, Is there a limit to the change to the MI practice? If it is accepted that some adaptations to the incoming practice is necessary, then there must be an upper bound to the changes leading to an optimal level of performance benefits.

The next section details more on this clarification in positioning.

2.5.3 MI adaptation

As discussed earlier, within the research literature, there are two camps, the first where “new to the state of the art” is emphasised and the invention of a new practice is paramount (Damanpour and Schneider, 2006; Gopalakrishnan and Damanpour, 1997), and the other where the meaning is taken as “new to a firm”, and where the innovation, or the organisational context or both are adapted for the MI to fit within the organisation (Mol and Birkinshaw, 2009; Zbaracki, 1998). Our focus is within the latter camp, where these MI have already been successful elsewhere, and are being adopted into a different organisational environment. When setting up in this fashion, the practice already has a benchmark performance and expectation associated with it. It is not an experiment in its purest sense, but more of a tailoring exercise towards a new context.

From a theoretical viewpoint, management innovation changes could be considered at 3 levels: a) Change during transfer between organisations due to

repeated tacit-explicit conversion; b) Change during organisational adaptation while customising for a particular context, and; c) Slow mutation, while in practice, within an organisation.

During the review it was observed that point a) above is covered within the inter-organisation diffusion literature (Abrahamson, 1991; Rogers, 1995), and c) within the organisational routines (Gupta, Hoopes and Knott, 2014; Lin, Chen and Su, 2017; Rindova and Kotha, 2001) and improvisation (Leone, 2010; Vera and Crossan, 2004) literature. But, within the reviews, it came apparent that there is omission of research on b) above. This was first noted by (Ansari, Fiss and Zajac, 2010), recognising the value and impact of the change of a practice during its customisation and localisation to an organisation, social and cultural context (Strang and Kim, 2009; Westphal, Gulati and Shortell, 1997).

When deconstructing the process, it can be seen that adaptations to Management Innovations could range from (i) addition/removal of certain components, to (ii) De-coupling (which is symbolic adoption in the absence of contextual tailoring, and simultaneous use of older practice) to (iii) full domestication to organisation context.

It can be seen that this adaptation of a practice has been mentioned in various shape and form within various research pieces (Ansari, Fiss and Zajac, 2010; Lillrank, 1995; Rogers, 1995), but still no firm reference on how this process actually works, our research objective. The key observation here is that although the diffusion literature does explore the change in practices as they diffuse, it focuses largely on the what and why for practice adoption, and not so much on the aftermath after the practice has been selected for adoption (Wolfe, 1994), the how.

The contextualisation of specific MI practices for specific industries and local context has also been noted, but were usually limited to translation of the original practice to editing certain parts to make it fit (Westphal, Gulati and Shortell, 1997), not necessarily providing a detailed framework on the process or, how this happens?

2.5.4 Problem setting

The review began with a clear domain definition and focus on management innovation variation as it moves inter and intra-organisational boundaries. All mentions of management innovation adoptions and adaptations were noted and analysed. The aim was to review the literature, and come up with a comprehensive detail on the adoption and adaptations with respect to management innovations. We can separate out the research related to adoption and adaptation into two clear camps including the questions they answer and the perspective they took. As structured within the figure below, for the first case of inter-organisation movement, most of the research seemed to focus on management innovation emergence in relations to how they diffuse within an industry or across industry and MI were examined through a lens of a population level perspective, usually using inter-organisational conditions and limited to the adoption decision with stark simplified assumptions e.g. uniformity of homogeneous variation across time and space (O'Mahoney, 2007), considering the practice as an invariant instead of mutating (Ansari, Fiss and Zajac, 2010). For the second stream of intra-organisational adaptation, we notice on why research is required and a call for it should be done, but scant research available on how to go about it, or to develop better understanding of what the process entails. This is a clear omission, which could be a potential target for a research contribution.

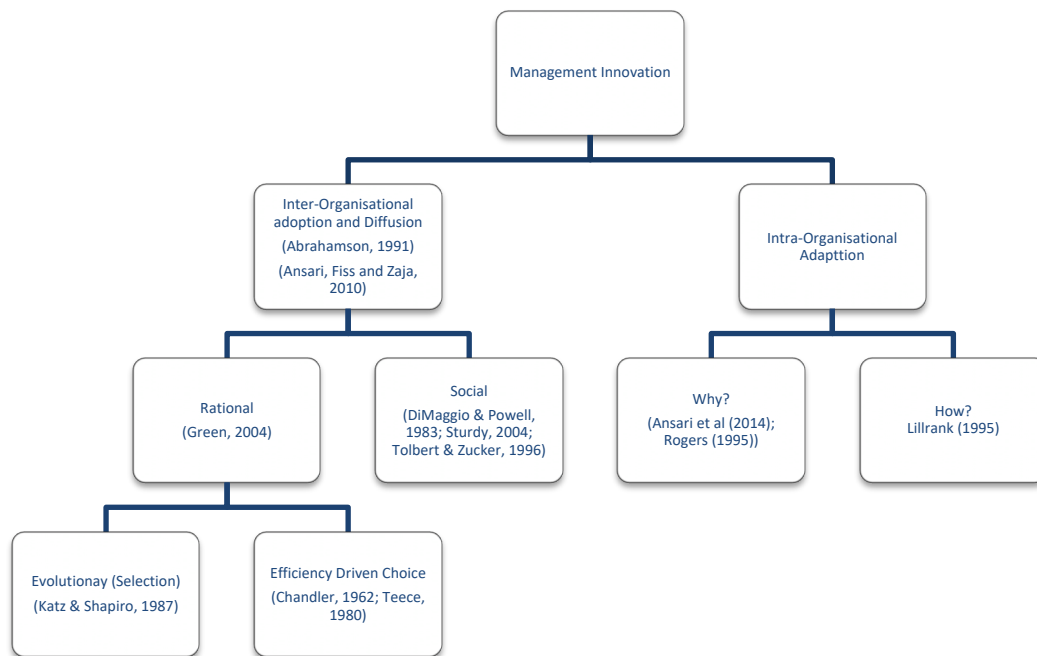


Figure 3: Mapping the research literature for MI

Using a simplistic view, in order to prepare for adapting a new management innovation, three approaches could be considered. The first is to reconfigure the practice to be deemed fit for acceptance within the target organisation, second to develop the capacity within the organisation to accept the incoming management innovation. This ensures the missing capabilities, which are essential for a successful implementation, within the organisation are developed to host the incoming practice. Third approach could be a mix of the two approaches, where the innovation is adapted and at the same time the organisation reconfigures to develop/modify its capabilities to receive the practice.

The following table lists a few dimensions from the research literature, which could be potential candidates for operationalisation for understanding the adaptation phenomenon:

Dimension	Definition	Theoretical Foundation	Key References
Specification	The degree of explicit knowledge available for the practice (inversely related to the abstractness)	Practice level mechanism	(Lillrank, 1995; Westphal, Gulati and Shortell, 1997)
Social and cultural distance	The notional social and cultural distance between the originating and the adopting organisation.	Organisation level mechanism	(Lillrank, 1995)
Fidelity	The degree of “exactness”, with which something can be reproduced.	Organisation level mechanism	(Ansari, Fiss and Zajac, 2010)
Extensiveness	The degree of “extent”, or “comprehensiveness”, to which something can be reproduced.	Organisation level mechanism	(Ansari, Fiss and Zajac, 2010)

Table 7: Dimensions for successful adoption of MI

Now we move to formally state the research question and problem emerging from this study in the next section. We also propose some propositions which should be empirically tested.

2.5.5 Research questions and propositions

Since MIs are complex practices, as illustrated in an earlier section (2.4.6), once the need for adaptations to an incoming MI practice has been recognised, it seems challenging to consider that any change would not risk the expected benefits (Wood and Caldas, 2002). For example, numerous studies on TQM show that the original intent was somewhere lost in translation, which lead to poor and ineffective implementations (Mamman, 2009). In this context, the question

becomes how much adaptation is appropriate? This seems to be a delicate balance such that a change may be intended to better absorb the practice (within an organisation), and at the same time it should not distort and lead to the loss of its potential benefits. We expand more on this within the propositions below.

The discussion raises the following research question and propositions. The propositions are based on the operationalisation of the key variables.

Research Question: How do MI Adaptations (to the practice and to the organisational contexts) affect its expected outcomes?

This further informs the following sub-questions:

Q1: How does the social and cultural distance between the originating and adopting organisations affect the amount of adaptation?

Q2: How does the degree of specification of an MI affect the amount of adaptation?

Quantum of adaptation

Within the literature we observe that management innovations:

a) usually require adaptation to be successfully transferred, especially true for any inter-organisational movements of management innovations, as no two organisations are same in their make-up, social construction, culture and beliefs (Lillrank, 1995; Rogers, 1995). As posited by (Rogers, 1995: 177): “Flexibility in the process of adopting an innovation may reduce mistakes and encourage customisation of the innovation to fit it more appropriately to local situations or changing circumstances”.

b) But, a large amount of variation to original practice as part of adaptation can be counterproductive to the advantages expected from adopting the innovation practice (Mamman, 2009). This has been shown in numerous empirical research studies on the transfer of MI practices like Total Quality Management (TQM) and Six Sigma. These practices have observed an unusually high rate of failure (Dooley and Flor, 1998), primarily attributed to large-scale adaptation, even

to the extent to cherry picking certain constituent practices, and associating expectation for them to still deliver (Beer, 2003; Choi and Behling, 1997; Hill and Wilkinson, 1995; Kwahk and Lee, 2008).

Assembled visually as follows:

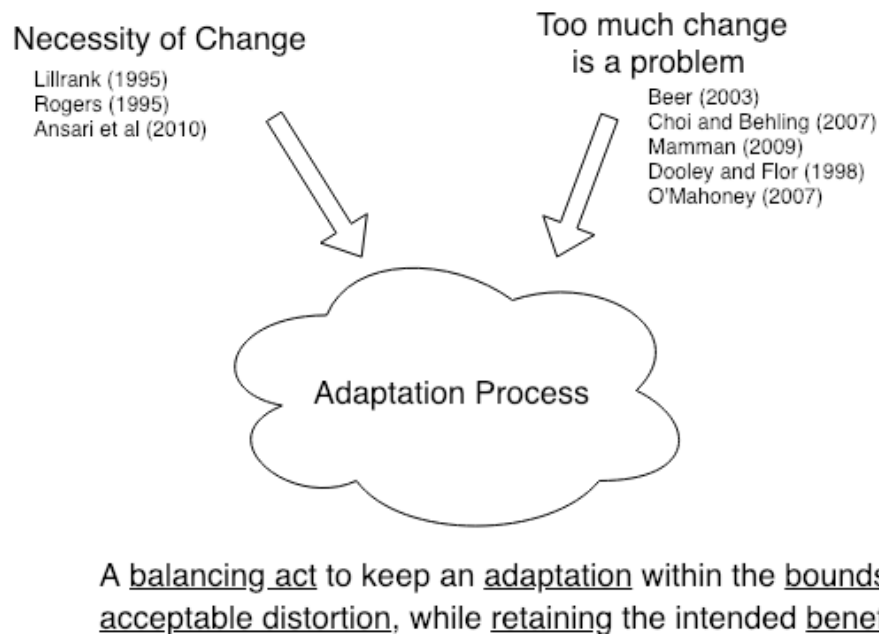


Figure 4: How much adaptation is necessary?

For a management innovation, it is vital to understand the philosophy and underlying beliefs of the originating organisation before attempting to transfer the practices. The practices themselves are just high level artefacts which alone may not carry the same level of expected benefits if plainly copied. Further, since MI practice learning by an organisation manifests itself through new routines and capabilities within an organisation, it has been noted that when removed from their original context, routines may largely be meaningless (Elam (1993), cited in Becker, 2004: 652), and the performance expected through implementing them may decline (Grant, 1991). Therefore some customisation to the organisation's social and cultural context is inevitable (Strang and Kim, 2009; Westphal, Gulati and Shortell, 1997).

After establishing that some changes are necessary to tailor to organisational context, large changes could carry a significant risk of losing the original intent and philosophy for the practice. There are multiple causes for this. Firstly, the practice routines as available from literature and existing templates themselves may be incompatible to the new organisational context (Madhok, 1997). As an example some elements of the routines may not be amenable to be large changes to the new context because of the incompatibility of the inherent tacit knowledge from the originating organisation (Grant, 1991; Nonaka and Takeuchi, 1995). Secondly, it has also been stated that there is no such thing as a universal best practice, and only local optimal solutions available (Amit and Belcourt, 1999), therefore as context changes the delivery of value starts to go down if changing beyond anything cosmetic within the published and available guidance into a new context. This also includes cases where essential components of the practice were dropped either due to missing capability within the organisation, or inability to develop the necessary groundwork for adoption due to resource constraints (Bennett and Segerberg, 2012; Levin, 2006).

Between these two ends of the spectrum of some necessary changes to the practice on one end, and appreciably high amount of detrimental changes on the other, there is a sweet spot/region, which delivers an optimal level of changes to achieve target performance, leading to the following proposition:

Proposition 1: Performance benefits (emerging out a new management innovation adoption) have an inverted-U relationship with the number of adaptations the MI receives.

Social and cultural distance

As discussed earlier in section 2.5.1, an MI has a high degree of tacit knowledge. This happens during the evolution of the practice within the organisation where it was first developed. The repeated trials with the practice over time embed a significant amount of tacit social and cultural elements (Lillrank, 1995; Zbaracki, 1998), limiting the extent of transferability of such new management practices, without any changes. This can reduce the efficacy of using templates from organisations, even if they have been successful in the past in integrating

these MI practices. On the difference an organisational context makes, Knott (2003) found that organisations with similar access to new routines varied in the performance they were able to derive from their integration. Similarly, for MI practice adoption the differences in organisational context between the originating and the adopting organisations require further analysis in order to deepen understanding of the implications of such context on adopting a new MI practice.

As an example, management innovation practices emerging from Japan and being adopted in western organisations show limited success (Choi and Behling, 1997; Kwahk and Lee, 2008). The literature shows that due to numerous difficulties with measuring an MI adoption outcome (Damanpour and Aravind, 2012), this distance is difficult to operationalise, and we have not seen any effort towards this within the research literature.

To highlight and strengthen the social and cultural aspects and related complexities with management innovations, the following example from (Lillrank, 1995: 974), sums up the Japanese quality management ideas, and the difficulty they endured for widespread adoption:

“...ideas emanating from Japan have to travel along an “idea line”. The “distance” is not only geographical, but mental, due to differences in culture, society and history, as well as strategic paradigms. The larger the distance, the more is lost due to misunderstandings, incomplete information and essential parts of the original context which are missed.”

This is further strengthened by McCabe's (2002) work on the strength of the cultural embeddedness of a practice, where manager's resist new practices which seem to dislodge the current processes, in particular, the current ways of thinking and acting. This is again something, which shows strong ties of an MI practice with its in-built tacit cultural component, and inherent in the adopted practice. This leads to our second proposition:

Proposition 2: For successful adoption, the amount of adaptation is directly proportional to the social and cultural distance between the originating and the adopting organisation.

The Degree of Specification

The degree of specification defines how much is known about a practice. This is primarily the available work by academics and consultants, basically documented knowledge and literature on management innovation as it diffuses across organisations, including the implementation aspects (David and Strang, 2006; Strang and Soule, 1998). The degree of specification is controlled by two factors: a) the available literature around the abstractness within the MI specifications, and b) the level of newness (with respect to when it was first developed). Both of these determine the degree of specification and the attention these MI practices have received before (naturally) opening up for wider adoption. The level of specification in the practice being deployed directly informs the (in) ambiguity (Giroux, 2006), adopting an incoming practice entails (Lillrank, 1995), which in turn translates to the practice changes necessary for the target organisation. Let's look at each of these next.

Firstly, management innovation practices have strong impact from the social and cultural aspects of the originating organisation, therefore the underlying principles and beliefs, and the embedded tacit knowledge has a large follow-through impact into any new implementations (Strang and Kim, 2009; Westphal, Gulati and Shortell, 1997). Clearly, an incorrect approach or misunderstanding of the underlying principles here could reduce the effectiveness and the peak operating efficiency within an organisation due to lack of clarity and uniformity of underlying processes. Therefore if more is known, in terms of experiments and adoptions for a given practice, the more literature, stories and templates are available on field possibilities and what to expect when adapting them to a new organisation (Kennedy and Fiss, 2009; Westphal, Gulati and Shortell, 1997).

Secondly, early adopters of new practices give extra attention to attempt making sense of it to work within their context (Gondo and Amis, 2013). On the other hand, new adopters for established practices rely on the stories and experiences

from other organisations, instead of working out on their own (Green, Li and Nohria, 2009). Therefore as MI practices become more established, available conceptualisations and stories are considered as a preferred mechanism in comparison with spending time and resource to tune against the organisation's own internal realities (Zbaracki, 1998). In a general sense, it begs a question that for newer practices require relatively more changes, and the adopting organisation is also willing to (and are required to) adapt, as not much is known about the management innovations. This is perhaps because these newer practices have not yet seen the contextual implementation variations in the field yet. Similarly, a wide variety of conceptualisations and constructions are already available for established practices to help the adopting organisations as a starting point to tailor to their own context with necessary changes.

Proposition 3: The degree of specification has an inverse correlation with the extent of adaptations required to receive a similar level of benefits.

Beyond the above, in terms of future work, the research could be extended to answer questions like: What are the moderating factors in practice adaptation? When does an MI start to diverge from its original intended goals? What are the determinants of an optimal level of change? and what defines the bounds of acceptable distortion?

2.6 Discussion and implications

We have reviewed literature around Management Innovations. The literature points towards a few areas within MI research, which could be potential areas for further exploration and research e.g. the diffusion of practices, and their slow mutations and changes (as they move between organisations), has been covered well within the research literature (Abrahamson, 1991; Fiss, Kennedy and Davis, 2012; Lillrank, 1995; Love and Cebon, 2007; O'Mahoney, 2007). But, this is not the case for the process for adaptation, when an organisation decides to adopt a practice and tailors it for its own contextual setting.

This is an important problem to investigate as it can have a significant impact on the resulting benefits originating by adopting a Management Innovation. Ansari

et al. (2010) and Rogers (1995) point to this area for future research, yet we did not find specific research extending theory on this, let alone any empirical studies taking this on. The literature suggests a tension between too little and too much change to an MI practice when it is adopted by an organisation. We build on the following two premises: a) Some sort of adaptation is necessary for an MI practice to be successful within an organisational context (Ansari, Fiss and Zajac, 2010; Lillrank, 1995; Rogers, 1995), and b) too much change starts becoming detrimental to the potential benefits a practice could deliver (Beer, 2003; Choi and Behling, 1997; Dooley and Flor, 1998; Mamman, 2009; O'Mahoney, 2007).

We propose that the benefits out of a practice follow an inverted-U curve when plotted against the number of adaptations it receives during implementation. We also propose that the amount of change is directly proportional to the social and cultural distance of the originating and adopting organisation. And further on the change necessary proportional to the degree of specification embedded within the MI practice, as it has moved within other organisations and industries.

The process of adaptation of MI is a complex process as there are many acting variables. Its study is further complicated by the fact that measurement of performance originating from the adoption of an MI is a longitudinal effort. The propositions require empirical test through qualitative and quantitative methods to move towards some sort of generalisation.

In the following section, we discuss the managerial implications of adaptations on MI practice adoption.

2.6.1 Managerial implications

The research problem seems to have relevant managerial implications. Even if we know of a success for MI practices elsewhere, there are no guarantees that it would yield expected benefits when adopted by another organisation. We saw failure cause for MI implementations, but not enough understanding on the adoption process and how to go about them. Can the research produce an improved understanding of the process to improve the results? Further, can a

model be created which could provide a probabilistic estimate of an MI adoption effort given the practice and the organisational context, prior to implementation?

Another area of potential implication is around the proposition for the optimal level of change to an incoming practice. This established the curvilinear behaviour between the amount of change and the performance it delivers (inverted-U/V, unimodal/multi-modal, plateau/peaked). It is very important to take the propositions for an empirical test because e.g. if the relationship comes out as a plateau than this problem, may not be significant, but on the other hand, if it is uni-modal and an inverted V, it becomes significant with large implications. Such a result could potentially be an important decision component for the investment thesis for taking large MI projects.

2.7 References

- Abrahamson, E. (1991) 'Managerial Fads and Fashions: The Diffusion and Rejection of Innovations', *Academy of Management Review*, 16(3), pp. 586–612.
- Abrahamson, E. (1996) 'Management Fashion', *Academy of Management Review*, 21(1), pp. 254–285.
- Amit, R. and Belcourt, M. (1999) 'Human resources management processes: A value-creating source of competitive advantage', *European Management Journal*, 17(2), pp. 174–181.
- Ansari, S., Reinecke, J. and Spaan, A. (2014) 'How are Practices Made to Vary? Managing Practice Adaptation in a Multinational Corporation', *Organization Studies*, 35(9), pp. 1313–1341.
- Ansari, S.M., Fiss, P.C. and Zajac, E.J. (2010) 'Made to fit: How practices vary as they diffuse', *Academy of Management Review*, 35(1), pp. 67–92.
- Argyris, C. and Schon, D. (1978) *Organizational learning: A theory of action perspective*. Reading, MA: Addison-Wesley.
- Becker, M.C. (2004) 'Organizational routines: a review of the literature', *Industrial and Corporate Change*, 13(4), pp. 643–678.
- Beer, M. (2003) 'Why Total Quality Management Programs Do Not Persist: The Role of Management Quality and Implications for Leading a TQM Transformation.', *Decision Sciences*, 34(4), pp. 623–642.
- Bennett, W.L. and Segerberg, A. (2012) 'The logic of connective action', *Information, Communication & Society*, 15(5), pp. 739–768.
- Birkinshaw, J., Hamel, G. and Mol, M.J. (2008) 'Management Innovation', *Academy of Management Review*, 33(4), pp. 825–845.
- Birkinshaw, J. and Mol, M.J. (2006) 'How Management Innovation Happens.', *MIT Sloan Management Review*, 47(4), pp. 81–88.
- Briner, R.B. and Denyer, D. (2012) 'Systematic Review and Evidence Synthesis as a Practice and Scholarship Tool', *The Oxford Handbook of Evidence-Based Management*, (January), pp. 112–129.
- Briner, R.B., Denyer, D. and Rousseau, D.M. (2009) 'Evidence-Based Management: Concept Cleanup Time?', *Academy of Management Perspectives*, (November), pp. 19–32.
- Camisón, C. and Villar-López, A. (2014) 'Organizational innovation as an enabler of technological innovation capabilities and firm performance', *Journal of Business Research*, 67(1) Elsevier Inc., pp. 2891–2902.
- Choi, T. and Behling, O. (1997) 'Top managers and TQM success: One more look after all these years.', *The Academy of Management Executive*, 11(1), pp. 37–47.

- Currie, W.L. (1999) 'Revisiting management innovation and change programmes: strategic vision or tunnel vision?', *Omega*, 27(6), pp. 647–660.
- Cusumano, M. (1988) 'Manufacturing innovation: lessons from the Japanese auto industry', *Sloan Management Review*, 30(1), pp. 29–39.
- Damanpour, F. (1987) 'The adoption of technological, administrative, and ancillary innovations: Impact of organizational factors', *Journal of management*, 13(4), pp. 675–688.
- Damanpour, F. (2014) 'Footnotes to Research on Management Innovation', *Organization Studies*, 35, pp. 1265–1285.
- Damanpour, F. and Aravind, D. (2012) 'Managerial Innovation: Conceptions, Processes, and Antecedents', *Management and Organization Review*, 8(2), pp. 423–454.
- Damanpour, F. and Schneider, M. (2006) 'Phases of the Adoption of Innovation in Organizations: Effects of Environment, Organization and Top Managers¹', *British Journal of Management*, 17(3), pp. 215–236.
- Damanpour, F., Walker, R.M. and Avellaneda, C.N. (2009) 'Combinative Effects of Innovation Types and Organizational Performance: A Longitudinal Study of Service Organizations', *Journal of Management Studies*, 46(4), pp. 650–675.
- Damanpour, F. and Wischnevsky, J.D. (2006) 'Research on innovation in organizations: Distinguishing innovation-generating from innovation-adopting organizations', *Journal of Engineering and Technology Management*, 23(4), pp. 269–291.
- David, R.J. and Strang, D. (2006) 'When fashion is fleeting: Transitory collective beliefs and the dynamics of TQM consulting', *Academy of Management Journal*, 49(2), pp. 215–233.
- Dooley, K. and Flor, R. (1998) 'Perceptions of success and failure in TQM initiatives', *Journal of Quality Management*, 3(2), pp. 157–174.
- Fiss, P.C., Kennedy, M.T. and Davis, G.F. (2012) 'How Golden Parachutes Unfolded: Diffusion and Variation of a Controversial Practice', *Organization Science*, 23(4), pp. 1077–1099.
- Gebauer, H. (2011) 'Exploring the contribution of management innovation to the evolution of dynamic capabilities', *Industrial Marketing Management*, 40(8), pp. 1238–1250.
- Giroux, H. (2006) "'It was such a handy term": Management fashions and pragmatic ambiguity', *Journal of Management Studies*, 43(6), pp. 1227–1260.
- Gondo, M.B. and Amis, J.M. (2013) 'Variations in Practice Adoption: The Roles of Conscious Reflection and Discourse', *Academy of Management Review*, 38(2), pp. 229–247.
- Gopalakrishnan, S. and Damanpour, F. (1997) 'A review of innovation research

in economics, sociology and technology management', *Omega*, 25(1), pp. 15–28.

Grant, R.M. (1991) 'The Resource-Based Theory of Competitive Advantage: Implications for Strategy Formulation', *California Management Review*, 33(3), pp. 114–134.

Green, S.E., Li, Y. and Nohria, N. (2009) 'Suspended in self-spun webs of significance: A rhetorical model of institutionalization and institutionally embedded agency', *Academy of Management Journal*, 52(1), pp. 11–36.

Gupta, A., Hoopes, D. and Knott, A. (2014) 'Redesigning routines for replication', *Strategic management journal*, 2014

Hamel, G. (2006) 'The why, what, and how of management innovation', *Harvard Business Review*, 84(2), pp. 72–84.

Henderson, R. and Clark, K. (1990) 'Architectural innovation: The reconfiguration of existing product technologies and the failure of established firms', *Administrative Science Quarterly*, 35(1), pp. 9–30.

Hendricks, K. and Singhal, V. (1997) 'Does implementing an effective TQM program actually improve operating performance? Empirical evidence from firms that have won quality awards', *Management science*, 43(9), pp. 1258–1274.

Hill, S. and Wilkinson, A. (1995) 'In search of TQM', *Employee Relations*, 17(3), pp. 8–25.

Jacobs, G., Witteloostuijn, A. van and Christe-Zeyse, J. (2013) 'A theoretical framework of organizational change', *Journal of Organizational Change Management*, 26(5), pp. 772–792.

Jarzabkowski, P. (2004) 'Strategy as Practice: Recursiveness, Adaptation, and Practices-in-Use', *Organization Studies*, 25(4), pp. 529–560.

Ke, W. and Wei, K.K. (2008) 'Organizational culture and leadership in ERP implementation', *Decision Support Systems*, 45(2), pp. 208–218.

Kennedy, M.T. and Fiss, P.C. (2009) 'Institutionalization, framing, and diffusion: the logic of TQM adoption and implementation decisions among U.S. hospitals', *Academy of Management Journal*, 52(5), pp. 897–918.

Kimberly, J.R. and Evanisko, M.J. (1981) 'Organizational innovation: the influence of individual, organizational, and contextual factors on hospital adoption of technological and administrative innovations.', *Academy of Management Journal*, 24(4), pp. 689–713.

Klein, K.J. and Sorra, J.S. (1996) 'The Challenge of Innovation Implementation', *The Academy of Management Review*, 21(4), pp. 1055–1080.

Knott, A.M. (2003) 'The organizational routines factor market paradox', *Strategic Management Journal*, 24, pp. 929–943.

Kwahk, K.-Y. and Lee, J.-N. (2008) 'The role of readiness for change in ERP implementation: Theoretical bases and empirical validation', *Information & Management*, 45(7), pp. 474–481.

Lane, P.J., Koka, B.R. and Pathak, S. (2006) 'The Reification of Absorptive Capacity: A Critical Review and Rejuvenation of the Construct', *Academy of Management Review*, 31(4), pp. 833–863.

Leone, L. (2010) 'A critical review of improvisation in organizations: open issues and future research directions', *Proceedings of the Summer Conference*, (June), pp. 1–36.

Levin, D.Z. (2006) 'Institutionalism, learning, and patterns of selective decoupling: The case of Total Quality Management', *Annual meeting of the Academy of Management*. Newark, NJ, pp. 1–38.

Lillrank, P. (1995) 'The Transfer of Management Innovations from Japan.', *Organization Studies*, 16(6) De Gruyter, pp. 971–989.

Lin, H., Chen, M. and Su, J. (2017) 'How management innovations are successfully implemented? An organizational routines' perspective', *Journal of Organizational Change Management*, 30(4), pp. 456–486.

Love, E.G. and Cebon, P. (2007) 'Meanings on Multiple Levels: The Influence of Field-Level and Organizational-Level Meaning Systems on Diffusion', *Journal of Management Studies*, 45(2), pp. 239–267.

Madhok, A. (1997) 'Cost, Value and Foreign Market Entry Mode: The Transaction and the Firm', *Strategic Management Journal*, 18(1), pp. 39–61.

Mamman, B.A. (2009) 'From Management Innovation to Management Practice', *International Journal of Organizational Innovation*, 2(2), pp. 22–60.

McCabe, D. (2002) "Waiting for dead men's shoes": Towards a cultural understanding of management innovation.', *Human Relations*, 55(5) McCabe, Darren, mnal19@mngt.keele.ac.uk: Sage Publications, pp. 505–536.

McCabe, D. and Wilkinson, A. (1998) 'The rise and fall of TQM: The vision, meaning and operation of change', *Industrial Relations Journal*, 29(1), pp. 18–29.

Michel, A., By, R.T. and Burnes, B. (2013) 'The limitations of dispositional resistance in relation to organizational change', *Management Decision*, 51(4), pp. 761–780.

Mol, M.J. and Birkinshaw, J. (2009) 'The sources of management innovation: When firms introduce new management practices', *Journal of Business Research*, 62(12), pp. 1269–1280.

Nonaka, I. and Takeuchi, H. (1995) *The Knowledge-Creating Company*. New York: Oxford Press.

Nyström, M.E., Höög, E., Garvare, R., Weinehall, L. and Ivarsson, A. (2013)

'Change and learning strategies in large scale change programs', *Journal of Organizational Change Management*, 26(6), pp. 1020–1044.

O'Mahoney, J. (2007) 'The diffusion of management innovations: The possibilities and limitations of memetics', *Journal of Management Studies*, 44(8), pp. 1324–1348.

Reed, R., Lemak, D.J. and Montgomery, J.C. (1996) 'Beyond Process: TQM Content and Firm Performance', *The Academy of Management Review*, 21(1), pp. 173–202.

Rindova, V. and Kotha, S. (2001) 'Continuous "Morphing": Competing through dynamic capabilities, form, and function', *Academy of Management Journal*, 44(6), pp. 1263–1280.

Roberts, E.B. (2007) 'Managing invention and innovation', *Research-Technology Management*, Jan-Feb, pp. 35–54.

Roberts, J. (2004) *The modern firm: Organizational design for performance and growth*. Oxford, U.K.: Oxford University Press.

Roberts, P. and Amit, R. (2003) 'The Dynamics of Innovative Activity and Competitive Advantage: The Case of Australian Retail Banking, 1981 to 1995', *Organization Science*, 14(2), pp. 107–122.

Rogers, E.M. (1995) *Diffusion of innovations*. New York: The Free Press.

Senge, P.M. (1990) *The Fifth Discipline. The art and practice of the learning organization*. Random House (ed.) London.

Slappendel, C. (1996) 'Perspectives on innovation in organizations', *Organization Studies*, 17(1), pp. 107–129.

Staw, B.M. and Epstein, L.D. (2000) 'What Bandwagons Bring: Effects of Popular Management Techniques on Corporate Performance, Reputation, and CEO Pay', *Administrative Science Quarterly*, 45(3), pp. 523–556.

Strang, D. and Kim, Y.-M. (2006) 'The Diffusion and Domestication of Managerial Innovations: The Spread of Scientific Management, Quality Circles, and TQM between the United States and Japan', in Ackroyd, S., Batt, R., Thompson, P. and Tolbert, P. S. (eds.) *The Oxford Handbook of Work and Organization*. Oxford University Press, pp. 1–16.

Strang, D. and Soule, S.A. (1998) 'Diffusion in Organizations and Social Movements: From Hybrid Corn to Poison Pills', *Annual Review of Sociology*, 24, pp. 265–290.

Strebel, P. (1996) 'Why do employees resist change?', *Harvard business review*, 74(3), pp. 86–92.

Szulanski, G. and Winter, S.G. (2002) 'Getting it right the second time.', *Harvard Business Review*, (January), pp. 62–69.

- Teece, D.J. (1980) 'The diffusion of an administrative innovation', *Management Science*, 26(5), pp. 464–470.
- Terwiesch, C. and Xu, Y. (2004) 'The Copy-Exactly Ramp-Up Strategy: Trading-Off Learning With Process Change', *IEEE Transactions on Engineering Management*, 51(1), pp. 70–84.
- Tolbert, P.S. and Zucker, L.G. (1983) 'Institutional Sources of Change in the Formal Structure of Organizations: The Diffusion of Civil Service Reform, 1880-1935', *Administrative Science Quarterly*, 28(1) JSTOR, pp. 22–39.
- Tranfield, D., Denyer, D. and Smart, P. (2003) 'Towards a Methodology for Developing Evidence-Informed Management Knowledge by Means of Systematic Review', *British Journal of Management*, 14, pp. 207–222.
- Vaccaro, I.G., Jansen, J.J.P., Van Den Bosch, F.A.J. and Volberda, H.W. (2012) 'Management Innovation and Leadership: The Moderating Role of Organizational Size', *Journal of Management Studies*, 49(1), pp. 28–51.
- Vera, D. and Crossan, M. (2004) 'Theatrical Improvisation: Lessons for Organizations', *Organization Studies*, 25(5), pp. 727–749.
- Volberda, H.W., Van Den Bosch, F.A.J. and Heij, C. V. (2013) 'Management Innovation: Management as Fertile Ground for Innovation', *European Management Review*, 10(1), pp. 1–15.
- Walker, R.M., Damanpour, F. and Devece, C.A. (2010) 'Management Innovation and Organizational Performance: The Mediating Effect of Performance Management', *Journal of Public Administration Research and Theory*, 21(2), pp. 367–386.
- Westphal, J., Gulati, R. and Shortell, S. (1997) 'Customization or conformity? An institutional and network perspective on the content and consequences of TQM adoption', *Administrative Science Quarterly*, 42, pp. 366–394.
- Winter, S.G. and Szulanski, G. (2001) 'Replication as Strategy', *Organization Science*, 12(6), pp. 730–743.
- Wischnevsky, J.D. and Damanpour, F. (2006) 'Organizational transformation and performance: An examination of three perspectives', *Journal of Managerial Issues*, 18(1), pp. 104–128.
- Wolfe, R. (1994) 'Organizational Innovation: Review, Critique and Suggested Research Directions', *Journal of management studies*, 31(3), pp. 405–431.
- Wood, T. and Caldas, M.P. (2002) 'Adopting imported managerial expertise in developing countries: The Brazilian experience.', *Academy of Management Executive*, 16(2), pp. 18–32.
- Zbaracki, M. (1998) 'The rhetoric and reality of total quality management', *Administrative Science Quarterly*, 43(April), pp. 602–636.

2.8 Appendices

2.8.1 Core articles on management innovations

These articles form a basis of a synthesis phase for our work into management innovation and they were taken forward with a data extraction process (Appendix 2.8.4). All the extracted data is available in Appendix 2.8.5.

Based on the key area of research interest, the selection was further broken down into three groups. The first of these groups were foundational papers on general management innovation. The focus for second group was adoption process including the adoption rationale. The third group contains articles on adaptation process. These sets would be a good starting for any researcher interested in management innovations.

On management innovations:

-
- Birkinshaw, J. and Mol, M. (2006), "How management innovation happens", MIT Sloan Management Review, 47(4), pp. 81-88.
-
- Birkinshaw, J., Hamel, G. and Mol, M. J. (2008), "Management Innovation", Academy of Management, The Academy of Management Review, 33(4), pp. 825-845.
-
- Damanpour, F. and Aravind, D. (2012), "Managerial Innovation: Conceptions, Processes, and Antecedents", Management and Organization Review, 8(2), pp. 423-454.
-
- Damanpour, F., 2014. Footnotes to Research on Management Innovation. Organization Studies, 35, pp.1265–1285.
-
- Gebauer, H., 2011. Exploring the contribution of management innovation to the evolution of dynamic capabilities. Industrial Marketing Management, 40(8), pp.1238–1250.
-
- Hamel, G., 2006. The why, what, and how of management innovation. Harvard Business Review, 84(2), pp.72–84.
-
- Kimberly, J. R., & Evanisko, M. J. (1981). Organizational innovation: the influence of individual, organizational, and contextual factors on hospital adoption of technological and administrative innovations. Academy of Management Journal. Academy of Management, 24(4), 689–713
-
- Lin, H., Chen, M. & Su, J., 2017. How management innovations are successfully implemented? An organizational routines' perspective. Journal of Organizational Change Management, 30(4), pp.456–486.
-
- Mamman, B. A. (2009), "From Management Innovation to Management Practice", International Journal of Organizational Innovation (Online), 2(2), pp. 22-60.
-
- McCabe, D. (2002), "'Waiting for dead men's shoes': Towards a cultural understanding of management innovation", Human Relations, 55(5), pp. 505-536.
-
- Mol, M. J. and Birkinshaw, J. (2009), "The sources of management innovation: When firms introduce new management practices", Journal of Business Research, 62(12), pp. 1269-1280.
-
- Volberda, H.W., Van Den Bosch, F.A.J. & Heij, C. V., 2013. Management Innovation: Management as Fertile Ground for Innovation. European Management Review, 10(1), pp.1–15.
-
- Walker, R.M., Damanpour, F. & Devece, C.A., 2010. Management Innovation and Organizational Performance: The Mediating Effect of Performance Management. Journal of Public Administration Research and Theory, 21(2), pp.367–386.
-

On antecedents and adoption rationales for management innovations:

Abrahamson, E. (1991), "Managerial Fads and Fashions: The Diffusion and Rejection of Innovations", *Academy of Management Review*, 16(3), pp. 586-612.

Ansari, S.M., Fiss, P.C. and Zajac, E.J., 2010. Made to fit: How practices vary as they diffuse. *Academy of Management Review*, 35(1), pp.67–92.

Currie, W.L., 1999. Revisiting management innovation and change programmes: strategic vision or tunnel vision? *Omega*, 27(6), pp.647–660.

DiMaggio, P. J. and Powell, W. W. (1983), "The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields", *American Sociological Review*, 48(2), pp. 147-160.

Kimberly, J. R., & Evanisko, M. J. (1981). Organizational innovation: the influence of individual, organizational, and contextual factors on hospital adoption of technological and administrative innovations. *Academy of Management Journal*. *Academy of Management*, 24(4), 689–713

Staw, B. M. and Epstein, L. D. (2000), "What Bandwagons Bring: Effects of Popular Management Techniques on Corporate Performance, Reputation, and CEO Pay", *Administrative Science Quarterly*, 45(3), no. 3, pp. 523-556.

Tolbert, P. S. and Zucker, L. G. (1983), "Institutional Sources of Change in the Formal Structure of Organizations: The Diffusion of Civil Service Reform, 1880-1935", *Administrative Science Quarterly*, 28(1), pp. 22-39.

Wright, C., Sturdy, A. and Wylie, N. (2012), "Management innovation through standardization: Consultants as standardizers of organizational practice", *Research Policy*, 41(3), pp. 652-662.

On adaptations within management innovation:

Lillrank, P., 1995. The Transfer of Management Innovations from Japan. *Organization Studies*, 16(6), pp.971–989.

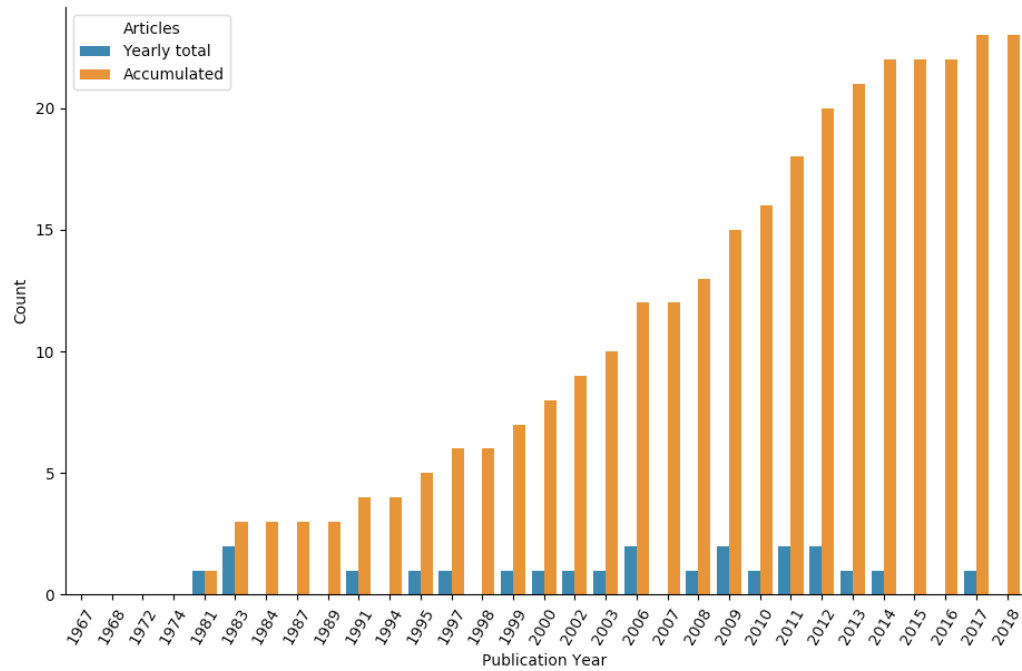
Westphal, J., Gulati, R. and Shortell, S., 1997. Customization or conformity? An institutional and network perspective on the content and consequences of TQM adoption. *Administrative Science Quarterly*, 42, pp.366–394.

2.8.2 Publication sources for steps 4 and 5 within the SLR

Publication	Post-step 4 (%)	Post-step 5 (%)
Academy of Management Annals	1 (1.59)	0
Academy of Management Executive	1 (1.59)	0
Academy of Management Journal	1 (1.59)	1 (4.35)
Academy of Management Review	3 (4.76)	3 (13.04)
Administrative Science Quarterly	4 (6.35)	3 (13.04)
American Sociological Review	1 (1.59)	1 (4.35)
British Journal of Management	1 (1.59)	0
Business Horizons	2 (3.17)	0
California Management Review	2 (3.17)	0
Decision Sciences	1 (1.59)	1 (4.35)
European Journal of Innovation Management	1 (1.59)	0
European Management Journal	1 (1.59)	0
European Management Review	4 (6.35)	1 (4.35)
Harvard Business Review	1 (1.59)	1 (4.35)
Human Relations	1 (1.59)	1 (4.35)
Industrial Marketing Management	1 (1.59)	1 (4.35)
Innovation: Management, Policy & Practice	1 (1.59)	0
International Journal of Human Resource Management	1 (1.59)	0
International Journal of Organizational Innovation	1 (1.59)	1 (4.35)
Journal of Business Research	4 (6.35)	1 (4.35)
Journal of Engineering and Technology Management	1 (1.59)	0
Journal of Global Scholars of Marketing Science	1 (1.59)	0
Journal of Management	1 (1.59)	0
Journal of Management Studies	4 (6.35)	0
Journal of Organizational Change Management	3 (4.76)	1 (4.35)
Journal of Public Administration Research and Theory	3 (4.76)	1 (4.35)
Knowledge Management Research & Practice	1 (1.59)	0
Long Range Planning	1 (1.59)	0
MIT Sloan Management Review	2 (3.17)	1 (4.35)
Management Decision	1 (1.59)	0
Management Review	1 (1.59)	0

Management and Organization Review	1 (1.59)	1 (4.35)
Omega	1 (1.59)	1 (4.35)
Organization Studies	4 (6.35)	2 (8.70)
Organizational Dynamics	2 (3.17)	0
Research Policy	2 (3.17)	1 (4.35)
Strategy & Leadership	1 (1.59)	0
Total	63 (100.00)	23 (100.00)

2.8.3 Yearly distribution for the articles in steps 4 and 5 within the SLR



2.8.4 Data extraction framework

Type of Coding	Field	Choices (if available)
	Full Reference	
	Title	
	Author(s)	
	Year	
	Journal	
Specifics	Type	Conceptual/Empirical
	Context and Contribution	N/A
	Level	Individual/Organisational/Practice
	Methodology	Qualitative/Quantitative
		Sample Size
		Data collection method
		Data analysis method
		Additional notes
Quality Assessment Score	Literature	0-3
	Methodology	
	Empirical Results	
	Centrality	
	Contribution to knowledge	

2.8.5 Extracted data from key papers

Full Reference	Abrahamson, E. (1991), "Managerial Fads and Fashions: The Diffusion and Rejection of Innovations", Academy of Management Review, vol. 16, no. 3, pp. 586.	Ansari, S. M., Fiss, P. C. and Zajac, E. J. (2010), "Made to Fit: how Practices Vary as they Diffuse", Academy of Management Review, vol. 35, no. 1, pp. 67-92.
Title	Managerial Fads and Fashions: The Diffusion and Rejection of Innovations	Made to Fit: how Practices Vary as they Diffuse
Author(s)	Abrahamson, E.	Ansari, S. M., Fiss, P. C. and Zajac, E. J.
Year	1991	2010
Journal	Academy of Management Review	Academy of Management Review
Type	Conceptual	Conceptual
Context and Contribution	Various propositions for organisational practice adoption with efficient choice, forced choice, fashion and fad perspectives	Various propositions on how organisational level mechanisms of MI implementation are related with population level mechanisms leading to modification and adaptation of MI practices.

Level	Practice	Population and Organisational level
Methodology (Qualitative/Quantitative)	N/A	N/A
Methodology (Sample Size)	N/A	N/A
Methodology (Data collection method)	N/A	N/A
Methodology (Data analysis method)	N/A	N/A
Methodology (Additional notes, if any)	None	None
Quality Assessment Score (Literature)	3	3
Quality Assessment Score (Methodology)	N/A	N/A
Quality Assessment Score (Empirical results)	N/A	N/A
Quality Assessment Score (Centrality)	3	3
Quality Assessment Score (Contribution)	3	3

Beer, M. (2003), "Why Total Quality Management Programs Do Not Persist: The Role of Management Quality and Implications for Leading a TQM Transformation", Decision Sciences, vol. 34, no. 4, pp. 623-642.	Birkinshaw, J. and Mol, M. (2006), "How management innovation happens", MIT Sloan Management Review, vol. 47, no. 4, pp. 81-88.	Birkinshaw, J., Hamel, G. and Mol, M. J. (2008), "Management Innovation", Academy of Management Review, vol. 33, no. 4, pp. 825-845.
Why Total Quality Management Programs Do Not Persist: The Role of Management Quality and Implications for Leading a TQM Transformation	How Management Innovation happens	Management Innovation
Beer, M.	Birkinshaw, J. and Mol, M.	Birkinshaw, J., Hamel, G. and Mol, M. J.
2003	2006	2008
Decision Sciences	MIT Sloan Management Review	Academy of Management Review
Conceptual	Descriptive Article	Conceptual
Propositions on organisation wide measures to increase success of TQM programmes. The author challenges the senior management commitment on these programmes and cites and organisation wide honest	Generative mechanisms of Management Innovations, and in particular why and where they emerge.	Seminal paper including a literature review element on Management Innovations. Contributions towards the key role of change agents both internal and external to the organisation in creation and diffusion of

communication and open dialogue to increase the probability of success.		Management Innovations.
Organisational level	Practice level	Intra-organisational evolutionary perspective
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
None	None	None
2	1	3
N/A	N/A	N/A
N/A	N/A	N/A
2	1	3
2	1	3

Currie, W. L. (1999), "Revisiting management innovation and change programmes: Strategic vision or tunnel vision?", Omega, vol. 27, no. 6, pp. 647-660.	Damanpour, F. (2014). Footnotes to research on management innovation. Organization Studies, 35, 1265–1285. notes on MI	Damanpour, F. and Aravind, D. (2012), "Managerial Innovation: Conceptions, Processes, and Antecedents", Management and Organization Review, vol. 8, no. 2, pp. 423.
Revisiting management innovation and change programmes: Strategic vision or tunnel vision?	Footnotes to research on management innovation	Managerial Innovation: Conceptions, Processes, and Antecedents
Currie, W. L.	Damanpour, F.	Damanpour, F. and Aravind, D.
1999	2014	2012
Omega	Organization Studies	Management and Organization Review
Conceptual	Descriptive Article	Conceptual
The paper posits that at different periods different management innovations have come out e.g. TQM, BPR, ABC, JIT are all actually all the same fundamental principles, beliefs and ideologies.	This paper investigates why research on management innovation lags research on technology innovation. In this respect, the author compiles five footnotes, each related to a different aspect of research on management innovations.	This is a review paper aiming to increase the understanding and research around Management Innovations. The paper reviews the extant literature around Management Innovations.
Practice level	Practice level	Practice level
N/A	N/A	N/A

N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
None	N/A	None
1	2	3
N/A	N/A	N/A
N/A	N/A	N/A
1	2	3
1	2	3

DiMaggio, P. J. and Powell, W. W. (1983), "The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields", American Sociological Review, vol. 48, no. 2, pp. 147-160.	Gebauer, H. (2011), "Exploring the contribution of management innovation to the evolution of dynamic capabilities", Industrial Marketing Management, vol. 40, no. 8, pp. 1238.	Hamel, G. (2006), "The why, what, and how of Management Innovation", Harvard business review, vol. 84, no. 2, pp. 72-84.
The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields	Exploring the contribution of management innovation to the evolution of dynamic capabilities	The why, what, and how of Management Innovation
DiMaggio, P. J. and Powell, W. W.	Gebauer, H.	Hamel, G.
1983	2011	2006
American Sociological Review	Industrial Marketing Management	Harvard Business Review
Conceptual	Empirical	Descriptive Article
The paper focuses on institutional isomorphism and postulates around coercive, mimetic and normative processes on how organisations adopt new practices.	The paper investigates via case studies how management innovation contributes to dynamic capabilities.	Generic introduction to management Innovations. The article raises fundamental questions around why MI matter, how they emerge within organisational context, and how they make a difference.
Practice and Organisational level	Process/Practice level	Organisation level
N/A	Qualitative	N/A

N/A	8 organisations, 32 interviews	N/A
N/A	Interviews	N/A
N/A	Grounded Theory	N/A
None	None	None
2	1	1
N/A	2	N/A
N/A	2	N/A
2	1	1
2	1	1

Kimberly, J. R. and Evanisko, M. J. (1981), "Organizational Innovation: The Influence of Individual, Organizational, and Contextual Factors on Hospital Adoption of Technological and Administrative Innovations", Academy of Management Journal, vol. 24, no. 4, pp. 689-713.	Lillrank, P. (1995), "The transfer of management innovations from Japan", Organization Studies, vol. 16, no. 6, pp. 971.
Organizational Innovation: The Influence of Individual, Organizational, and Contextual Factors on Hospital Adoption of Technological and Administrative Innovations	The transfer of management innovations from Japan
Kimberly, J. R. and Evanisko, M. J.	Lillrank, P.
1981	1995
Academy of Management Journal	Organization Studies
Empirical	Mixed
The paper postulates that individual factors like organisational structure, climate and culture influences the adoption of innovations. e.g. Organisational size has a direct influence on the introduction of new management practices. The research also shows that for larger firms have a wider variety of challenges (than smaller firms) as	The paper focuses in inner-organisational transfer of organisational innovations and compares them with technical innovations. The author posits that these MI are typically higher on social interface, with a lot of tacit knowledge embedded and difficult to codify. The authors also propose a model, where the innovation is

they face a larger variety of competitors of all sizes.	transformed to a higher level of abstraction, transferred, and then recreated with due consideration to local conditions within the adopting organisation.
Organisation level	Practice level
Quantitative	Qualitative
12 innovations selected out of 300	2 case studies
Secondary hospital data from Cornell survey	Case Study method
Multiple regression	Retrospective analysis
None	None
3	2
2	2
3	2
3	3
3	3

Haifen Lin, Mengya Chen, Jingqin Su, (2017) "How management innovations are successfully implemented? An organizational routines' perspective", Journal of Organizational Change Management, 30(4), pp.456-486.	Mamman, B. A. (2009), "From Management Innovation to Management Practice", International Journal of Organizational Innovation (Online), vol. 2, no. 2, pp. 22-60.
How management innovations are successfully implemented? An organizational routines' perspective	From Management Innovation to Management Practice
Haifen Lin, Mengya Chen, Jingqin Su	Mamman, B. A.
2017	2009
Journal of Organizational Change Management	International Journal of Organizational Innovation
Empirical	Conceptual
The paper investigated implementation of management innovations with organisational routines. The paper uses an exploratory case study for a single organisation and explores on the complex management innovation implementation mechanisms. The authors posit a 3-phase approach for creation of new routines within an organisation, as part of the MI implementation.	This paper raises the question on why organisations adopt and modify management innovations in the first place. The paper illustrates that the world of theory is different from the world of practice. The paper takes a conceptual view on promoting the development of theory on modification of management innovations.
Organisation level	Practice level

Qualitative	N/A
1 Organisation, 29 interviews	N/A
Interviews	N/A
Grounded Theory	N/A
Exploratory case study	None
1	2
1	N/A
1	N/A
1	2
1	2

McCabe, D. (2002), "'Waiting for dead men's shoes': Towards a cultural understanding of management innovation", Human Relations, vol. 55, no. 5, pp. 505-536.	Mol, M. J. and Birkinshaw, J. (2009), "The sources of management innovation: When firms introduce new management practices", Journal of Business Research, vol. 62, no. 12, pp. 1269.
Waiting for dead men's shoes': Towards a cultural understanding of management innovation	The sources of management innovation: When firms introduce new management practices
McCabe, D.	Mol, M. J. and Birkinshaw, J.
2002	2009
Human Relations	Journal of Business Research
Empirical	Empirical
The paper explores the influence of managers in the outcome of an incoming innovation. As an implication the effect of manager's subjectivity, beliefs and preferences become within organisational context and thus impact any new innovation in both intentional and unintentional ways.	The paper builds on the "reference group" concept to define an external search region against an organisational internal innovation requirements. The article also adds upon the dichotomy between context and search and claims that there is a negative performance effect on the adopted management innovation outcomes if both occur together.
Organisational level	Practice/Organisation level
Qualitative	Quantitative
Single case study	8172 firms

Ethnography and semi-structured interviews	Survey
Grounded theory	Regression and Hierarchical ordered logit
None	None
3	3
2	2
2	3
2	3
2	3

Staw, B. M. and Epstein, L. D. (2000), "What Bandwagons Bring: Effects of Popular Management Techniques on Corporate Performance, Reputation, and CEO Pay", Administrative Science Quarterly, vol. 45, no. 3, pp. 523-556.	Tolbert, P. S. and Zucker, L. G. (1983), "Institutional Sources of Change in the Formal Structure of Organizations: The Diffusion of Civil Service Reform, 1880- 1935", Administrative Science Quarterly, vol. 28, no. 1, pp. 22-39.
What Bandwagons Bring: Effects of Popular Management Techniques on Corporate Performance, Reputation, and CEO Pay	Institutional Sources of Change in the Formal Structure of Organizations: The Diffusion of Civil Service Reform, 1880- 1935
Staw, B. M. and Epstein, L. D	Tolbert, P. S. and Zucker, L. G
2000	1983
Administrative Science Quarterly	Administrative Science Quarterly
Empirical	Empirical
The authors studied large industrialised organisations and found no significant relationship between performance improvements coming out of these organisations adopting popular management innovations. But, they did discover ancillary benefits coming out of adopting these MI, and rationale for these practices to be popular.	The paper is a longitudinal study around the institutional aspect of management practice adoption. The authors explore rationales towards practice adoption and describe two possible reasons as compliance, and social legitimacy. The authors propose that the primary driver for early adopters to adopt new management practices is economic efficiencies, but for late adopters, it is

	societal pressure for legitimacy.
Organisation level	Practice/Organisation level
Quantitative	Quantitative
100 large organisations 25 industries	
Secondary data - Press coverage	Civil decennial censuses from 1890 to 1930
Regression analysis	Regression model
None	None
3	2
2	2
2	2
2	2
2	2

Volberda, H. W., Van Den Bosch, F. A. and Heij, C. V. (2013), "Management Innovation: Management as Fertile Ground for Innovation", European Management Review, vol. 10, no. 1, pp. 1.	Walker, R. M., Damanpour, F. and Devece, C. A. (2010), "Management Innovation and Organizational Performance: The Mediating Effect of Performance Management", Journal of Public Administration Research and Theory, vol. 21, no. 2, pp. 367-386.
Management Innovation: Management as Fertile Ground for Innovation	Management Innovation and Organizational Performance: The Mediating Effect of Performance Management
Volberda, H. W., Van Den Bosch, F. A. and Heij, C. V.	Walker, R. M., Damanpour, F. and Devece, C. A.
2013	2010
European Management Review	Journal of Public Administration Research and Theory
Conceptual/Review	Empirical
The authors focus on Management innovations and how it acts as a leverage for other types of innovations. The paper reviews and summarises commonalities between management and technical innovations along the dimensions of antecedents, process, expected and	The authors research the effect of management innovation and firm performance within the public sector. They hypothesise and test that performance management acts as an intermediate variable to get the best out of adopting a management innovation.

achieved outcomes, and contextual factors.	They find that the effect is positive, but not direct.
Practice level	Organisational level
N/A	Quantitative
N/A	1056 informants
N/A	Survey within 136 UK public authorities, data from government and the census
N/A	Structured Equation Modeling
None	None
2	2
N/A	2
N/A	2
1	2
1	2

Westphal, J. D., Gulati, R. and Shortell, S. M. (1997), "Customization or Conformity? An Institutional and Network Perspective on the Content and Consequences of TQM Adoption", Administrative Science Quarterly, vol. 42, no. 2, pp. 366-394.	Wright, C., Sturdy, A. and Wylie, N. (2012), "Management innovation through standardization: Consultants as standardizers of organizational practice", Research Policy, vol. 41, no. 3, pp. 652.
Customization or Conformity? An Institutional and Network Perspective on the Content and Consequences of TQM Adoption	Management innovation through standardization: Consultants as standardizers of organizational practice
Westphal, J. D., Gulati, R. and Shortell, S. M.	Wright, C., Sturdy, A. and Wylie, N.
1997	2012
Administrative Science Quarterly	Research Policy
Mixed	Empirical
The authors research around the institutional perspective to explore the diffusion of management innovations and in particular the dichotomy between customisation and conformity when adopting new practices. The paper explores rationale around performance efficiency and social legitimacy for US hospitals to adopt new practices. They find support for the propositions consistent with	In this paper the authors postulate that standardisation of a practice / process is equally applicable to management innovations. The work also captures the role of consultants to facilitate this standardisation. Interestingly, the study also shows that managers within organisations favor small incremental improvements due to multiple cultural and structural resistances inbuilt within

the network effects within an industry and institutional pressures.	organisations contexts and environments.
Organisational level	Organisational level
Quantitative	Qualitative
2712 US hospitals	90 stage 1 and 61 stage 2 interviews
Survey results from 2712 US hospitals and government data	Semi-structured interviews and exploratory case studies approach
Heckman selection model	Exploratory qualitative approach
None	None
2	1
2	2
2	1
3	1
3	2

3 Adoption of management ideas and innovations – An exploratory study of the adaptation process

3.1 Abstract

Change management processes are well covered in the literature but this coverage does not offer much insight into situations where the content of the change process are management innovations, and the challenges entailed. This study contributes to the change management literature by specifying challenges related to the adoption of management innovation and possible solutions. A secondary contribution is to the literature on management innovation, by elucidating how adoption processes can fail or be facilitated. This study builds senior management practitioners' reflections on organisational reactions to management innovations to increase understanding of the specific adoption and adaptation process of management innovation. The qualitative data was gathered with an exploratory questionnaire with open-ended questions answered by a total of ninety respondents and validated by a peer group. The questionnaire elicited how the adoption and adaptation of management practices works in practice. The resulting data was subjected to the template analysis process. This study proposes a generative model of management innovation adoption and adoption through creating localised knowledge. This model provides guidance on where practitioners may want to pay particular attention during the process.

Keywords:

Adoption, Adaptation, Change Management, Management Innovation

3.2 Introduction

A rich vein of research on change management (Beer and Nohria, 2000; Decker et al., 2012; Kotter, 1995) shows how change in general is initiated, by perceived or created crises (Kim, 1998), and carried into effect (Kotter, 1995; Sirkin, Keenan and Jackson, 2005) and what can make such change difficult (Beer and Eisenstat, 2000). But this coverage neither provides consistency with

empirical evidence (Todnem By, 2007) nor offer much insight into specific situations where the content of the change process are clearly, often externally, defined management innovations. Organisations are keen to adopt such innovations, which help them re-invent and re-organise for greater efficiencies and productivity with respect to their peers. They seek innovations that are difficult to copy (Teece, 2007), and result in a competitive advantage (Mol and Birkinshaw, 2009; Roberts and Amit, 2003; Volberda, Van Den Bosch and Mihalache, 2014). Besides technological innovation, another kind is management innovation (hereafter MI), which changes the work of management with new methods, processes and practices in a significant way (Hamel, 2006; Kimberly and Evanisko, 1981). Birkinshaw, Hamel and Mol (2008: 825) define management innovation as "the invention and implementation of a management practice, process, structure or techniques which is new to the state of the art and has been developed to further organisation goals". Where change management focuses mostly on large scale transformations (Kotter, 2007), fine tuning or incremental changes (Dunphy and Stace, 1993) are mostly with predefined content and recipe, management innovations are about the adoption of specific, often radical, new practices that significantly alters how management is done. Adopting an MI successfully brings its own set of paradoxical challenges. While a management innovation that is to be introduced, may be defined, adoption is a social process that requires adaptation rather than the mere transfer of practice (Ansari, Fiss and Zajac, 2010). The adoption and adaptation process questions existing capabilities and the ingrained assumptions which may not be conducive to its successful adoption. This makes MIs more difficult to adopt than technology innovations (Evangelista and Vezzani, 2010).

Within the organisational pursuit to successfully generate a competitive advantage based on such new management practices, after the decision for adoption, their successful implementation and institutionalisation is an important step (Rogers, 1995). Although many studies focus on the diffusion process and the evolution of management practices as they travel inter-organisationally at the practice level or industry level (Abrahamson 1991; Fiss,

Kennedy and Davis 2012; O'Mahoney 2007), and the high failure rate of the process (Beer, 2003; Beer and Nohria, 2000; Choi and Behling, 1997; Decker et al., 2012; Dooley and Flor, 1998; Hughes, 2011; Jacobs, Witteloostuijn and Christe-Zeyse, 2013; Michel, By and Burnes, 2013), we have not seen empirical research on the difficulties organisations encounter when they adopt these into their context. The lack of understanding of adoption of management innovation may be a significant factor in the higher failure rate, which makes it a theoretically interesting and highly relevant problem to focus on.

In order to achieve this, we conduct an inductive qualitative study to understand the actual adoption process of management innovation within organisations. The focus was to explore how organisational antecedents and forces are associated with success or failure of these practices to generate preliminary conceptual understanding and testable theory around the adoption and adaptation process. This study provides a conceptual model and generates guidance for practitioners on where during the adoption process their attention may be warranted

3.3 Theoretical context

In this section, we outline how our research is structured, why is it needed and how it aims to contribute. We also provide a brief overview of the literature leading to a positioning statement. We focus on the adoption and institutionalisation of management innovations and summarise the literature with. Firstly, management innovations cannot be copied verbatim. They need adaptations to the organisational context. Secondly, management innovations carry a lot of social components and tacit knowledge, as they are best defined at an abstract level. We expand on the theoretical foundations below.

Since the context of every organisation is different in its makeup, it makes every adoption and institutionalisation initiative unique (Michel, By and Burnes, 2013; Nyström et al., 2013). This organisational context is present even before the practice has been introduced. It includes organisational culture and norms, an amalgamation of individual preferences and biases (Crossan and Apaydin, 2010; Schein, 1990) that are an important part of the organisational fabric and

day-to-day operations. Rogers (1995: 15), defines this contextual compatibility as “the degree to which an innovation is perceived as consistent with the existing values, past experiences, and needs of potential adopters”. These can affect any adoption effort, both in positive and negative ways. An implementation or initiative cannot be free from these effects. The organisational impact is even greater for a management innovation (Hamel, 2006; Lillrank, 1995; Rogers, 1995). As an example, Golini, Kalchschmidt and Landoni (2015) studied project management practices within organisations and noted that the customisation for an incoming practice is of greater significance than the magnitude of investment or the size of the organisation. They posit that the most significant factor is making people align with the new practice. A lack of such alignment can even lead to a practice being dis-owned even by its early proponents after non-acceptance becomes irrefutable and irreparable. Copying management innovations without regard for their alignment is therefore an important reason for adoption failure.

Second, management innovations carry a lot of social components and tacit knowledge (Lillrank, 1995), such as an abstract (and very contextual) specification), are complex to adopt and mostly longitudinal endeavours (Hamel, 2006), and therefore their adoption is especially challenging. Therefore, extant literature suggests that MI adoption is strongly influenced by organisational contexts and the differences between contexts (Ansari, Fiss and Zajac, 2010). The social component and the necessity for contextualisation are sensitive elements, which may challenge what was taken for granted in another context, where a management innovation had “proven” to be successful earlier. This introduction of an element of risk into the adoption by a target organisation and introduces variability of adoption outcomes.

In summary, management practices and innovations cannot be copied verbatim. They require adaptations⁶ to deliver value to the adopting

⁶ We use Ansari et al. (2010: 71)’s definition of “Adaptation” to refer to “the process by which an adopter strives to create a better fit between an external practice and the adopter's particular needs to increase its

organisation (Ansari et al. 2010). In other words, no two organisational contexts are identical, therefore change to an incoming new management practice is inevitable and necessary (Rogers 1995). The problem context above and in the lack of understanding of the management innovation institutionalisation process lead us to ask how organisations adopt and adapt management innovations and why are these efforts so often thwarted.

3.4 Methods

We developed an exploratory qualitative questionnaire to help us better understand the adoption and adaptation process of management innovation in business practice. We administered the questionnaire with seven groups of senior management practitioners aggregating to a total of 90 respondents and validated the results with another group of 24 of their peers. Following the template analysis process (King, 2004), we use an inductive approach analysing the responses to identify with categories of antecedents, and characteristics of the process. We chose induction as it helps us to develop based on people's direct experience of adopting and adapting management innovations and recollections thereof to conduct qualitative analysis and finding explanations related to the process of adoption and especially adaptation. We analyse the responses with hierarchical coding to improve upon the understanding for the process in question. Following the analysis, we further validated our findings based on 90 respondents by presenting and discussing our findings and the generative model with another peer group of 24 participants with a similar representative profile as the respondents set, who confirmed our results.

3.4.1 Data collection

Our study is designed around the context of the adoption and adaptation of management practices. In this section, we describe the design of the questionnaire and the data collection process. This approach was considered

“zone of acceptance” during implementation.”

because we could generate rich data from the use of language by the interviewees, which proved helpful in gaining insight into their perceptions and views.

The design process of the questionnaire focused on the area of adoption of management innovations. We first reviewed the relevant literature around management innovations (Birkinshaw and Mol, 2006; Damanpour and Aravind, 2012; Hamel, 2006; Kimberly and Evanisko, 1981) and generated a pool of topics around the management innovation adoption process. We particularly took inspiration from the generation (Birkinshaw, Hamel and Mol, 2008; Damanpour and Wischnevsky, 2006; Hollen, Van Den Bosch and Volberda, 2013) and the adoption process (Damanpour and Wischnevsky, 2006; Klein and Sorra, 1996), as this is our area of interest. We created a set of questions around the themes including ease and difficulty of adoption, necessary changes while adopting, and reasons for abandonment of management practices. In terms of constituent showcase management practices, the questionnaire is based on well-known MIs as listed by Bain & Company "Management Tools and Trends 2015" guide (Rigby and Bilodeau, 2015). (Appendix 3.9.4) The questionnaire objective was to provide a context, which takes the respondent into a frame of mind in which to consider their experience about how new practices were being introduced. This allowed them to share their personal views and explanations. The focus was intentionally kept on individual experiential aspects rather than asking them to list out the processes or methods. This open approach made the questionnaire a powerful tool for effectively gathering views of senior executives.

The study sample consisted of senior management practitioners from different industry sectors, attending executive programme at a leading UK business school. All respondents had multi-year business experience and senior/middle manager or equivalent responsibility within their respective organisations, mostly mid-size to large FT listed multinationals. The participants were mostly male Europeans; all were graduates/post-graduates. The questionnaire was deployed with the first group in 2016. This group was considered the pilot group. The responses helped us to refine our understanding of MI adoption gained

from the literature and identify issues that had not been covered. For details on the respondents' profiles see Table 8.

This first group of executives helped us explore and ensure the coverage of antecedents, approach, difficulties and critical success factors around bringing new management practices into organisations. Based on responses from this group, we made some adjustments to the questionnaire⁷ and collected extended written qualitative responses from the next group, yielding richer data from open-ended reflections from the respondents. Between 2016 and 2018, we administered similar questionnaire that differed in format to six subsequent groups, who provided more concise, free text answers. The final data set was collected in 2018. The questionnaire is shown in Appendix 3.9.1.

Comparing the findings from following groups with the first two groups, we found that they were almost identical in learnings, themes and variables. The responses from the later data sets were analysed using an inductive approach (Carlile and Christensen, 2004; Eisenhardt and Graebner, 2007) to find insights, which could help us construct a view and propose a theoretical model.

One group consisted of mainly senior managers or experienced middle managers at the UK Ministry of Defence and other civilian organisations, the other six groups comprised members of the top management team of organisations and senior executives. The organisations were mostly for-profit business, some were charities and few were governmental organisations like the NHS.

Starting with group four in 2017 onwards, we provided each group feedback on their responses and engaged them in a discussion on the similarities and differences to prior groups responses. This rolling validation was concluded with the eight group in 2018 when we collected a final validation data set from a similar group of executives and held a final discussion. Data gathering and

⁷ In addition to minor changes to the questionnaire, one major change was to add an additional question related to management practices the respondent's division/group may have attempted in the past, but were no longer used.

iterative validation increased our understanding of the phenomenon and the meaning of the respondents replies.

Group	Date	Respondent Count	Respondent Profile	Objective
1	May 2016	14	CxO/Senior executives	This was a pilot group. It helped us gain an overview of MI adoption in practice, and some of the issues identified during the process
2	Jun 2016	18	Senior/Mid Managers, mainly UK Ministry of Defence	Collection of first data set.
3	Nov 2016	12	CxO/Senior executives	Additional data set
4	Feb 2017	11	Senior/Mid Managers	Additional data set; validation discussion on responses and prior results
5	Mar 2017	14	Senior/Mid Managers	Additional data set; validation discussion on responses and prior results
6	Apr 2017	8	Senior/Mid Managers	Additional data set; validation discussion on responses and prior results
7	May 2017	13	CxO/Senior executives	Additional data set; validation discussion on responses and prior results
8	Nov 2018	24	CxO/Senior executives	Collection of validation set; validation discussion on responses and prior results

Table 8: Questionnaire respondents' profile and objectives

3.4.2 Data analysis

We used template analysis (King, 2004), a widely applied qualitative method in organisation studies and beyond (Brooks et al., 2015; Lips-Wiersma and Hall, 2007), to explore emerging themes within the collected qualitative data. This approach was considered because can be used on any form of textual data (King, 2004). In this study, it helps us thematically analyse our open-ended questionnaire responses.

To begin the analysis process, we created some a priori codes⁸ as required by the template analysis process. These codes originated from the literature review, and they are as defined in Table 9, Pre-coding template below. These were used as a skeleton to start the coding process. Starting from this pre-coding template, we went through all the responses using hierarchical coding using the process as described in more detail in Appendix 3.9.3.

⁸ A-priori themes are considered quoting <http://www.hud.ac.uk/hhs/research/template-analysis/technique/themes-and-codes/> "...the importance of certain issues in relation to the topic being researched is so well-established that one can safely expect them to arise in the data.

Context/Organisational concerns	Expected Codes	References
Will this new practice help? Are we all aligned for this to work?	Missing internal buy-in, Limited information sharing	Hamel (2006)
Will it affect my job? Do I know of this practice helping elsewhere?	Peer comparisons, Perception of negative rewards	Choi and Behling (1997); Dooley and Flor (1998)
Do we have a culture of attempting to integrate new practices, which have a promise to improve us?	Cultural forces, Resistance to change	Crossan and Apaydin (2010); Mol and Birkinshaw (2009)
Can we change “this” and leave out “that” as (a) “this” seems to be difficult to implement, and (b) “that” does not seem to be relevant.	Practice modifications to suit context, Selective implementation	Ansari et al. (2010); Zbaracki (1998)
How much organisational change will be necessary?	Internal capabilities, New systems	Rogers (1995; Westphal et al. (1997)
How busy are we? Is this an additional burden? Or Will there be a dedicated resource for this?	Ongoing business pressures	Ansari et al. (2010)

Table 9: Pre-coding template

All emergent themes were marked as “nodes”, which is an NVivo (Anon., 2016) construct for an emergent theme/phenomenon/process within the analysed text. As an example, in the first round, we found “leadership buy-in”, but then soon found several instances just specific to “buy-in” at all levels within the organisation, so we arranged the former as a sub-theme with “buy-in at all levels” as a top-level theme. The process helped us to identify themes closer to the real-life portrayal of practice adoption and institutionalisation process, as practised. The focus was the coverage on the breadth of the responses, instead

of increasing and exploring the depth. All extracted nodes are listed in Appendix 3.9.2, and we moved to apply hierarchical coding.

These first-order categories (now as NVivo nodes) were then organised within a logical hierarchical structure starting with the pre-coding template we created earlier. At this stage, we also added appropriate labels for grouping the emergent second-order categories wherever they logically belonged together. It was soon apparent that we have found a lot subtler organisational nuances and distinctions, which clustered somewhere within the hierarchy.

A second coding iteration on the text was then applied, as part of the process of template analysis (Brooks et al., 2015; King, 2004). This allowed us to see further groups emerge. At this stage for example comfort in the status quo became a clear category as many respondents highlighted various issues within their current organisational setups, which hindered or blocked new practices to get on a firm footing within organisations. Similarly, some attributes were such that they fell into groups within a practice related category that is more independent of the organisational context. For example, the maturity of the practice and the common perception of a practice would both be practice variables that are independent of the organisational context, where the practice is being considered for implementation.

The iterative analysis of the data and the evolution of template was stopped after three coding iterations on the data inputs. At every iteration, the hierarchy was refined by slight modifications to increase variation and enhanced structure (Pettigrew, 1997), but this variation became negligible in the third pass, indicating that we have reached theoretical saturation.

3.5 Findings and discussion

After conducting the template analysis, we grouped the second-order categories into aggregate dimensions, wherever they logically belonged. The emergent inductive data structure is shown below. Figure 5 and

Figure 6 show the data structure and a widely accepted visualisation (Gioia, Corley and Hamilton, 2012), with first order structures to the left, second order

structures in the centre and aggregate dimensions to the right. In Table 10 we show a sample of quotes by the respondents illustrative of the second order constructs.

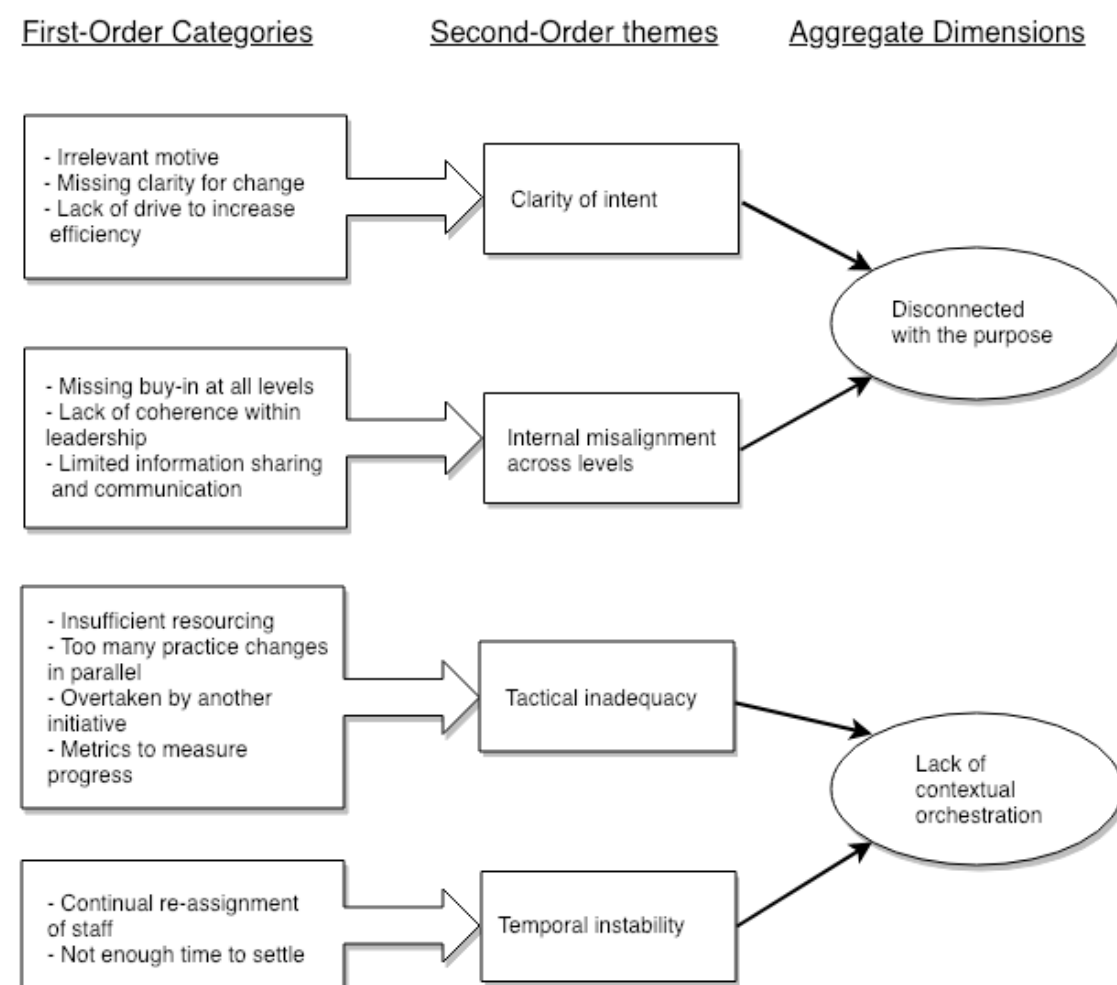


Figure 5: Data structure 1

First-Order Categories

Second-Order themes

Aggregate Dimensions

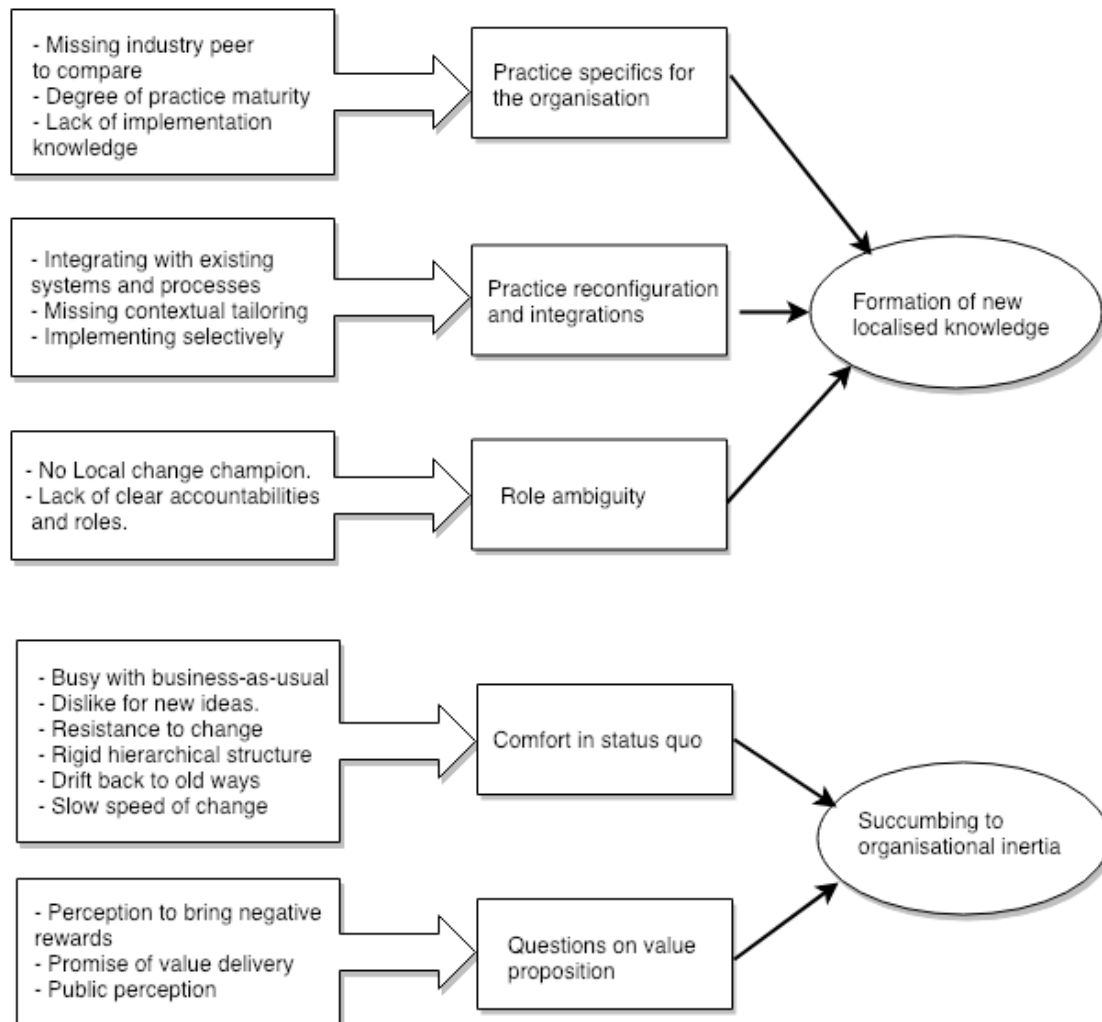


Figure 6: Data structure 2

Table 10: Representative quotes for each second-order theme on hinderances in practice adaptation

Clarity of intent	"[Division] is itself is undergoing a [Practice] (Transformation) in order to provide common project management and data capture methodologies, enhancing Knowledge Management, to aid and promote more effective and efficient operations / decision making (R11)
	"There is a perception within the organisation that senior stakeholders who make changes to a business unit are seen to have been successful, whether or not the change they have implemented is successful or not." (R13)
	"There was no linkage between the high level goals (KPI) down to the individual work streams that make up the project. The KPI were clearly randomly generated,..." (R12)
Internal alignment across levels	"...powerful interest groups may block adoption if it is incompatible with the other interests and agendas." (R02)
	"Political interference is still a significant hurdle to it being successfully implemented in the public sector environment;" (R12)
	"By not having clear direction and goals to move forward, change can lose momentum and be taken over by other events and other priorities that are simultaneously happening." (R10)
	"staff considered it to be an administrative burden, and one with which they complied without understanding for what purpose they were documenting and reporting how they were using their time. This yielded dissonance rather than engagement with the process." (R16)
	"forging ahead unguided and ultimately placing the deployed networks at risk and wasting the [Organisation] budget" (R01)
	"By investing in staff and communicating at all levels, change can be more easily adopted." (R10)
	"senior management will need to set the tone by showing that they are trusting information and looking for critical issues." (R03)
	"Without effective and supportive leadership to encourage and guide employees through change, change will not happen." (R10)
Tactical	"Lack of senior management understanding of the concept with too few individuals involved and hence no commitment was created" (R12)
	"The investment in the right people and skill set required in the organization is poor. Jobs have been created and civil servant posts have been cross mapped. But no one has

inadequacy	<p>been recruited from outside the organization to fill the void skill sets " (R07)</p> <p>"However as an organization that has been hard pressed with workload and with a shortage of key skills these practices have been difficult to retain" (R07)</p> <p>"This chronic under-manning results in business as usual overriding all other management activities." (R17)</p> <p>"There was no linkage between the high level goals (KPI) down to the individual work streams that make up the project. The KPI were clearly randomly generated, there wasn't a balance between leading and lagging indicators (KPI) and that these don't yet adequately reflect strategy and the most critical areas." (R12)</p> <p>"The KPI selected didn't reflect the projects strategy and gave no appearance of relevance." (R12)</p> <p>"It seems the certain benefits that were hard-won, were overtaken by events in the transition into the new (organisation)..." (R09)</p> <p>"The [Organisation] paid for other tools that produced similar results as the scorecard, therefore the scorecard was abandoned not to encourage duplication. With other systems having a cost associated, the [Organisation] used them to justify the purchase." (R10)</p> <p>"However, many new initiatives become abandoned as they are trying to achieve too much without being resilient. It can be argued that "...too many initiatives on too many fronts can lead to diffusion of focus..." (R10)</p> <p>"each programme appears to be working in semi-isolation from the others and therefore, crucial intercommunication is not being made at the right levels increasing risk and causing issues to occur." (R01)</p>
Temporal instability	<p>"With the regular churn of staff within [Division] in particular and the wider [Organization] in general, continuity is often lost and thus commitment suffers from regular and repeated dislocations of staff." (R08)</p> <p>"...add to this time to learn and reflect, else be doomed to repeat history." (R11)</p>
External inputs on MI	<p>"However, it was when the [Practice] came into use that the real costs became clear." (R02)</p> <p>"Digital transformation was abandoned due to financial reasons." (R10)</p> <p>"Unaware of organisational context (saturation) senior management viewed [Practice] as another simple process and underestimated the support, cultural changes, and tangible</p>

	assets required for its successful adoption.” (R11)
	The lack of competition results in little incentive for the organisations to become more efficient and reduce costs.” (R12)
	“to compare and contrast their current (practices) with those of the industry leaders to aid in improving their own ability” (R01)
	“Early versions, where the actual ambiguity around a tool may be at its most extensive, can make it difficult to operationalize” (R02)
Practice reconfiguration and integrations	<p>“...the system was inflexible, having been a Commercial Off The Shelf (COTS) package and was not able to be specifically tailored to the niche contract requirements of many parts of the organization.” (R04)</p> <p>“...where uptake was hindered by an inability to understand internal functional Value streams and nuances for use, was caused by misaligned designers, customers and facilitators.” (R11)</p> <p>“Thus two of the major tenets of [Practice] – continuous improvement and increased productivity — fail to be realised. This is not because [Practice] is failing, it simply isn't being practised. (R08)</p>
Role ambiguity	<p>“...Organizational roles and responsibilities would need to be re-defined, agreed and enforced.” (R03)</p> <p>“It was also controlled remotely at Operating Centre level, meaning there was limited guidance and support.” (R15)</p> <p>“Without the support of a 'champion' the introduction of the [Practice] is highly unlikely to succeed.” (R02)</p>
Comfort in the status quo	<p>“At an individual level, it is argued that leaders find it more attractive to spend more time on new ideas than on implementing those already adopted.” (R02)</p> <p>“People are reluctant for digital change which can be daunting in the workplace, as people need to find alternative ways of working.” (R10)</p> <p>“...it would require a cultural change within the wider [Organisation] to be successful.” (R16)</p> <p>“Changing people within an organization can often be the most difficult aspect of a change which can cause it to be abandoned.” (R10)</p> <p>“...decision making must go up and down the hierarchy for any decision to be made, rather than being delegated to the point at which it is best held.” (R06)</p>

	<p>"By having multiple layers of bureaucracy, projects move slowly through the lifecycle which is more costly due to increased waiting times between decisions." (R10)</p> <p>"We are used to being a slow moving dinosaurs." (R05)</p> <p>"they are simply too busy with their day-to-day work, to take on such a new and monumental task." (R01)</p> <p>"they already have fulltime employment with the day-to-day management of the [Organisation] fixed infrastructure" (R01)</p> <p>"The [Practice] became merely a slide in the management board monthly briefing pack that was regularly skipped over till the end of the meeting, if time allowed." (R12)</p> <p>"Because people would continue to use the old 'manual' way, force of habit proved too hard to break for many." (R04)</p> <p>"Instead the department has gone back to old principle and methods..." (R07)</p>
<p>Questions on value proposition</p>	<p>"they felt that the data being collected might be used for nefarious purposes such as performance management of individual staff" (R06)</p> <p>"Continually used by [Division] as a particularly useful snapshot and used to update all on progress of project and capability status." (R01)</p> <p>"the relevance of what the [Practice] was delivering to the project was never clearly communicated." (R12)</p> <p>"relies strongly on the perception its members and future potential members have of its progressiveness." (R02)</p> <p>"they felt that the data being collected might be used for nefarious purposes such as performance management of individual staff." (R06)</p>

After completing the template analysis exercise, all the responses were used as a basis towards the findings. Within the data, we could recognise many subtle peculiarities and organisational factors which appear to be relevant. We now progress to describe the emergent themes and connect them with the literature. We also draw illustrative examples in order to create a clear account of the thematic analysis and explore constructs, relationships and trends.

In the following table, we list the aggregate dimensions, their working definitions and some examples from the analysis. We separate out findings related to the organisation from those related to the practice (management innovation). This separation allows for new conceptual insights into how MI adoption is challenged by the requirements of a practice, the implementation could target the organisational capabilities as well as adaptations to the practice to make it all amenable.

Aggregate dimensions	Working definition	Field exemplars
Disconnected with the purpose	Missing organisation-wide supportive climate for confidence in the new incoming management innovation.	Missing clarity for change, Missing buy-in at all levels, Lack of coherence within leadership etc.
Lack of contextual orchestration	Missing necessary coordination and movement in unison for the execution of changes on the people and process dimension.	Insufficient resourcing. Not enough time to settle etc.
Formation of new localised knowledge	New organisational learning emergent from the management innovation adaptation into the new context.	Degree of practice maturity, Integrating with existing systems and processes etc.
Succumb to organisational inertia	Pre-existing resistances to incoming change (independent of the incoming change)	Busy with Business-as-usual, (In-grained) Resistance to change, Rigid hierarchical structure etc.

Table 11: Aggregate dimensions and their working definitions

Before discussing the theoretical implications of our observations, let us recapitulate the main challenges with purpose, contextualisation, local knowledge generation and inertia that organisations face when they adopt management innovations as we observed. After elaborating these challenges we develop a generative model of localised knowledge generation for adaptation of management innovations within organisations.

3.5.1 Purposeful grounded execution

Bringing a new management practice is a complex type of organisational change (Lillrank, 1995; Walker, Damanpour and Devece, 2010). As our study shows, it is therefore imperative to offer the employees clarity for the change in order for them to understand, appreciate the management innovation to be

adopted and the reasons for the adoption. In addition, our respondents also noted that the alignment at all levels is paramount for the organisation to be able to successfully embed the practice. We now discuss these findings in more details.

Intent – what are we trying to do?

In our research, we confirmed prior work (Sirkin, Keenan and Jackson, 2005) that the need for full commitment and buy-in from the leadership team is important and the lack of it can have grave consequences. Khanagha et al., (2013) note that wherever top management endorses a strategy and follows up with determination, it performs well. This emphasises the important role of leadership within an organisation when implementing a management innovation. Another closely related issue we found in our data is coherence within the leadership team. Scholars have pointed out that if the leadership is not consistently in agreement on its initiatives, its chances of success are diminished (Mainardi and Leinwand, 2010; Rafferty, Jimmieson and Armenakis, 2013). Our results show, that such consistency needs to remain in place also for highly specific initiatives such as the adoption of a management innovation, which may be dedicated to some rather specific functional area. Not all members of the leadership team may have sufficient expertise in this area and find it challenging to form opinions, discuss and agree with experts, or challenge them. Interestingly, the lack of internal drive to increase efficiency as a factor was also picked by many of our respondents. It helps if the organisation truly values and believes in a new management practice to make a difference, and is visible behind it (Kotter, 1995). While Birkinshaw et al. (2008: 826) emphasise “the critical role of human agency”, our results offer strong support for the specification that such agency and buy-in is required not just from the top team, but from all those affected by the change.

Internal harmony – Are all affected aligned?

The study found strong support for the need of internal alignment at all levels to support the MI implementation effort. This point is closely related to the previous, the subtle difference being intention or, motive vs alignment at all

levels. Whereas MI related change has been shown to be a top-down process (Damanpour and Aravind, 2012), based on our data, our we are compelled to emphasise that if leadership does not rely on a strong connection with a purpose that is shared by and energise the organisational members, adoption efforts appear to suffer. In the absence of this alignment, Lüscher and Lewis (2008: 222) note that middle managers “often experience intense confusion, perceiving executive initiatives as replete with multiple and unclear mandates”. To be successful with the adoption of management innovation, shared understanding and commitment from everyone involved is necessary. While this may start from the top, if it is not tied to the purpose shared by all, efforts to adopt a new practice will lack harmony.

One of the supporting aspects for internal alignment during the adoption of a new practice is information sharing and communication with the affected employees. Information sharing prevents duplicate work, conflicting understanding and develops continuous buy-in from all affected all throughout the process (Kotter, 1995). The value of information exchange is important for any endeavour, but in situations where old (management) ways are expected to be superseded in a significant way (Hamel, 2006; Kimberly and Evanisko, 1981), it becomes even more critical. As evidenced within the results, we see that without clarity, clear direction and objectives, organisational members may anticipate that a practice initiative can lose momentum and be overtaken by other priorities; this anticipation may undermine the adoption efforts.

3.5.2 Organisational inertia

Comfort in the status quo

Organisational inertia is a characteristic of established organisations to follow their current trajectory (Gilbert, 2005), with manifestations into resistance for any change. This is due to unwillingness to invest in resources and maintaining rigidity in its existing routines and processes. Within our collected data we see issues like rigidity of the hierarchical structure, resistance to change, inherent cultural dislike for new ideas etc., which all belong to this category. All of these

have the potential to reduce the speed of change within organisations below what is demanded by the market.

These are sort of an impediments which is independent of the incoming management innovation practice. Most of the constituent factors in this category have a structural and/or cultural orientation, therefore are deep-grained organisational traits. From the responses it is apparent that the security available in maintaining the status, and the perception of disruption with any new change is the root for this thinking. This perception is not always false though, as there have been instances where the new incoming management innovation has disrupted without delivering the expected value (Abrahamson and Fairchild, 1999). It was also observed that if there exists an inherent cultural reluctance to new practices than it is usually co-present with an inherent comfort with the status quo (Lines et al., 2015). This is especially true in public sector organisations, where there rarely exists any incentive for the team to be innovative, as not driven by profits.

While extant work on inertia has long emphasised how inertia, a decreasing rate of change, as an almost pervasive force, holds companies back when their exposure to competition is limited or the rate of innovation in an industry is low. Our data shows, that besides the known slow rates of change and resistance, factor specific to an organisations such as shared emotions and views can strengthen comfort in what is and undermine what could be. Therefore, we show inertia to be not only caused by macro factors but also micro factors that can derail the adoption of a new management practice.

Questions on value propositions - Anxiety around will it deliver?

For a change to be successful, it is essential that the change is being seen in a positive light and is progressive in nature (Rafferty, Jimmieson and Armenakis, 2013). It is paramount to have a clear communication strategy to develop and promote a positive perception of value delivery post implementation (Van Den Heuvel, Demerouti and Bakker, 2014). Our analysis reveals that introducing a new management practice is also fraught with careful handling of sensitive issues and anxiety around employees. If the value to be gained from the

management innovation, is clearly defined with its intended and unintended consequences, employees may not be supportive. If employees believe that the expected productivity benefits will not hurt the staff standing, sentiment or job security, they are more likely to support adoption. As we have seen, for increasing organisational acceptance, it is also important to demonstrate that the new incoming practice is in the best interest of all those affected.

3.5.3 Contextual orchestration for success

Building on Sirmon et al. (2011), we define contextual orchestration as the necessary coordination for the execution of the change on the people and process dimension. Even though the efficacy of this orchestration is dependent on organisation culture and ingrained attitudes, in the purest sense it is independent of these. The categories covered here are Temporal instabilities like continual reassignment of employees, and not given enough time to settle, and Tactical inadequacies like Insufficient resourcing and attempting too many practices in parallel.

Temporal instability – Have we given it sufficient time?

Because management innovations are longitudinal endeavours, an implementation requires sufficient time to stabilise and institutionalise within the organisation. Further, since Management Innovation practices are complex and culturally involved (Lillrank, 1995), it takes time for the employees to learn, reflect, and absorb else the chances for success are limited. Many study respondents felt not allocating dedicated time for the new practice against their normal occupancy with their day-to-day tasks is a recipe for automatic failure. Eisenhardt and Martin (2000) have also posited that if new practices are implemented too quickly, the organisation may actually fail to realise the potential of new practices. Seeing the number of respondents commenting on this, it almost felt like a push back against the management enforcing a new practice upon them, and the management harbouring an expectation that it will automatically be absorbed with their regular day job. There are one another issues similar to this, which can have an impact on practice adoption. This is the possibility of attempting too much in parallel and then seeing the primary

initiative missed/overtaken by another, reducing its chances of success, cited as “diffusion of focus” in Reinmoeller and Baardwijk (2005: 64).

Tactical inadequacy – Are we navigating for success?

The allocation of appropriate resourcing for a new practice to settle and be institutionalised also came out strongly. This could be attributed to an insufficient understanding of “what it takes” and thereby ending up with inadequate resourcing for personnel, systems and processes (Bennett and Segerberg, 2012). The availability (and corresponding visibility) of provisioned resources also demonstrate management commitment to the staff and lack of commitment in its absence. Building further, although an organisation is expected to resource sufficiently, it’s resourcing of specialist resource to facilitate the smooth introduction of the new practice e.g. subject matter experts, change agents and champions was stated to carry a lot of value. Similarly, if no special resource was available or allocated, it could point to a lack of understanding of the necessary effort (Beer, Eisenstat and Spector, 1990; Kotter, 1995). As an example, management innovations usually go together with technology /IT implementations to support them (Hamel, 2006). These can be a real problem when the estimation is incorrect or has not accounted for overshoots as typical with large-scale change projects.

The need for stability is compounded by the fact that staff-churn, either leavers or re-assignments is perceived to have a negative effect. Within the responses, this was attributed to the loss of continuity and commitment especially significant when the churn is at a higher level within the leadership team. Contrary to this (and common expectation), it also came apparent (but may be specific to a particular type of organisation⁹), that if a staff member stays in a role for a longer time, he is not viewed in a good light. This is immediately at odds with the provision extended for a Management idea or practice to get enough time to settle within an organisational setup. Neal and Taylor (2006: 19) have also corroborated on this as “...in the [Organisation], the baton of change

⁹ UK Ministry of Defence in this case.

leadership tends to be passed regularly from one person to another”, which does not aid the change effort.

The measurement around how the rollout is progressing is also highlighted. A successful practice implementation requires benchmark information from industry peers where the practice has been already implemented and has delivered. If this competitive information is missing, it reduces the incentive for the implementing organisation to be more efficient in the rollout and reduce costs. In practice, this involves introducing appropriate metrics to help indicate if the change is taking shape and progressing as expected. If enough attention is not paid on this, we can get increased likelihood that the practice will fail to succeed (Decker et al., 2012). This highlights the association and use of appropriate metrics to measure the progress. A well-known maxim “if you can’t measure it, you cannot improve it”, is relevant in these circumstances as well to deliver success. The respondents noted availability of progress metrics generates a positive effect around the practice increasing its chances of success. On the other hand, if they are irrelevant or absent, it acts as a hindrance. Within the literature, this measurement has taken the form of self-reported manager and employee surveys (Vaccaro et al., 2012), or large-scale government census like the European Commission’s Community Innovation Survey (CIS) (Mol and Birkinshaw, 2009).

3.5.4 Creation of new knowledge

System integrations – Merging with the existing?

A new management innovation in a new context necessitates integration and creation of new processes, routines and capabilities in the new environment, including the training necessary for its adoption. Biggs and Smith (2003), posit that the implication on how the necessary tools and practices being implemented for the success of an incoming practice has not received the attention it deserves. This necessity for tailoring has also been supported by Bisbe and Barrube (2012), who studied Balance Score Card (BSC) implementations in healthcare and found that the adaptation to specific organisational conditions carries much significance, beyond straight

implementation. Similarly, with McCann, Hassard, Granter and Hyde (2015), who found the same results with the introduction of lean management within NHS, and environmental contextualisation came up on top and actually can limit the impact of the initiative if not appropriately considered.

In order to begin the implementation of new management practices organisations usually attempts to reconfigure the management practice towards fitness for the organisation. This often leads the organisation to go about selectively picking only some sub-practices, which offer a ready fit to their organisation profile and interests, of course potentially disturbing the original intent of why the practice was brought in. Levin (2006: 4) uses “de-coupling” to denote this activity and defines it as “...any situation where an organisation claims to have adopted an innovation but has not implemented it fully”. This degree of selection can be seen in complex practices like Total Quality Management (TQM), where every organisation would fit it according to their needs and a complete implementation may never ever happen anywhere. Zbaracki (1998) has cited these adaptations as adopting the Management practices at a rhetorical level, not just operationally, and posited that this is more often the case. The question is whether the organisation picked the most meaningful and relevant set? (Hill and Wilkinson, 1995). The issue of selective implementation has been developed further by the research from Ansari et al. (2010), where they introduce the concepts of Fidelity and Extensiveness, indicating the extent to which this selection of a subset occurs and to what resolution.

Ambiguity with roles – Have the roles and responsibilities clear?

A new management innovation practice also requires new roles, responsibilities and routines to be defined to aid the effort. An increased level of communication is necessary (Van Den Heuvel, Demerouti and Bakker, 2014) so that there exists enough clarity of what is being changed, how will it help the division and clear advice on what is expected of the role players and actors. A an example In conventional change management parlance, a role of a change champion is often cited to be important towards the change effort (Decker et al., 2012;

Kotter, 1995). With MIs, the case is even stronger with a lot of ambiguity around the process due to the absence of guidance. The necessity for clear role and responsibilities came out clear with our collected data.

Practice specifics – Are we leveraging existing MI knowledge?

Management innovation practice maturity was one of the prominent emergent topics within the data. The maturity defined here is the “age” of the practices under consideration. This includes past successes, the available external expertise and the extent of implementation literature available around the practice. This is typically sourced from academics, consultants, practitioners and written texts. The age of the practice in the industry has a known impact on its adoption (Kennedy and Fiss, 2009).

The key point, we want to emphasise is that established practices have a sense of maturity with a lot of trial and error with them in the past, and therefore have been refined over time. They have a lot of tacit knowledge codified within associated documentation and implementation material (Lillrank, 1995). This is a great help for the implementation team to act as a guide on the finer level intricacies of the practice. A management practice in its early stages also often has a linguistic ambiguity around it, making it difficult to operationalise (Nicolai and Dautwiz, 2010). The missing “clear-cut recipes” (Benders and Van Veen 2001: 37) has the potential to thwart the progress toward a successful outcome. The maturity of a practice has another important manifestation. For established practices, since they have stabilised and well proven in certain contexts, new organisations are drawn more towards stories and practice traits of earlier adopters, then on a critical scrutiny and investigation of how these would work in their organisational contexts (Zbaracki, 1998). This is a diversion from an MI mindset, where a practice may end up being notionally implemented, instead of being firmed up with a social grounding (Lillrank, 1995).

3.6 A generative model for new knowledge creation

This paper explores if change for bringing in a management innovation is just another change management exercise? Within this research, many change

factors were noted within the responses as in Appendix 3.9.2., which affect the adoption of management innovations. We use the support from the findings to propose a generative model for new knowledge creation aiding the adaptation process for management innovations. It is important to note that adaptation is just one step within the adoption process (Damanpour and Schneider, 2006; Klein and Sorra, 1996). Selection of the management innovation precedes it, and the institutionalisation into an organisations follows it. The proposed model attempts to explain the knowledge generation mechanism within the adaptation phase.

Bringing in a new Management Innovation is a complex process. It is exploratory, irregular and multidimensional. It warrants careful navigation to yield benefits. This complexity arises due to two major factors. First, because every firm being unique in its own organisational makeup and context, and second, due to the tacit nature of the guidance available for MI implementation. This makes MI adoption a very different exercise for every organisation (Ansari, Fiss and Zajac, 2010).

MI inherits most of the characteristics of a typical organisational change¹⁰ (Wischnevsky and Damanpour, 2006). But they also exhibit a few features which are prominent and amplified. These are key considerations to understand and plan for before commencing any MI change process. These are (a) The enhanced role of leadership to connect with the underlying purpose; (b) Careful orchestration of the process and effort at the organisation level; (c) Open to formation of new knowledge in the shape of new processes, routines and capabilities for successfully embedding the practice. We now synthesise the findings into a generative model for new localised knowledge and expand on each of these with an objective to increased awareness of the criticality of these

¹⁰ For organisation change literature please see Beer and Nohria (2000), Golden-Biddle (2013), Kanter (1983), Kotter (1995).

in adopting and institutionalising a management innovation. We also leave with some pointed questions for leadership to consider.

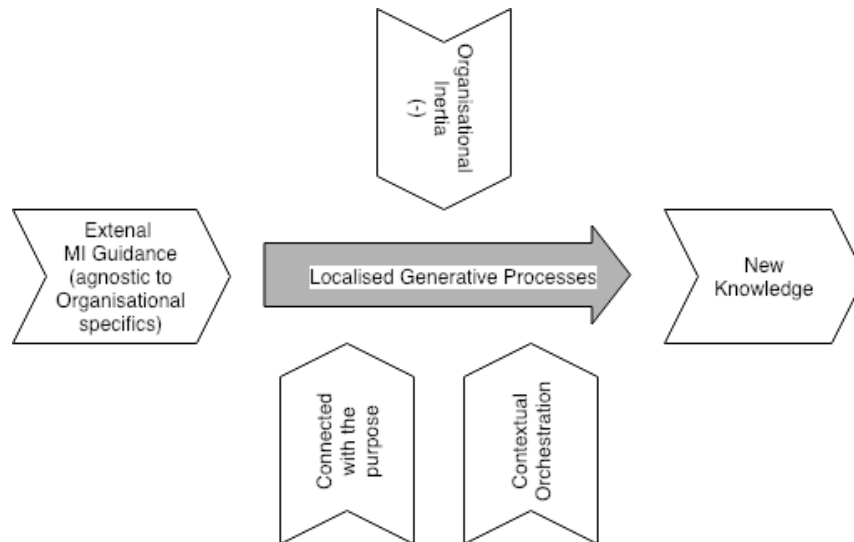


Figure 7: Generative process for new localised knowledge

3.6.1 Enhanced role of leadership to connect on purpose

Connecting with the purpose aligns the team to be open as they approach the process. Knowing they have a blessing from the top and middle management is a supportive frame of mind for innovation efforts to succeed (Bayerl et al., 2013). This is especially the case when the effort is a management innovation with a lot of unknowns (Birkinshaw, Hamel and Mol, 2008). Leadership support is essential for any innovation effort, but it is paramount for management innovations because the way it pans out is unique to every organisation. The availability of leadership support helps the willingness to experiment. This blessing will be necessary to learn and course correct as the organisation adapts to the new ways of working. This support extends beyond the approval and facilitation of resources (Damanpour and Schneider, 2006; Young, Charns and Shortell, 2001).

MI change effort is likely to disrupt the way managers do what they do (Hamel, 2006). This means the disruption in an organisation's managerial ability and competence is likely. This necessitates connecting to the higher order purpose

to get through the implementation (Glaser, Fourné and Elfring, 2015; Huy, 2011). As an example, if we just consider the rigidity of the hierarchical structure, the day-to-day decision-making should be delegated closest to where it impacts the most, the layer, which has the most understanding and is quick to make the difference. But how often does it happen in reality?

3.6.2 Strong need for contextual orchestration

In the absence of firm guidance, exploration and observation are expected to guide the process. Not to forget, all this happening in the backdrop of clear intent from the leadership (the previous point) and therefore some local failures are expected (and importantly acceptable) in order to progress. A clear and consistent reiteration of the goal makes the process meaningful and convergent (Alvesson, 2002; Schneider, Gunnarson and Niles-Jolly, 1994).

We know that available templates¹¹ for MI implementations do not work as organisations vary a lot with their social context. This necessitates changes to both the practice as well as the organisation (Ansari, Fiss and Zajac, 2010; Lillrank, 1995; Rogers, 1995). Management innovations are involved implementations. Therefore, being resourceful, and cognizant with focus and attention on the goal is necessary, basically a unified and collective frame for all involved is necessary to be successful. Organisations often achieve this by iterating on the existing implementation templates (Kennedy and Fiss, 2009; Kraatz and Zajac, 1996; Westphal, Gulati and Shortell, 1997).

For MIs, a better starting point may be a recombination of the existing templates. And follow this up with consultative iterations and experimentation to adapt on the principles behind the MIs (Lillrank, 1995). This step is like new routine development to adapt a practice to an organisation's context and needs (Westphal, Gulati and Shortell, 1997). The opportunity also has to be given a fair chance, so there is a need to be careful around not trying to do too much

¹¹ Templates refer to available recipes, guidance and practices as available within published literature, books and with academics and consultants on MIs to aid new implementations.

or attempting multiple practices in parallel. Besides basic operational and functional questions within the implementation process, it is important to ask pertinent questions like: Has the practice ingrained and routinised in team behaviour? Is the new practice effective in solving the problem? and what reactions does it invoke for the employees?

3.6.3 Continual generation of new knowledge

In the absence of firm codified guidance, and since MIs are a social process, failures and serendipitous non-intuitive observations are natural to expect. This generates new knowledge localised to the organisation. Of course, implementation plans will not always go per plan. The opportunity is for any learnings, even if negative, is an opportunity to improve. This can be helpful because if something is not conducive to an organisational culture, it is better to adapt it to another experiment instead of pushing it on. Since organisational makeup is different for every organisation, the manifestation of MI practices may be very different from what was available in the literature. The organisation and the leadership have to be prepared to accept and embrace the new learnings to be successful.

A shared purpose attracts people to make changes happen (Hamel, 2006). In the absence of firm guidance or template to use, MIs rely on local iterative routines development (Becker et al., 2005), to embed a practice, and be opportunistic on what is working to adapt and progress. The goal of being purposeful and connected in these management innovation implementations has been recognised in practice as well. Within the last decade, there has been a flurry of movements e.g. the Free or Open Source Software (FOSS) (von Hippel and von Krogh, 2003), the Agile and Scrum (Dingsøyr et al., 2012; Rigby, Sutherland and Takeuchi, 2016), and most recently Holacracy (Birkinshaw, 2014; Roelofsen and Yue, 2017). All of these promote loosely connected, but still responsive organisational structures. These encourage distributing authority, connected purpose and an evolutionary approach to progress towards a common higher goal and purpose, very similar to the adoption of new management innovation within the organisation.

3.7 Conclusion

Our work revolved around adoption and institutionalisation of Management Innovations. MI change is a social process, and thus much more involved, lengthy and brings about significant change to the make-up of the organisation. Within our study, we looked into a multitude of qualitative observations from respondents around MI change adoption process. We identified key categories, which practitioners found relevant to affect the success or failure of new management practices within their organisations. We found multiple areas of exploratory work around these processes. We found gaps in the literature on the understanding of process of adoption and institutionalisation for MIs. This is an important process to understand as there are multiple actors, which could make a difference in the eventual productivity benefits, but not well covered within the research literature (Ansari, Fiss and Zajac, 2010; Rogers, 1995).

The process seems to have significant managerial implications. Even if the management knows about a success case for a Management idea, innovation or practice elsewhere, it cannot be sure it will be the same when transferred to their organisation. We found multiple factors at play here. This study is a contribution on why a lot of adopted practices fail to make a difference. We aimed to build a better understanding of the adaptation process and explore the key success/failure factors when an organisation decides to go and implement new management innovations. Supported by inductive data, we created a model which helps us improve understanding around this process. This model should further be quantitatively tested. In addition, the understanding could also guide us to create a stochastic model to provide an a priori estimate of the possible success chances for a practice, given an organisational context?

The research has a couple of limitations as we can note here. The first one relates to the sampling of our questionnaire respondents. Three of the groups of respondents were CxO/Senior-level Executives, attending executive training; another group was from the UK Ministry of Defence, and; further three groups from Senior/Mid-level Managers or equivalents from civilian organisations. We were able to establish the response consistency and similarity of themes

emerging within the respondent groups, but still, a similar level of industry experience, organisational influence and length of service would have been even better.

The premise for this research was the necessity to modify the practices to fit organisational contexts aiding for a better match. Contrary to this we found research by (Kaplan and Norton, 2006), which advocated that organisations should not be adopting “any” practice, but instead, pick for the best fit. This prevents organisations to be “caught up in expensive and frustrating cycles of organisational change” (Kaplan and Norton 2006: 102). This makes intuitive sense, but was a practitioner HBR paper, so should be empirically tested.

3.8 References

- Abrahamson, E. (1991) 'Managerial Fads and Fashions: The Diffusion and Rejection of Innovations', *Academy of Management Review*, 16(3), pp. 586–612.
- Abrahamson, E. and Fairchild, G. (1999) 'Management Fashion: Lifecycles, Triggers, and Collective Learning Processes', *Administrative Science Quarterly*, 44(4) Administrative Science Quarterly, pp. 708–740.
- Alvesson, M. (2002) *Understanding Organizational Culture*. London: Sage Publications Ltd.
- Anon. (2016) *NVivo qualitative data analysis Software 11*. QSR International Pty Ltd.,
- Ansari, S.M., Fiss, P.C. and Zajac, E.J. (2010) 'Made to fit: How practices vary as they diffuse', *Academy of Management Review*, 35(1), pp. 67–92.
- Bayerl, P.S., Jacobs, G., Denef, S., Berg, R.J. Van Den, Kaptein, N., Birdi, K., Bisogni, F., Cassan, D., Costanzo, P., Gascó, M., Horton, K., Jochoms, T., Mirceva, S., Krstevska, K., Oord, A. van den, Otoiu, C., Rajkovchevski, R., Reguli, Z., Rogiest, S., Stojanovski, T., Vit, M. and Vonas, G. (2013) 'The role of macro context for the link between technological and organizational change', *Journal of Organizational Change Management*, 26(5), pp. 793–810.
- Becker, M.C., Lazaric, N., Nelson, R.R. and Winter, S.G. (2005) 'Applying organizational routines in understanding organizational change', *Industrial and Corporate Change*, 14(5), pp. 775–791.
- Beer, M. (2003) 'Why Total Quality Management Programs Do Not Persist: The Role of Management Quality and Implications for Leading a TQM Transformation.', *Decision Sciences*, 34(4), pp. 623–642.
- Beer, M. and Eisenstat, R.A. (2000) 'The Silent Killers of Strategy Implementation and Learning', *Sloan Management Review*, 41(4), pp. 29–40.
- Beer, M., Eisenstat, R.A. and Spector, B. (1990) 'Why Change Programs Don't Produce Change', *Harvard Business Review*, (December), pp. 158–166.
- Beer, M. and Nohria, N. (2000) 'Cracking the code of change.', *Harvard Business Review*, 78(3), pp. 133–141.
- Benders, J. and Van Veen, K. (2001) 'What's in a Fashion? Interpretative Viability and Management Fashions', *Organization*, 8(1), pp. 33–53.
- Bennett, W.L. and Segerberg, A. (2012) 'The logic of connective action', *Information, Communication & Society*, 15(5), pp. 739–768.
- Biggs, S. and Smith, S. (2003) 'A Paradox of learning in project cycle management and the role of organizational culture', *World Development*, 31(10), pp. 1743–1757.

- Birkinshaw, J. (2014) 'What Lessons Should We Learn From Valve's Innovative Management Model?', *Journal of Organization Design*, 3(2), pp. 8–9.
- Birkinshaw, J., Hamel, G. and Mol, M.J. (2008) 'Management Innovation', *Academy of Management Review*, 33(4), pp. 825–845.
- Birkinshaw, J. and Mol, M.J. (2006) 'How Management Innovation Happens.', *MIT Sloan Management Review*, 47(4), pp. 81–88.
- Bisbe, J. and Barrube, J. (2012) 'The Balanced Scorecard as a Management Tool for Assessing and Monitoring Strategy Implementation in Health Care Organizations', *Rev Esp Cardiol*, 65(10), pp. 919–927.
- Brooks, J., McCluskey, S., Turley, E. and King, N. (2015) 'The Utility of Template Analysis in Qualitative Psychology Research', *Qualitative Research in Psychology*, 12 Routledge, pp. 202–222.
- Carlile, P.R. and Christensen, C.M. (2004) *The cycles of theory building in management research*.
- Choi, T. and Behling, O. (1997) 'Top managers and TQM success: One more look after all these years.', *The Academy of Management Executive*, 11(1), pp. 37–47.
- Crossan, M.M. and Apaydin, M. (2010) 'A Multi-Dimensional Framework of Organizational Innovation: A Systematic Review of the Literature', *Journal of Management Studies*, 47(6), pp. 1154–1191.
- Damanpour, F. and Aravind, D. (2012) 'Managerial Innovation: Conceptions, Processes, and Antecedents', *Management and Organization Review*, 8(2), pp. 423–454.
- Damanpour, F. and Schneider, M. (2006) 'Phases of the Adoption of Innovation in Organizations: Effects of Environment, Organization and Top Managers¹', *British Journal of Management*, 17(3), pp. 215–236.
- Damanpour, F. and Wischnevsky, J.D. (2006) 'Research on innovation in organizations: Distinguishing innovation-generating from innovation-adopting organizations', *Journal of Engineering and Technology Management*, 23(4), pp. 269–291.
- Decker, P., Durrand, R., Mayfield, C., McCormack, C., Skinner, D. and Perdue, G. (2012) 'Predicting Implementation Failure in Organization Change', *Journal of Organizational Culture, Communications and Conflict*, 16(2), pp. 39–59.
- Dingsøyr, T., Nerur, S., Balijepally, V. and Moe, N.B. (2012) 'A decade of agile methodologies: Towards explaining agile software development', *Journal of Systems and Software*, 85(6), pp. 1213–1221.
- Dooley, K. and Flor, R. (1998) 'Perceptions of success and failure in TQM initiatives', *Journal of Quality Management*, 3(2), pp. 157–174.
- Dunphy, D. and Stace, D. (1993) 'The Strategic Management of Corporate

Change', *Human Relations*, 46(8), pp. 905–920.

Eisenhardt, K.M. and Graebner, M.E. (2007) 'Theory building from cases: Opportunities and challenges', *Academy of Management Journal*, 50(1), pp. 25–32.

Eisenhardt, K.M. and Martin, J.A. (2000) 'Dynamic capabilities: what are they?', *Strategic Management Journal*, 21, pp. 1105–1121.

Evangelista, R. and Vezzani, A. (2010) 'The economic impact of technological and organizational innovations. A firm-level analysis', *Research Policy*, 39(10) Elsevier B.V., pp. 1253–1263.

Fiss, P.C., Kennedy, M.T. and Davis, G.F. (2012) 'How Golden Parachutes Unfolded: Diffusion and Variation of a Controversial Practice', *Organization Science*, 23(4), pp. 1077–1099.

Gilbert, C.G. (2005) 'Unbundling the structure of inertia: Resource versus routine rigidity', *Academy of Management Journal*, 48(5), pp. 741–763.

Gioia, D.A., Corley, K.G. and Hamilton, A.L. (2012) 'Seeking Qualitative Rigor in Inductive Research: Notes on the Gioia Methodology', *Organizational Research Methods*, 16(1), pp. 15–31.

Glaser, L., Fourné, S.P.L. and Elfring, T. (2015) 'Achieving strategic renewal: the multi-level influences of top and middle managers' boundary-spanning', *Small Business Economics*, 45, pp. 305–327.

Golden-Biddle, K. (2013) 'How to Change an Organization Without Blowing It Up', *MIT Sloan Management Review*, 54(2), pp. 35–41.

Golini, R., Kalchschmidt, M. and Landoni, P. (2015) 'Adoption of project management practices: The impact on international development projects of non-governmental organizations', *International Journal of Project Management*, 33 Elsevier Ltd and International Project Management Association, pp. 650–663.

Hamel, G. (2006) 'The why, what, and how of management innovation', *Harvard Business Review*, 84(2), pp. 72–84.

Van Den Heuvel, M., Demerouti, E. and Bakker, A.B. (2014) 'How psychological resources facilitate adaptation to organizational change', *European Journal of Work and Organizational Psychology*, 23(6) Psychology Press, pp. 847–858.

Hill, S. and Wilkinson, A. (1995) 'In search of TQM', *Employee Relations*, 17(3), pp. 8–25.

von Hippel, E. and von Krogh, G. (2003) 'Open Source Software and the "Private-Collective" Innovation Model: Issues for Organization Science', *Organization Science*, 14(2), pp. 209–223.

Hollen, R.M. a., Van Den Bosch, F. a. J. and Volberda, H.W. (2013) 'The Role of Management Innovation in Enabling Technological Process Innovation: An

Inter-Organizational Perspective', *European Management Review*, 10(1), pp. 35–50.

Hughes, M. (2011) 'Do 70 Per Cent of All Organizational Change Initiatives Really Fail?', *Journal of Change Management*, 11(4), pp. 451–464.

Huy, Q.N. (2011) 'How middle managers' group-focus emotions and social identities influence strategy implementation', *Strategic Management Journal*, 32, pp. 1387–1410.

Jacobs, G., Witteloostuijn, A. van and Christe-Zeyse, J. (2013) 'A theoretical framework of organizational change', *Journal of Organizational Change Management*, 26(5), pp. 772–792.

Kanter, R.M. (1983) *The Change Masters*. New York: Simon and Schuster.

Kaplan, R.S. and Norton, D.P. (2006) 'How to implement a new strategy without disrupting your organization', *Harvard Business Review*, 84(3), pp. 100–109.

Kennedy, M.T. and Fiss, P.C. (2009) 'Institutionalization, framing, and diffusion: the logic of TQM adoption and implementation decisions among U.S. hospitals', *Academy of Management Journal*, 52(5), pp. 897–918.

Khanagha, S., Volberda, H., Sidhu, J. and Oshri, I. (2013) 'Management Innovation and Adoption of Emerging Technologies: The Case of Cloud Computing', *European Management Review*, 10(1), pp. 51–67.

Kim, L. (1998) 'Crisis Construction and Organizational Learning: Capability Building in Catching-up at Hyundai Motor', *Organization Science*, 9(4), pp. 506–521.

Kimberly, J.R. and Evanisko, M.J. (1981) 'Organizational innovation: the influence of individual, organizational, and contextual factors on hospital adoption of technological and administrative innovations.', *Academy of Management Journal*, 24(4), pp. 689–713.

King, N. (2004) 'Using templates in the thematic analysis of texts', in Cassell, C. and Symon, G. (eds.) *Essential Guide to Qualitative Methods in Organizational Research*. London: Sage Publications Ltd, pp. 256–270.

Klein, K.J. and Sorra, J.S. (1996) 'The Challenge of Innovation Implementation', *The Academy of Management Review*, 21(4), pp. 1055–1080.

Kotter, J.P. (1995) 'Leading Change: Why Transformation Efforts Fail', *Harvard Business Review*, (April), pp. 59–67.

Kotter, J.P. (2007) 'Leading change: Why transformation efforts fail', *Harvard Business Review*, 85(1), pp. 96–103.

Kraatz, M.S. and Zajac, E.J. (1996) 'Exploring the Limits of the New Institutionalism: The Causes and Consequences of Illegitimate Organizational Change', *American Sociological Review*, 61(5), pp. 812–836.

Leinwand, P. and Mainardi, C. (2010) 'The Coherence Premium', *Harvard*

Business Review, (June), pp. 86–92.

Levin, D.Z. (2006) 'Institutionalism, learning, and patterns of selective decoupling: The case of Total Quality Management', *Annual meeting of the Academy of Management*. Newark, NJ, pp. 1–38.

Lillrank, P. (1995) 'The Transfer of Management Innovations from Japan.', *Organization Studies*, 16(6) De Gruyter, pp. 971–989.

Lines, B.C., Sullivan, K.T., Smithwick, J.B. and Mischung, J. (2015) 'Overcoming resistance to change in engineering and construction: Change management factors for owner organizations', *International Journal of Project Management*, 33(5) Elsevier B.V., pp. 1170–1179.

Lips-Wiersma, M. and Hall, D.T. (2007) 'Organizational career development is not dead: A case study on managing the new career during organizational change', *Journal of Organizational Behavior*, 28, pp. 771–792.

Love, E.G. and Cebon, P. (2007) 'Meanings on Multiple Levels: The Influence of Field-Level and Organizational-Level Meaning Systems on Diffusion', *Journal of Management Studies*, 45(2), pp. 239–267.

Lüscher, L.S. and Lewis, M.W. (2008) 'Organizational Change and Managerial Sensemaking: Working through Paradox', *Academy of Management Journal*, 51(2), pp. 221–240.

March, J.G. (1981) 'Footnotes to Organizational Change', *Administrative Science Quarterly*, 26, pp. 563–577.

McCann, L., Hassard, J.S., Granter, E. and Hyde, P.J. (2015) 'Casting the lean spell: The promotion, dilution and erosion of lean management in the NHS', *Human Relations*, 68(10), pp. 1557–1577.

Michel, A., By, R.T. and Burnes, B. (2013) 'The limitations of dispositional resistance in relation to organizational change', *Management Decision*, 51(4), pp. 761–780.

Mol, M.J. and Birkinshaw, J. (2009) 'The sources of management innovation: When firms introduce new management practices', *Journal of Business Research*, 62(12), pp. 1269–1280.

Neal, D. and Taylor, T. (2006) 'Spinning on Dimes: The challenges of introducing transformational change into the UK Ministry of Defence', *Strategic Change*, 15(1), pp. 15–22.

Nicolai, A.T. and Dautwiz, J.M. (2010) 'Fuzziness in action: What consequences has the linguistic ambiguity of the core competence concept for organizational usage?', *British Journal of Management*, 21(4), pp. 874–888.

Nyström, M.E., Höög, E., Garvare, R., Weinehall, L. and Ivarsson, A. (2013) 'Change and learning strategies in large scale change programs', *Journal of Organizational Change Management*, 26(6), pp. 1020–1044.

- O'Mahoney, J. (2007) 'The diffusion of management innovations: The possibilities and limitations of memetics', *Journal of Management Studies*, 44(8), pp. 1324–1348.
- Pettigrew, A.M. (1997) 'What is a processual analysis', *Scandinavian Journal of Management*, 13(4), pp. 337–348.
- Rafferty, A.E., Jimmieson, N.L. and Armenakis, A.A. (2013) 'Change Readiness: A Multilevel Review', *Journal of Management*, 39(1), pp. 110–135.
- Reinmoeller, P. and Baardwijk, N. Van (2005) 'The Link Between Diversity and Resilience', *MIT Sloan Management Review*, 46(4), pp. 61–65.
- Rigby, D. and Bilodeau, B. (2015) *Management Tools & Trends 2015*. London.
- Rigby, D.K., Sutherland, J. and Takeuchi, H. (2016) 'Embracing agile', *Harvard Business Review*, 94(5), pp. 40–50.
- Roberts, P. and Amit, R. (2003) 'The Dynamics of Innovative Activity and Competitive Advantage: The Case of Australian Retail Banking, 1981 to 1995', *Organization Science*, 14(2), pp. 107–122.
- Roelofsen, E. and Yue, T. (2017) 'Case Study: Is Holacracy for Us?', *Harvard Business Review*, (March-April), pp. 2–7.
- Rogers, E.M. (1995) *Diffusion of innovations*. New York: The Free Press.
- Schein, E.H. (1990) 'Organizational Culture', *American Psychologist*, 45(2), pp. 109–119.
- Schneider, B., Gunnarson, S.K. and Niles-Jolly, K. (1994) 'Creating the climate and culture of success', *Organizational Dynamics*, 23(1), pp. 17–29.
- Sirkin, H.L., Keenan, P. and Jackson, A. (2005) 'The hard side of change management', *Harvard Business Review*, October, pp. 109–118.
- Sirmon, D.G., Hitt, M.A., Ireland, R.D. and Gilbert, B.A. (2011) 'Resource orchestration to create competitive advantage: Breadth, depth, and life cycle effects', *Journal of Management*, 37(5), pp. 1390–1412.
- Teece, D.J. (2007) 'Explicating Dynamic Capabilities: The nature and microfoundations of (sustainable) enterprise performance', *Strategic Management Journal*, 28, pp. 1319–1350.
- Todnem By, R. (2007) 'Ready or Not . . .', *Journal of Change Management*, 7(1), pp. 3–11.
- Vaccaro, I.G., Jansen, J.J.P., Van Den Bosch, F.A.J. and Volberda, H.W. (2012) 'Management Innovation and Leadership: The Moderating Role of Organizational Size', *Journal of Management Studies*, 49(1), pp. 28–51.
- Volberda, H.W., Van Den Bosch, F. a. J. and Mihalache, O.R. (2014) 'Advancing Management Innovation: Synthesizing Processes, Levels of Analysis, and Change Agents', *Organization Studies*, 35, pp. 1245–1264.

Walker, R.M., Damanpour, F. and Devece, C.A. (2010) 'Management Innovation and Organizational Performance: The Mediating Effect of Performance Management', *Journal of Public Administration Research and Theory*, 21(2), pp. 367–386.

Westphal, J., Gulati, R. and Shortell, S. (1997) 'Customization or conformity? An institutional and network perspective on the content and consequences of TQM adoption', *Administrative Science Quarterly*, 42, pp. 366–394.

Wischnevsky, J.D. and Damanpour, F. (2006) 'Radical strategic and structural change: Occurrence, antecedents and consequences', *Academy of Management Proceedings*, Vol.1, pp. 1–6.

Young, G.J., Charns, M.P. and Shortell, S.M. (2001) 'Top manager and network effects on the adoption of innovative management practices: A study of TQM in a public hospital system', *Strategic Management Journal*, 22, pp. 935–951.

Zbaracki, M. (1998) 'The rhetoric and reality of total quality management', *Administrative Science Quarterly*, 43(April), pp. 602–636.

3.9 Appendices

3.9.1 The questionnaire

Q1: In use now

Within your organisational/divisional context and within the list, circle 5 Management tools your division already practices/uses?

Q2: Have used in the past

Within your organisational/divisional context and within the list, circle 5 Management tools your division has already used in the past and no longer uses?

Q3: New Tools/Practices

Circle 5 things (max) your division does not currently do?

Q4: What makes sense to bring in

Double Circle one new one (out of the five above), which most likely makes sense to bring in? (and the one which interests you most?)

Q5: Ease of Adoption

Now for the chosen practice (double circled one) above, explain why you think it would work (higher likelihood of success)? Provide 3 reasons why you think so.

Q6: Difficulty of adoption

Now for the chosen practice (double circled one) above, explain why you think it would not work (lower likelihood of success)? Provide 3 difficulties that would lower likelihood of successful adoption why you think so.

Q7 Necessary Changes

How will it have to be adapted (changes to practice or organisation)?

Q8 Abandoned Practices

Have you seen good practices that have been abandoned (within your organisation)? If so which what were these practices?

Q9 Reasons for Abandonment

Why were the practices abandoned? Give 2 reasons (for each practice) why you think so.

3.9.2 First-order categories from NVivo

Irrelevant motive

Missing clarity for Change

Lack of Drive to increase efficiency

Missing Buy-in at all levels

Lack of coherence within Leadership

Limited information sharing and communication

Insufficient Resourcing

Too many practice changes in parallel

Overtaken by another initiative

No metrics to measure progress

Continual re-assignment of staff

Not enough time to settle

Missing industry peer to compare

Degree of practice maturity

Lack of implementation knowledge

Integrating with existing systems and processes

Missing contextual tailoring

Implementing selectively

No Local change champion

Lack of clear accountabilities and roles

Busy with BAU

Dislike for new ideas

Resistance to change

Rigid hierarchical structure

Drift back to old ways

Slow speed of change

Perception to bring negative rewards

Promise of Value Delivery

Negative public perception

3.9.3 Brief introduction to template analysis

Here we provide an introduction to template analysis¹² (King, 2004) and how it is applied to qualitative data. Template analysis is a qualitative research method based on textual analysis. Template analysis uses the terminology “codes” for representing themes within the analysed data set. A code template is represented by a set of codes.

Template analysis is an iterative process. Once the researcher/coder is familiar with the data set available for analysis, he is expected to create the first code template by himself. This template is called the a priori or, pre-coding template and is based on the researcher’s understanding of the problem domain, or inspired from the initial literature review which may been conducted prior to this analysis.

Following the creation of the pre-coding template, the researcher begins the coding process by reading the text and marking themes, as useful for the problem domain. The themes are refined as more text is read, rather than being fixed from the start. These emerging codes are known as a “template”. The emerging coding structure is usually hierarchical, and with many sub-themes within the parent themes. The process helps to achieve an efficient sorting of the data within these themes.

Any pre-defined codes, which did not eventually contain any relevance or found insignificant, are removed. Any codes with the related small amount of support are merged wherever appropriate into other neighbourhood codes, which were most relevant.

Once here, the hierarchical tree structure is sorted and sifted for any trends and relationships to emerge from the data.

¹² More details here: <http://www.hud.ac.uk/hhs/research/template-analysis/>

3.9.4 Management practices

(from Bain & Company "Management Tools and Trends 2015" guide) - (Rigby and Bilodeau, 2015)

- Balanced Scorecard
- Benchmarking
- Big Data Analytics
- Business Process Reengineering
- Change Management Programs
- Complexity Reduction
- Core Competencies
- Customer Relationship Management
- Customer Segmentation
- Decision Rights Tools
- Digital Transformation
- Disruptive Innovation Labs
- Employee Engagement Surveys
- Mergers and Acquisitions
- Mission and Vision Statements
- Organizational Time Management
- Outsourcing
- Price Optimization Models
- Satisfaction and Loyalty Management
- Scenario and Contingency Planning
- Strategic Alliances
- Strategic Planning
- Supply Chain Management
- Total Quality Management
- Zero-Based Budgeting

4 Modelling responsiveness: How teams lead successful implementation of management innovations

4.1 Abstract

Based on foundations of the organisational routines' literature, this study develops a model of how a new management practice is adapted and assimilated within an organisation. The high rate of failure of a new management practice after adoption is an important consideration for organisations because it involves considerable resources investment. Although some research has focused on specific new management practice, the literature does not provide quantitative models that could provide guidelines for implementation efforts. In order to achieve this, this study introduces a team-level construct of team responsiveness defined as the effectiveness with which internal teams internalise and deliver on requests. Second, this study develops propositions on the link between team responsiveness and an organisation's ability to accept or reject new management practices, on the impact of team responsiveness on practice success and failure, the impact of team responsiveness on the range of practice choices available (before adaptation), and team responsiveness scores' variation on the implementation impact. By introducing and integrating team responsiveness, this study enhances theory and prepares the extended theory for empirical testing. Further suggestions for research and managerial implications are made.

Keywords:

Adoption, Adaptation, Simulation modelling, Management innovation, Organisational learning

4.2 Introduction

We aim to develop a better understanding of new management practices or management innovation (MI)¹³ adaptation processes through a lens of organisational routines. We see research efforts on the necessity of adaptive processes for product, service and technological innovations (Brown and Eisenhardt, 1997; Eisenhardt and Tabrizi, 1995). However, the process of adaptation and contextualisation for MI has not received similar attention. Although this is an important area for future research (Ansari, Fiss and Zajac, 2010; Rogers, 1995), not much literature is available that explores and extends the theory on the adaptation process. Similarly, benefits of adopting technology are commonly accepted to benefit through new products, services, and process innovations and deliver results in terms of firm's performance goals and competitiveness, the same is not equally prevalent, accepted and researched for non-technology innovations (Bloom and Reenen, 2007; Damanpour and Aravind, 2012; Volberda, Van Den Bosch and Heij, 2013) or MI.

Despite the availability of past MI implementation and templates (Kennedy and Fiss, 2009; Westphal, Gulati and Shortell, 1997), the contextualisation of the practice for the organisation carries much significance (Ansari, Fiss and Zajac, 2010; Lillrank, 1995; Rogers, 1995). The problem becomes even more difficult as the practices in question are MI where the structures of social fabric (wherever they originated or are to be adopted) carries much influence, which emphasises the necessity of better understanding and localisation (Cohendet and Llerena, 2003). No wonder, it has been consistently noted in the literature that the failure rates for MI initiatives is very high (Beer, 2003; Beer and Nohria, 2000; Choi and Behling, 1997; Dooley and Flor, 1998; O'Mahoney, 2007), and the situation is not

¹³ Building on the literature review in chapter 2, the term MI used here is interchangeable with the terms administrative innovation, organisational innovation, and managerial innovation as applied in earlier research (Birkinshaw, Hamel and Mol, 2008; Damanpour and Aravind, 2012; Kimberly and Evanisko, 1981; Walker, Damanpour and Devece, 2011).

getting any better (Jacobs, Witteloostuijn and Christe-Zeyse, 2013; Michel, By and Burnes, 2013). Given the above, we analyse the phenomenon and take inspiration from March's (1991) use of simulation modelling to extend the theory in this exciting but largely overlooked area of research, in order to propose and prepare it for empirical testing.

4.3 Definitions and background literature

Birkinshaw, Hamel and Mol (2008: 829) define management innovation (MI) as "the generation and implementation of a management practice, process, structure, or technique that is new to the state of the art and is intended to further organisational goals". The benefits of adopting these MI practices can range widely and can include expected increases in for example performance, revenue, productivity and social status. Westphal, Gulati and Shortell (1997) define an MI practice as a new bundle of behavioral routines, tools, and concepts used to accomplish a certain task. Organisational routines are well suited for analysing the problem because MI adaptation and implementation involve existing practices/routines, and current organisational capabilities. Cohen et al. (1996: 683) conceptualise a routine as "an executable capability for repeated performance in some context", while (Grant, 1996: 377) notes that the essence of an organisational capability is the firm's "ability to perform repeatedly a productive task" by "integrating the specialist knowledge bases of a number of individuals". These factors are in play when and how an incoming practice and the organisational environment are best adapted to generate a fit for the practice within the organisation, especially in the light of the processual (Pentland and Rueter, 1994) and tacit nature (Cohen and Bacdayan, 1994) of organisational routines.

4.3.1 Complexities in the adaptation of MIs

Management innovations often fail. This section expands on the processes of MI and how generation, adoption and adaptation are related and used within this study. Management Innovations come about through two different processes: the generation process (Birkinshaw and Mol, 2006) and the adoption process

(Damanpour and Schneider, 2006; Damanpour and Wischnevsky, 2006; Mol and Birkinshaw, 2009). Generation is an intra-organisational process which results in a new product, process, technology or practice (Hollen, Van Den Bosch and Volberda, 2013). Organisations usually generate MI for their internal use and often for generating performance benefits associated with MI related change. e.g., a restructuring to better manage their internal processes for specific activities as in production line management as in Toyota Production System (Spear and Bowen, 1999).

On the other hand, MI adoption is a process which involves – mostly external – search for available practices to improve or solve of an internal issue or desire. These external practices (not developed in-house) are brought inside to be implemented (including contextual adaption) and institutionalised for a favourable organisational outcome (Damanpour and Wischnevsky, 2006; Wolfe, 1994). While the generation process yields a new practice that has no known precedents, the adoption process is implementing a practice, which has been working elsewhere but is new to the organisation. Both processes are expected to generate positive outcomes for the implementing organisations (Damanpour and Aravind, 2012).

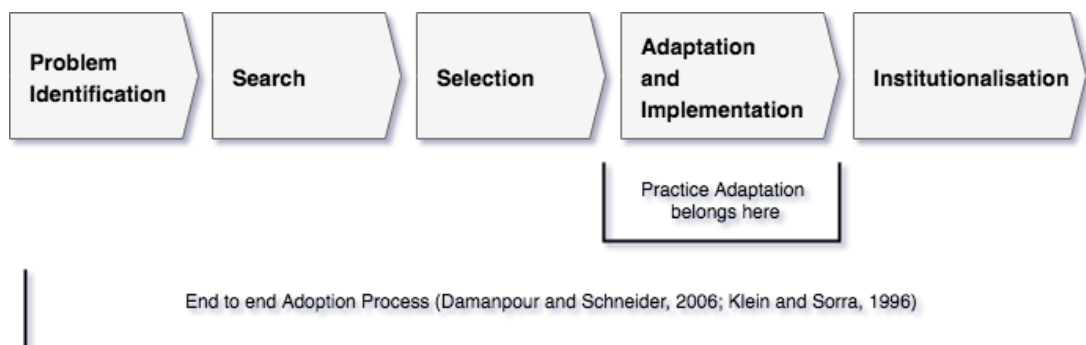


Figure 8: MI adoption process

Although adopting what is practiced elsewhere should be less problematic, adoption processes often end in failure because the adaptation and implementation of the MI is highly problematic (e.g. Beer, 2003). The focus of this

study is on this adaptation and implementation step within the adoption process for Management Innovations. It is positioned after the problem identification, search and selection of the new management practice and is followed by the final institutionalisation step (Damanpour and Schneider, 2006; Klein and Sorra, 1996), as illustrated in Figure 8. Adoption is an important end-to-end process, starting with noticing misfit and ending with achieving fit within the adoption process. Within the Adoption process, Adaptation is the step "...by which an adopter strives to create a better fit between an external practice and the adopter's particular needs to increase its "zone of acceptance" during implementation" (Ansari et al., 2010: 71). This step is usually achieved by setting up of a taskforce which is aided with available resources, templates and external expertise to take the organisation through the implementation.

After providing an overview on the MI processes, and importantly, positioning the adaptation within the adoption process, we review what is known about why adaptation in a MI is challenging. There exist at least three distinct reasons why it is much more challenging than an innovation transfer exercise. Firstly, in order to classify as an MI, the innovation is expected to bring in significant newness, basically a proportionally higher amount of change for the adopting organisation (Hamel, 2006; Kimberly and Evanisko, 1981; Slappendel, 1996). Not every organisational change is a MI (West and Farr, 1990). For example, bringing in a new billing system by an organisation would not be considered a MI, because the work of management is still unchanged and it does not represent a significant change for the organisation.

Secondly, the incoming practice is expected to involve a higher order of social complexity due to a deep level of embeddedness and fuzzy specification. This complexity originates from the cultural (and implicit) elements picked up from the organisational context, where the practice was first developed (Lillrank, 1995). These elements make the practice highly sensitive, and it is paramount to understand the underlying motivations and philosophy prevalent at the originating organisations and their constituent teams. This makes MI very different from technology innovations/transfers or product innovations where the technical

specification is paramount and in terms of information content equivalent to the new product itself. This challenge also makes bringing in an MI a longitudinal social process. In chapter 3, we explored factors that influence the process of adaptation and found important social factors including connection with purpose and contextual orchestration. These and other social processes arise from micro-processes and individual-level heterogeneity and interactions between individuals have an impact that can generate collective effects (Barney and Felin, 2013; Felin and Foss, 2005). In this study, these micro-processes would occur at the team level where individuals collaboratively adapt an incoming practice for use within their team and collectively for the organisation.

The third reason why MI adoption and adaptation is more challenging than common change like the transfer of an innovation that due to the tacit nature of the new management practice, which often is impossible to codify as a series of steps (Lillrank, 1995). In other words, it is not possible to get firm guidance on what to and what not to do when bringing in management innovation. This makes any available guidance open to miss-interpretation and error prone during implementation. Even though routines store tacit knowledge (Nelson and Winter, 1982; Teece, Pisano and Shuen, 1997), evolve over time (Pentland et al., 2012) and across multiple levels (Salvato and Rerup, 2018), and are replicated (Becker et al., 2005; Winter and Szulanski, 2001), little work has focused on how routines adapt around contexts for an incoming new management practice.

The above complexities make empirical experiments difficult and boundaries challenging to define (Birkinshaw, Hamel and Mol, 2008; Hamel, 2006). With this context, an important role in the creation of new knowledge in adapting new routines is played by the adopting organisation's teams and individuals, who internalise new (and amend) organisational routines to adapt and learn the new management practices. We adopt a modelling approach to theorise on the team adaptation and implementation process for an incoming practice with a team-level construct.

4.4 Methodology, construct and the propositions

In this section, we first lay out the methodology used, including background on simulation modelling and how it is appropriate for this study. We then define team responsiveness as a construct, detailing what it is, why it is important, and how it works. Finally, we describe first propositions based on extant literature, and where we can extend them for management innovations and their adaptation/implementation within an organisation.

4.4.1 Modelling with stochastic simulations

Simulation Modelling is a research technique applicable to model dynamic and complex situations where some theory is available and some apparent relationships, but not concrete in the form of being readily testable empirically (Davis, Eisenhardt and Bingham, 2007; Harrison et al., 2007; Law and Kelton, 1991), basically situations where only simple theory¹⁴ exists. In such studies constraints primarily arise due to difficulties in the complexity of the phenomenon, non-linear relationships or the longitudinal aspects, making an empirical inquiry difficult (Repenning, 2002; Zott, 2003). In this light, simulation models can help reduce some complexity within real environments, and through this simplification assist in building conceptual maps between how specific actions impact outcomes. Simulation involves the use of software to model events, processes, systems and causal relationships (Law and Kelton, 1991). Seminal work using of such models include Cohen, March and Olsen's (1972) work on the garbage can theory for decision making, March's (1991) work on exploration and exploitation and Davis, Eisenhardt and Bingham's (2009) work exploring the organisational design choice on the amount of structure with respect to efficiency and flexibility needed in fast moving environments.

¹⁴ Davis et al. 2007:484, define Simple Theory as: "...undeveloped theory that has only a few constructs and related propositions with modest empirical or analytic grounding such that the propositions are in all likelihood correct but are currently limited by weak conceptualisation of constructs, few propositions linking these constructs together, and/or rough underlying theoretical logic."

Although models can never represent the true nature of processes in real environments (Chattoe-Brown, 1998), they are counter-intuitively useful for this very reason. A model is quick to structure, quick to simulate, quick to iterate on, and allows for quick alteration of boundary conditions and governing rules. Therefore, such a process of modelling can help generate a lot of variations and thus can capture rich phenomena within clearly defined boundary conditions. Simulations are particularly useful in situations which are often difficult (and impossible) to approach with conventional analytical or empirical methods. A comprehensive overview of simulation modelling and methods is available in Law and Kelton (1991), Davis, Eisenhardt and Bingham (2007) and Harrison et al. (2007).

The complexities arising from the MI adaptation process (4.3.1) make an MI adaptation non-conducive for a conventional empirical study. Further, aspects related to non-codifiability, the inherent tacit nature of the management innovation practices and the longitudinal nature makes our problem domain ideally suited for simulation modelling. We next move on to understanding, positioning and modelling our core construct.

4.4.2 Formulation of a theoretical construct

In the backdrop of some organisations being successful and some unsuccessful in adopting management innovation, we search for an organisational level construct, which could be proposed to help us better the research understanding on this adaptation process for MIs. In order to develop better understanding of why some organisations are being successful and others unsuccessful in adoption management innovation, this study explores local organisational explanations. In this section, we first utilise the evidence and results from our prior qualitative study (chapter 3), as well as the extant literature to identify a correlation between local, organisational variables and the success chances of MI adoption. On this basis, we then propose and develop the new construct of Team Responsiveness (TR). We finally position this construct alongside similar but un-related concepts like environmental dynamism and organisational agility.

Within the previous study (chapter 2) we introduced a generative model for new knowledge (Figure 7). This new knowledge consists of the new/modified routines and capabilities, which emerge from the iterative adaptation process when a new management innovation is adopted by an organisation. The study also found an emphasis on connectedness with the purpose and the need for contextual orchestration within teams working against the organisational forces and inertia in order to embed the new practice. In order to take this model forward, it is important to define a construct which is intra-organisational and has influence on an organisations ability to accept/reject or adapt a new incoming management innovation practice. Such a team-level ability can be defined from the ground-up as follows.

Organisational capabilities (also known as ordinary capabilities) is a set of mundane routines, procedures and, skills which contain the functional knowledge to run a typical day within an organisation (Teece, 2017). These capabilities are ordinary¹⁵ in the sense that they embody the operational view of the organisation, which helps it “make a living” (Helfat and Winter, 2011: 1243). These operational capabilities are not fixed, but instead dynamically evolve and carry a lot of un-codified, tacit knowledge (Feldman and Pentland, 2003; Nelson and Winter, 1982). We aim to show how this process of dynamic evolution of day-to-day organisational routines and capabilities is a key factor in the adoption of MI. We explore and build on the adaptation process and how it affects the chances of integrating a management practice successfully.

As it emerged from the previous study in chapter 3, teams and contextual orchestration, which is their inter- and intra-team dynamics, enables organisations learn and adjust to the requirements of the new incoming practice. In our prior study (chapter 2) we found strong emphasis on tactical inadequacies and temporal instability, both of which affect the operation of teams within an

¹⁵These are different from Dynamics Capabilities which help an organisation continuously sense, seize and reconfigure learning from its external environment (Teece, Pisano and Shuen, 1997).

organisation. Hence, teams offer a reasonable and useful basis for formulating a theoretical construct playing an important role in successful MI adoption, which we progress with next.

We define a construct Team Responsiveness¹⁶ (hereafter TR) as the effectiveness with which internal teams internalise and deliver on requests. It denotes the internal understanding, sensitivity and pro-active handling of internal requests at a team level. With this definition, TR models how an organisation internally operates at the team level in order to deliver its objectives. TR depends on multiple team and organisational characteristics (Figure 9). In what follows, we focus on these characteristics and their reflection in the literature, which supports the importance of such a construct and its constituent elements supporting it.

Multiple team-level and organisational-level factors which would affect our team responsiveness construct, call for attention. The most important team-level factors are internal ability to co-learn explicit and tacit knowledge (Edmondson, 2003; Madhavan and Grover, 1998) and the team leader's attitude to relay optimism with appropriate reframing and support (Edmondson, 2003) among other factors. These factors will be introduced first, and then the organisational-level factors in the following paragraphs.

Exchanging and developing tacit understanding and knowledge within a team is challenging (Madhavan and Grover, 1998). Working closely with each other under shared assumptions and beliefs helps the way in which employees understand, interpret and generate new knowledge (Edmondson, 2003), which in the case of a management innovations, are new routines and capabilities. The experience of team members aids development of a common understanding with

¹⁶ Even though TR is a team-level construct, for its use within an organisation, the average across all teams is Organisational Team Responsiveness, and is the determinant of most organisational level adoption/adaptation related processes. The notation TR is used interchangeably for both team and organisational level use of Team responsiveness as per the context of the discussion.

their colleagues helps the organisation progress towards a goal (Sarin and McDermott, 2003), because experienced team members have a better appreciation on why new practices are being considered, and why it is important to be supportive of related internal change requests and to improve. Team leader's attitude and demeanour also have a significant impact on the team's productivity and relationship with other teams (Gong et al., 2013). They are playing a critical role in helping team members appreciate and remap this new management innovation guidance into their day to day work (Edmondson, 2003).

There also exist multiple organisational factors enhancing a team's ability to integrate a new practice favourably, informing team responsiveness. Collaboration within teams, alignment on a common goal and even an organisation financial performance may contribute to an organisation's efforts in getting a positive outcome from adopting a new management innovation. High performing teams do not operate in silos (Beer and Eisenstat, 2000) because, if they did, they would suffer from the lack of cross-pollination of ideas, mutual support and productive use of shared resources. Golini, Kalchschmidt and Landoni (2015) note that the most important criteria for any new practice to be successful is that the employees and teams align with each other and share a collective belief in the attempt. Studying the introduction of project management as new management practice, Golini et al (2015) found that this understanding of fit between culture and organisation is of significance for the success of the new practice. We also know that organisation in good times (of financial performance as an example), are more keen to try out new practices and invest in them (Kanter, 2004). In such times of a growing belief in continued success, teams are free to explore, and team members have more support within and across teams.

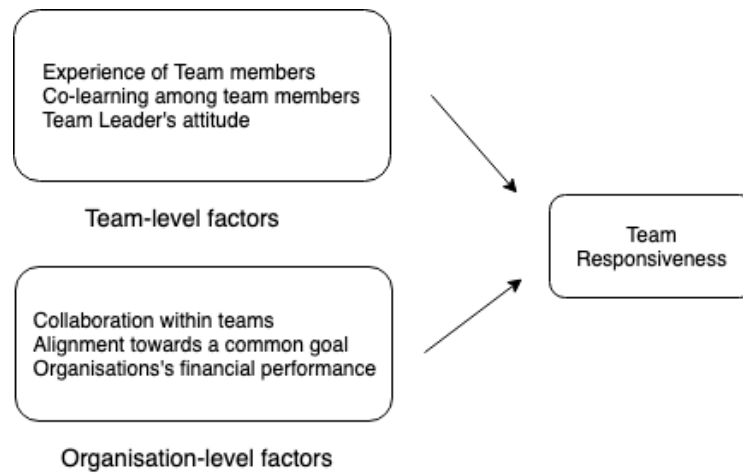


Figure 9: Independent factors which could be determinant of team responsiveness

Taken together a team's ability to learn on the explicit and the tacit together (Madhavan and Grover, 1998) to generate new localised knowledge, together with the team leader's attitude (Edmondson, 2003) potentially make a significant difference in adopting a management innovation. Similarly, at the inter-team level, the interdependency and collaboration (Beer and Eisenstat, 2000; Gong et al., 2013) as well as alignment towards a common aim (Golini, Kalchschmidt and Landoni, 2015) service the same objective. In this study, we extend these into team responsiveness (TR) construct to tentatively model internal support towards interdependent collaboration to propose a proxy for successful adoption of an incoming management innovation practice.

In order to clarify the positioning of team responsiveness, we now compare and contrast it with two seemingly related but different constructs i.e. environmental dynamism and organisational agility. TR as a team level operational construct is different from common classification as environmental dynamism (high/low velocity) which is an industry/sector level construct. e.g. "high-velocity" is an environment characterised by "rapid and discontinuous change in demand, competitors, technology and/or regulation, such that information is often inaccurate, unavailable, or obsolete" (Bourgeois and Eisenhardt, 1988: 816). These changes render imprecise, unavailable or obsolete most information usually at the disposal of firms to formulate their strategy, thus generating a high

degree of uncertainty. Examples for industries with elevated levels of environmental dynamism include the technology, pharma, or semiconductors etc.

	Environmental Dynamism	Team Responsiveness	Organisational Agility
Level	Macro	Operational/Tactical	Tactical/Strategic
Orientation	External	Internal	Internal
Unit of Analysis	Industry/Sector	Team	Project
Focus	Requirements for organisation-level response (e.g. corporate strategy)	Requirements for team-level response to implement the organisation-level response (e.g. execution of strategy)	Requirements for specific team-level process (e.g. new product development)
Example	Increasing online sales requires a digital strategy to develop an online sales channel	Effective support, teams provide upon requests to other teams when developing an online sales channel	Agile/Rapid development of a website for the online sales channel.

Table 12: Environmental dynamism vs Team responsiveness

While Environmental dynamism as a macro conceptualisation of external demands elicits an organisational response in order to find its course and become or remain competitive within the industry (Davis, Eisenhardt and Bingham, 2009; Eisenhardt, 1989), an organisation's effectiveness in implementing such a response is determined by its team responsiveness. Team responsiveness shows how interdependent teams serve and satisfy internal organisational demands related to implementation efforts. For example, an organisation belonging to a sector with high levels of environmental dynamism like online retail could still be operating at an organisational TR that is considered low for its industry. With all strategies of online retailers being equal, its low TR would not allow its implementation efforts to maintain competitive parity in online retail.

Further, team responsiveness is different from organisational agility. Inspired by a new way with which special cross-functional teams develop new products in shorter time (Takeuchi and Nonaka, 1986), agile product development is a style of software development that has proven itself so successful that it has generated a following beyond professional software development and engineers (Rigby, Sutherland and Takeuchi, 2016). It has become a management tool for practitioners (Dingsøyr et al., 2012). Organisational agility relies on special teams or units, often assembled by higher levels of management, to work in an agile way with its specific process in order to accomplish a specific goal at higher speed (Mahadevan, Jacobs and Schlatmann, 2017), for example developing a new technology or increasing the customer focus of the organisation. In contrast, TR is not a representation of a team's speed in executing a command but a measure of the responsiveness with which teams in an organisation respond fast with high fidelity¹⁷ to requests internal to their team and by other teams.

4.4.3 The significance of the team responsiveness construct

Adoption and implementation of new management practices often fails. The chances for success with implementing an incoming new management practice is subject to the speed and fidelity with which a team responds to requests by other teams. Understanding this a team-level attribute seems important to successfully introducing a new management practice. Considering TR, especially the social and tacit dimensions related to the changes related to the incoming new management practice, and its similarity of an organisation's TR with organisations where the practice is or has been previously known to work is important. Given an organisation, when team responsiveness is understood and appreciated, the effectiveness in adapting and implementing new management practice could increase for several reasons. First, TR could influence selection choices of new practices so as to focus only that can be adopted with the existing TR. More challenging practices could be deselected and thus reducing the risk of

¹⁷ For fidelity see Ansari, Fiss and Zajac (2010).

failed adoption, compared to emphasising practices that the organisation with its TR can successfully implement. Second, efforts to change TR could lead to greater capability to absorb a specific new practice. A necessary change may be required for the adoption of a challenging practice for which a higher TR is required. This could motivate efforts to change an organisation's TR in order to increase its ability to change successfully by committing to the new initiative. Third, appreciation of TR allows for better understanding of adoption outcomes. For example, an organisations failure to implement a new digital strategy could be understood in more depth and not as having the wrong strategy but an insufficient fit between what the change initiative requires and TR. In sum, greater awareness of TR could prevent organisational efforts going against the grain and possibly yield better adoption outcomes.

4.4.4 Practice adaptation and capability development

Since we model the practice adaptation using organisational routines, the next couple of paragraphs, explain how the concept of team responsiveness embodies practice adaptation and capability development. For a successful implementation of a practice, the organisation creates/adapts its routines and also changes the practice. We investigate practice adaptation and capability development processes and see the relationships from the extant literature.

Practice Adaptation

Feldman and Pentland, (2003: 95) note that routines are “repetitive, recognisable patterns of interdependent actions carried out by multiple actors”. Within this definition, the coordinated actions between individuals result in emergent routinised behaviour (Aggarwal, Posen and Workiewicz, 2015; Cohen and Bacdayan, 1994). In our work, we analyse this coordinated activity with teams as a unit of analysis, both at an intra- and inter-team level. This coordinated action has been known to lead to operational capabilities (Teece, Pisano and Shuen, 1997; Winter, 2003), which makes modelling with routines an appropriate vehicle for the adaptation of practices into learning essential for its operationalisation within an organisation.

Capability Development

Capability development has deep links with routines, as they help to bind knowledge, and therefore act as building blocks for organisational capabilities (Winter, 2003). Winter (2000: 983) defines a capability as a “high-level routine (or collection of routines) that, together with its implementing input flows, confers upon an organisation’s management a set of decision options for producing significant outputs of a particular type”. These routines, or a collection of routines are theorised to be discovered and configured over time (Helfat and Winter, 2011; Winter, 2003), to the extent that Levinthal (2000: 366) has posited that “routines themselves are critical building blocks for broader assemblages of capabilities”. Building on these foundations, this study focuses on the team as a unit of analysis at a micro-level. These changes to the practice and to the organisational context for practice adoption are as shown below.

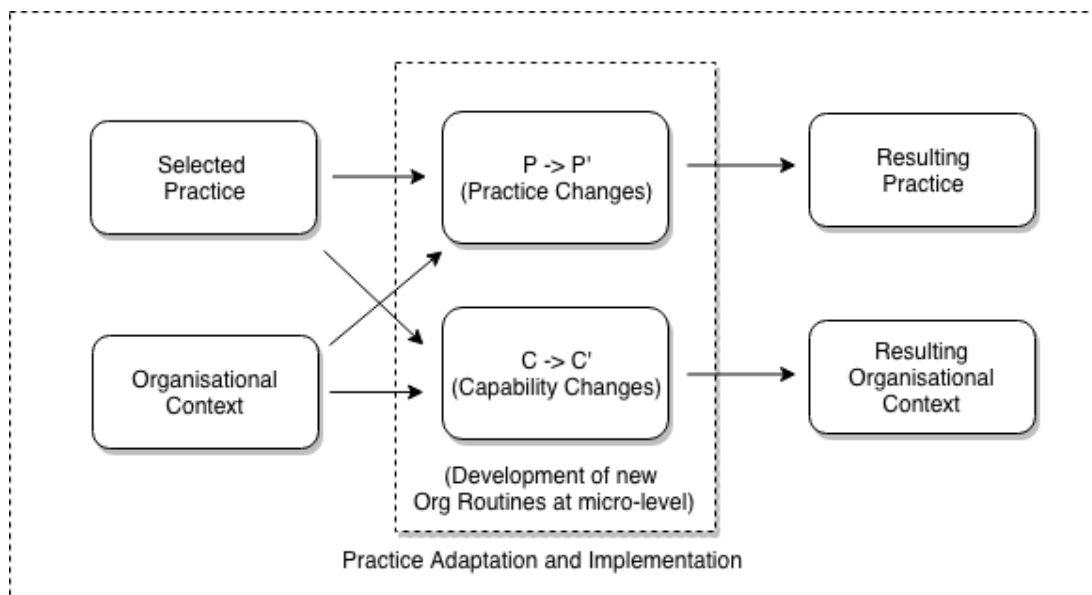


Figure 10: Practice adaptation and capability development for practice adoption

Organisational routines are generative in the backdrop of a social phenomenon (Pentland et al., 2012). These are team-level social micro-processes for the development of new routines. Aggarwal, Posen and Workiewicz (2015) have picked up on the collaborative action as a fundamental block for the development of organisational capabilities. They identify individual team learning as a critical

micro process because an organisation's capability is a sum of the skills of individual teams. Inspired by this, the approach we adopted is to focus on team level integration problem, which at a micro-level is composed of team interactions. These collaborations are fundamental blocks for purposeful tasks or endeavours in order to generate local understanding when integrating a new MI practice. We approached this problem with a team level construct of inter and intra-team interactions as micro-processes, which can then also be translated to an aggregate describing the whole organisation.

Within our model we have implemented these at two distinct levels: inter- and intra-team level, in order to develop an understanding on how an organisation adapts its routines and capabilities to a new practice and how it changes the practice. The model is described in detail in section 4.5. Once these new routines are learned, they become a part of a team's procedural memory (Cohen and Bacdayan, 1994). It has also been posited that organisational routines are processual, which means that routines occupy "the crucial nexus between structure and action, between the organisation as an object and organising as a process" (Pentland and Rueter, 1994: 484). Organisational routines provide a basis for our work, as practice changes towards a fit within an organisation are incremental changes to organisational routines (Feldman, 2000).

4.4.5 Propositions

We propose that team responsiveness (TR) acts as an important construct in the successful adaptation of an incoming practice. Given an organisation, its set of people, culture, history and industry, all affect the success chances of an incoming practice. TR grows with more information, interactions, listening and learning as well as higher absorptive capacity. Responsive teams in an organisation would generate more abundant, accurate and timely actions and data, which would help with informed and faster decisions, learning and implementation actions. For example, better understanding of current adoption status of a new MI (Kimberly and Evanisko, 1981), allows making alterations to a new incoming practice, aiding an effective implementation.

Even though more decision points and interactions can result in undesirable developments (e.g. slippage, oversight, shifting of responsibilities etc.) due to missing periods of stability (Levitt and March, 1988), they do lend themselves to more "natural" opportunities to fine tune a practice (or adjust course) with feedback and learning from what's working and what's not (Sastry, 1997). We believe an organisation with higher TR, on average, would generate more learning through for example social experiments because the number of interactions and opportunities to generate such learning will be relatively higher than in environments with low TR. Moreover, more decision points may also help reduce pressure and anxiety in decision making. Being an iterative process, an awareness that any adverse effect of the decision will not sustain for long, helps reduce anxiety (Klarner and Raisch, 2013). Iteratively, an organisation's fitness with the management practice increases as teams learn and adapt organisational routines aligned with the new practice.

More experiments and information help to bridge the gap between new practices and organisations due to non-availability of all decision information all at the same time. (i.e., at the start). This mechanism of adapting in small steps helps teams to adjust in time to get the best out of the incoming practice (Winter and Szulanski, 2001). Although more information may increase complexity between iterations, it provides at the same time more adjustment opportunities to correct as necessary. With successive experimental interactions organisations interleave periods of change with periods of stability that allows a new routine to be absorbed, before the next change, which contributes to an incoming practice's successful implementation (Klarner and Raisch, 2013).

Careful listening and consideration of request by other teams, basically efforts to understand the intention of the team making the request, increases the focal team to respond in conducive ways to enhance cross-team understanding (Huber and Lewis, 2010). This greatly shortens the overall response time. High levels of focus on (internal) customers enables teams to respond to requests faster and empathetically (Parker and Axtell, 2001). The literature on absorptive capacity

has shown that teams with higher absorptive capacity are better able to respond to requests and needs more accurately and faster.

Proposition 1: Organisational team responsiveness is positively related to the success with which an organisation adapts an incoming management practice.

There are several ways organisations can select the practices they seek to adopt. Organisations can pick the best performing (most promising) practice to implement but the adaptation and implementation may be challenging and therefore only organisations with high organisational responsiveness can make such choices. Alternatively, and more promising for many firms is the approach where organisations pick an appropriate practice that has the best chance of working within the organisation¹⁸. As the selection of a practice precedes any adaption or implementation step (Figure 8), this way of selecting an incoming practice uses the better fit between extant capabilities and the new practice to navigate the adoption process. Some organisations may remain limited by their ability to integrate only practices with optimal fit. However, the high rate of failed implementation or abandonment suggests that many organisations seek to be more open to best practices from a larger range of available MIs, but lack the capacity to accept, adapt and make productive use of them. Kaplan and Norton (2006) suggest reducing the complexities of change by looking for fit when selecting the new practice.

Proposition 2: Organisational team responsiveness positively affects the practice choices available when selecting a new management practice.

Organisational team responsiveness can be lower or higher, which have different effects on choices and outcomes. With practices that have a poor fit, there is a

¹⁸ There may be cases where the best performing is the most appropriate practice to be selected by the organisation, but that may not be the usual case.

tendency for organisations to implement MI practices in a limited fashion or ceremoniously without ever being able to achieve the potential they aimed for when deciding to bring it in (Ansari, Fiss and Zajac, 2010). TR therefore is related to the fit between MI and the organisation.

Within organisations with a low TR, amendments and adaptations for productive gain may be limited and uncommon. When selecting practices to adapt, there may be opportunities in seeking practices institutionalised in other organisations, which have similar levels of TR. This could reduce the risk of adaptation failure. If organisational team responsiveness is low, then it may be better to search for a better organisation-practice fit which often limits the choice to practices that are very similar to current capabilities within the organisation.

Proposition 2a: If organisational team responsiveness is low, then the choices available for successful adaptation are limited.

Similarly, organisations operating at high TR, may be theoretically be able to choose from a wider variety of available practices. Organisations where teams in general have a high TR may have lower risks of failing to integrate even a distant practice that has a low fit with the organisation, because of more opportunities to experiment with the practice and learn and adapt based on internal acceptance and trials. Adopting organisations usually adapt an MI practice with an aim to improve fitness between the organisation and the local environment when implementing (Canato, Ravasi and Phillips, 2013), therefore if TR is high, they may have more choices available, including practices with a low fit. We posit that, if organisational team responsiveness is high, then the organisation may be better to aim for practice adaptations (instead of searching for best organisation-practice fit) towards a successful outcome. This leads to our next proposition.

Proposition 2b: The higher the organisational team responsiveness, the more likely is successful adaption from a broader range of new management practices, including those with low fit.

An organisation is composed of numerous teams of various sorts that have diverse work profiles. This variation naturally leads to some teams having higher TR and some lower TR. In the previous propositions, we have suggested that overall organisational TR influences an organisation's ability to adapt and implement a new practice. The variation in TR among the constituent teams in an organisation however matters in that it influences how this variation affects practice adaptation. The heterogeneity of TR's within the organisation may make it less or more successful in adapting a new incoming practice, independent of its fit. Considering that homogeneity of high TR of teams within an organisation allows the organisation to adopt new practices with high and low fit to the organisation, high TR appears as a rare and potent exception. Homogeneity of low TR instead suggests that an organisation can only adapt MI that are similar to its current capabilities or have a good fit in terms of required TR, which makes low TR an extreme at the other end where adaptation of very few MI is likely to lead to success. It follows that heterogeneity of TR suggests that some teams within the organisation will be able to adapt to MI independent of their fit with the organisation. Therefore, we posit:

Proposition 3: The broader the range of Team Responsiveness within an Organisation, the more consistent is its ability to adapt an arbitrary management Practice.

4.5 A model for team responsiveness

Consider a simple model to represent MI practice adaptation within teams. We have used the foundations of research on organisational routines to model the process of organisational adaptation. Organisations implement a new management practice by modifying its routines and capabilities as well as adapting the practice progressively, jointly determined by a single team-level construct.

There are five key features for such a model:

1 – The incoming practice, P

A practice is described as having M dimensions, which represent the routines and capabilities¹⁹ which are deemed to be necessary for any organisation which intends to adapt this practice. Each of these dimensions has a value 0 or 1, allocated independently with a probability of 0.5 of being a 0, or a 1. (P indicates the knowledge, already known about the practice from setups where it has already worked, templates already available, and the literature and expertise from consultants and academics²⁰.)

2 - The organisation, O, which intends to adopt a new MI practice, P

An organisation is a collection of Teams, each of which has its own routines and capabilities, as well as its own socio-cultural, team-specific and organisation-specific attributes.

Each team is a vector of M+N dimensions. The first M dimensions represent the team's configuration in terms of its current routines and capabilities, while the remaining N represent the rest of the attributes as mentioned above. These N attributes play a central part in determining a team's Team Responsiveness. Each of these team dimensions also have a value 0 or 1, allocated independently with a probability of 0.5 of being a 0, or a 1.

3 – Contextualised practice guidance, P' set by the implementation taskforce

This is the variation on the incoming practice, and it is a part of the guidance to the Teams on the new practice. This is usually generated by the implementation

¹⁹ Even though an MI practice is not codifiable in a generic sense, it is still a combination of new capabilities and new routines. The difference and the non-codifiability come from the fact that every organisation is different in its cultural make-up (Michel, By and Burnes, 2013; Nyström et al., 2013). Hence, what set (of capabilities and routines) works for an organisation is an investigation, and not a prescription from the available guidance.

²⁰ For example, much literature is available on Six Sigma and what kind of capabilities and routines are needed to implement it.

taskforce in consultation with the expertise, published material and help available (usually external) on how to go about this change process. The variation comes from the contextualisation on what's available and known to work in the past elsewhere, what could work for the target organisation, what should be tailored and what is better left out. For the model this has been encoded by adding a 5% random variation in the incoming practice.

4 – Local micro-processes for routines and capabilities

This includes the modification/generation of routines and capabilities necessary to absorb the new practice within the team. We have operationalised team responsiveness into two separate components, one for the intra-team requests and another for the inter-team ones. TR plays a role in both, mostly in determining the rate at which this practice learning happens.

5 – New data points and learning

Every iteration generates new learning of what is working and what isn't for the implementation taskforce. The taskforce uses these data points to determine the changes to the practice, necessary for the next iteration. With the modified practice guidance, the practice is iterated on within the teams again as in 4, unless an exit criterion is met (the next point).

6 - Process for eventual success/failure.

With this approach described as above, after each iteration, 6 distinct possibilities emerge:

- 1. Convergent**

The iteration is successful in improving the practice learning by adopting some changes favourably. In other words, the iteration gained ground.

- 2. Convergent and Successful**

In some cases, the organisation may be able to assimilate the practice as desired. In this scenario, the iterations need to stop, declaring a convergent and successful outcome.

- 3. Divergent**

It may so happen that some iterations are detrimental to the objective and cause a divergence from the goal.

4. Divergent and Failed

In some cases, consecutive divergence²¹ iterations may build enough disbelief in the new practice that the organisation may decide to abandon the practice. In this scenario, the iterations need to stop, declaring a failed outcome.

5. Neutral

Resulting in an alternate configuration without any benefits for the iteration.

6. Give-up

In this scenario the organisation is unable to converge towards necessary alignment and configuration within the available time²² and aborts the exercise.

In summary, the model utilises inter- and intra-team-level interactions to yield an improved understanding, resulting in an emergent set of routines, which works for the organisation to adapt a practice and developing its own set of necessary routines. In this way we attempt to understand how an organisation adapts its routines and capabilities as well as how it changes the practice.

Next, we move on to a little more detail, describing the simulation algorithm.

4.5.1 Algorithm

For the simulation, the adaptation process could be framed as, the process steps necessary to increase the overlap between O towards P in incremental steps. Each step introduces a reasonable amount of change to the practice and to the organisational capability, within a limited but sufficient timeframe. Once learned routines become part of the team's procedural memory, it is more difficult to

²¹ For our simulation, we used 3 consecutive divergent iterations to abort the process in this condition.

²² For our simulation we set up this limit at 40 iterations, indicating ample opportunity for a practice to be absorbed.

deviate, which makes routines a valuable vehicle (Cohen and Bacdayan, 1994) for learning and storing new MI practices.

Therefore, the objective function for this model is to

$$\text{Minimise } |O - P| \text{ over a fixed number of iterations}$$

We also define a metric, $\text{dist}(a, b)$ as the count of differences across individual components between two vectors a and b , denoting the dissimilarity between them. We denote the contextualised practice guidance set by the implementation taskforce as P' . It is the same dimension, M , as the practice, P . The organisation O , is a k -dimensional $M+N$ -tuple, where the first M -tuple is used for the distance calculation and the last N -tuple used for the determination of TR , as also illustrated in Appendix **Error! Reference source not found..**

We now describe the mathematical model along with the algorithm.

Step 1: Choose a random Practice, P

Length: M elements, uniformly distributed with $p_1=0.5$

Step 2: Create a set of K teams, denoting the organisation, O

K vectors for K Teams, with $M + N$ elements, uniformly distributed with $p_2=0.5$

Step 3: Generate a vector, P'

For the first iteration, P' is the implementation taskforce's variation on the selected practice P . This variation is due to the interpretation and deemed feasibility for the practice P , within the organisational context. In subsequent iterations, it includes the adjustments to the practice added based on the collated learnings from the previous iteration.

Step 4 Apply the practice guidance, P' to all teams.

For every Team:

Choose a proportion of components to accept the change²³ with probability q , where q is determined as a function of team's TR as well as TR's of two other teams chosen at random (T_i and T_j)²⁴.

This determines how quickly a team incorporates the suggested practice guidance and learns from it and is modelled as such for inter-team communication facilitating the learning.

Step 5: Create a consolidated view of the team experiences from the iteration and use it to modify the practice guidance for the next iteration.

We repeat steps 3-5, until either a) we exhaust the iterations OR, b) we reach a pre-set level of practice absorption within the organisation. (Each iteration step generates one of the six step outcomes as determined in section 4.5.

This section described a model of management practice adaptation and its implementation within teams via organisational routines. Within this context, an iterative process is modelled for learning a new management innovation practice because the process progressively yields into routines as embedded within team actions. The team actions are learned and routinised behaviour, developing within the team context. The complete model can be illustrated as in the following figure, which shows all the micro and macro processes in action in order to learn a new incoming practice and how the model proceeds to implement it.

²³ A critical point here is that this assignment can be a 0 or a 1, so in essence, it is possible that the change at a team level may not yield the anticipated alignment benefits at the organisation level. But is nevertheless something the team has learned from the change process.

²⁴ For our simulation, we have used $f() = \text{average}()$, to indicate the average between the respective TR scores to determine the efficacy of the interaction between teams. This function could also be $\min()$ and $\max()$.

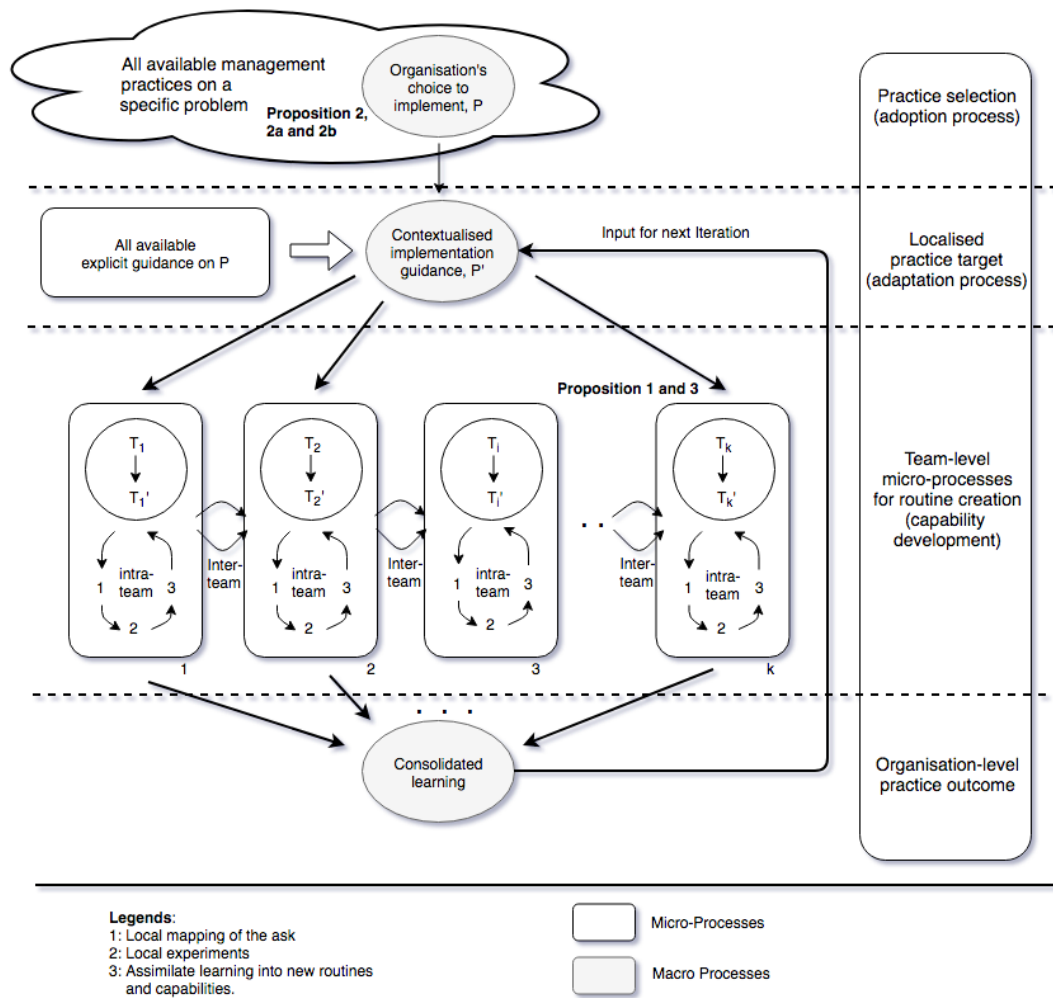


Figure 11: Practice adaptation simulation model

We now move to describe the simulation results from this model. These results provide many insights into how this adaptation and routine generation activity unfolds at a team-level.

4.6 Results

We modelled TR for both intra- and inter- team interactions in order to understand how an organisation adapts its routines and capabilities to a new practice and how it changes the practice. The simulation is run for 500 iterations, where each iteration was with a different practice and a different organisation representing true random sampling. Such a setup accounts for practice adaptation for different

practices in different organisations and attempts to measure how it pans out overall and how does the differences in TR play a role. The results show (Figure 12) that organisational TR aids an organisation to adapt and learn a new practice (proposition 1). We see a positive relationship implying that the ability to learn increases with the TR. We had proposed that organisations with higher TR profiles were better at integrating newer MI practices, which is thus confirmed by our simulation results.

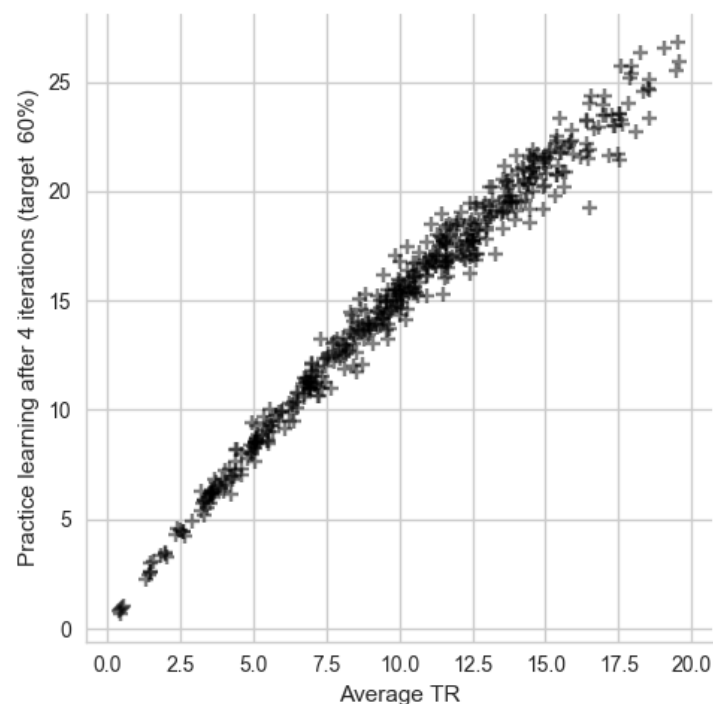


Figure 12: Organisational team responsiveness vs Practice learning

We also counted the number of iteration cycles it took for a reasonable proportion²⁵ of the practice to be absorbed by the organisation. In Figure 13, we

²⁵ By reasonable proportion we mean a substantial part of the practice is now absorbed within the organisation to be considered a successful implementation. For our simulations we used 40, 50, 60, 70 and 80%. The results here showcase the figures for 60%, while others are shared within Appendix **Error! Reference source not found..**

see that organisations with higher levels of TR on average required much fewer cycles to learn a practice. This means that organisations with higher TR have abilities that make them effective when changing for practice adaptation and generating routines and capabilities is necessary. On the other end, organisations where the organisational TR was low, would many times approach the abort condition and be not able to converge successfully to the desired outcome, within a set number of iterations. In this scenario of no conversion, the results imply that the organisation will be left with significantly reduced levels of benefits that came from adopting a practice. Although, Figure 13 reconfirms the first proposition, but the variations in the vertical dispersion, given a TR, is a natural observation of interest for us that leads to the following propositions 2, 2a and 2b.

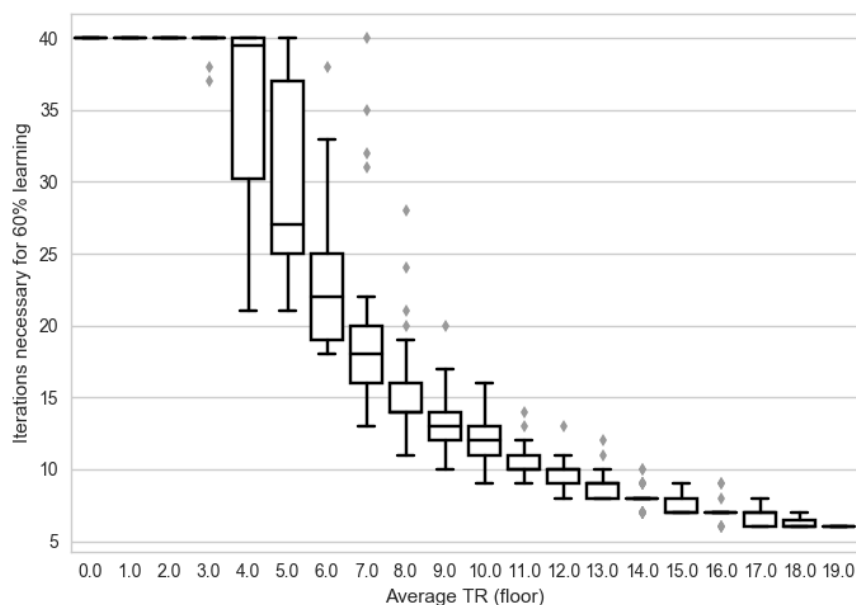


Figure 13: Organisational team responsiveness vs Iteration count

This dispersion of iterations necessary to learn appears to be dependent on the practice in consideration. We see some organisations integrate practices in fewer iterations while some taking too many of them. We also see organisations not able to integrate practices tending to abort the process after a fixed number of

iterations. This would be natural in business as when organisations give up on the pursuit of integrating a practice or accept the limited implementation to be able to reap partial benefits. Interestingly, this variation is more prevalent in the lower TR ranges. In comparison, organisations with higher TR scores seem to be able to integrate any practice usually within a small number of iterations.

This variation of TR's across organisations also leads to our next observation. We can see in Figure 14 that team-wide heterogeneity with respect to TR scores bring much consistent and predictable learning outcomes for organisations with respect to incoming practices. So, the wider the range of TR scores, the more predictable and stable is the adoption process, which means the number of cycles necessary to integrate can be reasonably forecasted, and accordingly, the necessary effort and resources to make a practice work for an organisation. Alternatively, on the other end of the spectrum, for organisations which are homogeneous in their range of TR scores (proposition 3), their TR range tends to directly correlate with their ability to successfully integrate a practice. Therefore, for organisations with low TR scores, adaptation is more of a straight hit or a miss game.

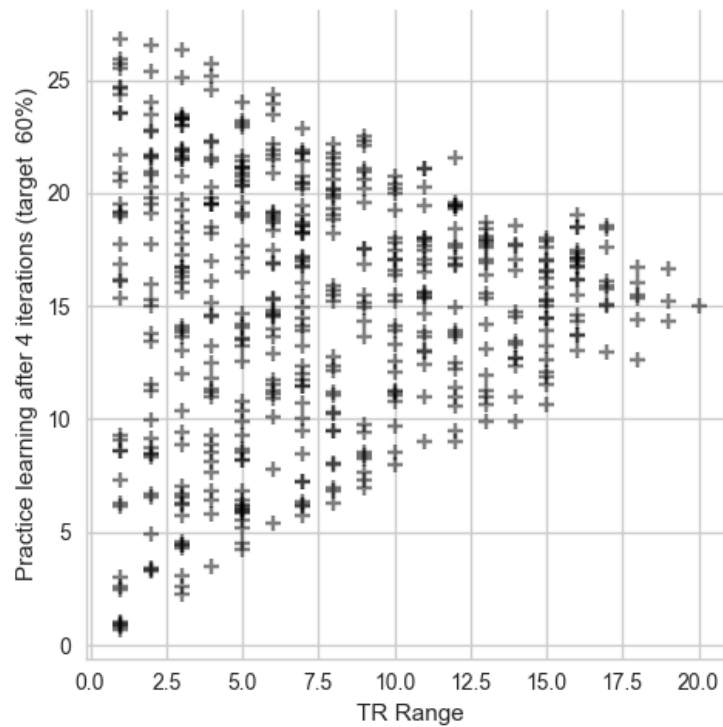


Figure 14: Range of organisational team responsiveness vs Practice adaptation gain

4.7 Discussion

Even though management innovations retain their attractiveness for providing a sustainable competitive advantage (Mol and Birkinshaw, 2009; Roberts and Amit, 2003), the high failure rate for the implementation of management innovations (Beer, 2003; Beer and Nohria, 2000; Choi and Behling, 1997; Dooley and Flor, 1998; O'Mahoney, 2007) raises questions as to why implementation of MI is so difficult. Given the considerable investments in management innovations, the persistent lack of understanding of the causal mechanisms asks for research. This study shows that an organisation's internal attributes may be responsible for it being able to successfully implement a practice, or not. An organisation's ability to change existing and generate new routines is necessary to be effective in adapting a new management practice. This study contributes to our understanding of the process of MI adaptation and

the adoption process (Damanpour and Schneider, 2006; Damanpour and Wischnevsky, 2006; Mol and Birkinshaw, 2009).

Consistent with the extant literature, our model shows how organisational knowledge is generated by learning a new MI practice. A similar theoretical contribution based in psychological and cognitive science was put forward recently by Fiol and O'Connor (2017) on unlearning and re-learning of organisational routines, but we extend the mechanism to adaptation of management innovations. This occurs through an iterative process of new patterns of learning and unlearning routines resulting in a new logic for the organisation (Fiol and O'Connor, 2017). Routines are repetitive patterns of interactions that represent successful solutions to specific problems (Feldman and Pentland, 2003). These patterns of interaction reside in group behaviour, and certain sub-routines may be residing in individual behaviour. Further, the changes are expected to be endogenous as having an internal cause or origin and being gradual in nature. Both aspects were included in our model with organisational routines and an internal team-level construct. Since multiple teams are involved to various extent in adapting an MI practice, the team learning is distributed across the organisation (Cohen et al., 1996; Zollo and Winter, 2002). This is another rationale for why MI implementation is challenging because it is near impossible to envision and get a holistic overview of how the multiple teams within an organisation adapt, how an organisation will look after adoption, and where in this “whole” new learned knowledge stored.

The model considered the variation within TR scores within an organisation, and their interactions, instead of collectivist approaches, which Felin and Foss (2004) point out as limitations of organisational routines. Our model achieves avoiding a collectivist approach by adopting a micro-foundations approach on team interactions. As an example, we took the inter-team responsiveness to be the average of the TR's for the teams, therefore carrying a weight into the learning ability of a team by design. Having said this, organisations which have a relatively higher proportion of energetic and enterprising teams may be able to operate with

an even higher order rate of learning. With respect to the model, this would mean modelling the interactions with a maximum function.

Our model includes several propositions. Proposition 1 (Figure 12) proffered TR to be correlated with the ability of an organisation to adapt a practice, perhaps linear. However, the results suggest it to be non-linear. There could be explanations, one at each end of the spectrum. On one end, too many changes together in successive iterations combined with a higher rate of TR, introduces higher levels of re-learning within teams and affect its ability to learn a practice. This could be a situation where an organisation is aiming for more than its capacity to handle and absorb the learning and adapting its routines (Huber, 1991). On the other end, every practice inherently requires a minimum level of TR for the adopting organisation, and thus at lower levels of TR, organisations would struggle to adopt a practice. Beyond the scope of this study, related to both points observed in the results, however more work will be needed into the experimental design to hypothesise and retest.

A key observation in Figure 13 is that almost any practice when offered to a higher TR organisation results in a convergent scenario, but the same cannot be said for the lower half of TR ranges. As seen within the results, in the left half of the figure, the variation in the number of iteration cycles necessary varies widely. This is dependent on the practices as well as on the team compositions. There are some practices for which a team converge much faster, but there are some others, which are difficult to learn when the TR is on the lower side and many times just divergent or impossible to integrate. With these results, we see that TR influences the choices available to an organisation to adopt successfully (proposition 2). It also follows that the opportunities available to low TR organisations may be limited and picking an arbitrary practice may not work well. This extends to proposition 2a such that organisations with low TR can do well, if they were to pick practices that have worked in the past within organisations with TR like them. This result could have a profound impact, as this understanding may help to significantly reduce the effort required to learn and adapt a practice by focusing on the practice choice before beginning implementation. This may

also prevent organisations from ceremonially adopting a practice but never getting the best out of it due to an unreasonable choice at the start (Ansari, Fiss and Zajac, 2010). On the other hand, the results show that organisations which are high on their TR scores are reasonably successful in converging towards an integration of “any” incoming practice (proposition 2b). This is in stark contrast to the previous case, and a welcome guidance for organisations with high TR wishing to be ambitious when selecting a practice.

The observations on a heterogeneous mix of TR scores is also very interesting. We see that the distribution of organisation wide TR scores seems to affect the practice adoption. This brings predictability into the adoption process. The simulation results show that organisations with a reasonable mix of TR profiles across teams are more consistent in adopting new MI practices within a fixed number of iteration cycles. Therefore, organisations which are self-aware of their TR profile mix may be able to rely on their teams, and they may be better at forecasting the necessary resources in effort and time for accomplishing an MI implementation. The variety of TR profiles across teams here is positively correlated with the consistency and the accuracy with which a practice integration can progress. However, a wide range of TR also seems to make it harder for organisations to accomplish adaptation of MI with fewer iterations, which may be linked to the time it takes to diffuse the learning internally.

Additionally, this study also adds a method contribution. Although simulation models are widely used in research on exploration and learning (March, 1991; Miller and Martignoni, 2016; Rodan, 2005), to the best of our knowledge, this model is the first (known) use of the simulation modelling with management innovations. This approach opens up multiple possibilities to extend the model in future research. We aim to open source the toolkit developed for this, so that other researchers can also benefit from this work.

4.7.1 Assumptions and limitations

For this study, we have modelled the adopting organisations to have an arbitrary TR, and no input from the organisations, which may have successfully adopted a

given practice in the past. Organisations seem more likely to adopt working MI practices from organisations, which are like them in some way as belonging to the same industry/sector. Therefore, the age of an organisation and the age and size of an industry/sector may in practice influence its TR.

Another limitation within our model is that we have assumed that all teams are affected to a similar extent and at the same time. The changes may be affecting some teams more than the others, depending on the MI practice in question. In addition, sometimes MI changes are introduced on the fringes and then phased up to the whole organisation (Hamel, 2006). Both aspects, even if modelled, could be challenging to operationalise for an empirical test, because it would require a substantial sample for the same practice to draw any useful conclusions in line with the organisational variations simulated.

We have also assumed a uniform distribution when randomising of team composition within our model. Teams with extreme TR scores on both the extremes could be rare. A next level model could assume a normal distribution for the teams so that we get a more realistic distribution. This could be improved in future models, if the typical distribution of team and team composition were known. We believe this is a significant and valuable area of research as different industries, sectors, geographies and culture would have an impact on how team composition and attributes vary.

4.7.2 Managerial implications

The work has important organisational and managerial applications. An organisation may have an advantage, if it is aware of its organisational team responsiveness as an attribute. It may be able to increase its chances of success, when a new practice is being considered. This is because this knowledge translates into at least two different ways; selecting MI that match its TR or raising its TR. A reasonable attempt to adapt a new MI can be made when it is being introduced and more is known about the practice's suitability and possible mitigations necessary. Mitigations against the MI limitations, which may be apparent or may inevitably transpire. This helps in getting a genuine attempt in

integrating the practice. Raising TR within an organisation is the second main implication as higher TR provides organisations with more freedom of choice and allows to explore even those MI that are challenging for competitors with lower TR. In addition, raising TR within an organisation does not have to be a broad change that encompasses all teams as positive results in adaptation are already achieved by focusing on few teams' TR which raises the organisational range of TR and increases predictability of adaptation outcome.

4.8 Conclusions and avenues for future research

In this paper, we focused on the adoption and assimilation of management innovations within organisations. The problem context was premised on the higher rates of failure (Beer, 2003; Choi and Behling, 1997; Dooley and Flor, 1998; Mamman, 2009; O'Mahoney, 2007) and builds on organisations' inability to successfully copy MI practices verbatim and the need for adaptations to organisational contexts (Ansari, Fiss and Zajac, 2010; Rogers, 1995). MI practices carry a lot of tacit input and social baggage from wherever they were initially developed or have travelled from (Lillrank, 1995). This tacit and social endowment coupled with the fact that adoptions are longitudinal endeavours (Hamel, 2006) made us pick simulation modelling to be an appropriate methodology to study the process.

We proposed a model on the development of team routines and capabilities that is based on team-level learning with respect to MI practice adoption, and how these changes come about, relying on procedural knowledge, the often tacit operating knowledge for organisational activities (Cohen and Bacdayan, 1994). We developed a model on gathering and learning this knowledge through a team-level construct "Team Responsiveness" (TR).

With this approach, we could capture the inherent uncertainty and complexity when a large number of actors and effects are at play and the change is longitudinal, which impedes deployment of a controlled experimental design. Since the practice is an MI practice, and cannot be expected to have a precise practice configuration or, a template to work everywhere without contextualisation

(Ansari et al. 2010), we modelled the learning at a team level. We expected the model to converge towards some fitness by adapting the practice and developing/modifying internal routines and capabilities. We conclude that organisations with high TR display an advantage over organisations with low TR.

Within the challenges which MI practices bring when they are introduced to an organisation, we see a direct relationship between TR and the speed and ability to accept/reject a new incoming MI practice. We also developed some guidance for the organisation, when it is scouting for a new practice to bring in, if it is aware of its operating TR. A high TR organisation may be able to be more open and ambitious when choosing the practice and even be successful in assimilating it. On the other hand, for organisations with a low TR, it may be better to search for a high cultural and organisational fit of a practice, before progressing. Additionally, we also modelled if TR has a role to play in successful practice adoption when an organisation brings in a mature and well-known practice.

MI practices have strong tacit and social components and are very unlike faster technology adoption initiatives. Hence, they take time, and the teams correspondingly have to transfer the learning into routines of practice. If the practices are introduced together or in quick succession, the organisation may not be able to transfer the adaptations into beneficial practices (Eisenhardt and Martin, 2000). Intuitively we believe that more experiments translate into more learning which helps make something work, but contrary to this thinking, excessive experimentation may be counterproductive (Levitt and March, 1988). Also, a concentration of new strategic MI initiatives over a small period will inevitably increase the number of decisions which are required (Klarner and Raisch, 2013) leading to information overload. Attempting to do too much together may be detrimental to the resultant benefits expected of MI adoption. So, what determines the balance? Does team responsiveness influence the success adopting multiple MI?

It has been noted that a change effort is often interleaved with periods of stability so that the learning is absorbed and routinised in a "to be" configuration to be

effective (Feldman and Pentland, 2003; Klarner and Raisch, 2013). This is an area which could be modelled with an additional time period element brought into the model in-between iterations. Another possibility is related to the observation that the success chances of a typical incoming MI practice are highly path dependent, therefore whatever precedes the change may have an impact. This could be another opportunity for exploration with the simulation model to generate an enhanced theoretical framework for a series/chain of new practices into the organisation.

Further, following from diffusion model from Ansari, Fiss and Zajac, (2010) we could model different degrees of fidelity and extensiveness²⁶ and explore their relationship with team responsiveness. As an example, we could hypothesise that organisations with high TR may be able to implement a practice extensively with coverage for full feature set, while low TR organisations may only choose to implement certain features, but perhaps with high fidelity.

With an increased understanding and following this work with an empirical study, it will be possible to develop a probabilistic model for success chances of an MI practice given an organisation and the practice under consideration. This method of setting up a priori estimator for potential success may be a future area of research given an organisation and a practice. Such a model could generate a multitude of field possibilities, e.g. inputs in the investment thesis for a new MI practice, which the organisation considers adoptingt, before any implementation.

To sum, we extend the literature on MI by conceptualising why adoption efforts fail and how team responsiveness can explain divergent success rates of

²⁶ Fidelity relates to “whether the adapted practice resembles or deviates in kind from the features of the previous version of the practice as it is transmitted” and Extensiveness refers to “whether the degree of practice implementation is greater or lesser than that of the previous version of the practice” (Ansari, Fiss and Zajac, 2010: 71-72).

organisations and suggest approaches to raise consistency and reliability of adaptations and implementation.

4.9 References

- Aggarwal, V.A., Posen, H.E. and Workiewicz, M. (2015) *Adaptive Capacity and the Dynamics of Operational Capabilities.*, INSEAD Working paper series.
- Ansari, S.M., Fiss, P.C. and Zajac, E.J. (2010) 'Made to fit: How practices vary as they diffuse', *Academy of Management Review*, 35(1), pp. 67–92.
- Barney, J. and Felin, T. (2013) 'What Are Microfoundations?', *Academy of Management Perspectives*, 27(2), pp. 138–155.
- Becker, M.C., Lazaric, N., Nelson, R.R. and Winter, S.G. (2005) 'Applying organizational routines in understanding organizational change', *Industrial and Corporate Change*, 14(5), pp. 775–791.
- Beer, M. (2003) 'Why Total Quality Management Programs Do Not Persist: The Role of Management Quality and Implications for Leading a TQM Transformation.', *Decision Sciences*, 34(4), pp. 623–642.
- Beer, M. and Eisenstat, R.A. (2000) 'The Silent Killers of Strategy Implementation and Learning', *Sloan Management Review*, 41(4), pp. 29–40.
- Beer, M. and Nohria, N. (2000) 'Cracking the code of change.', *Harvard Business Review*, 78(3), pp. 133–141.
- Birkinshaw, J., Hamel, G. and Mol, M.J. (2008) 'Management Innovation', *Academy of Management Review*, 33(4), pp. 825–845.
- Birkinshaw, J. and Mol, M.J. (2006) 'How Management Innovation Happens.', *MIT Sloan Management Review*, 47(4), pp. 81–88.
- Bloom, N. and Reenen, J. Van (2007) 'Measuring and explaining management practices across firms and countries', *Quarterly Journal of Economics*, CXXII(4), pp. 1351–1408.
- Bourgeois, L.J. and Eisenhardt, K.M. (1988) 'Strategic Decision Processes in High Velocity Environments: Four Cases in the Microcomputer Industry', *Management Science*, 34(7), pp. 816–835.
- Brown, S.L. and Eisenhardt, K.M. (1997) 'The Art of Continuous Change: Linking Complexity Theory and Time-Paced Evolution in Relentlessly Shifting Organizations', *Administrative Science Quarterly*, 42(1), pp. 1–34.
- Canato, A., Ravasi, D. and Phillips, N. (2013) 'Coerced practice implementation in cases of low cultural fit: Cultural change and practice adaptation during the implementation of six sigma at 3M', *Academy of Management Journal*, 56(6), pp. 1724–1753.
- Chattoe-Brown, E. (1998) 'Just How (Un)realistic Are Evolutionary Algorithms As Representations of Social Processes?', *Journal of Artificial Societies and Social Simulation*, 1(3), pp. 1–37.

Choi, T. and Behling, O. (1997) 'Top managers and TQM success: One more look after all these years.', *The Academy of Management Executive*, 11(1), pp. 37–47.

Cohen, D. and Bacdayan, P. (1994) 'Organizational Routines Are Stored As Procedural Memory: Evidence from a Laboratory Study', *Organization Science*, 5(4), pp. 554–568.

Cohen, M.D., Burkhart, R., Dosi, G., Egidi, M., Marengo, L., Warglien, M. and Winter, S.G. (1996) 'Routines and other recurring action patterns of organization: Contemporary research issues', *Industrial and Corporate Change*, 5(3), pp. 653–698.

Cohen, M.D., March, J.G. and Olsen, J.P. (1972) 'A Garbage can Model of Organizational Choice', *Administrative Science Quarterly*, 17(1), pp. 1–25.

Cohendet, P. and Llerena, P. (2003) 'Routines and incentives: the role of communities in the firm', *Industrial and Corporate Change*, 12(2), pp. 271–297.

Damanpour, F. and Aravind, D. (2012) 'Managerial Innovation: Conceptions, Processes, and Antecedents', *Management and Organization Review*, 8(2), pp. 423–454.

Damanpour, F. and Schneider, M. (2006) 'Phases of the Adoption of Innovation in Organizations: Effects of Environment, Organization and Top Managers¹', *British Journal of Management*, 17(3), pp. 215–236.

Damanpour, F. and Wischnevsky, J.D. (2006) 'Research on innovation in organizations: Distinguishing innovation-generating from innovation-adopting organizations', *Journal of Engineering and Technology Management*, 23(4), pp. 269–291.

Davis, J., Eisenhardt, K.M. and Bingham, C. (2007) 'Developing theory through Simulation Methods', *Academy of Management Review*, 32(2), pp. 480–499.

Davis, J., Eisenhardt, K.M. and Bingham, C. (2009) 'Optimal Structure, Market Dynamism, and the Strategy of Simple Rules', *Administrative Science Quarterly*, 54, pp. 413–452.

Dingsøyr, T., Nerur, S., Balijepally, V. and Moe, N.B. (2012) 'A decade of agile methodologies: Towards explaining agile software development', *Journal of Systems and Software*, 85(6), pp. 1213–1221.

Dooley, K. and Flor, R. (1998) 'Perceptions of success and failure in TQM initiatives', *Journal of Quality Management*, 3(2), pp. 157–174.

Edmondson, A.C. (2003) 'Framing for learning: Lessons in successful technology implementation', *California Management Review*, 45(2), pp. 34–54.

Eisenhardt, K.M. (1989) 'Making Fast Strategic Decisions in High-Velocity Environments.', *Academy of Management Journal*, 32(3), pp. 543–576.

- Eisenhardt, K.M. and Martin, J.A. (2000) 'Dynamic capabilities: what are they?', *Strategic Management Journal*, 21, pp. 1105–1121.
- Eisenhardt, K.M. and Tabrizi, B.N. (1995) 'Accelerating Adaptive Processes: Product Innovation in the Global Computer Industry', *Administrative Science Quarterly*, 40(1), pp. 84–110.
- Feldman, M.S. (2000) 'Organizational Routines as a Source of Continuous Change', *Organization Science*, 11(6), pp. 611–629.
- Feldman, M.S. and Pentland, B.T. (2003) 'Reconceptualizing Organizational Routines as a Source of Flexibility and Change', *Administrative Science Quarterly*, 48(1), pp. 94–118.
- Felin, T. and Foss, N. (2004) *Organizational Routines A Sceptical Look.*, DRUID Working Paper Series.
- Felin, T. and Foss, N.J. (2005) 'Strategic organization: A field in search of micro-foundations', *Strategic Organization*, 3(4), pp. 441–455.
- Fiol, C.M. and O'Connor, E.J. (2017) 'Unlearning established organizational routines – Part I', *Learning Organization*, 24(1), pp. 13–29.
- Golini, R., Kalchschmidt, M. and Landoni, P. (2015) 'Adoption of project management practices: The impact on international development projects of non-governmental organizations', *International Journal of Project Management*, 33 Elsevier Ltd and International Project Management Association, pp. 650–663.
- Gong, Y., Kim, T.Y., Lee, D.R. and Zhu, J. (2013) 'A multilevel model of team goal orientation, information exchange, and creativity', *Academy of Management Journal*, 56(3), pp. 827–851.
- Grant, R.M. (1996) 'Prospering as in Integration Environments: Organizational Capability Knowledge', *Organization Science*, 7(4), pp. 375–387.
- Hamel, G. (2006) 'The why, what, and how of management innovation', *Harvard Business Review*, 84(2), pp. 72–84.
- Harrison, J.R., Lin, Z., Carroll, G.R. and Carley, K.M. (2007) 'Simulation modeling in organizational and management research', *Academy of Management Review*, 32(4), pp. 1229–1245.
- Helfat, C. and Winter, S.G. (2011) 'Untangling Dynamic and Operational Capabilities: Strategy for the (N)ever-changing world', *Strategic Management Journal*, 32(June), pp. 1243–1250.
- Hollen, R.M. a., Van Den Bosch, F. a. J. and Volberda, H.W. (2013) 'The Role of Management Innovation in Enabling Technological Process Innovation: An Inter-Organizational Perspective', *European Management Review*, 10(1), pp. 35–50.
- Huber, G.P. (1991) 'Organizational Learning: The Contributing Processes and the Literatures', *Organization Science*, 2(1), pp. 88–115.

- Huber, G.P. and Lewis, K. (2010) 'Cross-understanding: Implications for group cognition and performance', *Academy of Management Review*, 35(1), pp. 6–26.
- Jacobs, G., Witteloostuijn, A. van and Christe-Zeyse, J. (2013) 'A theoretical framework of organizational change', *Journal of Organizational Change Management*, 26(5), pp. 772–792.
- Kanter, R.M. (2004) *Confidence: How winning streaks and losing streaks begin and end*. New York: Crown Business.
- Kaplan, R.S. and Norton, D.P. (2006) 'How to implement a new strategy without disrupting your organization', *Harvard Business Review*, 84(3), pp. 100–109.
- Kennedy, M.T. and Fiss, P.C. (2009) 'Institutionalization, framing, and diffusion: the logic of TQM adoption and implementation decisions among U.S. hospitals', *Academy of Management Journal*, 52(5), pp. 897–918.
- Kimberly, J.R. and Evanisko, M.J. (1981) 'Organizational innovation: the influence of individual, organizational, and contextual factors on hospital adoption of technological and administrative innovations.', *Academy of Management Journal*, 24(4), pp. 689–713.
- Klarner, P. and Raisch, S. (2013) 'Move To the Beat — Rhythms of Change and Firm Performance', *Academy of Management Journal*, 56(1), pp. 160–184.
- Klein, K.J. and Sorra, J.S. (1996) 'The Challenge of Innovation Implementation', *The Academy of Management Review*, 21(4), pp. 1055–1080.
- Law, A.M. and Kelton, D.W. (1991) *Simulation Modeling and Analysis*. 2nd edn. New York: McGraw-Hill.
- Levinthal, D. (2000) 'Organizational capabilities in complex worlds', in Dosi, G., Nelson, R. and Winter, S. G. (eds.) *The Nature and Dynamics of Organizational Capabilities*. Oxford, U.K., pp. 363–379.
- Levitt, B. and March, J.G. (1988) 'Organizational learning', *Annual Review of Sociology*, 14, pp. 319–340.
- Lillrank, P. (1995) 'The Transfer of Management Innovations from Japan.', *Organization Studies*, 16(6) De Gruyter, pp. 971–989.
- Madhavan, R. and Grover, R. (1998) 'From embedded knowledge to embodied knowledge : New product development as knowledge management', *Journal of Marketing*, 62(October), pp. 1–12.
- Mahadevan, D., Jacobs, P. and Schlatmann, B. (2017) ING's agile transformation, *McKinsey Quarterly*, (1), pp. 1–10.
- Mamman, B.A. (2009) 'From Management Innovation to Management Practice', *International Journal of Organizational Innovation*, 2(2), pp. 22–60.
- March, J.G. (1991) 'Exploration and Exploitation in Organizational Learning',

Organization Science, 2(1), pp. 71–87.

Michel, A., By, R.T. and Burnes, B. (2013) 'The limitations of dispositional resistance in relation to organizational change', *Management Decision*, 51(4), pp. 761–780.

Miller, K.D. and Martignoni, D. (2016) 'Organizational learning with forgetting: Reconsidering the exploration – exploitation tradeoff', *Strategic Organization*, 14(1), pp. 53–72.

Mol, M.J. and Birkinshaw, J. (2009) 'The sources of management innovation: When firms introduce new management practices', *Journal of Business Research*, 62(12), pp. 1269–1280.

Nelson, R. and Winter, S.G. (1982) *An evolutionary theory of economic change*. Cambridge, Massachusetts: The Belknap Press of Harvard University Press.

Nyström, M.E., Höög, E., Garvare, R., Weinehall, L. and Ivarsson, A. (2013) 'Change and learning strategies in large scale change programs', *Journal of Organizational Change Management*, 26(6), pp. 1020–1044.

O'Mahoney, J. (2007) 'The diffusion of management innovations: The possibilities and limitations of memetics', *Journal of Management Studies*, 44(8), pp. 1324–1348.

Parker, S.K. and Axtell, C.M. (2001) 'Seeing another viewpoint: Antecedents and outcomes of employee perspective taking', *Academy of Management Journal*, 44(6), pp. 1085–1100.

Pentland, B.T., Feldman, M.S., Becker, M.C. and Liu, P. (2012) 'Dynamics of Organizational Routines: A Generative Model', *Journal of Management Studies*, 49(8), pp. 1484–1508.

Pentland, B.T. and Rueter, H.H. (1994) 'Organizational Routines as Grammars of Action', *Administrative Science Quarterly*, 39(3), pp. 484–510.

Repenning, N.P. (2002) 'A Simulation-Based Approach to Understanding the Dynamics of Innovation Implementation', *Organization Science*, 13(2), pp. 109–127.

Rigby, D.K., Sutherland, J. and Takeuchi, H. (2016) 'Embracing agile', *Harvard Business Review*, 94(5), pp. 40–50.

Roberts, P. and Amit, R. (2003) 'The Dynamics of Innovative Activity and Competitive Advantage: The Case of Australian Retail Banking, 1981 to 1995', *Organization Science*, 14(2), pp. 107–122.

Rodan, S. (2005) 'Exploration and exploitation revisited: Extending March's model of mutual learning', *Scandinavian Journal of Management*, 21(4 Special Issue), pp. 407–428.

Rogers, E.M. (1995) *Diffusion of innovations*. New York: The Free Press.

- Salvato, C. and Rerup, C. (2018) *Routine Regulation: Balancing Conflicting Goals in Organizational Routines*.
- Sarin, S. and McDermott, C. (2003) 'The Effect of Team Leader Characteristics on Learning, Knowledge Application, and Performance of Cross-Functional New Product Development Teams', *Decision Sciences*, 34(4), pp. 707–739.
- Sastry, M.A. (1997) 'Problems and Paradoxes in a model of punctuated Organizational change', *Administrative Science Quarterly*, 42, pp. 237–275.
- Slappendel, C. (1996) 'Perspectives on innovation in organizations', *Organization Studies*, 17(1), pp. 107–129.
- Spear, S. and Bowen, H.K. (1999) 'Decoding the DNA of the Toyota Production System', *Harvard Business Review*, 77(5), pp. 96–106.
- Takeuchi, H. and Nonaka, I. (1986) 'The new new product development game', *Harvard Business Review*, (Jan-Feb), pp. 137–146.
- Teece, D.J. (2017) 'Towards a capability theory of (innovating) firms: Implications for management and policy', *Cambridge Journal of Economics*, 41(3), pp. 693–720.
- Teece, D.J., Pisano, G. and Shuen, A. (1997) 'Dynamic capabilities and strategic management', *Strategic management journal*, 18(7), pp. 509–533.
- Volberda, H.W., Van Den Bosch, F.A.J. and Heij, C. V. (2013) 'Management Innovation: Management as Fertile Ground for Innovation', *European Management Review*, 10(1), pp. 1–15.
- Walker, R.M., Damanpour, F. and Devece, C.A. (2011) 'Management Innovation and Organizational Performance: The Mediating Effect of Performance Management.', *Journal of Public Administration Research and Theory*, 21(2) Oxford University Press, pp. 367–386.
- West, M. and Farr, J.L. (1990) 'Innovation at work', in West, M. and Farr, J. L. (eds.) *Innovation and creativity at work: psychological and organizational strategies*. Chichester: John Wiley & Sons, Ltd, pp. 3–13.
- Westphal, J., Gulati, R. and Shortell, S. (1997) 'Customization or conformity? An institutional and network perspective on the content and consequences of TQM adoption', *Administrative Science Quarterly*, 42, pp. 366–394.
- Winter, S.G. (2003) 'Understanding dynamic capabilities', *Strategic Management Journal*, 24, pp. 991–995.
- Winter, S.G. (2000) 'The Satisficing Principle in Capability Learning', *Strategic Management Journal*, 21(10–11), pp. 981–996.
- Winter, S.G. and Szulanski, G. (2001) 'Replication as Strategy', *Organization Science*, 12(6), pp. 730–743.

Wolfe, R. (1994) 'Organizational Innovation: Review, Critique and Suggested Research Directions', *Journal of management studies*, 31(3), pp. 405–431.

Zollo, M. and Winter, S.G. (2002) 'Deliberate Learning and the Evolution of Dynamic Capabilities', *Organization Science*, 13(3), pp. 339–351.

Zott, C. (2003) 'Dynamic capabilities and the emergence of intraindustry differential firm performance: insights from a simulation study', *Strategic Management Journal*, 24(2), pp. 97–125.

4.10 Appendices

4.10.1 Structural design and data structures

For the paper, we took inspiration from March (1991), where the author used a similar multi-dimensional structure to model organisational code, in Individuals, which represented the organisation’s normative beliefs. Similarly, in our model, the set of teams is a multi-dimensional representation of its current routines and capabilities. A sample of attributes which could be encoded within these is illustrated in Figure 9.

The following figure illustrates the modelled practice (P) and the organisation (O), as a collection of teams (T).

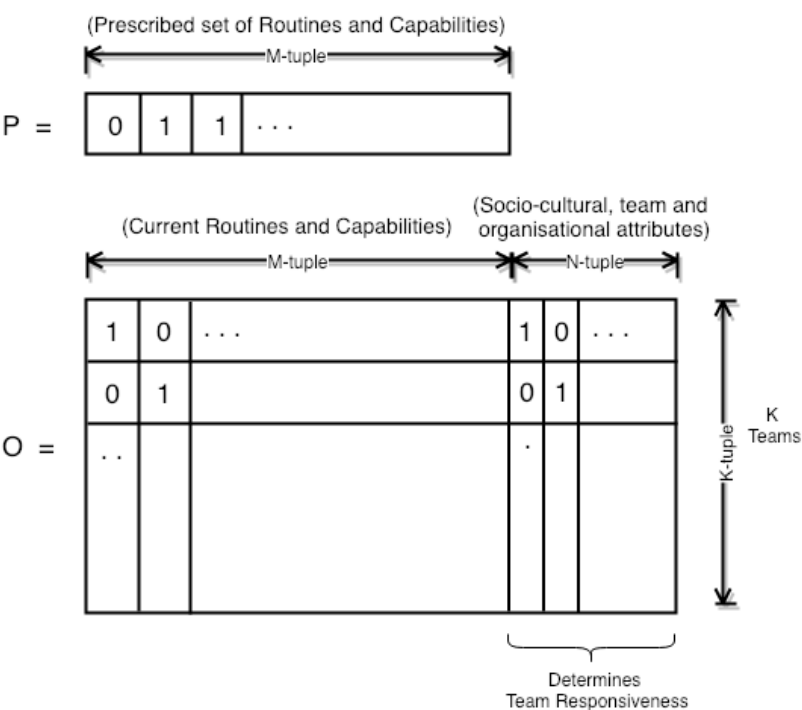


Figure 15: Practice and teams data structure for the model

As a measure for TR for every team, we have used a simple approach to count the number of 1’s within this N-tuple. Therefore, TR for a team would range from [0, N]. This acts as a reasonable indicator for the strength of TR for every team.

Since an organisation is a composition of its constituent teams, our model uses a simple representation that allows analysing how teams within an organisation would pick a new incoming MI practice. As encoded above an organisation, O could be thought of as a projection of the actual organisational routines, capabilities and its socio-cultural, team and organisational attributes.

In this study team responsiveness of the organisation (OTR) is encoded as the average across an organisations teams' TR, which determines the rate at which the organisation can generate new information and modify its routines to adapt with the new MI practice.

Organisational TR would also range from [0, N].

An example of how the above-described practice and teams are structured is illustrated below, as well as a sample calculation for team's individual TR's and for the organisational TR.

A set of K teams could be represented as: (where Length, M = 16, N = 8), as:

$$T(1) = (1110 1000 1000 1011 | 1010 1110)$$

$$T(2) = (1000 0110 1100 0101 | 1000 0000)$$

.

.

$$T(K) = (1000 1100 0010 1100 | 1001 1000)$$

Similarly, for a smaller set of K = 8 teams (M = 8, N = 4), individual team's TR scores, the Organisation O and Organisational TR would be calculated as:

$$T(1) = (1 0 1 1 1 0 0 1 | 1 0 1 1) \quad TR = 1 + 0 + 1 + 1 = 3$$

$$T(2) = (1 0 1 0 1 1 0 0 | 1 1 0 0) \quad TR = 1 + 1 + 0 + 0 = 2$$

$$T(3) = (0 1 1 1 0 1 0 0 | 1 0 0 0) \quad TR = 1 + 0 + 0 + 0 = 1$$

$$T(4) = (1 1 1 0 1 0 0 0 | 1 1 1 1) \quad TR = 1 + 1 + 1 + 1 = 4$$

$$T(5) = (1\ 0\ 0\ 0\ 1\ 1\ 1\ 0\ |0\ 0\ 0\ 1) \quad TR = 0 + 0 + 0 + 1 = 1$$

$$T(6) = (0\ 0\ 0\ 1\ 0\ 1\ 0\ 1\ |0\ 1\ 0\ 1) \quad TR = 0 + 1 + 0 + 1 = 2$$

$$T(7) = (1\ 0\ 1\ 0\ 1\ 0\ 1\ 0\ |0\ 0\ 1\ 1) \quad TR = 0 + 0 + 1 + 1 = 2$$

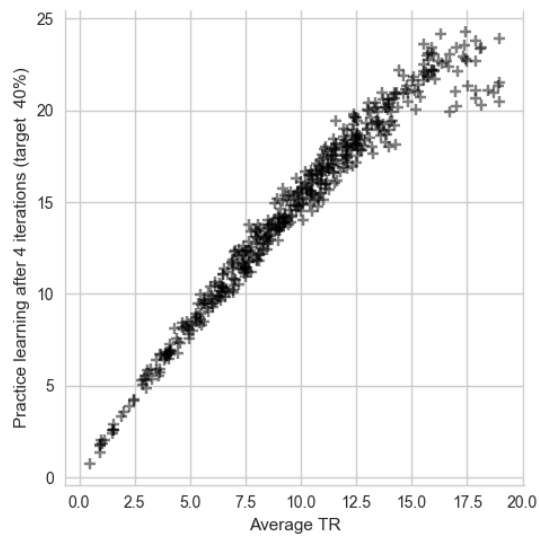
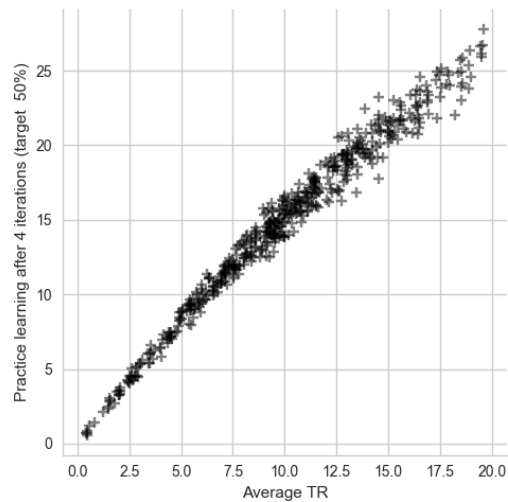
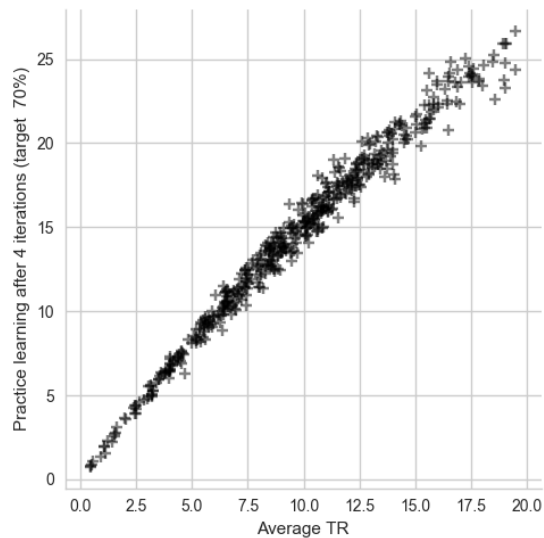
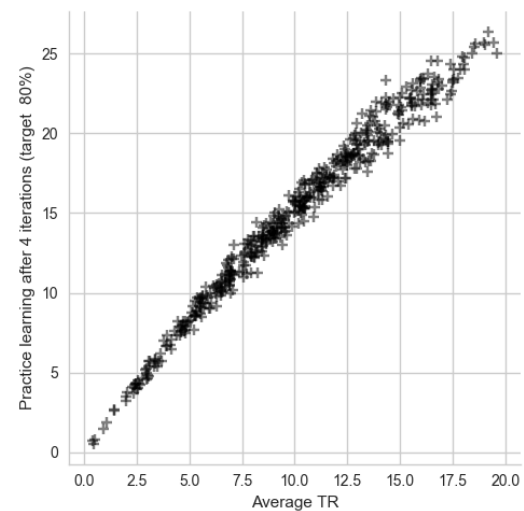
$$T(8) = (1\ 0\ 0\ 0\ 0\ 0\ 1\ 1\ |0\ 1\ 1\ 1) \quad TR = 0 + 1 + 1 + 1 = 3$$

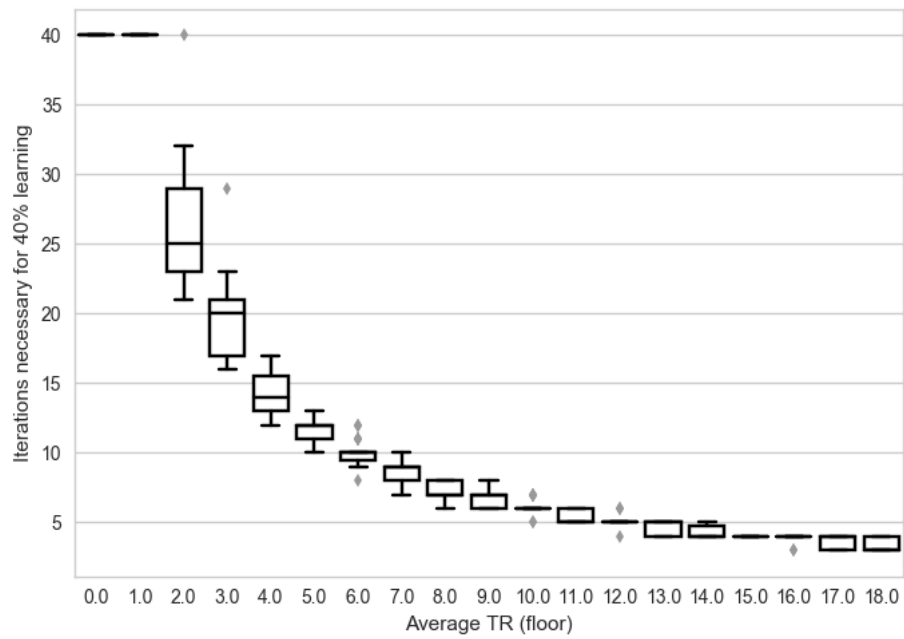
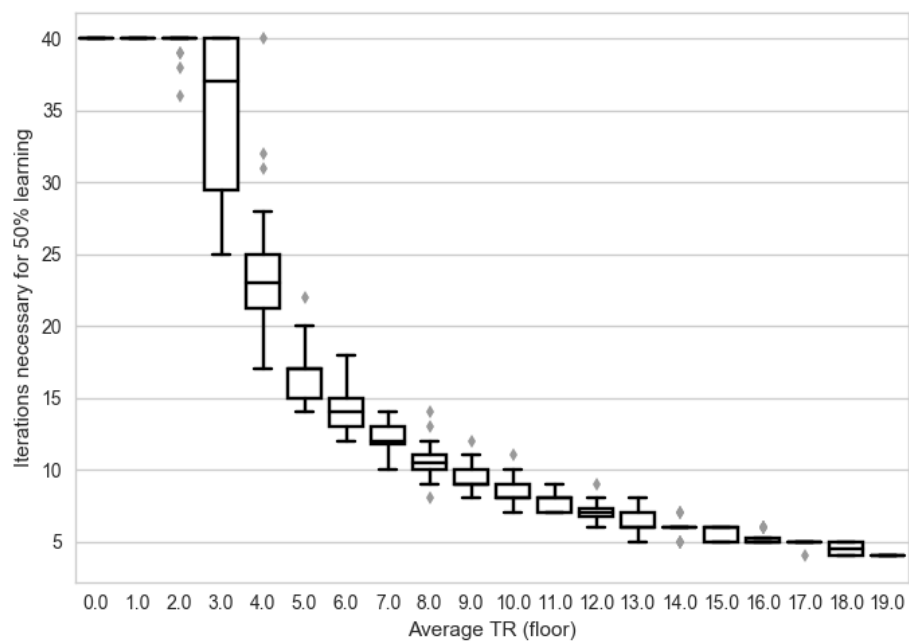
$$\textit{Average TR} = \frac{3 + 2 + 1 + 4 + 1 + 2 + 2 + 3}{8}$$

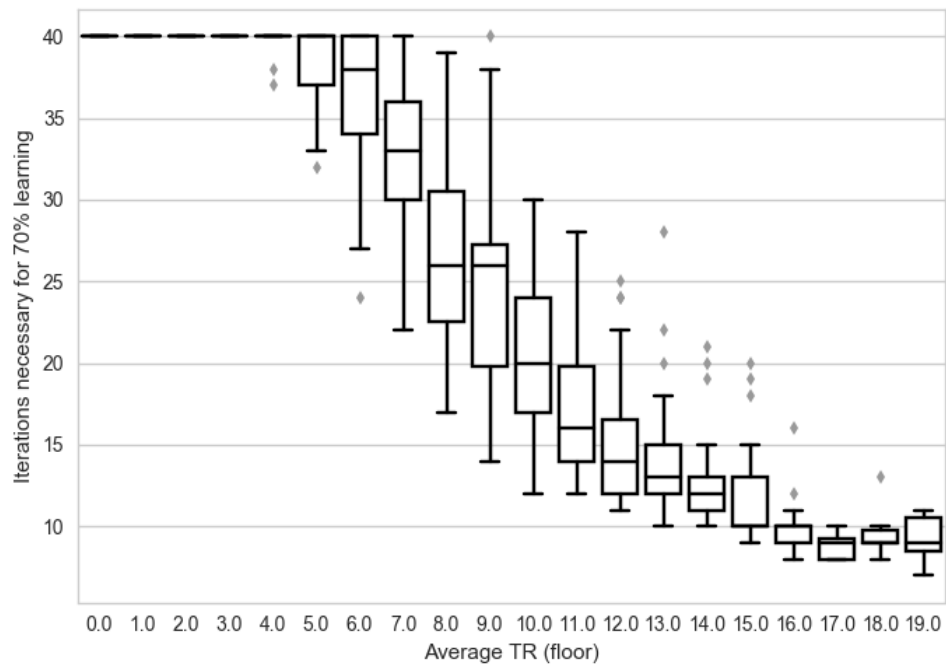
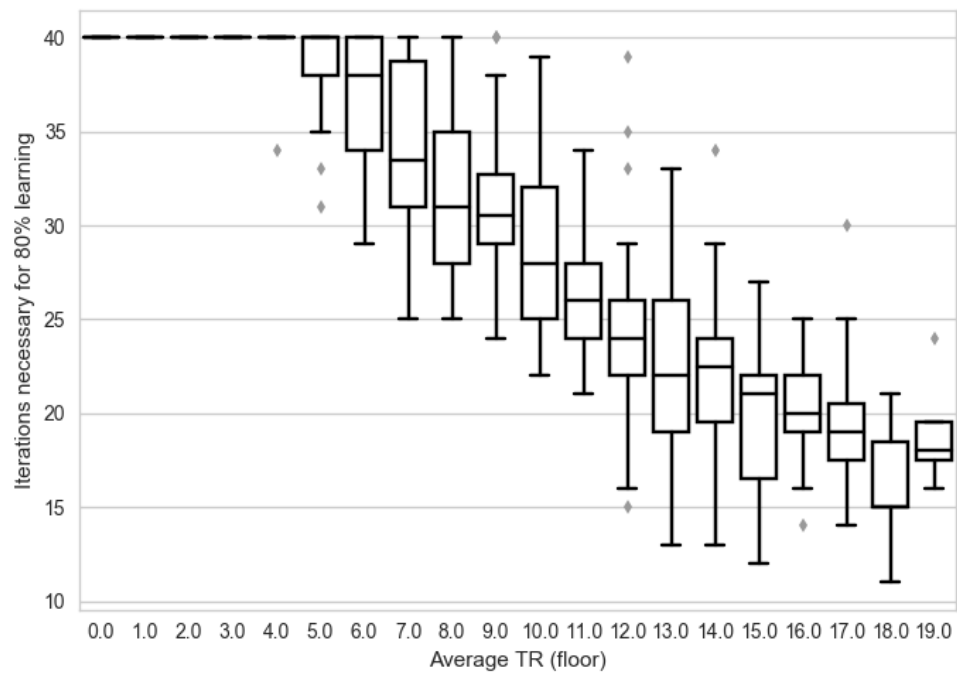
$$= \frac{18}{8} = 2.25$$

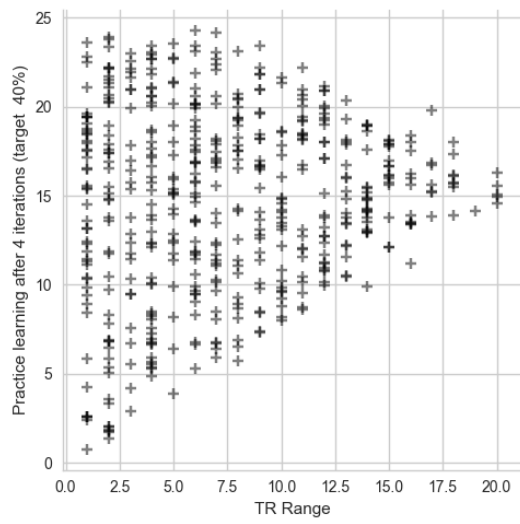
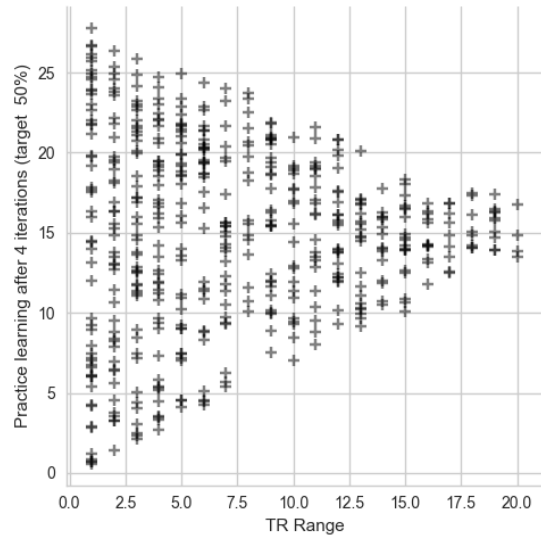
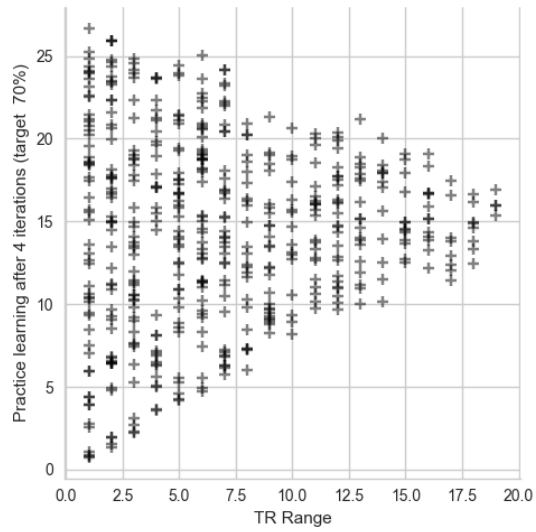
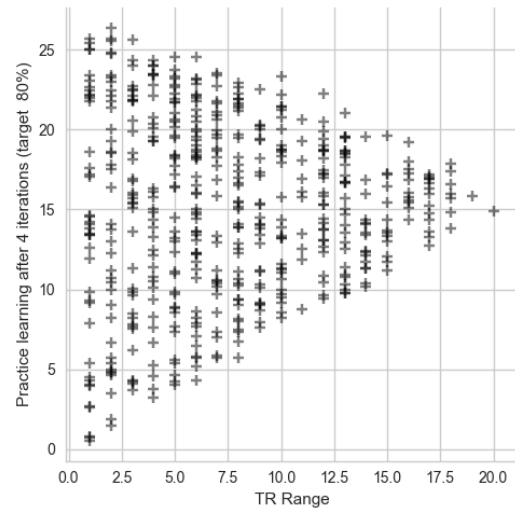
4.10.2 Sensitivity analysis: results with other practice absorption levels

In addition to an absorption level of 60% for a practice to be deemed successfully integrated, we also completed simulation for 40%, 50%, 70% and 80%. Results as indicated below, show expected behaviour.









5 General discussion and conclusion

In this work, I looked into improving our understanding on the adaptation and adoption of management innovations within organisations. The work is of importance because even though all innovations take time and are resource intensive, management innovations are particularly involved and complex with respect to the attention, resources and change they require to be successfully implemented (Lillrank, 1995). This is covered in detail in chapter 2. Adding to this, a lot has been written about high failure rates of management innovations (Beer, 2003; Choi and Behling, 1997; Dooley and Flor, 1998; Mamman, 2009; O'Mahoney, 2007), therefore an investigation and contribution is important and valuable.

In this chapter, I first begin with a critical comparison of where the management innovation literature fits in the gamut of general innovation literature and where it borrows from. This section particularly emphasises how organisations adopt technology innovations (Koul and Eydgahi, 2017) and compares it with how a management innovation is adopted (Ansari, Fiss and Zajac, 2010; Mamman and Kamoche, 2007), the central topic of the thesis. Following from this, even though I structured the 3 core chapters in this dissertation as full papers, a section summarises the main findings and contributions. Following the implications of this work for practice a final section concludes the dissertation.

5.1 Linking management innovation with other innovation literature

In this section I first look into general innovation as a research area and various strands it covers. This is followed by some classification on innovation types and their differences. Next, the section covers how these different types of innovations are adopted within organisations and what challenges this process entails. Finally, I position where my research work belongs and the supporting framework I use and build on with.

Innovation is a broad area encompassing the invention, implementation, commercialisation and diffusion of new products, processes, systems, services and technology (Garud, Tuertscher and Van de Ven, 2013; Gopalakrishnan and Damanpour, 1994; Kanter, 1988). Innovation as a process is seen in a positive light, as there exists a pro-innovation bias within organisations and top management teams (TMT) to try out new innovations (Rogers, 1995; Wischnevsky and Damanpour, 2006). Innovation within organisations includes both technical as well as management (non-technical) innovations (Damanpour and Evan, 1984), basically distinctive on the aspects of technology and social structure respectively (Damanpour (1991)). Technical innovations are defined as "...pertaining to products, services and production process technology... related to basic work activities and can concern either product or process" (Damanpour, 1991: 560), something perceived as "a means of changing and improving the performance of a technical system of an organisation" (Damanpour and Evan, 1984: 394). On the other hand, Birkinshaw, Hamel and Mol (2008: 825) define management innovation as "the invention and implementation of a management practice, process, structure or techniques which is new to the state of the art and has been developed to further organisation goals", thereby making a difference within the managerial system of an organisation (Damanpour and Aravind, 2012).

Innovations can be incremental or radical (Carlo et al., 2014; Roberts, 2007), sometimes even disruptive in the way it positions the solution and aims for the market (Christensen, 1998; Christensen, Raynor and Rory, 2015). Within the innovation literature, radical innovation comes close to a management innovation in its typical characteristics, signifying disruptive, sometime ground-breaking, non-incremental innovations (Davila, Epstein and Shelton, 2006). One could see MIs similarities with radical innovations, because they also carry a significant "degree of newness" (Hamel, 2006; Kimberly and Evanisko, 1981) and are a departure from the status quo (Birkinshaw and Mol, 2006; Lines et al., 2015). Contrary to technology innovations, which are usually invented-inhouse or licensed from other organisations (Teece, 1986, 1996), a management

innovations are borrowed/inspired from the reference group (Mol and Birkinshaw, 2009), and targets improving its internal management operations (Hamel, 2006).

The invention of any innovation starts with experimentation and is iterative, but the context and the environment of the experimentation differs for technical and non-technical innovations. For technology innovations, this is usually a controlled exercise, often in a laboratory, while management innovation come about within a social and cultural context within an organisation (Birkinshaw and Mol, 2006). The implications of this are far reaching because this introduces challenges when these innovations are adopted by another organisation. A central tenet of this observation being that technology innovations are codifiable, but management innovations at best can only be specified at an abstract level along with typical practices which helped earlier organisations adopted them as templates (Kennedy and Fiss, 2009; Westphal, Gulati and Shortell, 1997). A relatively large proportion of un-codifiable tacit knowledge makes management innovations impervious to copy and operationalise within an organisation to positive outcomes.

All innovations require integrations and adaptations when they are adopted into newer organisations for the first time. For technology innovations, this takes form of integration back into the existing systems, new operating procedures and documentation (Eisenhardt and Tabrizi, 1995; Henderson and Clark, 1990). The adoption process for MIs questions existing capabilities and the ingrained assumptions which may not be conducive to its successful adoption. This makes MIs more difficult to adopt than technology innovations (Evangelista and Vezzani, 2010), bringing its own unique set of challenges to overcome in order to operationalise within an organisation. These challenges are a relatively higher amount of implicit complexity due to abstract specification and tacit content (Lillrank, 1995), a proportionally higher amount of new change with respect to how things are done before adoption (Kimberly and Evanisko, 1981; Slappendel, 1996), and usually take a long period of time to get institutionalised and deliver results (Birkinshaw, Hamel and Mol, 2008; Evangelista and Vezzani, 2010) (These were explained in detail in chapter 2, section 2.5). The implications of this

is that management innovations cannot be copied verbatim and need modifications to be useful in the new context (Ansari, Fiss and Zajac, 2010; Lillrank, 1995; Rogers, 1995). Even though templates may be available from other organisations, who have been successful with them, no two organisations are the same and therefore adoption requires work before the management innovation can deliver (Kennedy and Fiss, 2009; Kraatz and Zajac, 1996; Westphal, Gulati and Shortell, 1997), also making every adaptation initiative towards a new context unique (Michel, By and Burnes, 2013; Nyström et al., 2013). As an example, a new way of developing a steel cast can be codified as a process and copied across organisations and industries, but a new management innovation like six sigma in a new organisation is not available as a recipe and therefore shows high failure rate (Canato, Ravasi and Phillips, 2013).

My work does not target the invention literature (Roberts, 2007; Teece, 1996; Tushman and Anderson, 2007) or, the diffusion literature (Abrahamson, 1991, 1996; Rogers, 1995), but the precursor step, where the management innovation is adapted within the organisation as a part of the adoption process (Damanpour and Schneider, 2006; Klein and Sorra, 1996). Adaptation is partially addressed by the literature on organisational learning (Levitt and March, 1988) and organisational change (Al-Haddad and Kotnour, 2015; Becker et al., 2005; Gondo and Amis, 2013), but the research focus and understanding of the adaptation to local organisational context is scarce (Ansari, Fiss and Zajac, 2010; Strang and Kim, 2009), which I aimed to investigate. I utilise organisational routines (Becker, 2004; Feldman and Pentland, 2003; Vogel and Hansen, 2011) as a building block for understanding how management innovation are adapted in the organisation. The choice of using organisational routines is suitable because they have been analysed to aid learning of new routinised behaviour (Aggarwal, Posen and Workiewicz, 2015; Cohen and Bacdayan, 1994) and developing new capabilities (Helfat and Winter, 2011; Levinthal, 2000; Winter, 2003), both of which are essential to bring a new management innovation into an organisation.

5.2 Main findings and contributions

With the overarching aim of improving the understanding of the adaptation phenomenon, this dissertation contributes to three areas. Firstly, I conduct a systematic literature review with a focus around adoption and adaptation of management innovations. Resulting from this review, noticing ambiguity around various definitions and examples cited within the literature, it is difficult to decipher which innovation practices can be classified under the umbrella of a management innovation. Therefore, firstly I propose a set of classification criteria for management innovations. Secondly, from the qualitative findings based on practitioners' perspectives on organisations adapting management innovations, I synthesise a conceptual model explaining the adaptation process, which may guide future research endeavours and practicing managers to increase the success of managing the process. And lastly, the dissertation proposes a new model for the development of team routines and capabilities that deepens our understanding of why organisations differ in their ability to adopt new practices. The model suggests changes to the MI to suit organisational context, as well as changes to the organisational capabilities to support adoption of MI. The model may aid organisations in adapting and learning new management innovation practices. I now cover these contributions in detail.

5.2.1 Classification criteria for management in innovations

Due to the novelty and recency of management innovations as a research area, a lack of clarity obscures what should and should not be classified as a management innovation. After reviewing and synthesising the literature on management innovations, we arrived at a structure with reasonable criteria for MI classification. This work, and how it came about is detailed in chapter 2. According to the proposed classification in this work, for an innovation to be classified as a management innovation, it has to satisfy all of the following three criteria:

- a) It is a relatively large change with respect to the “newness” it brings to the organisation;
- b) Contains a higher amount of implicit tacit complexity such that any guidance is susceptible to misinterpretation, and;
- c) A codified implementation method is not available, and following a prescription is not straightforward due to organisational differences.

5.2.2 Considerations when adapting a management innovation

Adapting a management innovation new to the organisation is complex. It is an exploratory, irregular and multidimensional process, requiring careful navigation to yield benefits. Even though a management innovation change inherits most of the characteristics of a typical change endeavour, it does show some unique features which are amplified and emerged as important within the data. This research contributes to our knowledge on what enables and what hinders successful adaptation, which also has implications for practice.

This qualitative study in chapter 3 generated interesting multiple first order categories. However, some of the emergent aggregate dimensions were atypical from a conventional change management exercise. The emergent dimensions were connectedness with the purpose, contextual orchestration, formation of new localised knowledge, and all this working against the inertial forces within an organisation. The collected data had strong support for connectedness with the purpose, because management innovations are involved and longitudinal processes to deliver value. Leadership support in terms of alignment, resourcing and clarity for the change is consistently expected. A need to be able to contextually synchronise and orchestrate resources also came out strongly. This is necessary both on the people as well as the process dimension because exploration and experiments guide the adaptation process, instead of firm documented guidance. Management Innovations are usually large scale and significant changes to the way the work of management is done, therefore being able coordinate purposefully emerged as an important requirement to be

successful. Extending this, during the adaptation and implementation of a management innovation, a lot of new knowledge and organisational learning is being generated. These are effectively new routines, modifications to existing routines, and similarly for new and modified in-house capabilities to be able to support the practice. All of this is new knowledge and often tacit, therefore the learning which happens within the process is to be given particular attention in order to be successful.

5.2.3 Model for team responsiveness to aid MI adaptation

With the objective of investigating why some organisations are more successful in implement management innovations than others, in chapter 4, I propose a conceptual model of management practice adaptation and implementation within teams. Since the incoming practice is an MI, it relies on adaptation and contextualisation to make work. I contribute to the literature with a model of the development of team routines and capabilities introducing a new construct "team responsiveness" (TR) on how teams go about adapting and learning a practice. In order to achieve this, this study uses organisational routines as a vehicle to define and simulate the inter- and intra-team interactions, generating processual knowledge learned by the teams. In the process, the study generates a framework that helps better understand how team responsiveness relates to adoption choices and outcomes. The framework also provides guidance for organisations that are considering new management innovations and the role organisational team responsiveness plays in selecting a new practice. The model shows how the heterogeneity of team responsiveness is related to the predictability of the success of the adaptation process. The more varied the team responsiveness scores within an organisation, the more stable and predictable is the adaptation process. The TR construct and the propositions require further empirical testing to move towards generalisation and to extend the theory on innovation processes and outcomes towards adapting a management innovation practice.

On the method side, as a precursor to attempting this modelling, I implemented and reproduced March's (1991) model, which gave me confidence and understanding to develop my own for modelling for MI adaptation within organisations. To the best of our knowledge, this model is the first (known) effort to use of simulation modelling to better understand how to adapt incoming management innovation practices in an organisation. This modelling approach opens up considerable opportunities for future research. We aim to make the model and toolkit open source as a framework for others to utilise and develop on.

5.3 Implications for practice and reflections

My research has several practical and relevant managerial implications. Even if a management innovation practice is successful with some organisations, there is no guarantee that it will be successful when adopted by a new organisation in its context. This is corroborated by low success rates for management innovations (Beer, 2003; Beer and Nohria, 2000; Choi and Behling, 1997; Decker et al., 2012; Dooley and Flor, 1998; Hughes, 2011). I have been myself an innovation practitioner within engineering, operations and general management throughout my career. This study generated a lot of clarity on why certain management innovation efforts, in which I was involved, resulted the way they did. The primary managerial implications originating from this work covered in this section are: a) propositions towards the extent of change necessary for adopting a management innovation, the impact of social and culture distance, and the degree of specification; b) guidance for management practitioners considering new management innovations for their organisations originating from a qualitative study; c) benefits based on enhanced awareness of team responsiveness towards developing supporting capabilities and also in practice selection; and d) and guidance towards a tool for MI pre-adoption assessment.

How much change is necessary?

We know that every management innovation requires contextualisation into new organisational context (Ansari, Fiss and Zajac, 2010; Biggs and Smith, 2003).

This requires changes to the practice and to the existing organisational capabilities (Westphal, Gulati and Shortell, 1997). Based on the literature that shows that changes are necessary (Lillrank, 1995; Rogers, 1995) and that large scale changes may be detrimental (Beer, 2003; Choi and Behling, 1997; Dooley and Flor, 1998; Mamman, 2009; O'Mahoney, 2007), we propose that the performance benefits from an MI adoption show an inverted-U with respect to the extent of adaptations it receives. That is, the benefits derived from adopting a management innovation practice starts to reduce with the amount of adaptations. Since adaptations are required both to the practice as well as to the organisational context, the significant changes to the practice take it away from the principles against which it was developed, and large changes to the context may be disruptive to the organisation. Thus a fine balance is required to tune and adapt just to the right level to be able to receive the desired outcome. Further, the shape of the curve could also affect the significance. e.g. if this is discovered to be an inverted-V, or a multi-modal structurally, then this increases significantly in its importance and consideration. Alternately, if it is discovered to be an inverted-U with a flat plateaued top, then it is not as important as the zone of acceptance for the management innovation practice will be wider, and thus acceptable for organisations to be broadly correct with their modifications. Hence, this is important to empirically test.

Impact of social and cultural distance, and specification

We also put forward another proposition that the amount of adaptation necessary is directly proportional to the social and cultural distance between the originating and the adopting organisation. This is important because management innovations have a lot of tacit knowledge embedded within them (Lillrank, 1995), when they were first developed within the originating organisation. Anecdotaly, this has been observed with western organisations aiming to adopt various quality practices from eastern countries and unable to do so effectively (Cusumano, 1988; Young, 1992). This results in organisations' adopting of practices in a ceremonial way (Levin, 2006; Wood and Caldas, 2002) without enough understanding of the underlying belief system and principles of the originating

organisation and then unable to deliver on the expected value. Therefore, this study would help managers considering MIs originating from a culturally and socially different setups. Another consideration is the age of an MI practice and how much is known already on them. The more established and older the practice is, the more is known in terms of what changes works and what does not. That is, some knowledge is available on past attempts, considerations, tweaks and nuances, which all help organisations and managers considering these MIs for the first time, in where to pay attention.

Management innovations are complex

MI adoption for any organisation is a complex endeavour (Hamel, 2006). It is vital to understand the underlying principles and beliefs for the management innovation, before any adoption exercise, in order to generate a favourable adoption outcome (Strang and Kim, 2009; Westphal, Gulati and Shortell, 1997). I can relate to this as I have been part of software teams where the intention was to adopt agile software development methodology, but the fundamental philosophical principles, of what adopting an agile process actually means (<https://agilemanifesto.org/principles.html>) was never understood. e.g. Copying a couple of practice like a stand-up meeting and using Kanban board to track does not make a team agile. Instead, agile software methodology values working software against heaps of documentation; personal interactions to solve local problems, instead of overburdening processes; working together with the customer against agreements and contracts; and finally being reactive to change instead of lot is planning (<https://agilemanifesto.org/>). It has been noted that even though the agile and scrum have been available over the last two decades and has dedicated followers, it has failed to catch on as a mainstream (Turk, France and Rumpe, 2002; Vijayasarathy and Turk, 2012). Therefore an appreciation of what adopting a management innovation actually entails, and an effort in translating the underlying principles and beliefs as practiced within the originating organisation can in some way, aid a positive outcome.

Guidance for practicing managers on bringing new MI innovation

Management innovations requires care, diligence, understanding and tactful orchestration to deliver (Ansari, Fiss and Zajac, 2010). Our qualitative study advances on this objective by focusing on where managers need to pay attention. This study was conducted primarily to enhance on this understanding in the backdrop of low success rates as noticed within the literature (Beer, 2003; Beer and Nohria, 2000; Choi and Behling, 1997; Dooley and Flor, 1998; Hughes, 2011). It is worthy to discuss the two top most findings here as they have significant managerial implications for practice. The first of these was for the leadership to pay special consideration to convey constant support and connectedness with the purpose. As often is seen, even in my personal experience, when an expectation to comply with the new practice is set without enough clarity and training with the practice and employees are being left on their own learn and implement, it does not work. Even if introduced with much fanfare, the excitement quickly fizzles and the day to day business as usual takes over. This is very commonly observed pattern. In one of my previous positions with a large mobile handset manufacturer, we experienced 4 large re-organisations in a span of 5 years, without much support and understanding of why was it important and what does it change and impact. It was confusing and the prevailing thought was that the changes were just brought in without much thought on how it fits the then current environment and what is expected to change and how. Organisation adopting a new MI requires an increased level of constant communication by the leadership and the implementation team to be able to embed the new practice and expectation in, but this is rarely the case, as the data suggests. I do not believe this is difficult to fix, if the management is conscious of the significant impact this has and the potential to make a difference to the management innovation adoption process.

The second factor emerging from the data is the need for careful contextual orchestration. This includes the tactical inadequacies and temporal instabilities which an organisation and managers should seek to avoid in order to increase their chances of successful management innovation adoption. These were mostly team level attributes which could affect the adoption process e.g. changes to the

team (continual reassignment of staff), not providing enough time to settle, attempting/managing multiple practices in parallel etc. All these were clear in the data and inhibit the adoption. Since management innovations require contextualisation towards an organisations way of doing things, this understanding and ability to orchestrate the necessary can be paramount to make or break the effort. Since, new knowledge, new routines and new capabilities are expected to be generated within the adoption process, the process is iterative and experimental, therefore requiring careful handling. Basically, if the managers are cognizant of these inhibitors then something can be done about them to increase the chances.

Delivering an advantage

In the simulation study in chapter 4, I provided a conceptual model to stochastically model an organisations adopting a new management innovation and its adaptation journey. The propositions tested against the model generated guidance for managers towards the choices available to them when adopting a new MI practice. The model focuses builds on a local internal organisation-level factor which could be playing a significant role in MI adoption chances for an organisation, which we propose as the Team Responsiveness. When further empirically tested, the knowledge of this factor can help practicing managers choose an appropriate practice suitable to their organisation. An organisation may already benefit, if it is aware of its organisational team responsiveness. This can potentially increase its chances of successful MI adoption, as it helps the organisation in two distinct ways. Firstly, it helps an organisation to choose an MI which is appropriate from organisations which are similar to it in its TR profile, in order to increase its ow chances adopting a practice already successful with such organisations. Secondly, if an organisation is aware of its finer level shortcomings then it may do something about it before attempting to adopt an MI which has better chances working with organisations with a different TR profile. As an example, if an organisation is abreast with its shortcomings, then some mitigations e.g. capabilities like resourcing/expertise can be sourced focusing on specific aspects to increase its chances for successful adoption. This opens a

wider spectrum for a low TR organisation to choose an MI because it may be able to compensate and mitigate for the apparent shortcomings. In either case the knowledge of one's organisational TR helps.

Tool for MI pre-adoption assessment

Knowledge of an organisation's TR can also have a profound impact and implication on the investment decision for any organisation wishing to consider a new management innovation practice. This can be thought of as an instrument/test which generates a probabilistic estimate of an MI adoption chances given an organisation and a practice. This piece of the managerial utility is not complete yet, but my work takes us in this direction. To further pursue this goal, I need to conduct empirical tests related to both team responsiveness as a construct and the model hypothesis with the data from the field. As per current understanding this is expected to be a large scale quantitative analysis. From the qualitative work in chapter 3, we now know what to ask in the quantitative questionnaire, and also a better understanding of the focus areas for collection of data.

5.4 Reflections on the PhD journey

The doctoral journey has been an exciting endeavour. it has helped me not only to develop a thorough understanding on various aspects around my research area of interest, management innovations, but also the discipline, soft skills and hard rigor necessary to complete a doctoral dissertation. In the following paragraphs, I will take you through some of my key learning points, during my doctoral journey so far. This also includes my strengths and weaknesses as a researcher, and some personal observations which I have noticed and reflected on along the way.

The journey

Being a part-time student, with a family and full-time work, this journey has been tough but rewarding. I started on the programme with a general interest in innovation, and specifically in management innovation. This curiosity came about

during my MBA programme, particularly why old management methods like formal hierarchy, top down strategy/appraisal/budgeting and in general ways to lead, organise, coordinate and motivate etc. do not work in the new fast moving knowledge age. An age where an employee's passion and emotional attachment with his work carries a premium. This remained and still remains the guiding motivation for my work.

In the beginning of this journey, the Cranfield research coursework was very well designed, and introduced various topics at appropriate junctions of my learning. e.g. I have learned statistics as part of my earlier academic studies, but doing a complete end to end quantitative assignment was very fulfilling experience. It gave me confidence to attempt a quantitative simulation as a part of my research. Another session on mixed methods was very helpful as it helped me visualise a structure for research which would engage multiple faculties, and also generate a multitude of angles to look at my research problem. Somewhere midway, during my research studies, the school of management opened up possibilities for researchers to organise their dissertations as individual paper-based structure, which I found an appropriate format for my work where I planned to do qualitative as well as a quantitative studies on adaptation and adoption of management innovation into individual research studies, which were closely related but may not be conducive to be assembled as a monolithic piece of work. This new structure helped.

Coming from a numerical background, and my research now being in social sciences – I faced a steep learning curve in changing my mind set for management research. During this time, I received an opportunity to meet many academics and ensuing discussions and learning from them has only strengthened my will to do a good job towards this dissertation and continue learning and contributing on this path onwards in the future. I also aimed to improve my critical reasoning and refining my thought, and I can see this effort has helped me in the correct direction. Sharing my time between work and the academic endeavour was challenging, and sometimes I felt very low, but these

were short periods, and I was soon back with full enthusiasm to do the best possible in my circumstances.

Learning points and reflections

I came into the process as a management practitioner. Many a times, while reading papers in my area of research, I was able to relate with my own work experience. As an example, I could readily appreciate the premium paid to team communication and role of leadership, when a new change is being rolled out. From my research I discovered that this emphasis was even greater when an organisations embarks on a journey to adapt new management innovations into their context. As another example I could see the Mintzberg and Waters's (1985) concept of emergent strategy in my day to day work, where middle managers, myself being one of them, play a very critical role in what the organisation ultimately achieves, regardless of what it initially aimed for. This as I observe is particularly true for fast moving industries and my experience stems from working in telecommunications, semiconductors and last 5 years with a start-up. This has helped me connect and relate to the literature in meaningful ways, which I believe was an advantage through this journey.

From an academic viewpoint, in the initial days it was difficult to conceive the concept of a "contribution" I only could relate it to solutions to in-field practitioner issues as something which could yield a contribution. I could not be more limited in my thinking. Over time this changed and the more I read, the more I was able to appreciate that this is not always expected to be ground-breaking, but instead more often something which extends the body of knowledge by building over it. Reading research papers from AMR/AMJ/ASQ/SMJ have also had a profound impact. I started appreciating the clarity and comprehensibility they offer, and I learned how to relate to the intellectual passage the authors must have gone through to understand, research and clarify a complex phenomenon. Sometimes I felt overwhelmed by the level of detail and thoughts in them. I also found the editorial sections very interesting e.g. I accidentally stumbled upon an AMR editorial on "Construct Clarity" by Suddaby (2011) and I found it to be a

gem. In fact, when I looked at other editorial content from past AMR editions, I found other interesting ones in e.g. core building blocks of an AMR article (Lange and Pfarrer, 2017), another one on what is a theoretical contribution (Whetten, 1989), and another on clear writing (Ragins, 2012). All of these were very insightful. These helped me ease into a researcher's way of thinking, but I understand that it is a continuous learning process.

What would I do differently?

On reflection, I see few areas where I could have done a better job and improved my research output. e.g. during the second study, which was a qualitative piece, I used the template analysis (King, 2004) process. Now since this was an inductive study it is extremely difficult to get away from the coder's bias, especially if the coder is coming with a practitioner's background with a similar profile to the respondents, which was true in my case. This made the process very challenging as to choosing the codes and evolve their hierarchical coding. I believe, with some more thought and consultation, this limitation could have been mitigated by engaging an independent coding as well from someone else, perhaps by arranging a mutual reciprocal understanding with another of my peers in a similar situation. This observation in hindsight, but timely steps could have added more credibility and further improved the research study.

I believe that an early start on more reading, more writing and bouncing ideas with colleagues can help any researcher to develop on his research skills. I realised this late and now reflecting back on it, believe this is a great mindset and habit to develop. It even helps to understand more outside your area of work, and indirectly helps refine and sharpen on researchers own ideas and approaches. Over time I have also improved on my critical thinking and aim to continue doing so with more focus and attention. Over the longer term, I wish to develop the ability to deliver narrations and augment my research writing with short case studies and narratives. I see this as an important part of anybody working in management research, where anecdotal evidence and stories help ease the absorption of a phenomenon for the reader, especially when

communicating to practitioner audiences. I believe this will also help me in my future career as well.

What to tell others about research?

Start writing something daily. I believe it is not necessary for this writing to be academic, but more towards clarifying one's own thought process with the writing. I only started within the last 18 months of my PhD work, but upon reflection should have started sooner and I would advise anyone considering a doctoral journey to create this habit from day 1.

Another of the key reflections was that I believe the process is very challenging for part-time students. Not only because of working full time in parallel, but also missing interactions with other doctoral students, the cross-proliferation of ideas, and social support in general. Luckily, I was able to get through with a great mentor in my supervisor and a supportive supervisory panel, but it is hard. In one way this situation could I believe be better addressed in some cases if the student is able to connect his work project and his academic project in some way. If these both are orthogonal, it is indeed a difficult journey to continue and keeping the motivation levels up, but totally worth it.

5.5 Conclusion

The process of adaptation of MI is complex, longitudinal, and fraught with failure, but successful MI adoption can have a significant impact for the adopting organisation in generating a sustainable competitive advantage (Ganter and Hecker, 2012; Mol and Birkinshaw, 2009; Roberts and Amit, 2003). Even though the measurement of performance originating from the adoption of an MI is a longitudinal effort (Hamel, 2006), the understanding of the adaptation process is an important area to investigate. This has been emphasised as an area of future research in the research literature (Ansari, Fiss and Zajac, 2010; Rogers, 1995), but we are not aware of research addressing this important issue. My research has important implications for practice and addressing the challenge of high failure rates.

Even if we know of a success for MI practices elsewhere, there are no guarantees that its benefits would become available when it was adopted by another organisation (Ansari, Fiss and Zajac, 2010; Wood and Caldas, 2002). Within abundant failure cases of MI adoption (Beer, 2003; Choi and Behling, 1997; Dooley and Flor, 1998; Mamman, 2009; O'Mahoney, 2007), the lack of understanding of the adaptation process is an important shortcoming in current theorising on adoption of MI. This study contributes to better understanding of the adaptation process within the MI adoption process. The proposed conceptual model and the findings of the simulation model clarify how management innovation adaptation and adoption within an organisation unfolds. The findings of this thesis also lead to several areas for future research work.

5.6 References

- Abrahamson, E. (1991) 'Managerial Fads and Fashions: The Diffusion and Rejection of Innovations', *Academy of Management Review*, 16(3), pp. 586–612.
- Abrahamson, E. (1996) 'Management Fashion', *Academy of Management Review*, 21(1), pp. 254–285.
- Aggarwal, V.A., Posen, H.E. and Workiewicz, M. (2015) *Adaptive Capacity and the Dynamics of Operational Capabilities.*, INSEAD Working paper series.
- Al-Haddad, S. and Kotnour, T. (2015) 'Integrating the organizational change literature: a model for successful change', *Journal of Organizational Change Management*, 28(2), pp. 234–262.
- Ansari, S.M., Fiss, P.C. and Zajac, E.J. (2010) 'Made to fit: How practices vary as they diffuse', *Academy of Management Review*, 35(1), pp. 67–92.
- Becker, M.C. (2004) 'Organizational routines: a review of the literature', *Industrial and Corporate Change*, 13(4), pp. 643–678.
- Becker, M.C., Lazaric, N., Nelson, R.R. and Winter, S.G. (2005) 'Applying organizational routines in understanding organizational change', *Industrial and Corporate Change*, 14(5), pp. 775–791.
- Beer, M. (2003) 'Why Total Quality Management Programs Do Not Persist: The Role of Management Quality and Implications for Leading a TQM Transformation.', *Decision Sciences*, 34(4), pp. 623–642.
- Beer, M. and Nohria, N. (2000) 'Cracking the code of change.', *Harvard Business Review*, 78(3), pp. 133–141.
- Biggs, S. and Smith, S. (2003) 'A Paradox of learning in project cycle management and the role of organizational culture', *World Development*, 31(10), pp. 1743–1757.
- Birkinshaw, J., Hamel, G. and Mol, M.J. (2008) 'Management Innovation', *Academy of Management Review*, 33(4), pp. 825–845.
- Birkinshaw, J. and Mol, M.J. (2006) 'How Management Innovation Happens.', *MIT Sloan Management Review*, 47(4), pp. 81–88.
- Canato, A., Ravasi, D. and Phillips, N. (2013) 'Coerced practice implementation in cases of low cultural fit: Cultural change and practice adaptation during the implementation of six sigma at 3M', *Academy of Management Journal*, 56(6), pp. 1724–1753.
- Carlo, J.L., Gaskin, J., Lyytinen, K. and Rose, G.M. (2014) 'Early vs. late adoption of radical information technology innovations across software development organizations: An extension of the disruptive information technology innovation model', *Information Systems Journal*, 24, pp. 537–569.

Choi, T. and Behling, O. (1997) 'Top managers and TQM success: One more look after all these years.', *The Academy of Management Executive*, 11(1), pp. 37–47.

Christensen, C.M. (1998) *The Innovator's dilemma*. Boston, Mass.: Harvard Business School Press.

Christensen, C.M., Raynor, M.E. and Rory, M. (2015) 'What is disruptive innovation', *Harvard Business Review*, 93(12), pp. 44–53.

Cohen, D. and Bacdayan, P. (1994) 'Organizational Routines Are Stored As Procedural Memory: Evidence from a Laboratory Study', *Organization Science*, 5(4), pp. 554–568.

Cusumano, M. (1988) 'Manufacturing innovation: lessons from the Japanese auto industry', *Sloan Management Review*, 30(1), pp. 29–39.

Damanpour, F. (1991) 'Organizational Innovation: a Meta-Analysis of Effects of Determinants and Moderators.', *Academy of Management Journal*, 34(3), pp. 555–590.

Damanpour, F. and Aravind, D. (2012) 'Managerial Innovation: Conceptions, Processes, and Antecedents', *Management and Organization Review*, 8(2), pp. 423–454.

Damanpour, F. and Evan, W. (1984) 'Organizational innovation and performance: the problem of" organizational lag"', *Administrative science quarterly*, 29, pp. 392–409.

Damanpour, F. and Schneider, M. (2006) 'Phases of the Adoption of Innovation in Organizations: Effects of Environment, Organization and Top Managers1', *British Journal of Management*, 17(3), pp. 215–236.

Davila, T., Epstein, M. and Shelton, R. (2006) *Making innovation work: How to manage it, measure it, and profit from it*. Upper Saddle River: Wharton School Publishing.

Decker, P., Durrand, R., Mayfield, C., McCormack, C., Skinner, D. and Perdue, G. (2012) 'Predicting Implementation Failure in Organization Change', *Journal of Organizational Culture, Communications and Conflict*, 16(2), pp. 39–59.

Dooley, K. and Flor, R. (1998) 'Perceptions of success and failure in TQM initiatives', *Journal of Quality Management*, 3(2), pp. 157–174.

Eisenhardt, K.M. and Tabrizi, B.N. (1995) 'Accelerating Adaptive Processes: Product Innovation in the Global Computer Industry', *Administrative Science Quarterly*, 40(1), pp. 84–110.

Evangelista, R. and Vezzani, A. (2010) 'The economic impact of technological and organizational innovations. A firm-level analysis', *Research Policy*, 39(10) Elsevier B.V., pp. 1253–1263.

Feldman, M.S. and Pentland, B.T. (2003) 'Reconceptualizing Organizational Routines as a Source of Flexibility and Change', *Administrative Science Quarterly*, 48(1), pp. 94–118.

Ganter, A. and Hecker, A. (2012) 'Deciphering antecedents of organizational innovation', *Journal of Business Research*, Elsevier Inc., pp. 1–10.

Garud, R., Tuertscher, P. and Van de Ven, A.H. (2013) 'Perspectives on Innovation Processes', *The Academy of Management Annals*, 7(1), pp. 775–819.

Gondo, M.B. and Amis, J.M. (2013) 'Variations in Practice Adoption: The Roles of Conscious Reflection and Discourse', *Academy of Management Review*, 38(2), pp. 229–247.

Gopalakrishnan, S. and Damanpour, F. (1994) 'Patterns of generation and adoption of innovation in organizations: Contingency models of innovation attributes', *Journal of Engineering and Technology Management*, 11, pp. 95–116.

Hamel, G. (2006) 'The why, what, and how of management innovation', *Harvard Business Review*, 84(2), pp. 72–84.

Helfat, C. and Winter, S.G. (2011) 'Untangling Dynamic and Operational Capabilities: Strategy for the (N)ever-changing world', *Strategic Management Journal*, 32(June), pp. 1243–1250.

Henderson, R. and Clark, K. (1990) 'Architectural innovation: The reconfiguration of existing product technologies and the failure of established firms', *Administrative Science Quarterly*, 35(1), pp. 9–30.

Hughes, M. (2011) 'Do 70 Per Cent of All Organizational Change Initiatives Really Fail?', *Journal of Change Management*, 11(4), pp. 451–464.

Kanter, R. (1988) 'When a thousand flowers bloom: Structural, collective, and social conditions for innovation in organization', *Research in organizational behaviour*, 10, pp. 169–211.

Kennedy, M.T. and Fiss, P.C. (2009) 'Institutionalization, framing, and diffusion: the logic of TQM adoption and implementation decisions among U.S. hospitals', *Academy of Management Journal*, 52(5), pp. 897–918.

Kimberly, J.R. and Evanisko, M.J. (1981) 'Organizational innovation: the influence of individual, organizational, and contextual factors on hospital adoption of technological and administrative innovations.', *Academy of Management Journal*, 24(4), pp. 689–713.

King, N. (2004) 'Using templates in the thematic analysis of texts', in Cassell, C. and Symon, G. (eds.) *Essential Guide to Qualitative Methods in Organizational Research*. London: Sage Publications Ltd, pp. 256–270.

Klein, K.J. and Sorra, J.S. (1996) 'The Challenge of Innovation Implementation', *The Academy of Management Review*, 21(4), pp. 1055–1080.

Koul, S. and Eydgahi, A. (2017) 'A systematic review of technology adoption frameworks and their applications', *Journal of Technology Management and Innovation*, 12(4), pp. 106–112.

Kraatz, M.S. and Zajac, E.J. (1996) 'Exploring the Limits of the New Institutionalism: The Causes and Consequences of Illegitimate Organizational Change', *American Sociological Review*, 61(5), pp. 812–836.

Lange, D. and Pfarrer, M.D. (2017) 'Editors' comments: Sense and structure - The core building blocks of an AMR article', *Academy of Management Review*, 42(3), pp. 407–416.

Levin, D.Z. (2006) 'Institutionalism, learning, and patterns of selective decoupling: The case of Total Quality Management', *Annual meeting of the Academy of Management*. Newark, NJ, pp. 1–38.

Levinthal, D. (2000) 'Organizational capabilities in complex worlds', in Dosi, G., Nelson, R. and Winter, S. G. (eds.) *The Nature and Dynamics of Organizational Capabilities*. Oxford, U.K., pp. 363–379.

Levitt, B. and March, J.G. (1988) 'Organizational learning', *Annual Review of Sociology*, 14, pp. 319–340.

Lillrank, P. (1995) 'The Transfer of Management Innovations from Japan.', *Organization Studies*, 16(6) De Gruyter, pp. 971–989.

Lines, B.C., Sullivan, K.T., Smithwick, J.B. and Mischung, J. (2015) 'Overcoming resistance to change in engineering and construction: Change management factors for owner organizations', *International Journal of Project Management*, 33(5) Elsevier B.V., pp. 1170–1179.

Mamman, B.A. (2009) 'From Management Innovation to Management Practice', *International Journal of Organizational Innovation*, 2(2), pp. 22–60.

Mamman, B.A. and Kamoche, K. (2007) *Management Innovations and their modifications*. Manchester, Management in development - Working paper series, University of Manchester.

March, J.G. (1991) 'Exploration and Exploitation in Organizational Learning', *Organization Science*, 2(1), pp. 71–87.

Michel, A., By, R.T. and Burnes, B. (2013) 'The limitations of dispositional resistance in relation to organizational change', *Management Decision*, 51(4), pp. 761–780.

Mintzberg Henry and Waters James A. (1985) 'Of Strategies, Deliberate and Emergent', *Strategic Management Journal*, 6, pp. 257–272.

Mol, M.J. and Birkinshaw, J. (2009) 'The sources of management innovation: When firms introduce new management practices', *Journal of Business Research*, 62(12), pp. 1269–1280.

- Nyström, M.E., Höög, E., Garvare, R., Weinehall, L. and Ivarsson, A. (2013) 'Change and learning strategies in large scale change programs', *Journal of Organizational Change Management*, 26(6), pp. 1020–1044.
- O'Mahoney, J. (2007) 'The diffusion of management innovations: The possibilities and limitations of memetics', *Journal of Management Studies*, 44(8), pp. 1324–1348.
- Ragins, B. (2012) 'Reflections on the craft of clear writing', *Academy of Management Review*, 37(4), pp. 493–501.
- Roberts, E.B. (2007) 'Managing invention and innovation', *Research-Technology Management*, Jan-Feb, pp. 35–54.
- Roberts, P. and Amit, R. (2003) 'The Dynamics of Innovative Activity and Competitive Advantage: The Case of Australian Retail Banking, 1981 to 1995', *Organization Science*, 14(2), pp. 107–122.
- Rogers, E.M. (1995) *Diffusion of innovations*. New York: The Free Press.
- Slappendel, C. (1996) 'Perspectives on innovation in organizations', *Organization Studies*, 17(1), pp. 107–129.
- Strang, D. and Kim, Y.-M. (2006) 'The Diffusion and Domestication of Managerial Innovations: The Spread of Scientific Management, Quality Circles, and TQM between the United States and Japan', in Ackroyd, S., Batt, R., Thompson, P. and Tolbert, P. S. (eds.) *The Oxford Handbook of Work and Organization*. Oxford University Press, pp. 1–16.
- Suddaby, R. (2011) 'Construct clarity in theories of management and organization', *Academy of Management Review*, 35(3), pp. 346–357.
- Teece, D.J. (1996) 'Firm organization, industrial structure, and technological innovation', *Journal of Economic Behavior and Organization*, 31, pp. 193–224.
- Teece, D.J. (1986) 'Profiting from technological innovation: Implications for integration, collaboration, licensing and public policy', *Research policy*, 15(February), pp. 285–305.
- Turk, D., France, R. and Rumpe, B. (2002) 'Limitations of agile software processes', *Proceedings of the Third International Conference on extreme Programming and Agile Processes in Software Engineering*, pp. 43–46.
- Tushman, M.L. and Anderson, P. (2007) 'Technological Discontinuities and Organizational Environments', *Administrative Science Quarterly*, 31(3), pp. 439–465.
- Vijayasarathy, L. and Turk, D. (2012) 'Drivers of agile software development use: Dialectic interplay between benefits and hindrances', *Information and Software Technology*, 54(2), pp. 137–148.
- Vogel, R. and Hansen, N. (2011) 'Organizational routines: A review and outlook

on practice-based microfoundations', *Economics, Management, and Financial Markets*, 6(3), pp. 86–111.

Westphal, J., Gulati, R. and Shortell, S. (1997) 'Customization or conformity? An institutional and network perspective on the content and consequences of TQM adoption', *Administrative Science Quarterly*, 42, pp. 366–394.

Whetten, D.A. (1989) 'What Constitutes a Theoretical Contribution?', *The Academy of Management Review*, 14(4), pp. 490–495.

Winter, S.G. (2003) 'Understanding dynamic capabilities', *Strategic Management Journal*, 24, pp. 991–995.

Wischnevsky, J.D. and Damanpour, F. (2006) 'Radical strategic and structural change: Occurrence, antecedents and consequences', *Academy of Management Proceedings*, Vol.1, pp. 1–6.

Wood, T. and Caldas, M.P. (2002) 'Adopting imported managerial expertise in developing countries: The Brazilian experience.', *Academy of Management Executive*, 16(2), pp. 18–32.

Young, S.M. (1992) 'A Framework for Successful Adoption and Performance of Japanese Manufacturing Practices in the United States.', *Academy of Management Review*, 17(4), pp. 677–700.