CRANFIELD UNIVERSITY

BANDAR FAHAD MOHAMMAD ALHARBI

KNOWLEDGE-DRIVEN BUSINESS MODEL CANVAS FOR BUSINESS DEVELOPMENT OF SMEs IN THE FOOD SECTOR IN THE GULF COOPERATION COUNCIL

DOCTOR OF PHILOSOPHY (PhD)

Academic Year: 2021

Supervisor: Dr Ahmed Al-Ashaab

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ABSTRACT

Small and mid-size enterprises (SMEs) are the core engine of most economies around the world. Empowering SMEs with the right tools, especially those utilised to formulate business models, would help them thrive more successfully. This study aims to provide such business development support tools to the food sectors SMEs of the GCC. This research focuses on the SMEs in the Gulf Cooperation Council (GCC) processed food sector. First, an extensive literature review was conducted on business development and business development tools, the business models. It was found that the Business Model Canvas is the most advanced tool in the market, yet the model is not fully exploited in terms of business development and growth. A field study involving 36 companies within the GCC region's food industry was conducted. The findings indicated three main problems faced by SME's: product-market-fit, business planning and finance.

Hereafter, Lean start-up was applied in a case study on a frozen yogurt producer from the region. The findings from the case study showed that the lean start-up approach minimises the product-market-fit problem and, hence, provides a more explicit structure for business planning and finance. Furthermore, the case study findings were presented to six industry practitioners to evaluate the lean start-up method. Based on their evaluation; the model was modified to incorporate market regulations as an additional block. A set of measurement (KPI's) was added to the model to develop a revised model named the Knowledge-Driven Business Model Canvas (KD-BMC).

Finally, the KD-BMC was validated through a case study on two companies in the food industry in Saudi Arabia and further evaluation was gained from six experts in the field. Results of validation were discussed and concluded in the final chapter of this research.

Keywords:

Business Development, Business Models, Business Model Canvas, Knowledge Management, KPIs, GCC, Food industry.

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I would like to dedicate this thesis to my father's soul, May God rest his soul in paradise.

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LIST OF ABBREVIATIONS

BMC	Business Model Canvas
SMEs	Small and Medium-sized Enterprises
GCC	Gulf Cooperation Council
VPC	Value Proposition Canvas
KPIs	Key Performance Indicators
MVP	Minimum viable product
SR	Saudi Riyals

1 INTRODUCTION

This chapter starts with a research background, research motivation, aims, objectives and highlights the research structure. **Figure 1-1** illustrates the main sections in chapter one.

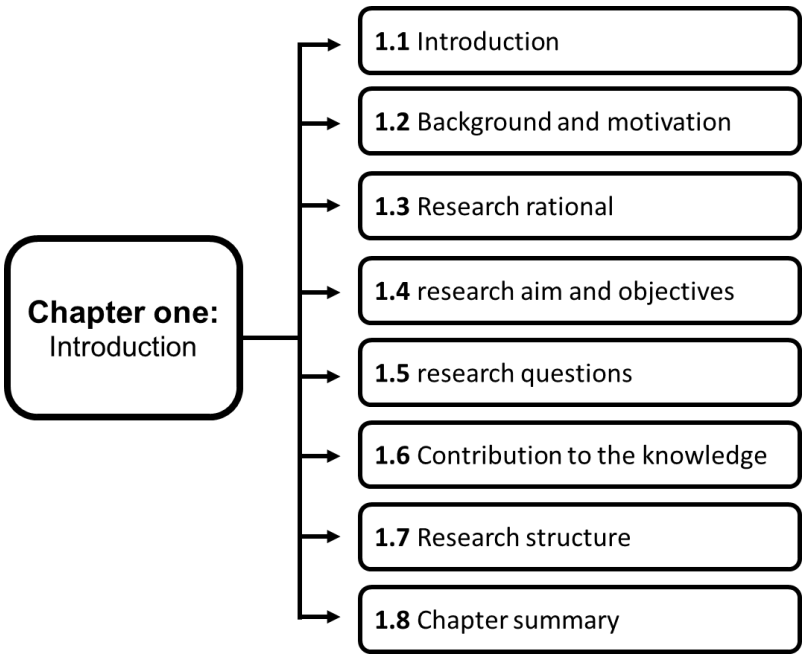


Figure 1-1 The main sections of chapter one.

1.1 Research Background and Motivation

Business organisations in the Gulf Cooperation Council (GCC) are now focussing on the involvement of innovation-led strategic transformations and trying to adopt the latest and simplest business models to improve their business processes (The World Bank, 2013). This shift in approach and demand for more effective business models is mainly motivated by the increasing global competition and technology advancements. This research study intends to provide the application of knowledge-driven Business Model development in the GCC. It will help enhance knowledge and explore the different approaches adopted by the GCC organisations.

1.2 Research Rational

In the GCC Small and Medium-sized Enterprises (SMEs) contribute only 20% of Gross Domestic Product (GDP) (Vision.gov.sa, 2020), despite the efforts made to improve the region's business environment, SMEs can still endure unnecessarily slow and complicated legal and administrative procedures.
This research is looking to develop an understanding of the business development process in the GCC through capturing knowledge to enhance the use of the Business Model Canvas (BMC) to support business growth for the SMEs in Food Industrial Sector in Arabic Gulf States Region which is known as Gulf Cooperation Council (GCC). It seeks to encourage innovation and entrepreneurship of the SMEs in the Food Industrial Sector in the region. This research topic is in line with the Saudi vision of 2030, where 20% of overall funding will support SMEs (Vision.gov.sa, 2020).

The food industry is characterised by a large percentage of SMEs (Mangina and Vlachos, 2005) which are considered the backbone of most economies. For instance, 99.1% of Europe's 274,000 food and drink companies are SMEs. They account for 48.7% of turnover (€ 452 billion) and 63% of employment (2.7 million jobs) in Europe's food and drink industry (Anon, 2017).

1.3 Research Aim and Objectives

The aim is to develop a novel knowledge-driven business model canvas to support SMEs' food industry in the Gulf Cooperation Council (GCC) states to ensure growth and profitability. This is based on capturing the "know-how" of both the Influential factors and good practices.

The following are the research objectives:

1) To capture the good practices and the influential factors of developing successful SMEs businesses via an extensive literature review.

2) To investigate the market situation, in the food industry sector, in the GCC states through a field study, to understand and capture their needs and capabilities to expand.

3) Adapt and modify the business model canvas based on the SME's captured needs and requirements in the GCC's Food Industrial Sector.

4) To evaluate Lean start-up approach together with the Value Proposition Canvas approach (VPC) and BMC for business development from SMEs' perspective in the food sector in GCC.

5) To develop a knowledge-driven business model canvas based on the newly modified model and the captured knowledge of the influential factors and the good practices.

6) To validate the Knowledge-Driven Business Model Canvas (KD-BMC) via industrial case study and evaluate it via expert judgement.

1.4 Research Questions

From the objectives of this research, the following research questions are derived:

1. What are the influential factors of the business development of SMEs' in the GCC region's food processing sector?
2. Is the Business Model Canvas the right model for developing the SMEs businesses in the GCC's food industry sector?
3. What knowledge is required to enable a practical application of the modified Business Model Canvas to support growth SMEs in the GCC region's food industry sector?

1.5 Research Contribution to the Knowledge

1. Identify the influential factors of the business development of SMEs in the GCC region

2. Provides a study that gives a detailed definition of the use of Business Model Canvas in business development.

3. Provides knowledge created from Business Model Canvas and documenting it as a detailed step by step approach of business development, for companies seeking to invest in the GCC food sector

4. Developed a detailed GCC business development methodology based on the business model canvas approach.

1.6 Thesis Structure

This thesis structured is illustrated in **Figure1-2**.

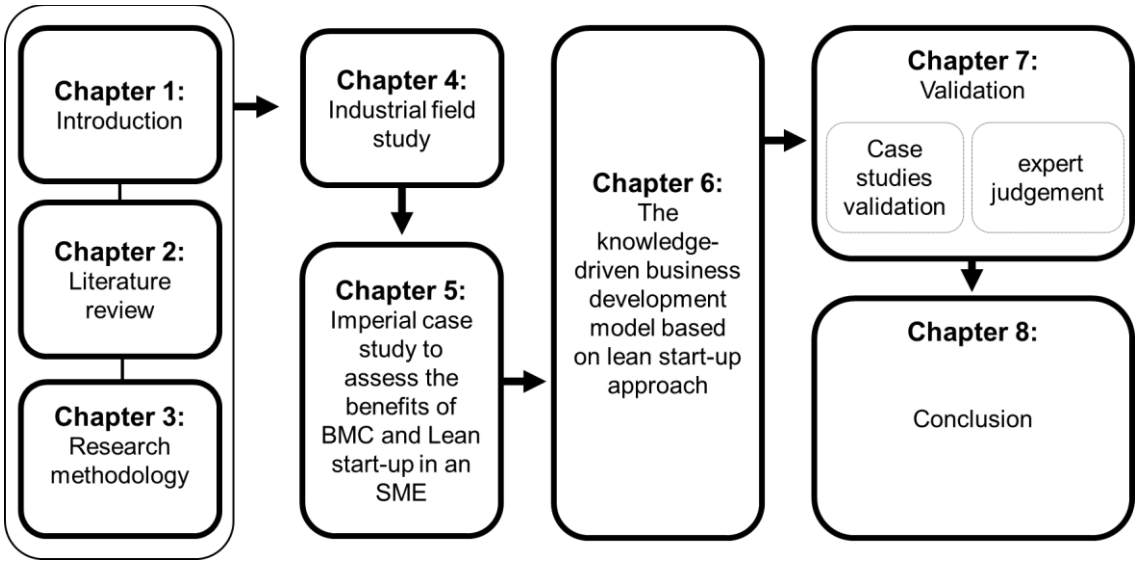


Figure 1-2 Thesis structure.

1.6.1 Chapter one:

Consists of an outline of the research made up of the research background and motivation, rationale, aim, objectives, the research questions that need to be answered, contribution to the knowledge, the thesis structure and chapter summary.

1.6.2 Chapter two

Presents the literature review related to the main concepts of business development, business model, and the market situation of the GCC's food sector to provide a deep understanding of the research areas. Investigation of the state-of-the-art in these areas enables the researcher to identify existing research gaps and better understand research topics.

1.6.3 Chapter three

Introduces the scope of the research methodology and the explanation of the research methodology adopted.

1.6.4 Chapter four

Descries the industrial field study discusses and analyses the findings of the interviews data.

1.6.5 Chapter five

Investigates the effectiveness of the lean start-up and business model canvas in a case study in a food processing SMEs, using relevant tools to present the results to the industry experts in the business development to identify defects and their causes and then apply the best solution that can be taken by modifying the model based on expert's advice and the research study results to be more suitable for business development of SMEs in food processing sector in the GCC.

1.6.6 Chapter six

Illustrates the interviews series results with business development experts to discuss the possibility of providing a customised business model canvas for business development of SMEs in the food sector in the GCC.

1.6.7 Chapter seven

This chapter highlights the validation of the research models and approaches via industrial case study and experts' judgements.

1.6.8 Chapter eight

In this chapter, the discussion, conclusions, limitations and future work will be presented.

1.7 Chapter Summary

This chapter has introduced a brief background of the research. The research drivers and motivation for carrying this research out is also presented. As a result, aim, objectives, questions of research and contribution to the knowledge were identified.

2 LITERATURE REVIEW

2.1 Introduction

This chapter presents the literature review of business development and captures the key influential factors highlighted by scholars. **Figure 2-1** illustrates the structure of chapter two and the key topics that have been reviewed. This chapter addresses the first research objective, which is to understand the best business development practices via a comprehensive literature review.

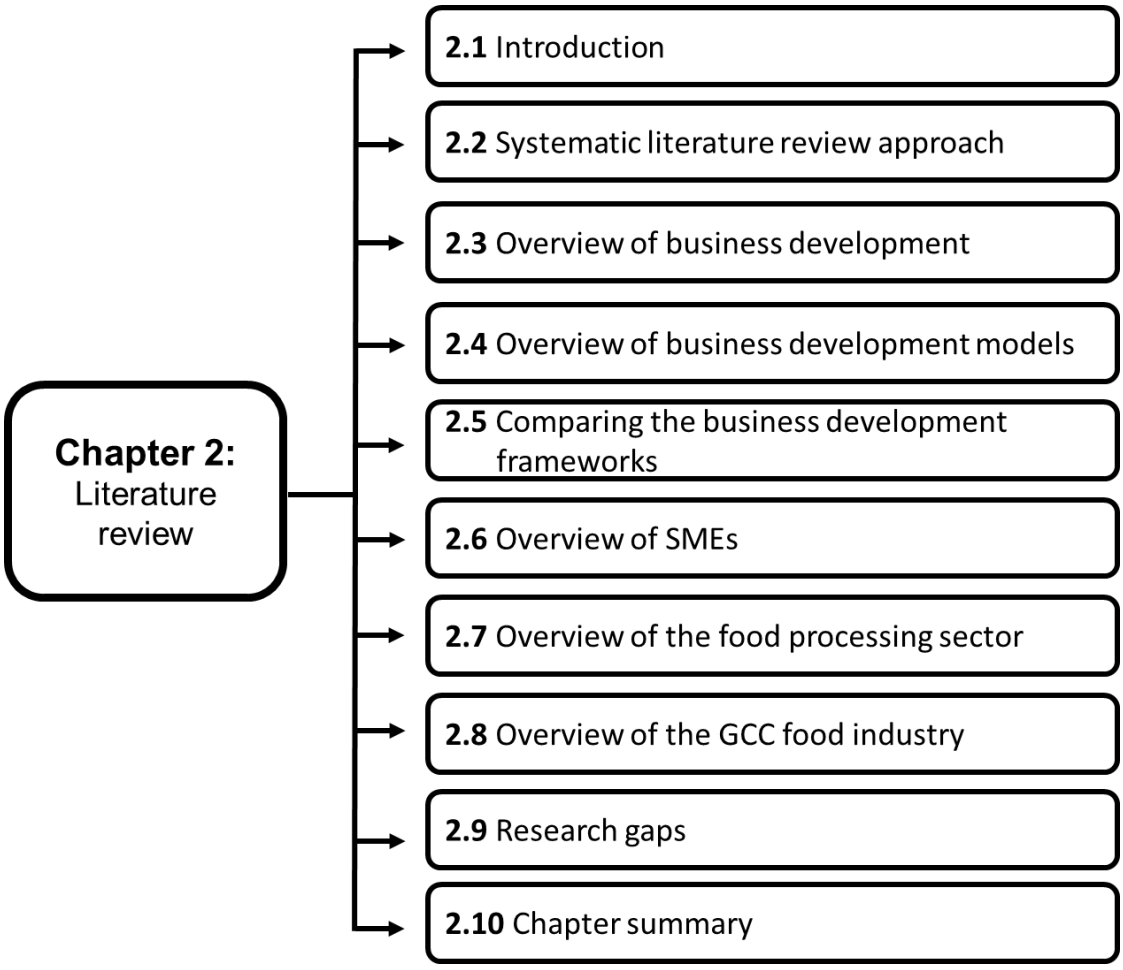


Figure 2-1 The structure of chapter two.

2.2 Systematic literature review approach

This section's systematic literature review is based on a comprehensive review of previous business development and business models in which the more than 400 articles included those mentioned in this literature review were read and analysed. The following recommended steps for conducting a literature review (Hart, 2001) were also considered: (i) identification of sources of information, (ii) identification of articles, and (iii) identification of reviews of items.

The review began with selecting eight databases: journal of business model, Emerald, Science Direct, Scopus, Academic Search, Springer-Link, Jstor, and Sage. For this selection, three criteria were considered: (i) researchers in the social sciences use these databases most frequently; (ii) the databases can be accessed at the library at the author's university; (iii) a mix of database types (e.g., citation databases, publisher databases, and subject area databases) was required. Following the methodology of a literature review on organisational innovation (Crossan and Apaydin, 2010), the search was limited to peer-reviewed journals with the highest impact factor in their area.

The use of a mix of database types enables the study to collect a comprehensive list of relevant articles. Publisher databases list their scientific, peer-reviewed publications by a subject word (if available, often the author name), but searches are not controlled. Furthermore, searches are often conducted in full text, which does not always produce sufficient results ('hits'). In contrast, subject area(s) databases such as Academic Search include the subject(s)-focused collections of peer-reviewed articles and other materials from various publishers. Searches among such databases are more manageable because of their sets of subject headings (a thesaurus) that describe the database content.

Secondly, the articles for the systematic literature review are selected using the following criteria: (i) articles must be published in a peer-reviewed journal, in English; (ii) reports must mention Business development or business model or Business Model Innovation; and (iii) articles must use the food processing sector/industry; small and Medium enterprises; the Arabic Gulf States region or

the GCC in the title, keyword list, abstract, or full text. Articles must meet the first criteria and at least one other criteria.

Following these criteria, 364 articles published between 1987 and 2018 were identified. The articles were screened by focusing on their content relevance from reading their abstracts and, in some cases, from reading the articles. Of the 570 articles, 226 were established to have no or minimal basis in theory and little discussion of BD, BM, BMI, SMEs, or the agri-food sector. The remaining 138 articles were classified based on their content. In the examination of the articles, the study sought for connections among the articles. Classification is a necessary step in the analytical stage of the literature search as it provides a descriptive and systematic foundation for future evaluation of themes (Hart, 2001).

The last evaluation process focused on each paper's contribution and matched business models and building blocks and contributed to business model frameworks.

During the last two decades, systematic reviews have become widely accepted formats to present focused reviews of existing literature (Kable and Pitch, 2012). However, the systematic literature review process emphasises quality assessment, which commonly refers to a high validity and reliability level. In this study, a tabular comparison approach was used to present the themes and graphically present the analysis (for example Table 2-1, Table 2-3, and Table 2-6). The details of the literature review are shown in the following sections.

2.3 Overview of business development

2.3.1 Definitions of business development

"Business development is defined as the creation of long-term value for an organisation from customers, markets, and relationships" (Sørensen, 2012).

Rainey (2010) also defines Business development as pursuing strategic opportunities for a particular business or organisation, for example, by cultivating partnerships or other commercial relationships, or identifying new markets for its products or service.

In business development, an organisation's value is more than just assets, revenue, or shareholders value. Other elements such as human capital, knowledge, prestige, image, business relationships and society involvement/social responsibility are also considered values. Also, Long term, in this case, relates to the strategic process of identifying ongoing future opportunities, minimising risks, creating a flexible environment for success, and being prepared for continuing changes (Preece, Smith and Moodley, 2007).

Therefore, business development activities are all the strategic decisions and actions adopted by an organisation in creating value. This includes the organisations' strategic decisions and actions relating to its markets, network, and financial propositions that enable it to provide quality products and services to its customers.

Business development is not an isolated activity. Still, it needs to consider communication/interaction between the various stakeholders and other internal and external factors that can influence the success of the organisation (Preece, Smith and Moodley, 2007).

According to Hassanien, Dale and Clarke (2010), business developments are most effective using the available support tools. Simply put, a business model reflects the business development activity of a firm (Drakulevski, and Nakov, 2014). A business model helps to address how the various elements of business development are strategically selected and aligned and communicated to the relevant stakeholders (Sørensen, 2012).

2.3.2 Key Elements of Business Development

Business development is made up of key elements that ensure an organisation's success and growth (Blank and Dorf, 2012). Various authors have discussed the key elements of business developments (Blank and Dorf, 2012; Zott and Amit, 2011), including value proposition; customer segments; customer relationships; channels; and cost structure. Others include key resources, key activities, key partners and revenue streams.

Generally, value proposition refers to the products and services offered and the benefits, uniqueness features and market opportunities they provide (Blank and Dorf, 2012).

According to Hansen et al. (2011), an organisation needs first to establish how to satisfy their customers and survive and grow. Secondly, the firm needs to determine the leading distribution channels to reach their customers, which will ensure the timely and convenient delivery of the organisation's products and services to the customers. They added that it is also necessary for the organisations to maintain and healthy relationship with the customers and other stakeholders. According to Taran et al. (2016), this required the company to be informed on their needs and satisfy them. Finally, organisations need to monitor the financial aspects of the business. Tantalo and Priem (2016) explained that this would help ensure regular revenue and investment to meet both variable and fixed costs of the firm.

2.3.3 Influential factors of Business development

As explained in section 2.3.1, a typical business development process is a challenging decision process. Various conflicting factors need to be considered, such as finding a balance between competitive advantage issues and those about new business opportunities. The method of these selections and decision about the business development factors is known as the business model design (Kajanus et al., 2014).

A structured business development approach is needed that comprehensively cover all necessary business elements required for the particular business context. Defining the connections and interrelations among the items is also essential to compose a dynamic business model(Osterwalder & Pigneur, 2010).

Furthermore, according to D'Souza (2016), the business development activity's success will depend not just on the business building blocks but also on the other business environment factors. All these need to be taken into account holistically.

Table 2-1 summarises the key factors mentioned by the various authors in the field. The researcher was selected based on the criteria discussed in section2.1,

particularly related to business development factors. As can be seen from the analyses, the most highly cited factors include a value proposition, profit, competition, Market size, Market regulations, and Market entry strategy. These make up the most important factors to consider (good practices) in business development.

References / Factors	Forsman (2008)	Teece (2010)	Rainey (2010)	Sørensen (2012)	Kajanus, et al., (2014).	D'Souza (2016)	Spectrum of use
Value proposition	+	+		+	+	+	High
Business abilities	+			+			Low
Cost		+			+	+	Medium
Profit	+	+	+	+	+	+	High
Competition		+	+	+	+	+	High
Barriers to entry	+			+		+	Medium
Network partners		+	+			+	Medium
Market size	+	+		+		+	High
Market maturity	+					+	Low
Market regulations		+	+	+	+		High
Market entry strategy	+	+		+	+	+	High

Table 2-1 Analysis of influential factors of business development.

2.4 Overview of business models as a tool of business development

As mentioned in section 2.3.1, the business developer's tools for carrying out business development tasks is the business model. The business model is used to identify how the various factors of business development can be strategically selected and aligned. Business models are also used as a communication platform among the relevant stakeholders about the organisation's (Sørensen, 2012).

The term "business model" was first coined in a 1957 academic article about business game development for training purpose. According to DaSilva and Trkman (2014), the paper intrinsically described a business model as representing reality or a simulation of the real world through a model.

DaSilva & Trkman (2014) also observed that it took several decades afterwards to gain widespread usage. They pointed out that the within that period since it was first mentioned in 1957 until the 1990s, there were only five journal papers that contained the word business model in their title. However, since the advancement in information and communication technologies, and the emergence of internet-based business and companies, the term business model, quickly gained popularity among business scholars and practitioners. This is evident by the sudden surge in the number of published articles, conference session and panels on the topic (Zott et al., 2010).

Given the increased interest in business models, different authors have offered different notions of the definition of a business model. Some authors, like Magretta (2002), had defined business models in terms of a value chain. She suggested that a business model is divided into two parts; part one is encompassing all the activities associated with making something: designing it, acquiring the necessary production resources and materials, processing and other production activities; the second part includes all the activities related to selling the product and services, such as identifying and reaching the customers, managing the sale, distribution of the product or delivering of the service. Magretta (2002) also clarified that developing a new business model can be done

to address the design of a new product for an unmet need, or it can be done to address a process innovation, leading to the improvement of the way of making or selling an already proven product or service.

Furthermore, Magretta (2002) specifically described that a business model answers the question “Who is the customer and what does the customer value?”, and “How does the company make money in this business, and what is the underlying economic logic that explains how we can deliver value to customers at an appropriate cost?” Teece (2010) also explains that “A good business model yields a value proposition that is compelling to customers, achieves good cost and risk structure, and enables significant value capture by the business that generates and delivers the products and services. Some of the most recent definitions of a business model are also shown in **Figure2-2.**

Authors	Definition
Teece (2010)	“how a firm delivers value to customers and converts payment into profits.”
Gambardella and McGahan (2010)	a mechanism for turning ideas into revenue at a reasonable cost
Osterwalder and Pigneur (2010)	The rationale of how an organisation creates, delivers and captures value
Demil and Lecocq (2010)	The way activities and resources are used to ensure sustainability and growth
Casadesus-Masanell and Ricart (2011)	The logic of the firm, the way it operates and how it creates value for its stakeholder
Sabatier et al. (2012)	Crossroads of competence and consumer needs
Zott and Amit (2013)	“A system of interdependent activities that transcends the focal firm and spans its boundaries.”
Giesen et al. (2013)	About what and how the value is delivered to customers, how revenue is generated and how the company positions in the industry

Table 2-2 Business model definitions from different researchers

From all the definitions discussed **Table 2-2**, the main issues that stand out include the logic of value creation and value realisation.

This study adopts the business model's definition as “the logic of what and how value is delivered to customers, how benefits are captured and, how the company positions itself in the industry”.

Apart from the business models' central purpose, they can also be used by the organisation to fulfil various other functions, including understanding, and communicating the business logic analysing, managing, prospecting and patenting of business models Osterwalder (2004).

Furthermore, Osterwalder (2004) identified three different types of business models.

- First, the abstract business model concept is a generic model of elements, components, and relationships.
- Second, there are operating business models that are implemented and existing business models of different companies. In other words, they represent an instance of the generic business model.
- Finally, there are scenario business models that are only virtual, not existing in the real world. They can serve different ends like fostering innovation, simulating opportunities, or acting as a change management guideline. They represent a virtual instance of the generic business model.

This study will focus on the first and second model. This research's primary audiences are business wishing to grow or establish a food manufacturing business in the GCC.

2.4.1 Components of a business model

Parekh (2016) reviewed over 122 relevant papers between 2000 and 2016. The review's main focuses were qualifying characteristics of relevance and identifying what previous authors had included in their business models.

Parekh (2016) found that most of the papers' top 3 components include Customers, Revenue, and Cost. Several authors (e.g. Osterwalder, 2010; Fielt, 2014) agree that customers and profit components are the integral components of the business model. The other high-ranking components are Suppliers, Supply Chain (including Manufacturing, Distribution, Planning, and Sourcing), Product Portfolio Organization, and Sales.

A more detailed analysis of business model elements and best practices is further carried out in this study. Several studies and authors relating to business models were selected, analysed, and presented in Error! Reference source not found.. T he matrix illustrates what components are suggested in the articles and further illustrates how high or low each component has been adopted in the business model literature. According to the literature review criteria discussed in section 2.1, the authors were selected based on an online search of business model components in business models' journal from 2000 to 2016. The most highly cited were considered, and a review was further carried out to ascertain their suitability for this purpose. This resulted in the selection of the final 15 studies used in **Table 2-3.**

Component / Author	Strategy	Resources	Network	Customers	Market Offering (Value Proposition)	Revenue	Key activities	Procurement	Finances	Spectrum of the Components
Hamel (2000)	Core Strategy, Strategic Resources		Value Network	Customer Interface						**Low**
Chebrough and Rosenborg (2002)	Competitive Strategy	Value Chain	Value Network	Market Segment	Value proposition				Cost Structure Profit potential	**High**
Yip (2004)	Scope Differentiations			Nature of customers, Channels	Value Proposition Nature of Outputs		How to transform inputs (including technology)			**High**
Morris (2005	Mode of differentiation, Investors' intentions	Internal capabilities		Market segments	Offering				Economic factors	**High**
Osterwalder/Plgneur r/ Tuccl 2005)			Partner Network	Target Customer, Distribution Channel, Relationship Value Proposition	Value Proposition	Revenue Model	Value Configuration		Cost Structure	**High**
Tikkanen et al.(2005)	Strategy and structure	Core Competency	Network				Operations		Financing and accounting	**Moderate**
Al-Debei/El Haddadeh/Avison (2008)			Value Network		Value Proposition Value architecture				Value Finance	**Low**
Deml &Lecocq (2010)		Resources & Competencies, Organisation			Value Proposition	Volume and Structure of Revenue streams			Volume & Structure of Revenue Costs	**Moderate**
Johnson (201 0)		Key Resources			Customer Value Proposition	Profit Formula	Key Process			**Moderate**
Osterwalder/Plgneur (2010)		Key Resources	Key Partners	Customer Relationships, Channels, Customers Segments	Value Proposition	Revenue Streams	Key Activities		Cost Structure	**High**
Kaplan (2012)					Value Delivery	Value capture	value creation			**Low**
Baden Fuller and Mangetmatin (2013)			value chain and linkages	customers	customer engagement	monetization				**Moderate**
Erwin Fielt (2014)			organizational architecture	customer,	value proposition,	economics				**Moderate**
Reim, Parida & Ortqvist (2015)					value delivery	value-capture mechanisms	Value creation			**Low**
Roome and Louche (2016)			value network,		value proposition	value capture	value creation and delivery			**Moderate**
Intensity of use	**Low**	**Moderate**	**High**	**Moderate**	**High**	**High**	**High**	**Low**	**Moderate**	

Table 2-3 Analysis of best practice of business development in business model literature

The first horizontal left column of the table lists the various authors and year of study, while the top vertical row lists the best practice factors or components selected for this study. The inner rows list all the components discussed by the authors, using the specific name used by the authors. These are all collected under a common synonymously similar name used for this study. For example, 'Key Process' will be considered under 'Key Activity' depending on the context the authors discussed the components.

Lastly, the extreme right column shows the components (spectrum) considered by each author in a business model. At the same time, the bottom row shows the intensity of the use of each component considered in this study by the authors in literature.

A somewhat different perspective can be observed from the analysis of the various literature. While some authors such as Hamel (2000), Baden Fuller and Mangetmatin (2013), and Roome & Louche (2016) consider only a few components (Low to Medium Spectrum) and therefore greatly focus their understanding on a few aspects of business, other authors such as Chesbrough and Rosenborg (2002), Yip (2004), Osterwalder et al. (2005), and Osterwalder & Pigneur (2010), clearly show a broader point of view (High Spectrum). The authors with an overall point of view are, however, in the minority.

It is seen that the components most referred to by the various authors are those regarding the value proposition, customer, revenue, and key resources. There seems to be a firm agreement about the importance of those components. There is little or no agreement regarding the areas of strategy, revenue and procurement as they are the elements least referred to on the matrix. With regards to strategy, it can be explained that some authors consider it and business model to be synonymous. However, concerning the revenue and procurement, the infrequent mention in literature is somewhat unexpected. One explanation can be that it is quite apparent as the primary determinant of corporate positioning and survival and therefore, not needed to be mentioned.

Following the previous discussions and analysis, it will be most appropriate to adopt a comprehensive approach when selecting business model components. Therefore, the most suitable business model should provide a holistic framework, which can guide an organisation to identify its value logic while ensuring profitability.

It is essential to point out that there is a difference between business models and business model frameworks. According to Arend (2013), among business models, business model frameworks are those that offer a cognitive tool for visualisation, which will help in identifying the components and guide the overall operations of the organisation. A business model framework is 'more than the sum of its parts, but it captures the essence of how the business system will be focused' (Fielt, 2014). A business model framework is needed for this study to determine the best business model to use for the food processing SMEs in the GCC. It fulfils the primary use of a knowledge-driven business model in helping business decision-makers capture, understands, communicates, design, analyses and if necessary, change their firm's (Cerchione & Esposito, 2017).

Osrterwalder (2010) briefly distilled these functions into five categories: understanding and sharing, analysing, managing, and prospecting business models. Such a business model can provide other (even inexperienced) business with a visual representation of the value logic required to succeed in the market.

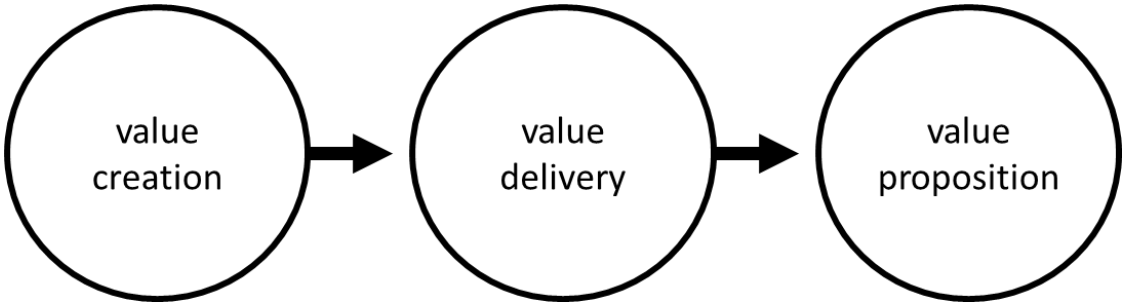
Therefore, among the available business models in **Table 2-3,** complete business model frameworks that can meet the aims and objectives of this study include Chesbrough and Rosenbloom (2002), Johnson et al., (2008), Kaplan (2012), and Osterwalder et al., (2005) as described in **Table 2-4,** and further discussed in the next sections .

Authors	Number of components	Components
Chesbrough and Rosenbloom (2002)	6	• Value proposition • Market segments • Value chain • Cost structure and profit model • Value network • Competitive strategy
Osterwalder et al. (2010)	4 pillars 9 'building blocks	• Product/value proposition • Customer interface • Infrastructure management • Financial aspects
Kaplan (2012)	3	• Value creation • Value delivery • Value capture
Johnson et al. (2008)	4	• Value proposition • Key processes • Key resources • Profit formula

Table 2-4 The business model frameworks

2.4.1.1 Kaplan's (2012) Business model story elements:

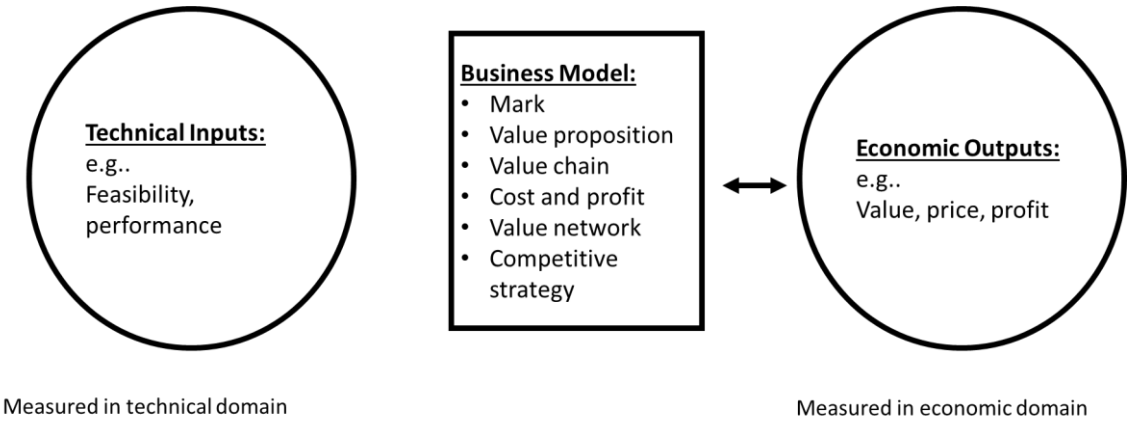
Kaplan (2012) describes his business model framework with three simple "business model story elements": value creation, value delivery and value capture. 'Value creation' in this context refers to how an organisation creates value for both itself and its customers. The next step of the business model story, which is 'value delivery' refers to how an organisation delivers the value it offers. And lastly, the 'value capture' refers to how an organisation generates revenue and makes profits from the value it provides as a minimum Kaplan's (2012) three-story elements are the fundamental business model elements of all business model frameworks (Luoma, 2014).



Source: adapted from Kaplan's (2012)

Figure 2-2 Business Model Story Elements

2.4.1.2 Chesbrough and Rosenbloom's business model functions:



Source adapted from Chesbrough and Rosenbloom's, 2002

Figure 2-3 Business model functions

Chesbrough and Rosenbloom (2002) define six functions of the business model, and they are briefly elaborated in **Table 2-5** as follows:

Function	Description
1	Communicating the value offering to the customer
2	Determining the target segments of markets as well as identifying revenue streams
3	Determining the value chain and the factors that can affect the value creation
4	Determining and evaluating the cost structure and potential profits
5	Identifying the firm's position within the value creation network, as well as the relationship between the other external stakeholders such as customers, suppliers, and competitors
6	Determining the business strategy on how to gain and sustain competitive advantage

Source: adapted from (Chesbrough & Rosenbloom, 2002).

Table 2-5 Six functions of a business model

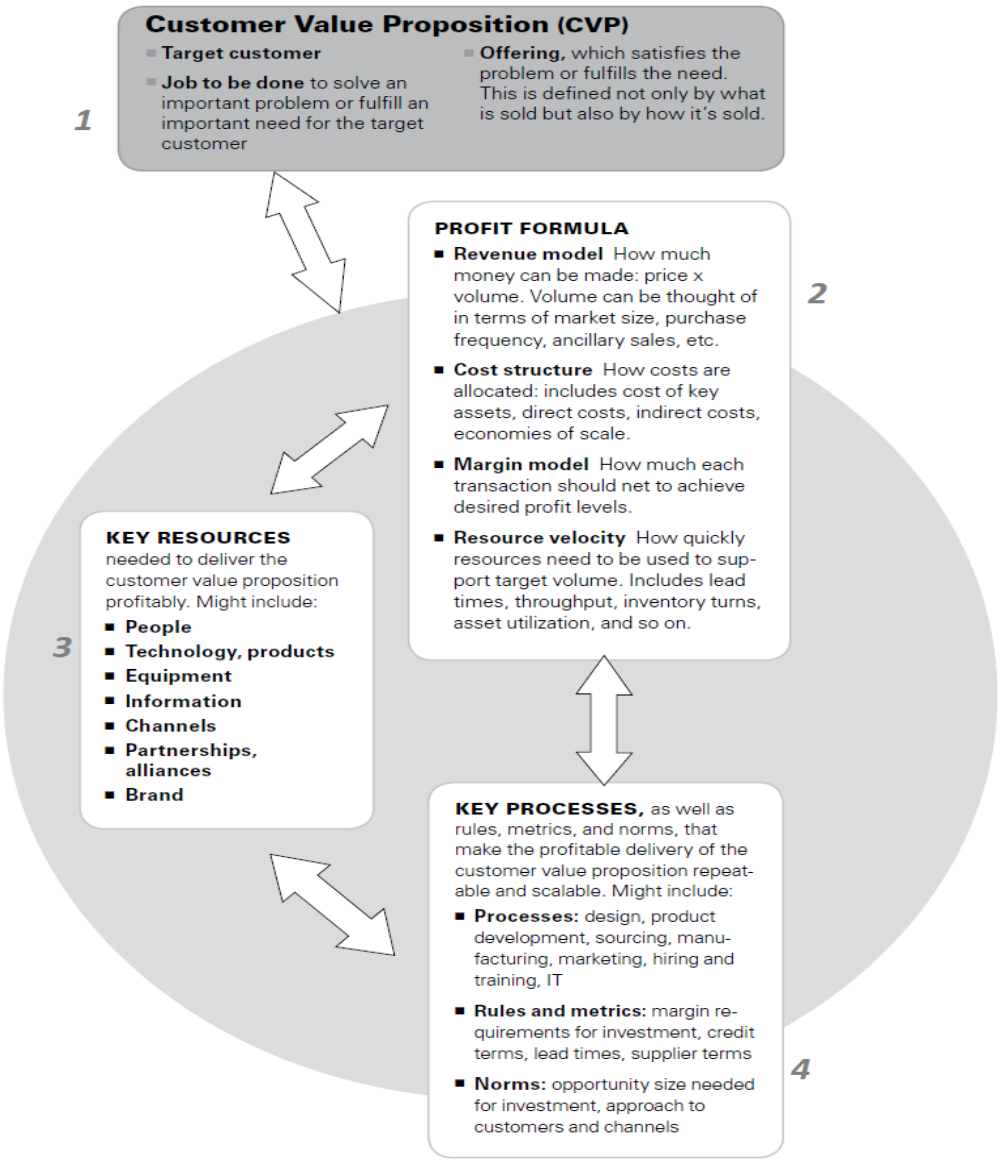
2.4.1.3 Johnson, Christensen and Kagermann's (2008) business model elements:

Johnson et al. (2008) developed a framework with a three-step road map shown in **Figure 2-3**. According to the framework, success is achieved by first focusing on the opportunity to satisfy the customer. The second step is building the actual business model, which is a blueprint for the organisation to follow, to satisfy its customer's needs while making a profit. This blueprint should be composed of four elements, including the 'customer value proposition, profit formula, key resources and key processes. Lastly, they recommend that the organisations should constantly re-evaluate the effectiveness of its business model against set targets and decide if a new model is required.

The four steps of the business model can be more succinctly described as being made up of One, defining the value proposition to be offered to the customers, by identifying the target customer segments. Two involves determining the profit-making formula, by describing how the organisation will create value for itself. It defines the cost structures, the revenue generation streams, the profit margins,

and available resources. Three involves identifying the key resources required to carry out the value creation activities and value delivery to the customers. Such resources can include raw materials, distribution channels, partners, personnel, and equipment's available. Four involves defining the key processes that will be carried out using the key resources, to enable the organisation to deliver the promised value proposition to the customers.

Although these four elements, just like Kaplan's framework, are the fundamental elements of any business, the model's complexity lies in defining the various elements' inter-relationships. Any change to the inter-relationships between elements can have a rollover effect on the other elements.



Source: adapted from Johnson et al, 2008

Figure 2-4 Johnson et al., (2008) business model

2.4.1.4 Osterwalder et al., the Business Model Canvas

Osterwalder and Pigneur (2010), proposed the general business model framework called the business model canvas (BMC). The BMC has been adopted widely by many organisations to generate and innovate their business logic. The BMC was developed as a tool and a joint business decision making language to describe, visualise, assess and change an organisations business model.

The BMC is made up of nine building blocks, as shown **Figure 2-5**, and which together describe the logic of how a company operates and makes revenue.

Source: adapted from Osterwalder and Pigneur, 2010.

Figure 2-5 Nine block buildings in Business Model Canvas (Osterwalder & Pigneur, 2010).

The BMC arranges the nine business model components visually on a canvas highlighting their relationships. This is done to help business decision-makers discuss, design, map and invent new business models. The BMC arranges the product or services on the left side and the market on the right, with the value proposition right in the middle between the two. Furthermore, the nine building blocks are also categorised under four main sections: The Business, Customers, Offer, Infrastructure and Financial viability, as described in **Figure 2-6**. The **Figure 2-6** also provides a brief description of the nine blocks (under the four mains areas).

<table>
<tr><th colspan="2">Infrastructure</th><th>Offer</th><th colspan="2">Customers</th></tr>
<tr><td rowspan="3">Key Partners
The network of suppliers and partners that make the business model work</td><td>Key Activities
The most important thing a company must do to make its business model work</td><td rowspan="3">Value Proposition
The bundle of products and services that create value for a specific Customer segment.</td><td>Customer Relationships
Relationship a company establishes with its customer segments</td><td rowspan="3">Customer Segments
The different groups of people or organisations an enterprise aims to reach and serve</td></tr>
<tr><td>Key Resources
The most important assets required to make the business model work</td><td>Channels
How a company communicates with and reaches its customer segments</td></tr>
<tr><td colspan="2">Cost Structure
All cost incurred to operate a business model</td><td colspan="2">Revenue Streams
The money a company generates from each customer segment</td></tr>
<tr><td colspan="5">Financial Viability</td></tr>
</table>

Source: adapted from (Osterwalder & Pigneur, 2010)

Figure 2-6 The nine building blocks of business models grouped under Customers (green), Offer (purple), Infrastructure (red), and Financial viability (blue)

2.5 Comparing the business development frameworks

The frameworks discussed in section 2.3.3 cover different aspects and components of business development but also have a lot in common. An important similarity is that all frameworks and their elements show how a firm creates and captures value (Fielt, 2014).

Hoffmann (2013) described an effective business development framework as one that shows the different business model components in a comprehensive visual template. That can guide an organisation selecting the components and offer step-by-step processes to enable the organisation to attain profitability.

2.5.1 Criteria for evaluation of business development frameworks

In analysing and comparing the various frameworks, it is necessary first to define the criteria used to assess the frameworks.

Several studies (e.g. Gordijn et al., 2005; D'Souza, et al., 2014, Aarntzen, 2016, Disle et al., 2016) have previously studied and compared the different business model frameworks. Several units of measurements and criteria for analysing and comparison of business models were developed. For instance, Gordijn et al. (2005) guided by the work of Uschold and Jasper (1999), and the work of Pateli & Giaglis (2003), suggested an ontological framework for comparing different conceptual business models. From Gordijn et al.'s (2005) framework, together with other later studies like Lucassen et al. (2009), it can be seen that the key factors that need to be considered in the assessment and comparison of business models include: does the model have a graphical representation of the business model, does it include the right components (which in this study will be the value proposition, customer, revenue, key networks, and key resources mentioned in 2.4.1) (Aarntzen, 2016), is the model used widely in various industries, is it applicable to the business of all sizes (in this study is it applicable for SMEs) (Lucassen et al., (2009), is the model easy to use, does the model guide the users on implementation does the model provide a means of measuring its success (evaluation), and does the model enable creativity (Hoffmann, 2013).

The next section will further discuss these ontology elements of comparison and describes the analysis of the four selected frameworks in this study.

2.5.2 Analysis and comparison of the business development frameworks

In Lucassen et al. (2009) comparisons of business model frameworks, the first thing described concerns the seven concepts that a business development framework needs to contain. These are the Customer, Value Proposition, Revenue, Partners, Activities, Resources, and Costs. All the relevant elements mentioned are those covered by Osterwalder's (2010) Business Model Canvas.

Besides the availability of these essential framework elements, Lucassen et al. (2009) assessed the effectiveness of business model frameworks. In the study, effectiveness was considered as the extent the business model framework successfully captures and communicates the entirety of a business model, and they are measured by three main yardsticks namely; (1) Acceptance: the degree of utilisation of the framework in business and academics, (2) Explicit Modelling Method: explicit instructions on how to carry out the modelling is provided, (3) Efficacy: the ease with which the instructions can be put to use or implemented.

Furthermore, the research of Hoffmann (2013) also offered some assessment and comparison measures for business model frameworks. The three comprehensive requirements found for business model are: (1) promoting knowledge creation and understanfding, (2) stimulates creativity and (3) offers visualisation and tangibility.

According to Hoffmann's study (2013) even though most frameworks promote knowledge and understanding, and seek to stimulate creativity, most models do not offer visualisation and tangibility. He recommended using the BMC and added that a business model framework would be more effective in communicating knowledge and stimulating creativity if it also offers a means for visualising the business model. It can help an organisation have a snapshot view of its business model and the areas of change needed, and help innovates the business model. Aarntzen (2016) also studied the use of business model

frameworks in the industry, especially in among SMEs. He observed that the BMC is the most widely used in all types of industries, and among industries of all sizes, including SMEs.

Table 2-6 shows a summary of the various frameworks' assessment based on these assessment criteria described above.

Authors / Criteria	Osterwalder (2010)	Kaplan (2012)	Johnson et al (2008)	Chesbrough and Rosenbloom (2002)
Number of Components	High	Low	Medium	Medium
Include key components	Yes	Yes	Yes	Yes
Visual representation	Yes	Yes	Yes	Yes
Method of Evaluation	No	No	No	No
used for all industries or in all sectors	Yes	Yes	Yes	No (Mainly technical innovations)
Guide for implementation	Yes	No	Yes	No
Adoption in industry	High	Low	Medium	Low
Applicable to SMES	Yes	Yes	Yes	Yes
Ease of use	High	Low	Low	Low
Simulate creativity	medium	Low	Low	Low
Spectrum of effectiveness	Best	Good	Average	Least

Table 2-6 Comparative analyses of business model frameworks

As can be seen from the analysis in **Table 2-6**, the Business Model Canvas had the highest spectrum of effectiveness considering all the criteria compared to the other frameworks considered.

The business model canvas offers the greatest support for business development in all aspects except for creativity which was the only medium. However, this can also be seen to be low among the other frameworks. According to Wirtz (2016), the Business Model Canvas's creativity can be enhanced by several factors such as analysis of the business model components, triggering of questions, achieving joint identification, and the use of other associated visual techniques.

The most significant advantage of the business model canvas is the visualisation and tangibility of the business model. According to Arend (2013), the canvas's visualisation creates a shared understanding of its components and the components' relationships. After defining the business model visually, visual storytelling is suggested, creating many different visual prototypes of potential business model ideas. It is reported that companies like Apple, Skype, Google, Lego, and Air BnB have all used the Business Model Canvas (Jahandarpour, 2016). It can thus be concluded that the BMC is the framework that enshrines the knowledge base of best practice for business development.

It is justifiable to use the business model canvas framework as a theoretical base for this research for the reasons mentioned. However, in using the BMC, its strengths and weaknesses should be considered. A more robust and tailored business development framework should be provided for the food industry SMEs in GCC.

Therefore, the next part of this study will seek to determine how the business model canvas can be enhanced and used for the food industry, mainly aimed at SMEs of the GCC.

However, before going further with the enhancement of the business model canvas to fit the requirements of the SMEs in the GCC food industry, it is first of all necessary to understand the characteristics of SMEs, the trends and driving forces in the food industry in general and the GCC in particular.

Therefore, the next sections will first review the characteristics of the SMEs, the food sector industry and then the GCC food processing market.

2.6 Overview of Small and Medium-Sized Enterprises

2.6.1 SMEs definition

SMEs are a heterogeneous group. These firms are of varying sizes, nature, and may operate in different markets, such as urban, rural, local, national, or international markets. SMEs operate in various activities in various fields. They vary in the skill levels, sophistication, capital, and growth orientation, depending on the size of the market they operate in. The definition of SMEs varies from country to another. The most used parameter in the number of employees and this is what is mostly adopted in the GCC (Anon, 2016).

Enterprise Category	No. of Employees	Annual Revenue
Micro	1-2	Less than USD 27,000
Small	3-49	USD 27,000 – 1.3 million
Medium	50-200	USD 1.3 – 13.3 million

source: (Anona, 2016)

Table 2-7 Definition of SME based on the number of employees and annual revenue

2.6.2 Business Development in SMEs

Several studies have reported on the challenges of business development among SMEs and alarming low success rates (Beer and Nohria, 2000; Gibb, 2006; Forsman, 2008).

Current literature suggests that SMEs may differ from larger companies by several key characteristics, e.g., resource and knowledge limitations, lack of money, reliance on a small number of customers and need for multi-skilled employees (Forsman, 2008). Some of the characteristics mentioned earlier are

putting a greater strain on the SMEs, making it more challenging for successful business development.

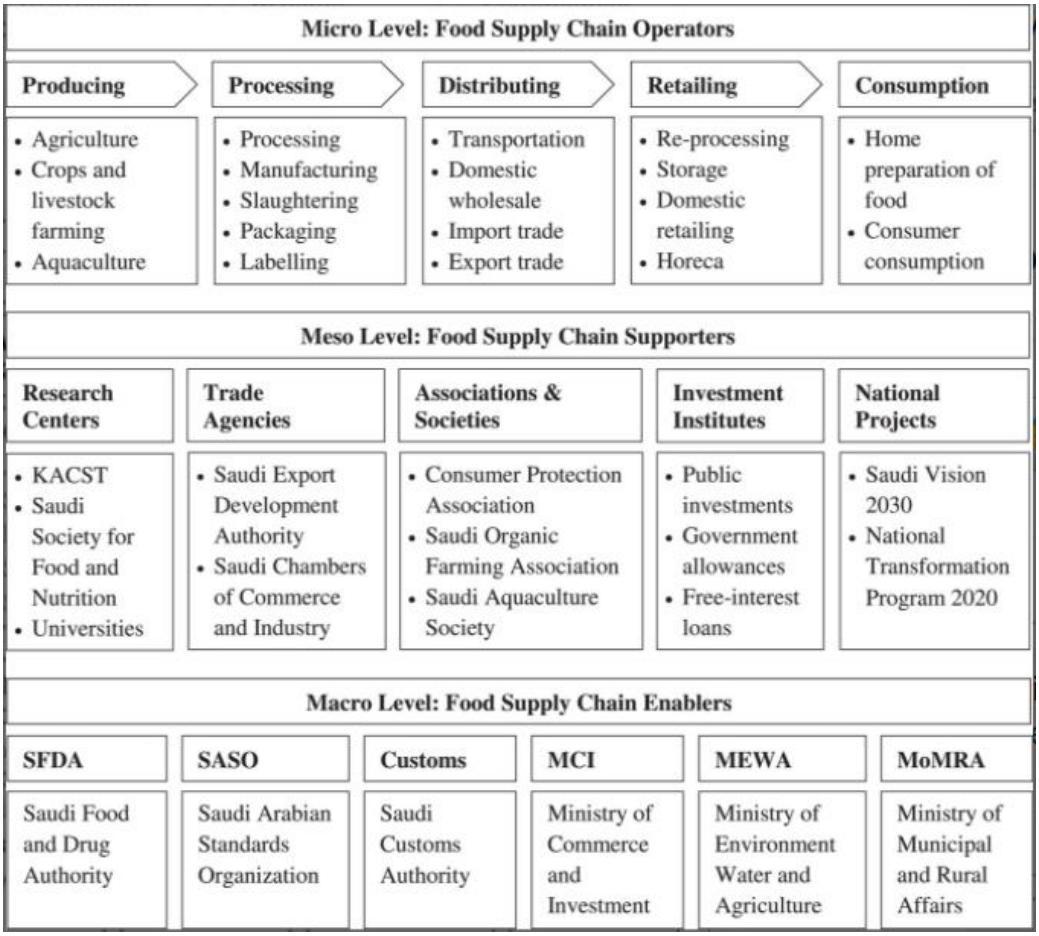
Some of the advantages of SMEs related to business development include their flexibility, centralised decision-making, and the fact that they are close to the customers (Storey, 2000; Mbura, 2016). The less formalised internal and external information and communication systems also allow the shorter internal communication lines, faster response times and speedy problem-solving.

On the other hand, SMEs have a limited capacity for marketing, strategy, acquisition of new knowledge and technology, and they are sensitive to external pressures and risks (Cook and Nixson, 2000; Mbura 2013)

Chittithaworn et al. (2011) also added that the structural characteristics of a business's external environment greatly affects its chances of success. However, before an SME can take advantage of the opportunities in its environment, it must recognise it. Generally, business leaders can identify those opportunities based on the information and knowledge that they already possess. Prior experience feeds positive opportunity recognition (Hsu et al., 2013). The entrepreneur's values, beliefs, and goals affect which opportunities will be selected to be essential for consideration. This makes it necessary to have a knowledge-driven framework which can be used to guide inexperienced SME owners in their business development.

2.6.3 Business development in the food and drink industry

Springer- Heinze (2007) demonstrated three fundamental levels of the supply of chain in the food industry which are micro level, meso level and macro. **Figure 2-7** shows the three levels with each representing its role in the supply chain in the Saudi Arabia (Nanyunja, **2015**).



Source: (Alrobaish et. al. 2021)

Figure 2-7 Overview of main actors and related activities identified at the micro, meso, and macrolevels of the Saudi food supply chain

From **Figure 2-7** the food industry is characterised by various stakeholders. For simplicity, the author created **figure 2-8** that visualised the various stakeholders across the GCC. Although **Figure 2-8** represents the Saudi food industry, it is deemed that the whole GCC follows the same structure.

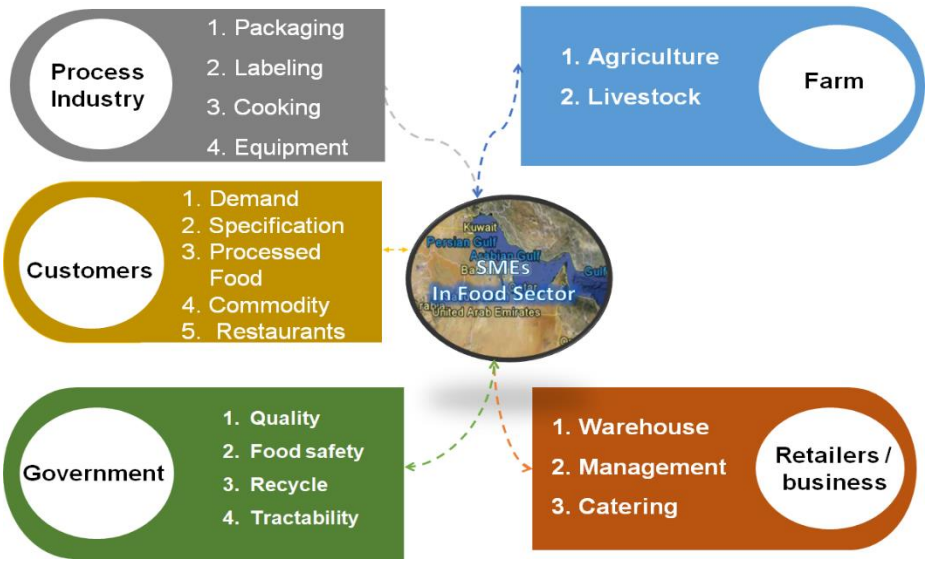
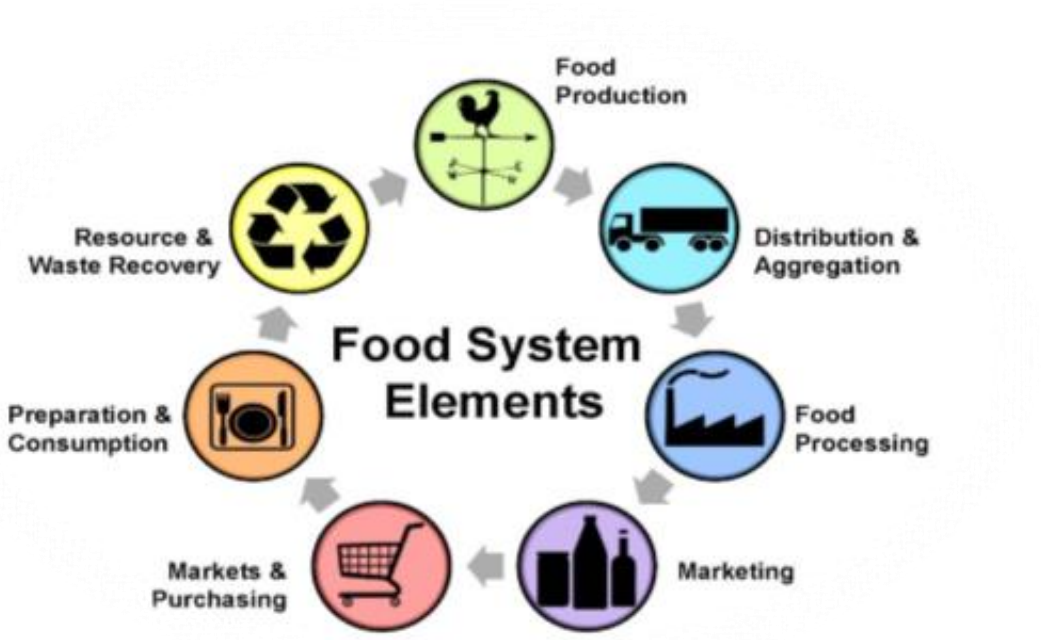


Figure 2-8 Food industrial sector stakeholders (Author)

The activities involved in this industry are shown **Figure 2-9**. they include food processing, manufacturing, distribution, and food service, all of which involve different activities to create value demanded by the final consumer.



Source: (Blount-Dorn, 2018)

Figure 2-9 Journey of the typical food system

As mentioned previously, this research's scope is mainly focused on the food processing aspect of the value chain.

2.7 Overview of the food processing sector

The food processing sector, also known as food manufacturing, includes companies that transform agricultural and livestock products into products that can be used for intermediate or final consumption also known as processed foods (Singh, 2012).

Therefore, processed foods are products from the transformation of raw commodities regardless of the extent of processing involved. For example, canned fruits which undergo minor processing unlike snack foods which undergo more complex processing. Such processing is value adding to enhance the shelf life of agricultural produce. These are achieved using various techniques such as sorting, grading, or packaging (Siebert, 2016).

A healthy food processing sector can have a significant impact on the economy of a country. The industry offers vital synergy and linkage between industry and agriculture; it can generate rural employment and provide a source of earning foreign exchange (Murthy and Dasaraju, 2011).

The extent of processing can be categorised as follows:

- Primary Processing; cleaning, powdering, grading, or refining e.g., grinding wheat into flour.
- Secondary Processing: basic value addition, e.g., ground coffee, tomato-puree, processing of meat products.
- Tertiary Processing: high value-adding, e.g., products like sauces, jams, and bakery products ready for consumption.

Food processing is a large sector in most parts of the world. They include activities such as agriculture, plantation, horticulture, animal husbandry and fisheries. It also includes other industries that use agricultural inputs for the manufacturing of edible products.

Several classifications can be used in the industry, such as consumer foods including packaged foods, beverages, and packaged drinking water; Grain processing; Dairy, fruits & vegetable processing; Meat & poultry processing; Fisheries.

Most companies operating in the Food processing industry are small and medium-sized firms, and also, most of these companies show a relatively low diversification of business activities (Kim et al., 2007). This trait and the industries value chain's traditional nature suggest that the majority of companies conduct activities within an identifiable, relatively static business model.

Kim et al., (2007) also explained that the industry is characterised by some unique variables that can be used to develop and innovate its business models, such as the Market type (geographical scale of activities), availability of raw materials, or sources of financial growth. As most of these variables are unique to the particular market environment, it makes it essential for new companies seeking to gain a competitive advantage or success in a new market to innovate its business model taking into consideration such factors (Najib et al.,2011).

To know how the GCC market environment will affect a new firm- mostly an SME sized firm, an understanding of the GCC market's characteristics is required. Without such in-depth knowledge, potential entrants and existing players wishing to grow will not exploit the market characteristics' opportunities. Furthermore, suppose such players are to exploit the opportunities provided by the new environment and at the same time, cope with its threats. The company strategy must be aligned to the new environment.

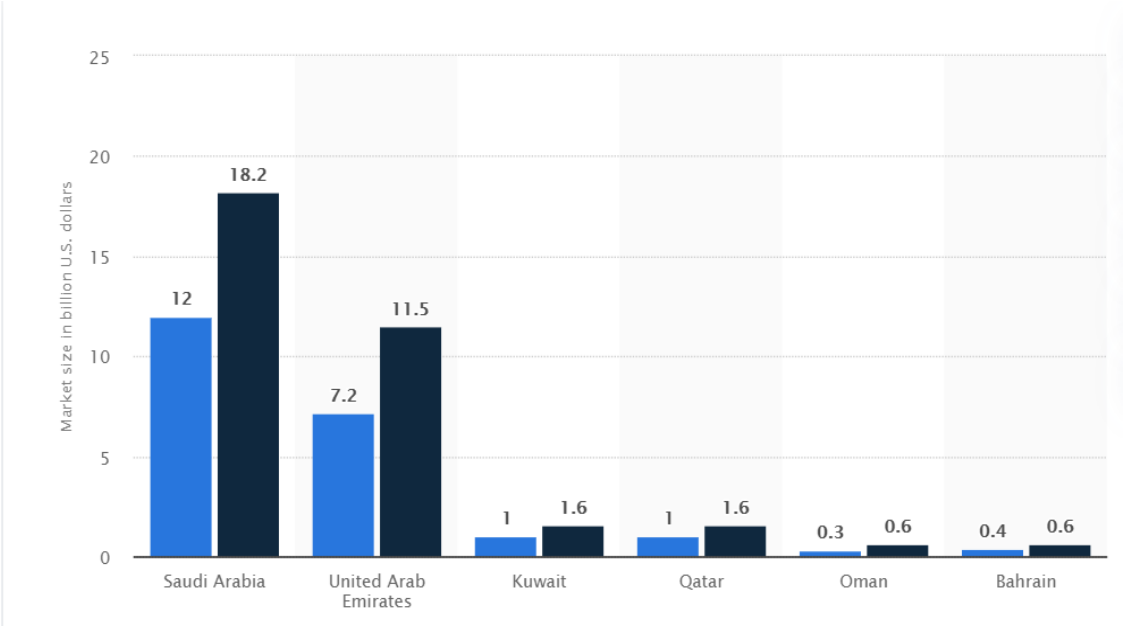
The next section will review the SMEs' specific characteristics and the GCC market and how they relate to the food sector businesses.

2.8 Overview of the GCC food industry

The Gulf Cooperation Council (GCC) is a political and economic union of Arab states bordering the Gulf, namely Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates, established in 1981(see appendix C.1). The GCC countries are among the wealthiest nations worldwide in terms of per capita

income. To decrease the hydrocarbon industry's dependence, governments give political priority to economic diversification (Dutch Agro Food, 2017)

Figure 2-10 shows the growth in market size of food and beverage in the GCC between 2015 and 2020 (Puri-Mirza , 2020). It can be observed that Saudi Arabia is leading the market by 12 billion dollars in 2015 reaching 18.2 billion dollars in 2020. Followed by United Arab Emirates achieving 7.2 billion dollars in 2015 and reaching 11.5 in 2020. As for the rest of the countries Kuwait, Qatar, Oman and Bahrain they all reached a market size of 1 billion dollars and less in 2015, respectively. Only Kuwait and Qatar managed to exceed 1 billion in 2020 while the rest remained below that.



Source: (Puri-Mirza , 2020)

Figure 2-10 Market size of food and beverage sector in the GCC 2015-2020

The Food & beverage industry in GCC is one of the most attractive globally, with strong sales growth forecasts. This is mainly because of the region's arid environment with little water availability and arable land. Many countries in the area do not carry out agricultural production themselves. As a result, the GCC imports more than 70 per cent of its total food requirement (Dutch Agro Food, 2017).

2.8.1 Trends and Demand in the Market

It is also reported that there is a change in the food consumption pattern in the region. This is most noticeable with the increasing popularity of packaged foods among the growing and youthful population (Euromonitor, 2017). These customer segments are more modern in their outlook to life, thanks to increasing access to the internet and global connectivity. They are more open to the Western lifestyle, including eating habits or other leisure activities. Consequently, they not only welcome international food brands, but they are also more open to new product varieties and innovation".

Furthermore, with urbanisation in the region, leading to more modern and busy working families, more women are entering the workplace. This also increases the demand for high-value processed foods, facilitating the new retail trade (Agriculture and Agri-Food Canada, 2015).

It is reported that processed foods currently account for 15-20% of consumption (Australia's Department of Environment and Primary Industries, 2017).

Saudi Arabia is the largest market in the region for processed food. It is reported that 80% of the retail food sold in the country are ‘consumer ready’. This trend is expected to keep increasing as about 70% of the populations are currently under 30years of age (Australia's Department of Environment and Primary Industries, 2014)

Again, the GCC region is also seeing a shift in food consumption pattern to meat and dairy products diet and less of carbohydrates and cereals (Euromonitor, 2017). Both the Consumers and the regulators are becoming more aware of issues around healthy eating. And so, functional foods are becoming the fastest-growing segment in the sector.

Already, large multinationals companies are capitalising on this trend in the market. For instance, Nestle recently launched a "choose wellness" program in the GCC which campaigns on combating lifestyle diseases and obesity. The company currently operates in some of the GCC food sector's highest growth

areas such as biscuits and snacks, confectionery, dairy and baby food, with brands like Nindo, KitKat and Cerelac (Euromonitor, 2017).

Another prominent trend in the market is the growing demand for halal food. Lastly, there is increasing awareness among food producers, and growing government support has started to boost the organic sector. All these trends and key areas mentioned should be the focus area and battlegrounds for any food manufacturers seeking to establish a GCC presence.

Average GDP growth	24%
Average food imports	70% of the total food requirement
Average population growth	18.9% (to reach 53 million by 2020)
Expected increase demand for food	More than 50 million ton by 2020 (from 41.7 million ton in 2010)
Current demand for processed foods	15-20% of consumption

Table 2-8 Overview of the GCC processed food market statistics

2.8.2 Opportunity for local production

The growing demand for food due to growing population, lack of local productions and change in consumption habits, and reliance on imports has made the GCC governments focus on developing long-term relations with food-producing nations globally. The governments are also increasingly seeking to promote local production and food security through various means (Lampietti et al., 2011).

Over the years, the governments have provided several incentives for local food production and manufacturing investments to reduce the reliance on food imports. The governments also seek to promote local players by strengthening them to grow brands in their home country and export, thereby expanding the food potentials (Dutch Agro Food, 2017). The governments have also developed several regulations to protect viable local production, such as increasing custom tax on poultry imports to promote local poultry production (Aljazira Capital, 2017). The governments have also established programs to promote modern farming technology; build roads in rural areas, construct irrigation networks, storage and

export facilities; and set up agricultural research and training institutes (Dutch Agro Food, 2017).

The increasing demand for food and the government support for local production is an opportunity for private sector players to expand their business within the GCC markets.

After having reviewed the various business development and business model best practices in literature as well as all the unique situations of the SME sector, the food processing industry, as well as the GCC market, it is can be concluded that the environmental business factors of the GCC market needs to be considered in any business development activities and need to incorporate into the BMC.

Therefore, it can be concluded that BMC is an embodiment of the best practices in business development. However, it also needs to consider other factors, including strategy, SMEs limitations, and unique market environments. The next section of this study will discuss the research gaps in the literature and the further work required to meet the objective of this study in developing an enhanced knowledge-driven business development framework for the food industry SMEs of the GCC.

Based on the finding of the literature review the following are the Research Gaps

2.9 Research gaps

The following are the identified research gaps:

1. The BMC has not been fully explored as a business development approach in food processing Industry by SMEs.
2. lack of studies on how BMC is the right business development model for SMEs of the food industry in GCC.
3. There is a lack of research to have a customised business development model to the SMEs of the food processing industries of GCC.
4. There is a lack of study about the influential factors of business development for the GCC food sector.

2.10 Chapter summary

The literature review main findings were that there is insufficient information regarding business development in the GCC, and further studies are required to explore it. Moreover, the Business Model Canvas was found to be undervalued in terms of business development in the new age of technology in business

3 RESEARCH METHODOLOGY

3.1 Introduction

Developing a novel knowledge-driven business model canvas to support SMEs in the GCC food industry to growth and profitability requires a research methodology to set a path for data collection and data analysis to achieve the research aim. Therefore, it is crucial to incorporate a suitable research methodology to address business development in SMEs in the GCC in terms of challenges and current practices. This chapter includes several main sections, such as how the method was implemented, developing a research study, research paradigm and others**. Figure 3-1** shows the structure of chapter three.

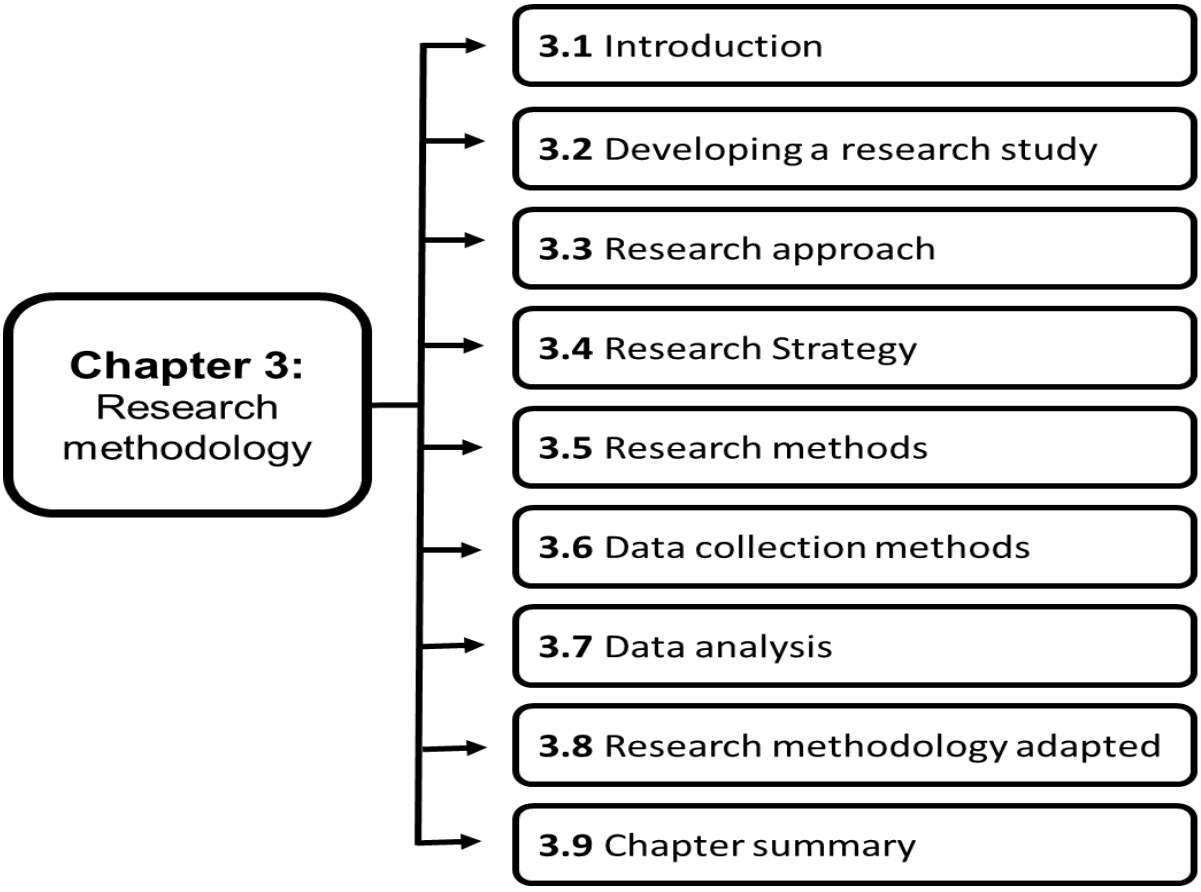


Figure 3-1 The main sections in the research methodology chapter.

3.2 Developing a research study

A research study is defined as “a systematic investigation and study to establish facts and reach a new conclusion”, whilst a research philosophy “is about how researchers and respondents perceive what is being investigated and their stance about intervening and believing the results” (Gray, 2009). The importance of research study emerges from the fact that it allows the contribution to knowledge.

3.2.1 Research methodology development

This section presents various research approaches and bases on the research context aims and objectives, and the appropriate research approach is chosen. Subsequently, data collection and data analysis are examined.

3.2.1.1 Research context

It is essential to contextualise the research to develop the most appropriate research methodology. This research focuses on the business development of SME’s in the GCC food industry, focusing on the factors affecting the business development the current practices in the industry and the knowledge used to drive business development on the GCC. This research will use several sources such as books, articles, online open sources such as google scholars Emerald, Science-Direct, Complete (EBSCO), Scopus, Elsevier and ProQuest etc.

Business model Canvas was the cornerstone of this research when looking at business development practices across the published studies. As a result, knowledge gaps were identified, and the research areas were the key factors determining the context of this research.

3.2.1.2 Research Paradigm and Philosophy

Research paradigm can be defined as “research paradigm is a framework that guides how research should be conducted; it is based on people’s philosophies and assumptions about the world and the nature of knowledge” (Collis & Hussey, 2013, p43). Once a

research paradigm is decided, the next step would be to design the research method that reflects the researcher's philosophical assumptions (Collis & Hussey, 2013, p59).

Burrell & Morgan (1982) concluded three reasons on why a philosophical paradigm is important for research. The first reason is that the research philosophy can help in justifying the adapted research methods. The second reason is that it allows researchers to compare and evaluate research methodologies to choose the most appropriate one. The third and final reason, research paradigm enhances creativity and innovation in finding suitable research methods.

According to Easterby-Smith et al. (2012) research philosophy branches into two branches as follow:

Ontology: in the branch of philosophy that studies concepts such as existence, reality. It questions the existence of entities on the most fundamental level. An ontological question would be: ‘’What is existence?’’ or ‘’What is the nature of existence?’’. In terms of research, Lincoln & Denzin (1994) perceived Ontology as “how a researcher explains the reality from the researcher’s standpoint”. The ontology describes views of people on the nature of reality either subjective (in our minds) or objective (really exists) (Flowers, 2009).

Epistemology: The branch of philosophy the studies the nature of knowledge itself, it seeks to discover what is known and how it was known. Moreover, epistemology challenges how our minds relate to reality and if the link to the fact is valid or not. It is thus needed to determine what is real and what is not.

Bryman (2012) noted that there are three types of thoughts: positivism, realism, and interpretivism in epistemology. Positivism “believes that there is a single reality shared by everyone in the world that is not known to anyone”. In other words, being a positivist means finding explanations by using the single general knowledge accepted by people. Realism is similar to positivism by definition. However, realism does not support the scientific method, while positivism does.

On the other hand, Interpretivism “believes in multiple realities that are carefully socially constructed from the relative context. Interpretivism thought claims that numerous facts according to the different contexts, exist and that the investigator becomes part of this research process by understanding and interpreting. Hatch (2012) assured that interpretivism aims to extract meaning from reality by understanding people’s views.

Ã–stlund et al., (2011) presented another thought constructivism which means that the researcher or a group creates a social phenomenon. This philosophical thought can never assume that participants observations are interpreted similarly, and the fundamental approach is to evaluate the differences in participants responses. Therefore, the author deems constructivism (believe that the reality is socially constructed) is most appropriate thought to adapt in this research.

3.3 Research approach

Saunders et al., (2009) presented to main research approaches; first, the inductive method and second the deductive approach. According to Silverman (2013), the deductive approach starts with developing hypotheses based on a pre-existing theory then designs the testing criteria to test it. This approach was deemed suitable for the positivist view. Researchers can determine a set of hypotheses that can be statistically based on a certain probability level (Snieder & Larner, 2009), especially in quantitative research.

Moreover, the deductive approach can also be used in qualitative research. A questionnaire can be utilised to collect data representing observations on a different understanding of the people through an empirical study. The data collected can be used to either accept or reject a hypothesis.

On the other hand, the inductive approach is the opposite of the deductive method. This approach, the research is performed to create a new theory rather than testing an existing one (Bryman & Bell, 2011). In this research, these interviews are commonly used to investigate a particular phenomenon and the collected data are then examined to find

patterns among responses (Flick, 2011). It is also possible that a deductive approach fits into an existing theory (Bryman & Bell, 2011).

The nature of this research is exploratory, and it will require the interpretation of observations of different respondents, it requires a constructive approach to build knowledge from interpretation. Henceforth, this research sits within an interpretive paradigm which sits with the inductive method (Creswell, 2013).

3.4 Research strategy

Saunders et al. (2012) defined a research strategy as" a general plan of how the researcher will go about answering the research question and meeting the research objectives". Furthermore, Saunders et al. (2012) listed the following as the main research strategies:

- Experiment: uses a scientific approach to examine or test the causal effects of phenomena. Results can be expressed statistically—one drawback of this method that it is rigid in structure (Saunders et al., 2007).

- Survey: used for collecting a large volume of data through a survey. The data is then analysed statistically to answer questions or hypotheses. This method is deemed cost-efficient (Bryman & Bell, 2011)

- Case study: this method is used to capture real examples from participants in a real-life situation. The number of case studies is limited per research context. Case studies are often used in social sciences and often associated with qualitative research (Denzin & Lincoln 2011).

- Action research: this method is used to examine a specific problem in a particular situation. A clear objective must be set in advance; then, data are analysed to conclude answers (Wiles et al., 2011).

- Grounded Theory: This method is often used in qualitative research, and it is used to create a new theory rather than testing an existing one. It begins with straightforward research questions; then, data is collected by interpreting different observations, then grouped into categories to create a new theory (Robson (2011).

3.5 Research methods

Research method can be categorised into three mains categorise as follows:

3.5.1 Quantitative method

This method focuses on providing a numerical or statistical presentation of gathered data to generalise conclusion among a group of participants to explain a particular phenomenon (Muijs, 2010). Creswell (2013) illustrated that the main purpose of a quantitative approach is to put hypotheses to test through the testing relationship between variables under examination in the study. This method uses a sampling approach to boost the generalisation of the results from the particular study population to a more significant population by adopting a deductive approach. A quantitative research design is deductive where the researchers deal with numerical data, perception, and testing (Weaver & Olson 2006)

3.5.2 Qualitative Method

This method analyses collected data from non-numerical data, such as text, video or audio data. It is used to gather a deeper understanding of a problem. Qualitative research is commonly used in social science, humanities, and history (Saunders et al., 2009). The qualitative approach is usually small-scale and emphasises details rather than statistical methods. The qualitative approach may be utilised as the first stage in the design of interview surveys (Hakim, 2000).

Aspect	Qualitative	Quantitative
Aim	Understanding different meanings and perceptions	Prediction (Testing hypotheses)
Data collection	Interview, focus groups, observations	Questionnaires, secondary data
Sample	Large sample	Small sample
Independence	Subjective	Objective
Philosophy	Interpretivism	Positivism
Analysis	Inductive	Deductive
Generalisation	Generalised	Not generalised

Table 3-1 illustrates the difference between qualitative and quantitative methods.

3.5.3 Mixed-Method

'Mixed methods' is a research approach that includes collecting and analysing qualitative and quantitative data in the same study (Creswell Clark 2011). Combining both research methods' advantages implies that various purposes may be served, and that triangulation of findings is facilitated (Saunders et al., 2009). Triangulation means combining quantitative and qualitative methods (Flick, 2009). Several practical matters are linked to these combinations of various research methodologies in the design of one study. Triangulation of quantitative and qualitative can concentrates the single case. The same respondents are fill in a survey (questionnaire) and interviewed.

Method	Strength	Weakness
Quantitative	Findings can be generalised across participants	Secondary data might not be accessible
	Easier to analyse	Measuring human behaviour is not accurate
	Data can be very consistent, precise, and reliable if samples appropriately.	Data may not be robust enough to explain complex issues. Error in sampling might affect the finding
Qualitative	Complements quantitative data	Findings usually cannot be generalised
	Can explain complex issues	Not easy to analyse
	Can include multiple methods	Time-consuming

Figure 3-2 The strengths and weaknesses of quantitative and qualitative research methods

3.6 Data collection methods

There two types of data it is either primary or secondary data. Primary data is the researcher's data, and it can be collected by applying various methods such as interviews and surveys. Secondary information is already gathered by another researcher for a different aim and can be found in books, websites, blogs, or journals (Saunders et al., 2009).

In research, the type of information needed determines the method (s) used in collecting from whom and under what conditions and there is no single technique has more advantage more than others (Robson, 2011). For this research, primary data is necessary due to the exploratory nature of the study.
According to Saunders et al. (2009). The main methods include:

- Interviews
- Focus Group
- Questionnaires
- Case-studies

3.6.1 Interview

An interview is a method that involves asking questions and recording answers. Interviews can be performed individually or in groups, and it could be performed through electronic means which makes it more convenient for researcher and participants Robson (2011). There are three main types of interviews (Robson 2011).
A. Structured,
B. Semi-structured or
C. Unstructured
A Semi-structured: allow the investigator to use a list of questions and themes to be covered. Unstructured interviews are informal and will enable the investigator to discover in-depth an area in which the researcher is interested (Robson, 2011).

3.6.2 Focus group method.

Focus group is a method similar to an interview but in a group. It can be described as a brainstorming session, where participants can share their opinions to be captured by the researcher. This method helps validate research findings and minimise biasness of data (Robson, 2011).

3.6.3 Questionnaire method

A questionnaire is an instrument that consists of a set of questions to gather information from respondents. This method is often used for statistical analysis of responses; however, it is not always the case. Questionnaires have various advantages; they are easy to implement and cost-efficient (Kelle, 2006).

3.6.4 Case studies method

This method can highlight knowledge about a single case or number of points (Yin, 2014). A case study could be empirical or theoretical or both, and it could be explanatory, exploratory, or descriptive (Tellis, 2005). This method is often used in management studies (Saunders, 2012).

3.7 Data analysis

3.7.1 Quantitative Data Analysis

In qualitative data analysis, the analysis is performed to turn data from numbers to meaningful insight. The analysis may include the calculation of frequencies of different variables in a research study. Quantitative analysis is often associated with hypothesis testing (Sgier, 2012). A set of analytical software can assist with analysing quantitative data such as Microsoft Excel, Microsoft Access and SPSS.

3.7.2 Qualitative Data Analysis

Qualitative data refers to subjective data often presented as a text produced from interview transcripts, video, or audio recording. Analysing such data is time-consuming, and it requires a lot of effort. The traditional qualitative data method is coding or grouping participants' answers into similar codes or groups. Recently, software's are introduced to perform this analysis such as the software package Nvivo (Wong, 2008)

3.8 Research methodology adapted.

In the previous sections, different aspects of the research methodology were explored to evaluate and hence determine most suitable approach for this research. In this section the adapted research methodology will be explained and justified. It is noteworthy that this research will adapt a mixed methodology meaning that at each stage of the research the approach will vary to achieve the desired outcome from each phase. In other words, at one phase the quantitative approach will be used and on the next both quantitative and qualitative could be used.

The research methodology is presented in 4 phases in which the research will follow to fulfil the research aims and objectives. **Table 3-2** explains the research methodology phases and explicitly states the expected outcome of each stage. For each stage of the process the research methodology will be explained in detail in section 3.8.1

Phase	Key Tasks	Deliverables
1. Understanding the context	1.1 Perform an extensive literature review. 1.2 Capture good practices and influential factors. 1.3 Design the questionnaire	• Research gaps • Questionnaire
2. Field study	2.1 Perform the field study survey of influential factors of business development among of SMEs of the processed food sector of the GCC. 2.2 Conduct face- to face interviews with SMEs owners of the processed food sector in the GCC.	Data analysis to Capture good practices

	2.3 Analyse the data collected from the survey and interviews,	
3. Developing a KD- BMC	3.1 Investigation of Lean Start-up approach of business development through an empirical case study 3.2 Perform more interviews with company owners to collect business owner's perception of using lean start-up, value proposition canvas and BMC. 3.3 From the observations Identify the core elements for developing a customised knowledge-driven model	Developed Knowledge-driven model and Customised BMC for SMEs in the food processing sector in the GCC
4. Validation	4.1 Industrial case study 4.2 Expert Judgment	Validate KD-BMC

Table 3-2 Research methodology

3.8.1 Research methodology justification.

As shown in **Table 3-2**, the research methodology consists of four phases in which the research will follow to fulfil the research aims and objectives. The following will explain each phase and the approach adapted in each of these phases.

Phase 1: Understanding the context of the project.

In this phase secondary data will be gather from sampling resources such as books, reports, blogs, and other electronic sources such as Emerald, Business Source Complete (EBSCO), Google Scholars, Science-Direct, Elsevier, Scopus, and ProQuest etc. This is done applying the following criteria: (i) articles must be published in a peer-reviewed journal, in English; (ii) reports must mention Business development or business model or Business Model Innovation; and (iii) articles must use agri-food, the food processing

sector/industry; small and Medium enterprises; the Arabic Gulf States region or the GCC in the title, keyword list, abstract, or full text. Articles must meet the first criteria and at least one other criteria.

In summary **Phase 1** of this research can be summarised as follows:

1.1 Conducted an extensive literature review to review the existing literature about business models, business model Canvas and understand the importance of the model in developing a successful SME in general and in food processing.

1.2 Understanding the core context of the study and capturing good practices and influential factors of developing a successful SMEs business

1.3 Identify research gaps from the literature regarding business development specifically for food SMEs in the GCC.

1.4 Design the questionnaire that can identify the influential factors of business development specifically from GCC food SMEs' perspectives.

Phase 2: Field Study

This research is an exploratory study and case study approach. Exploratory research is a worthy means to discover "what is happening; to seek new insights; to ask questions and to assess phenomena in a new light" (Robson 2011). It is useful to use this type of research when clarifying and understanding phenomena. Since the use of the Business Model Canvas in the GCC region was not found in previous research, an exploratory approach is adopted in this study. This study aims to help decision-makers in the food industry explore and determine implement knowledge in driving business growth.

To perform this field study the following approach was implemented.

A. Questionnaire design

Following an extensive review of literature, a questionnaire was developed to perform the field study. Questions in the questionnaire were designed to explore the perception of business development process by asking questions related to BMC components.

Initially a semi-structured survey was used in the field study were a quantitative and qualitative approaches were included in the survey. However, the survey needed to be revised and changed to a structure survey using quantitative method first. The reason for this is that the main aim of the study is to capture influential factors influencing business development in the GCC meaning these factors needed to be generalised on the studies sample to determine which factors are influential which in a qualitative approach it cannot be achieved, hence the qualitative part of the survey was discarded.

B. Sampling technique

Purposeful sampling method was used in selecting research participants. The reason for using this method is that it allows researchers to make the decision on whom should participate in their research (Palinkas et al., 2015). Another reason for using this method is that the selection of participants relies on availability and willingness to participate. Therefore, participants were first identified based on their availability and willingness then position. Participants information are shown in table 4.2.1 in the next chapter.

C. Data analysis

After designing the questionnaire and identifying the sample the questionnaire was then distributed to participants to fill. The answers where then entered SPSS for data analysis. This is presented in the next chapter.

In summary **Phase 2** of the research can be summarised as follow:

2.1 This field study took place in the GCC. A questionnaire was designed then distributed to 36 SMEs in food processing.

2.2 Semi-structured interviews were conducted with owners and managers of SMEs in the food sector.

2.3 Data analysis was performed to identify the current practices that influence implementing a knowledge-driven business model canvas.

Phase 3: Developing a knowledge-driven business model canvas:

Case study is deemed most suitable for understanding the nature of an issue and most ideal of study for obtaining a deeper understanding of phenomena in a real-life situation (Yin, 2014).

To perform this case study the following approach was implemented.

A. Applying lean-start-up approach.

First the lean start-up approach was applied on a company in Saudi Arabia to examine how this approach may affect the business development process.

B. Interviews

The application of lean-start-up approach and the results were presented to industrial experts to give their opinion on the process and the business model. The sampling technique for this part was also purposive.

C. Data analysis

Qualitative data analysis was used in this part to capture meaningful information from participants' answers. Key observations were recorded after analysing participants answers through identifying key words that relate to business development process and business model.

In summary **Phase 3** can be summarised as follows:

3.1 Lean Start-up approach in developing BMC was investigated through the empirical case study.

3.2 Interviews with company owners were conducted to collect business owner's perception of creating BMC based on Lean Start-up approach

3.3 Core elements for developing a knowledge-driven model were identified through qualitative data analysis.

3.4 Develop a customised knowledge-driven business model canvas based on research findings.

Phase 4: Validate the customised knowledge-driven approach:

According to Yin (2014), research validity is one of the most critical research criteria and an essential point of research results' trustworthiness. This research has employed experts' judgement as validation.

To perform validation, study the following approach was implemented.

A. Case study

A case study was performed where the developed KD-BMC was implemented in two companies from the GCC.

B. Interview

Interviews were conducted with experts to capture their judgments on the KD-BMC through asking questions on the results of the case study.

C. Data analysis

Qualitative data analysis was applied to capture information form expert's judgment answers through analysing the text.

4.1 Validate the customised model by experimenting with a case study in one or two of the SMEs' food processing.

4.2 Validate the customised model approach through expert judgments.

Table 3-3 shows the summary of philosophical perspective and methodological choices.

Research philosophy	Interpretivism
Research approach	Inductive
Time Horizon	Cross-sectional
Data collection methods	• Questionnaire • Case study • Interviews
Data type	• Secondary data • Primary data
Sampling	Purposive sampling technique
Data analysis method	• Qualitative analysis • Quantitative analysis

Table 3-3 The summary of philosophical perspective and methodological choices

3.9 Chapter summary

In this chapter, the research methods and data collection techniques were presented. Next, the rationale of the selected research methods and strategy was justified. Then, the research methodology adopted was illustrated. The next chapter will explain the field study in phase one and conclude the findings to be used in the following chapter to develop the model.

4 INDUSTRIAL PERSPECTIVE OF THE BUSINESS DEVELOPMENT CHALLENGES AND NEEDS IN GCC REGION

4.1 Introduction

A structured questionnaire (see Appendix A) was administered to a sample selected from the GCC countries' food processing sector. A random sample technique was developed to choose the needed sample size. The researcher was able to obtain around 36 complete and valid questionnaire forms. Descriptive statistical methods such as frequencies, percentages, mean, and standard deviation are used for data analysis, while for testing the questionnaire reliability Alpha Cronbach was used. The main sections of this chapter illustrated in **Figure 4-1**.

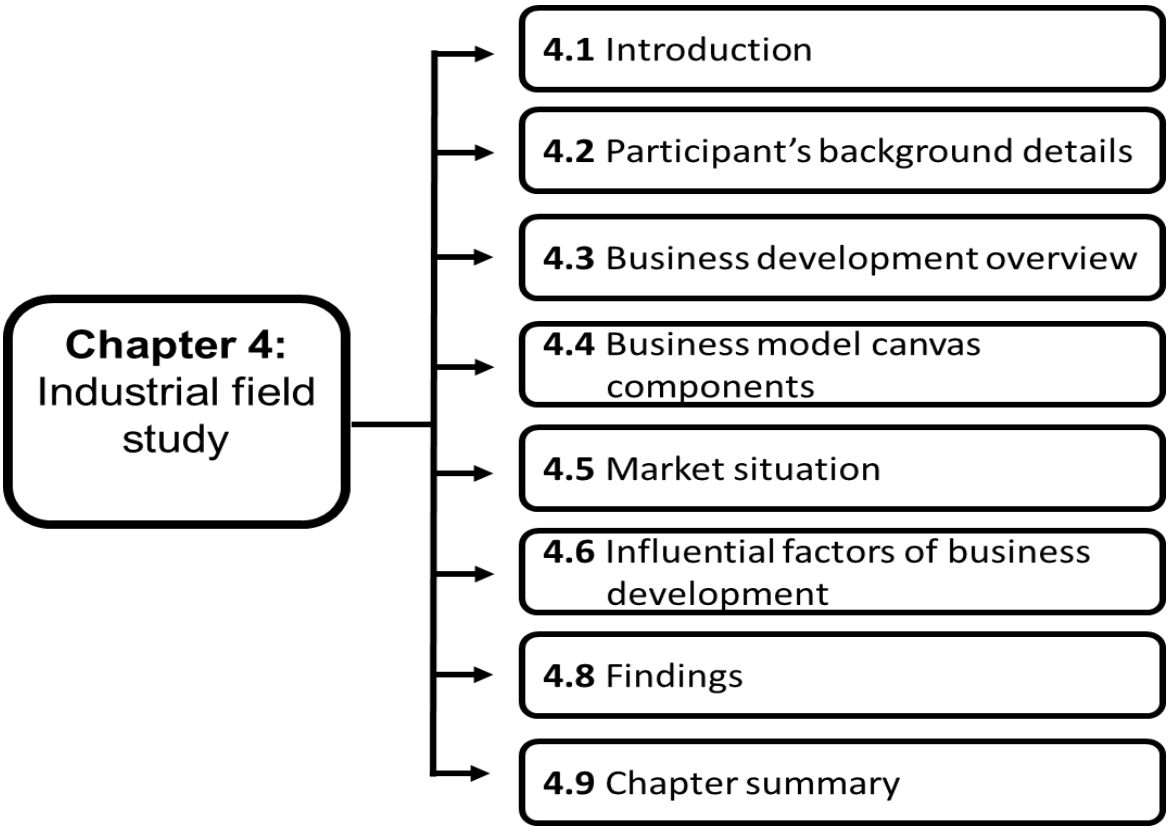


Figure 4-1 The main sections of chapter four.

4.2 Participant's background details

The personal information about the participants and food processing companies' case of the study will be presented, as shown in **Table 4-1**:

4.2.1 Respondents' Details

No	Company	Years of experience	company ownership structure	Years of doing business	Number of employees	Company activities	Location
1	Zonice	13	Private ownership	3-5	11-50	Frozen yogurt & snacks and beverages	KSA
2	Alameera foodstuff	19	Private ownership	6-10	51-250	Canned food	UAE
3	Qassim factory of food	15	Public ownership	10+	51-250	Bisect	KSA

4	Basiqah company	7	Private ownership	Less than 3 years	1-10	Dates processing	KSA
5	Alsalman factory	6	Private ownership	10+	51-250	Bread and pastry	KSA
6	Chicken meal	7	Sole Proprietorship	6-10	51-250	Fast food	KSA
7	Candy sweets	9	Private ownership	6-10	11-50	Sweets	KSA
8	911 restaurants	6	Sole Proprietorship	3-5	11-50	Fast food	KSA
9	Shaed sweets	19	Sole Proprietorship	10+	1-10	Sweets	KSA
10	Alseedawi sweets	19	Private ownership	10+	51-250	Sweets and pastry	KW
11	Adeed food company	25	Sole Proprietorship	10+	51-250	Canned food	UAE

12	Basel restaurants	12	Sole Proprietorship	6-10	11-50	GCC traditional food	KSA
13	Alsalman bakery	23	Private ownership	10+	51-250	Breads	KSA
14	Majdi food	17	Sole Proprietorship	10+	51-250	Restaurants	KW
15	Dania food company	18	Private ownership	6-10	51-250	Food and beverages	KW
16	Alkobeir snack food company	1	Private ownership	10+	51-250	Snacks	KSA
17	Awaali company	19	Private ownership	6-10	11-50	Snacks and canned food	BH
18	Mira catering services co	8	Sole Proprietorship	6-10	51-250	Food provider	KSA
19	Maza company	22	Sole Proprietorship	10+	11-50	Food consumer products	BH

20	Fatafeat company	8	Private ownership	6-10	11-50	Sweets and pastries	KSA
21	Factory Youssef Alsalmi	17	Private ownership	10+	11-50	Snacks and gum	KSA
22	Dayf dates factory	7	Private ownership	6-10	51-250	Dated processing	KSA
23	Jouna company	10	Private ownership	10+	51-250	Bread and pastries	KSA
24	Sanabel Alshahad factory	25	Private ownership	10+	51-250	Pastries	KSA
25	Hamod bakery	1	Sole Proprietorship	0-3	1-10	Breads	KSA
26	Melicon restaurants	7	Sole Proprietorship	6-10	1-10	Turkish food	KSA
27	Atteb restaurants	16	Sole Proprietorship	3-5	1-10	Arabic food	KSA

28	Zadana company	14	Private ownership	6-10	11-50	Dates processing	KSA
29	La Paz restaurants	1	Sole Proprietorship	0-3	1-10	Spanish and Arabic food	KSA
30	Albalah Althahbi company	19	Sole Proprietorship	6-10	51-250	Sweets	KSA
31	Hany restaurants	11	Sole Proprietorship	3-5	11-50	Arabic food	KSA
32	Qassim company	17	public ownership	10+	51-250	Dates processing	KSA
33	Alfartn bakery	4	Sole Proprietorship	0-3	1-10	Breads and pastries	KSA
34	Alaryaf bakeries and sweets	7	Private ownership	10+	51-250	Breads, pastries and sweets	KSA
35	Saudi dates company	20	public ownership	10+	11-50	Dates processing	KSA

36	Brtsto restaurants	3	Private ownership	0-3	1-10	Fast food	KSA

Table 4-1 Respondents' companies' details

4.3 Business development overview

4.3.1 Defining a business model

How would you define a business model in your company? Would you define it as a strategic management process to create value? Or an organized plan for business development?

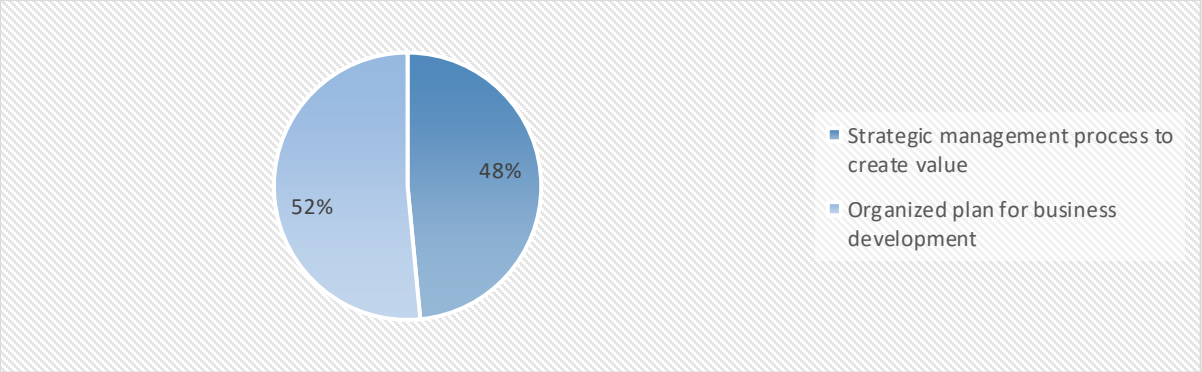


Figure 4-2 The participants' definition of the business model

Figure 4-2 shows how SMEs defined the business model. It was noticed that defining the business model as a strategic management process to create value or organizational plan for business development does not show any meaningful approach that SMEs adopt in GCC. The results also indicated no common consensus among companies on one approach of the business development model.

How would you define business development in your company?

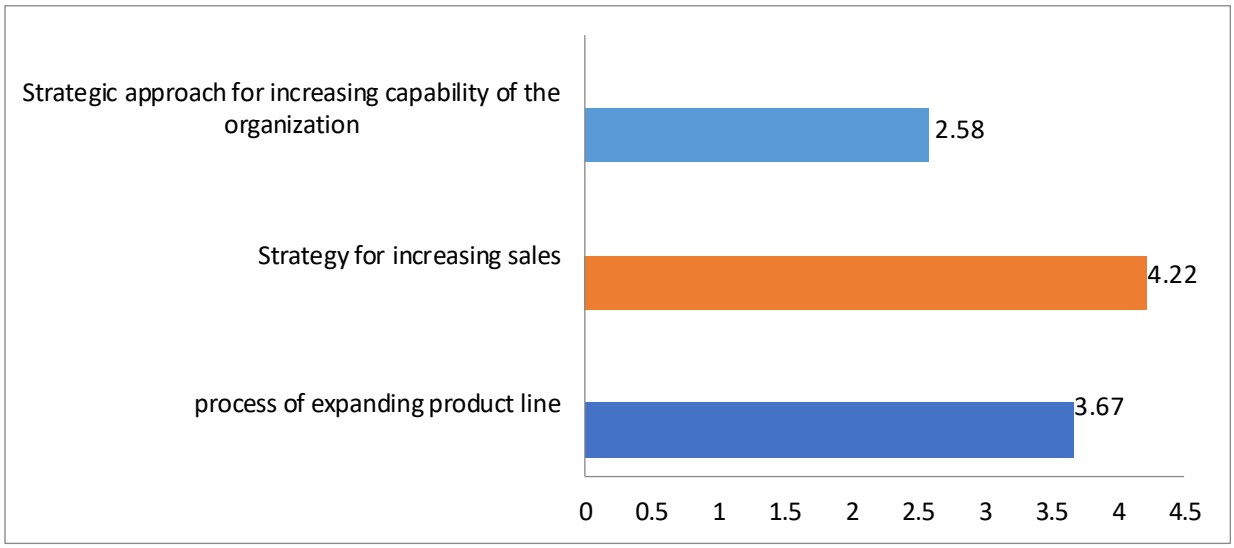


Figure 4-3 The participants" perceptions regarding how food processing companies defined a business development.

The results in **Figure 4-3**, showed participants views regarding how food processing companies defined business development. Results indicated that most companies concentrate on defining business development to increase sales. In contrast, most companies described business development as a process of expanding the product line. However, few companies are defining business development as a strategic approach for increasing capacity of the organization.

4.4 Industrial perspectives of Business Model Canvas components

4.4.1 Company customer segments

Who are the main customers of the company? (On what kind of markets, the company is positioned):

Figure 4-4 shows the participants perceptions of the frequency and effectiveness of the main customers' segments in food processing companies.

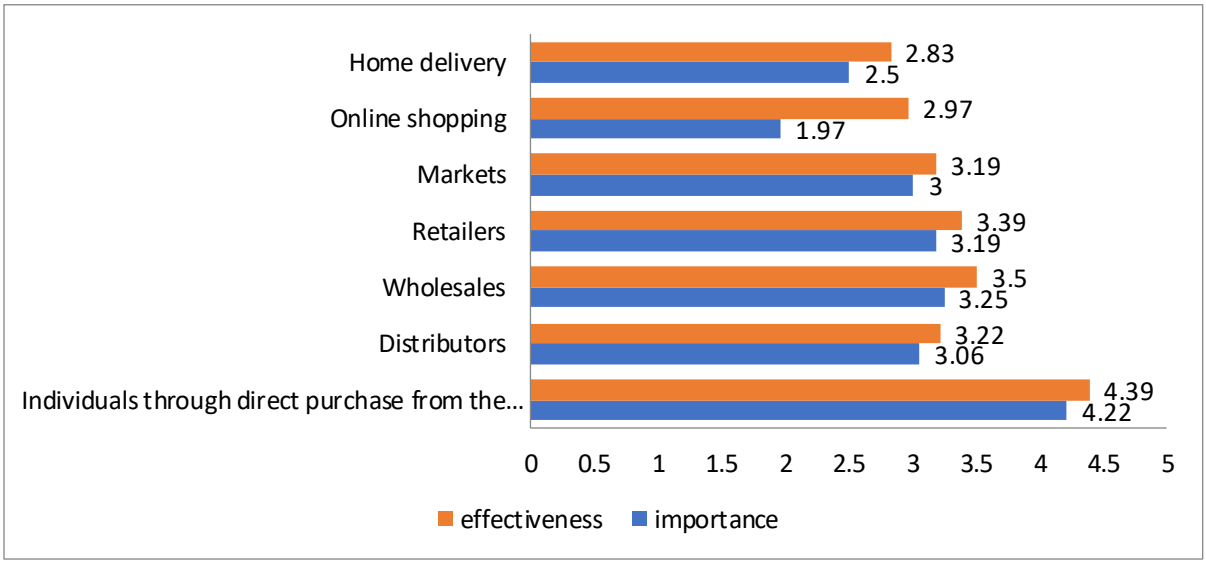


Figure 4-4 main customers' segments of food processing companies

The results in **Figure 4-4** demonstrated the frequency and effectiveness of the main customers' segment for food processing companies. It was noticed that the main customers' segment that is usually taken into consideration are the individuals through direct purchasing from the company shop. On the other hand, distributors, wholesalers, retailers, and markets have shown lower frequency or effectiveness. This means that the companies' marketing strategies in food processing companies only satisfy the individuals' demand and needs through direct purchasing.

4.4.2 Company Value proposition

What key value does your company provide to customer?

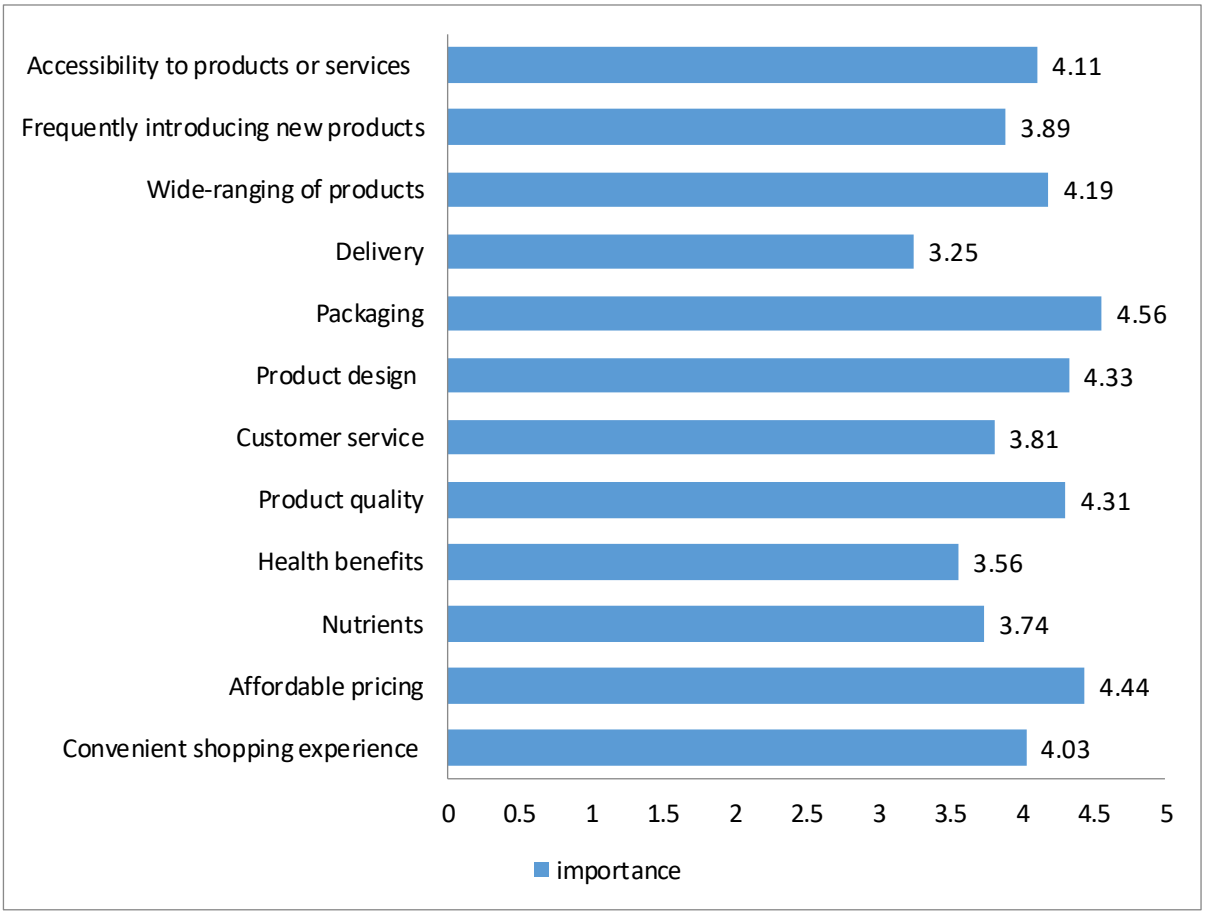


Figure 4-5 Key value proposition provided by food processing companies to customers

The results as illustrated in **Figure 4-5**, showed the key value propositions provided by food processing companies to their customers, based on participants responses, the most important key value propositions include: packaging, affordable pricing, product design, and product quality, however, the other key-value propositions seem to be necessary, except moderately important delivery. On the other hand, most elements of the key-value proposition are considered sufficient to attract customers.

Which of the following areas has it made the most important innovation decisions choices to satisfy the customers?

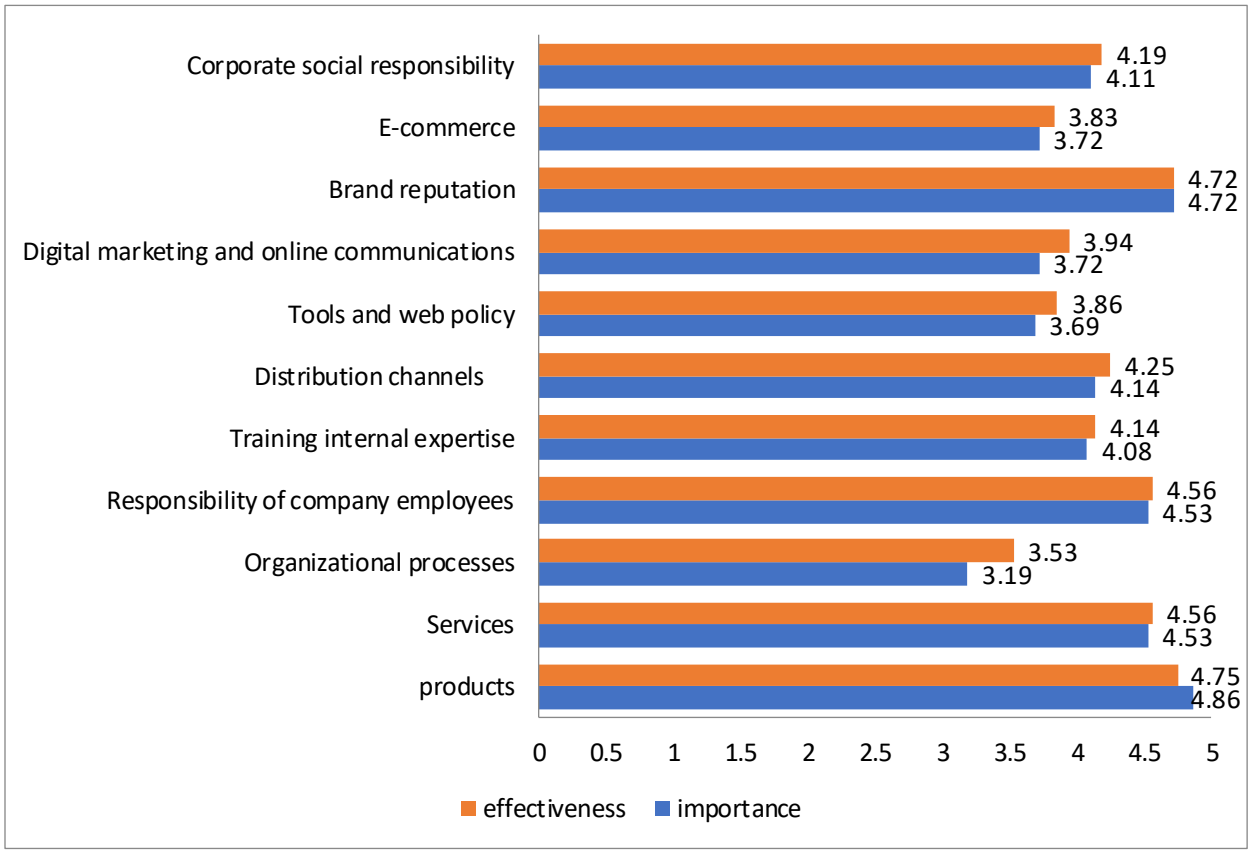


Figure 4-6 The areas contributing to the most important innovation decisions choices to satisfy the customers.

The results in **Figure 4-6**, showed the importance and effectiveness of areas that have contributed in the most important innovation decisions choices to satisfy customers, it was noticed that the most places that are considered very important and effectively to contribute in innovation decisions choices to help customers include: products, brand reputation, services, and Responsibility of company employees.

4.4.3 Channels

Through which channels the company distributes value to their customers?

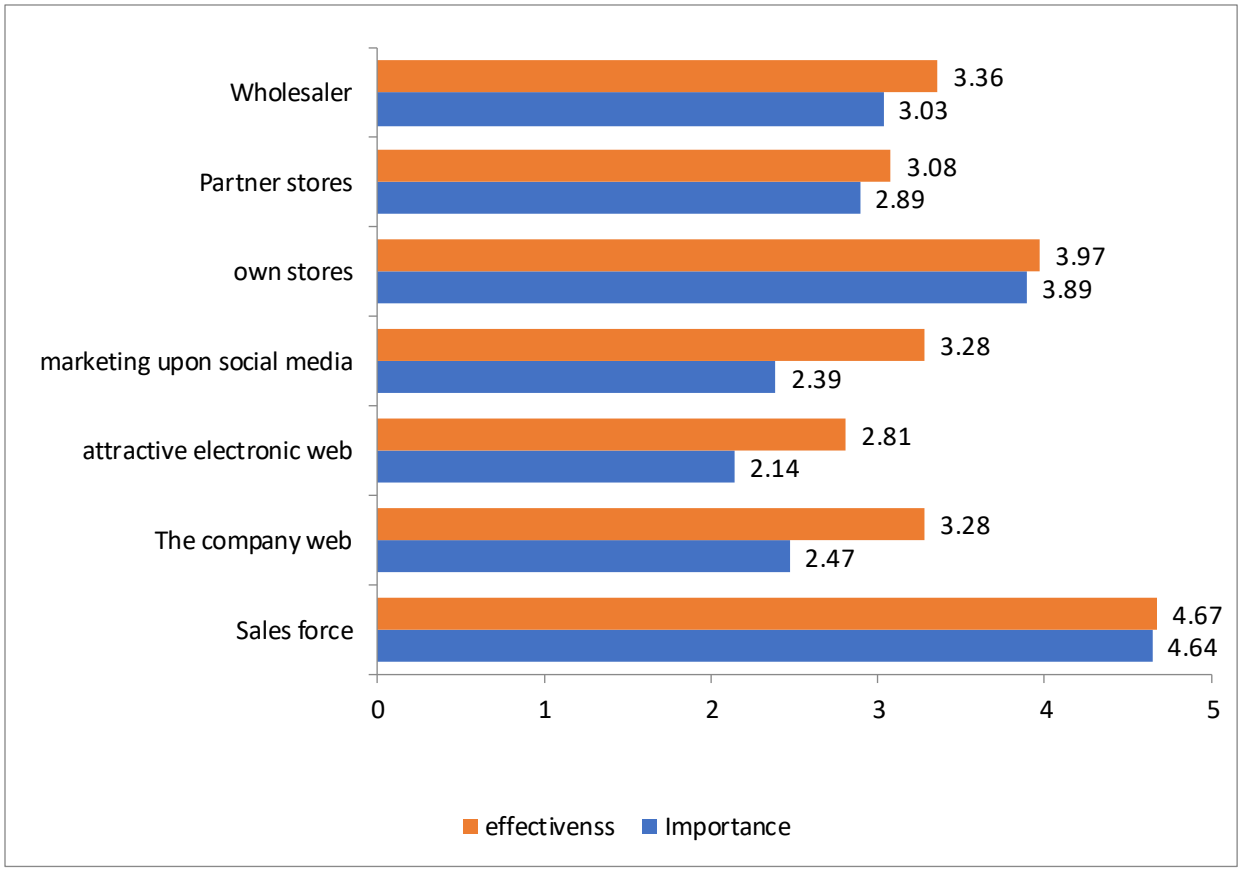


Figure 4-7 The channels through which companies distribute value to customers in GCC.

Figure 4-7, channels through which the company distributes value to their customer. It was found sales force is a highly effective channel meaning that purchases from direct customers are highly effective. While other channels, such as partners store, wholesaler, the company web, attractive electronic web, and marketing upon social media, are considered to have less importance and effectiveness for food processing.

4.4.4 Customer relationship

What types of customer relationships have you established and how?

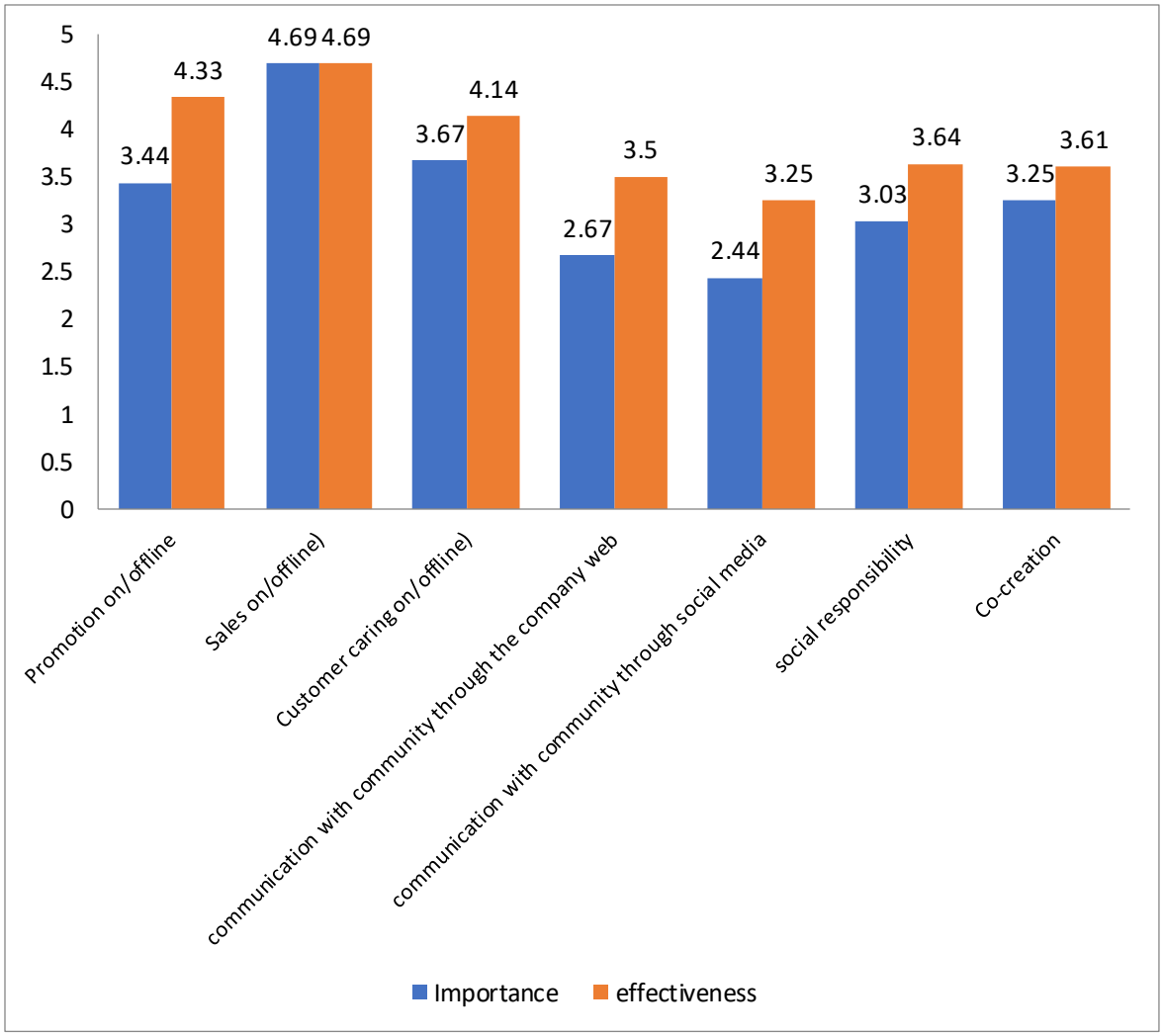


Figure 4-8 The types of customers relationship in food processing companies in GCC

The results in **Figure 4-8** shows the types of customer relationship that, have been established by food processing companies in GCC, it was noticed that, the most important customer relationships that have been found are: Sales on/offline), Customer caring on/offline), and Promotion on/offline, which seems to be highly effective to build a relationship with customers. Other customer relations, such as communication with the community through the company web, social responsibility, Co-creation, and

communication with the community through social media, were not considered important in food companies. This indicated that most food companies' strategies just aimed to increase sales. Therefore, there is no clear policy to build a reliable customer's relationship, which guarantees customers' continuity and sustainability.

4.4.5 Key Activities

What is your establishment's principal food manufacturing activity based on the proportion of annual total food sales?

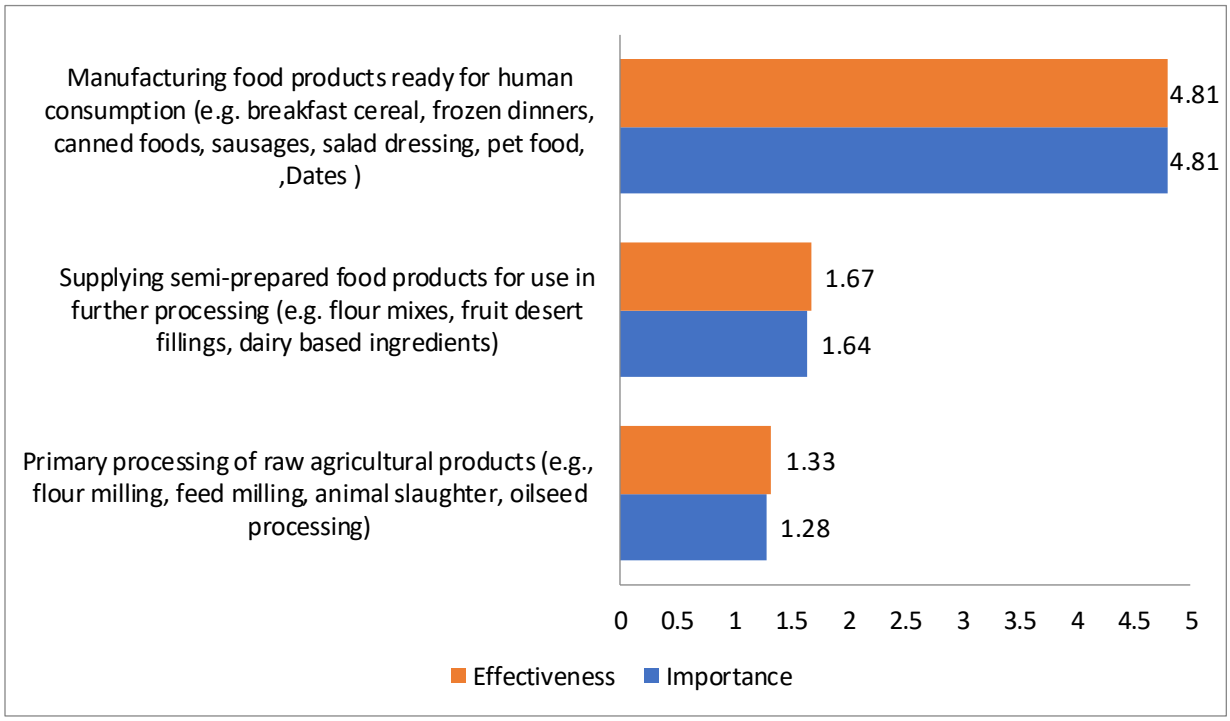


Figure 4-9 The principal manufacturing activity of establishment on the proportion of annual total food sales

Figure 4-9 shows that the most frequent activities that have always been used are the manufacturing food products ready for human consumption (e.g. breakfast cereal, frozen dinners, canned foods, sausages, salad dressing, pet food, Dates) with high frequency of 4.81out of 5 . In contrast, other activities were deemed to have a poor effect.

4.4.6 Cost structure

Which of the following elements are considered as the most Important of your company cost structure?

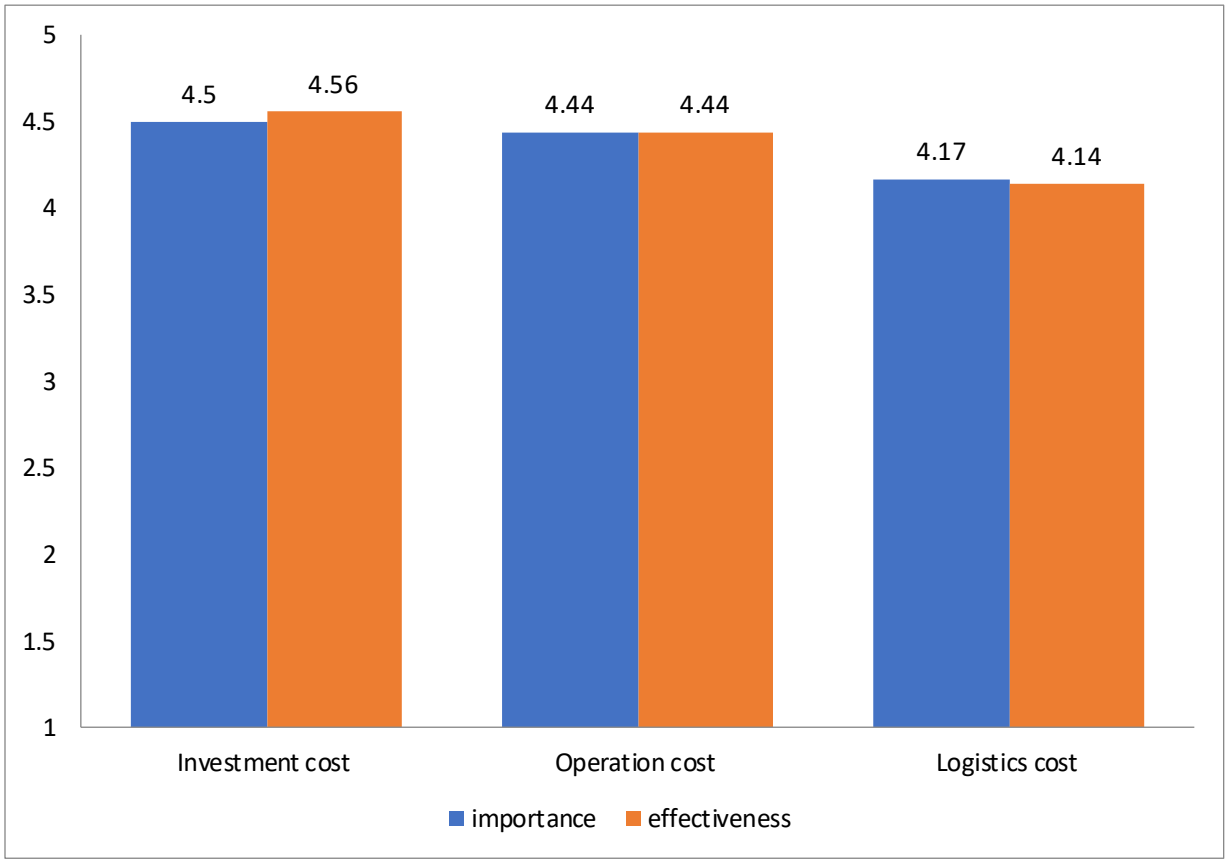


Figure 4-10 Cost structure as one of the influential factors

Based on received responses in **Figure 4-10,** most of the respondents that investment cost with a score of 4.56 of effectiveness and 4.5 on importance. While operation and logistics costs were considered less effective and less important

4.5 Market situation:

4.5.1 Market situation and business capability

what are the main market factors that influenced business development?

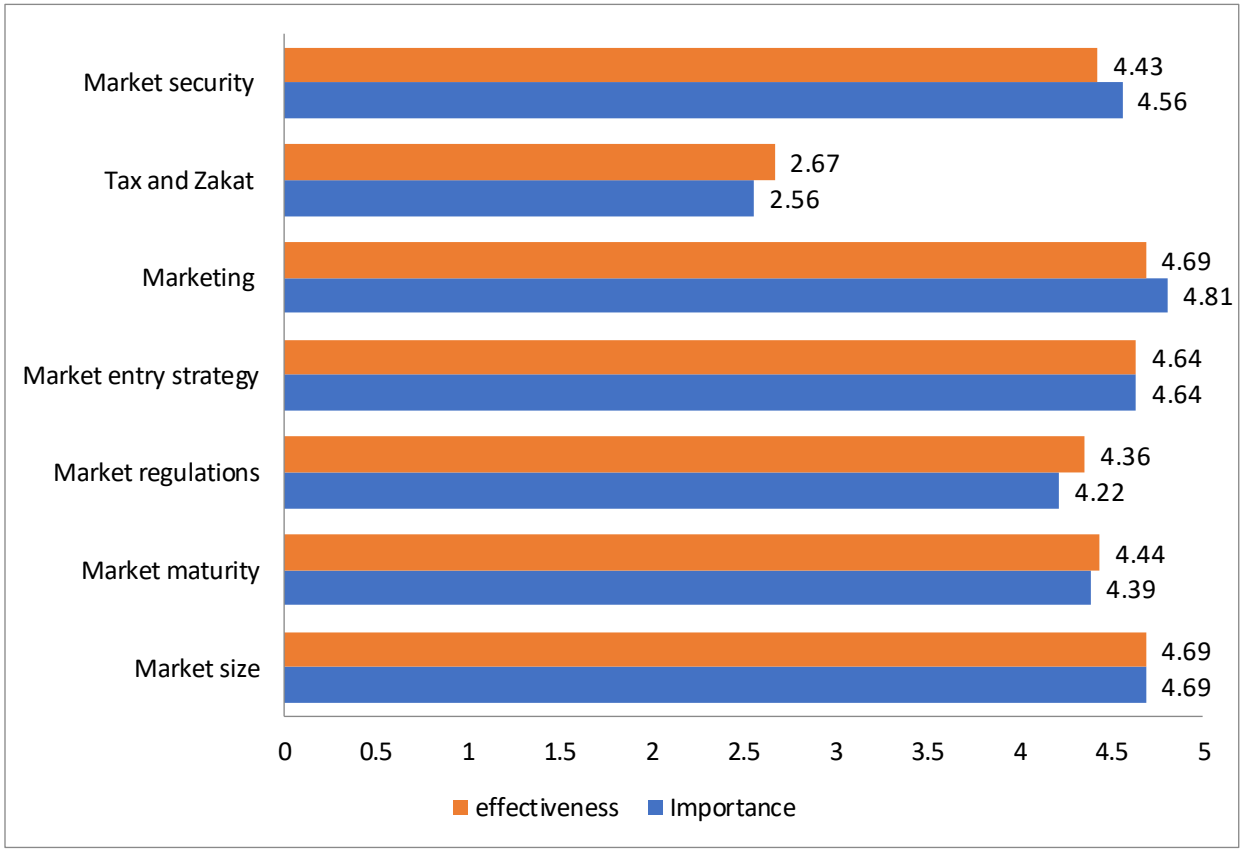


Figure 4-11 Market factors influenced on business development in the GCC

Figure 4-11 shows that Regarding the market situation, it could be noticed that all elements of market situation except Tax and Zakat, were considered highly effective and highly important for the business development of GCC's SMEs food processing sector. Zakat here is similar to tax but a tax that goes to charity specifically. This is common in all around the GCC and it accounts for 2.5% of earnings.

4.6 Influential factors for business development

4.6.1 Expansion

How does the following influence your decision to grow your business or expand to a new market?

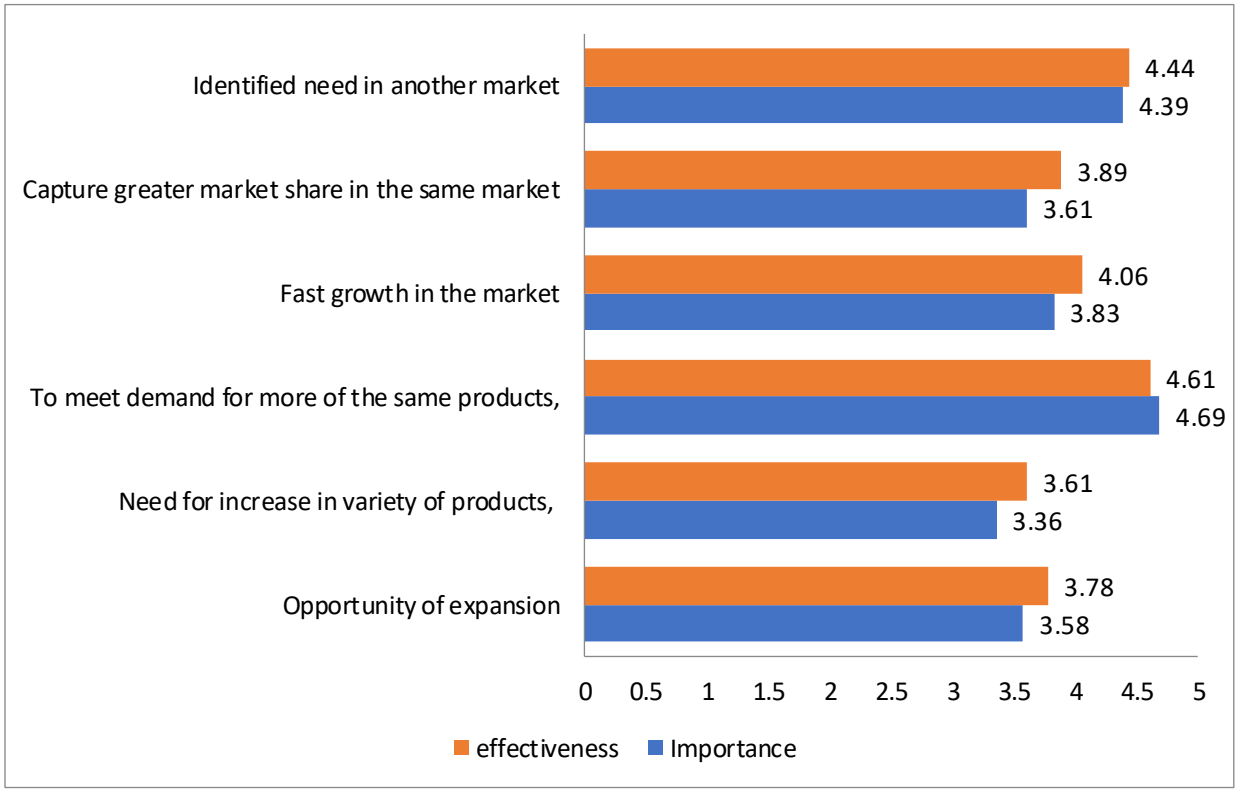


Figure 4-12 Factors influence SMEs food processing companies to expand to new market

Figure 4-12 shows that the most important factors influencing decisions to grow the business or expand to new markets are: to meet the demand for more of the same products and identified need in another market. In comparison, other factors are also considered to influence business decisions to expand to new markets.

What type of support do you get from each of the following?

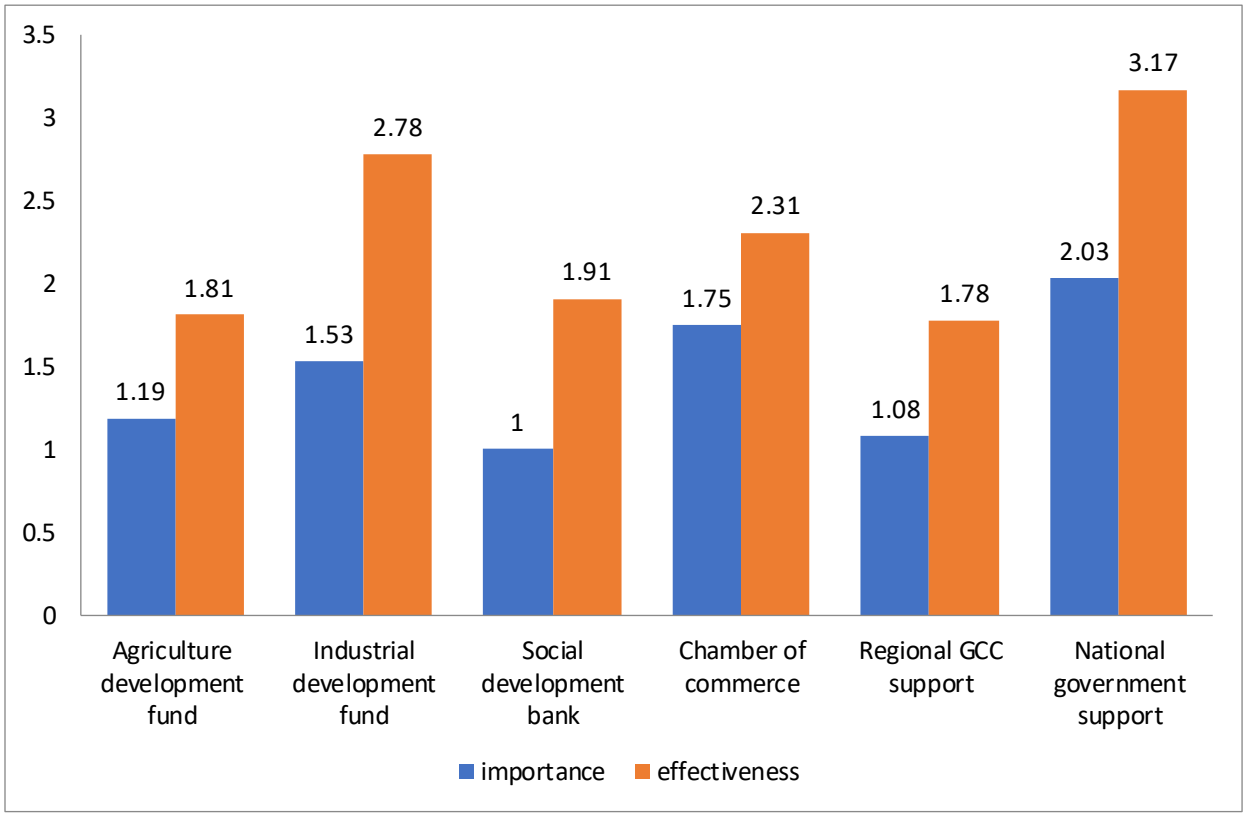


Figure 4-13 The type of support SMEs food processing companies received

Results in **Figure 4-13** showed no meaningful type of support the food processing companies get to grow or expand to a new market. This means that SMEs' food processing companies depend on their own resources to grow their business in the GCC market.

How do you access to finance for your business expansion?

Based on the previous results, what are the main sources of accessing finance for business expansion for GCC food processing companies? The researcher examines the main sources of accessing finance, as shown in **Figure 4-14**.

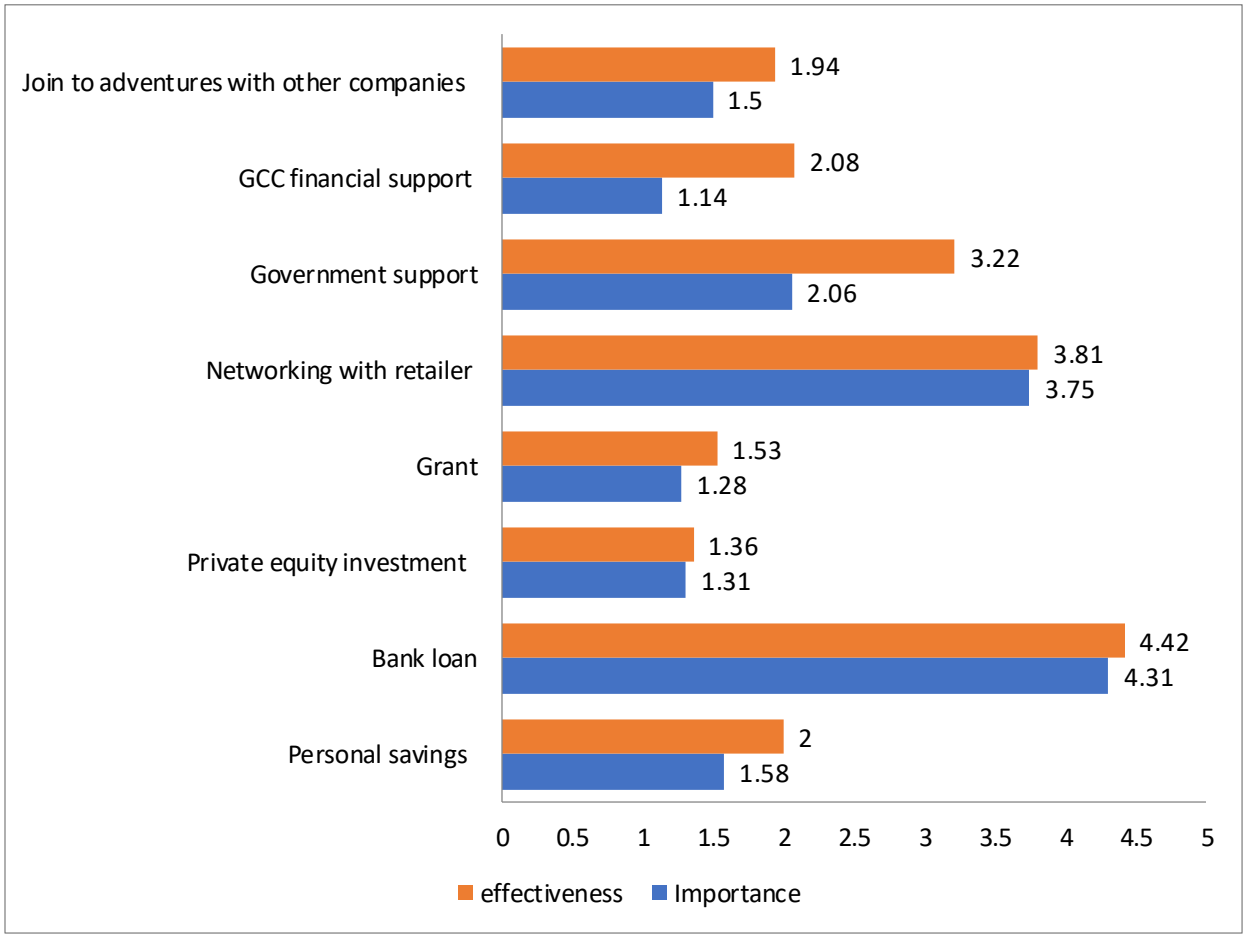


Figure 4-14 Sources of accessing finance for business expansion.

Figure 4-14 shows that the most important source for accessing finance for business expansion is bank loans, and networking with the retailer. In comparison, other sources are not available for SMEs food processing companies in the GCC. Therefore, there are no diversified sources for companies in the food processing sector to access fiancé to their business.

What are your main challenges in raising finance?

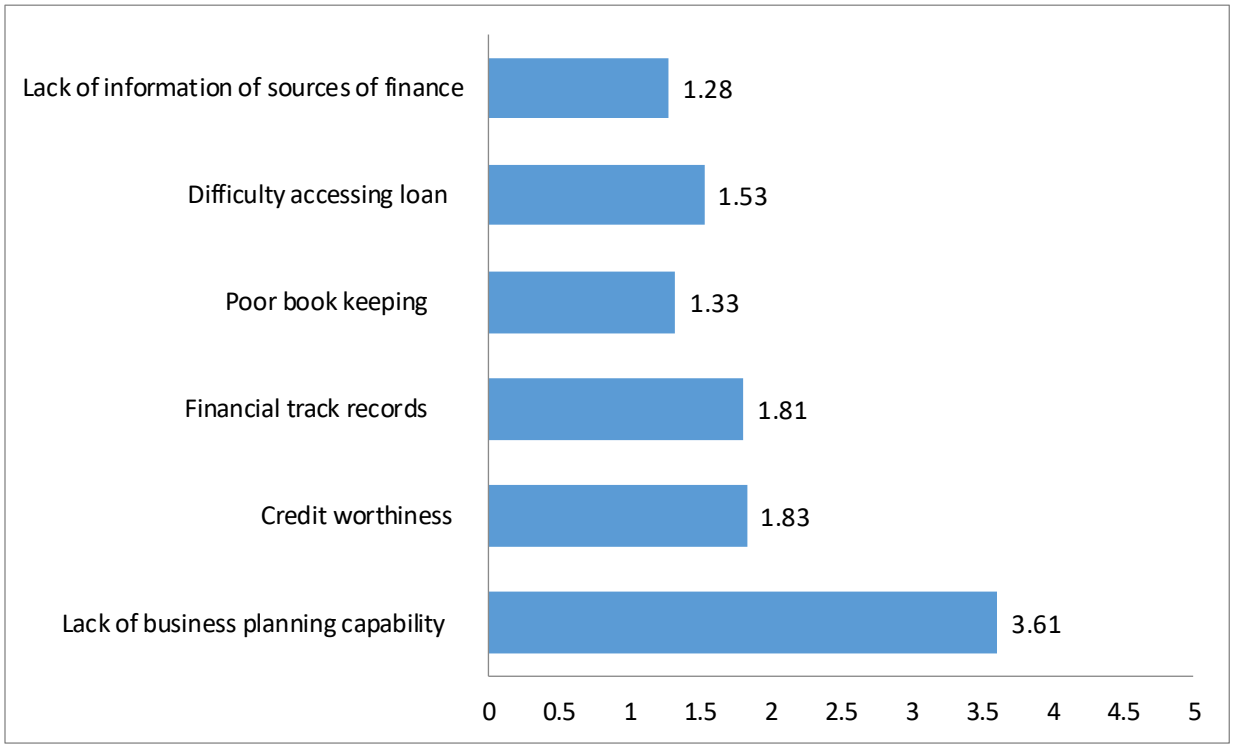


Figure 4-15 Challenges of accessing finance for business expansion

Figure 4-15 revealed that the most important challenge of accessing finance for business expansion for food processing companies in the GCC is the lack of business planning capability.

What do you need to expand?

SMEs in the food processing sector in the GCC is faced with various factors that influence the companies to expand, in addition to that, there are not enough sources for accessing finance. Therefore, this section will discuss what SMEs food processing companies need to develop to a new market. The results are demonstrated as in **Figure 4-16**.

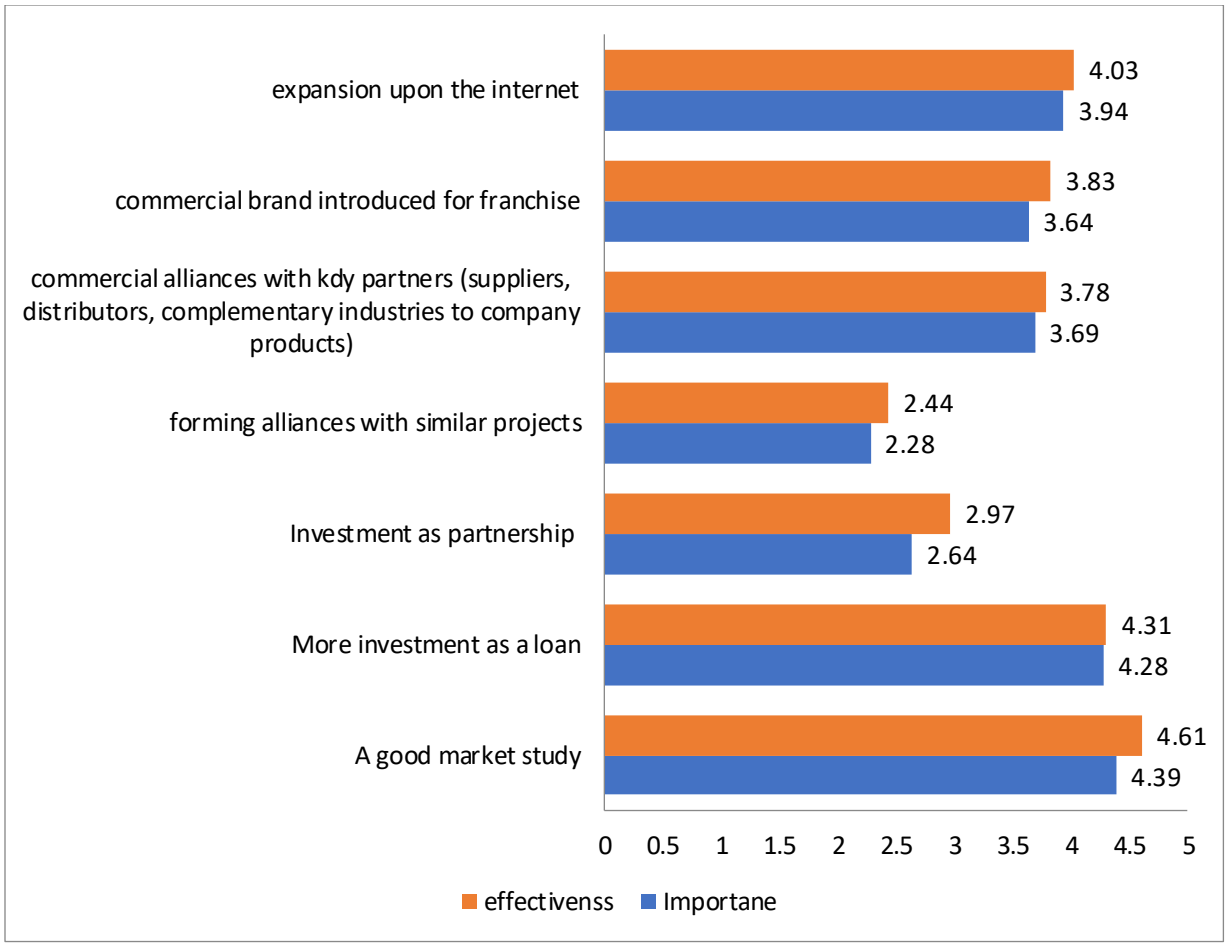


Figure 4-16 The needs of food processing companies to expand to a new market

Figure 4-16 showed that the most important and effective food processing companies' most important needs to expand are a good market study and more investment as a loan. However, other requirements such as expansion upon the internet, commercial alliances with key partners such as suppliers, distributors, and complementary industries to company products are also considered important. While needs such as investment as a partnership and forming alliances with similar projects were not considered important, they do not affect food companies to expand. This could indicate that businesses in GCC countries lack the culture of partnership and forming alliances.

4.6.2 The influential factors in terms of business development

Please rate the Influential factors according to their level of importance in terms business development

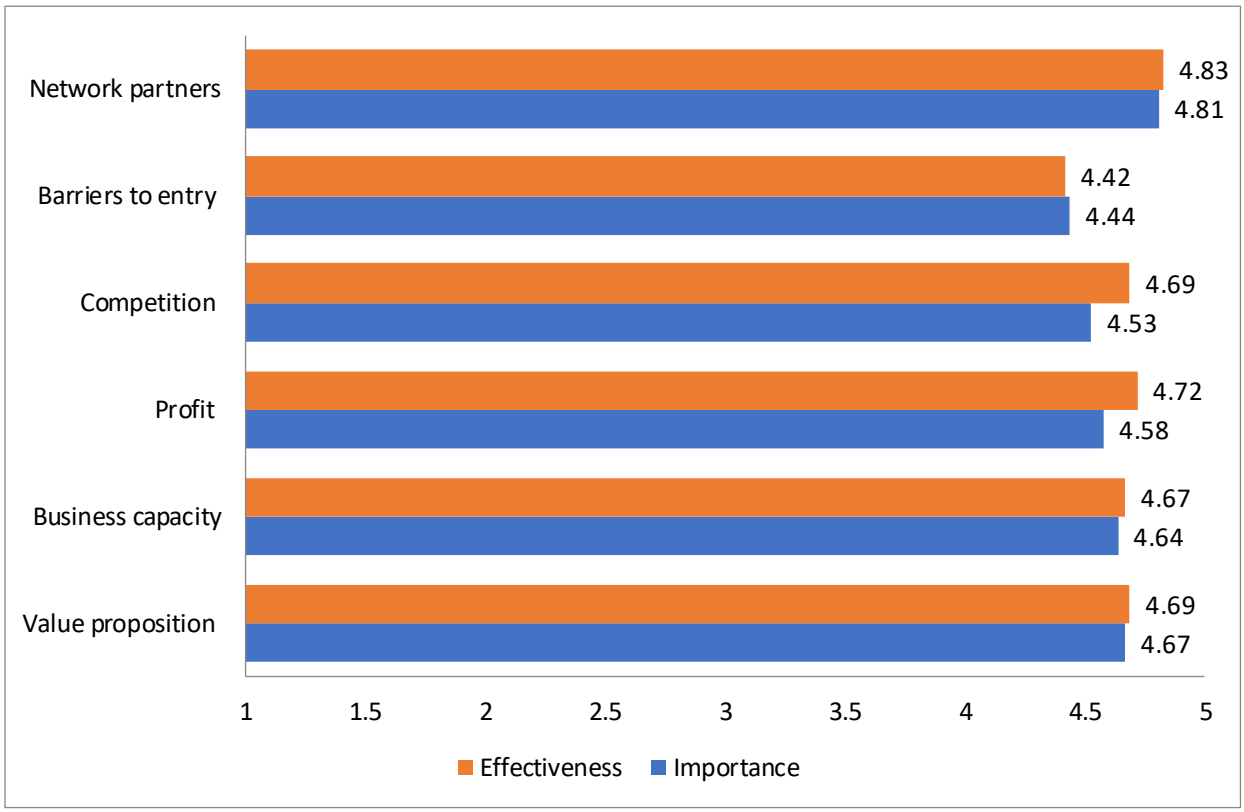


Figure 4-17 The importance and effectiveness of business influential factors on business development.

From the results in **Figure 4-17**, it was noticed that overall factors are considered very influential on business development in food processing companies in GCC. This indicated that if food processing companies follow an accurate business model, they will face solutions to cope with such factors. In addition to that, food processing companies don't provide value to customers.

4.6.3 The Important company management to the business objectives.

Please rank the importance to the management of your company of the following business objectives.

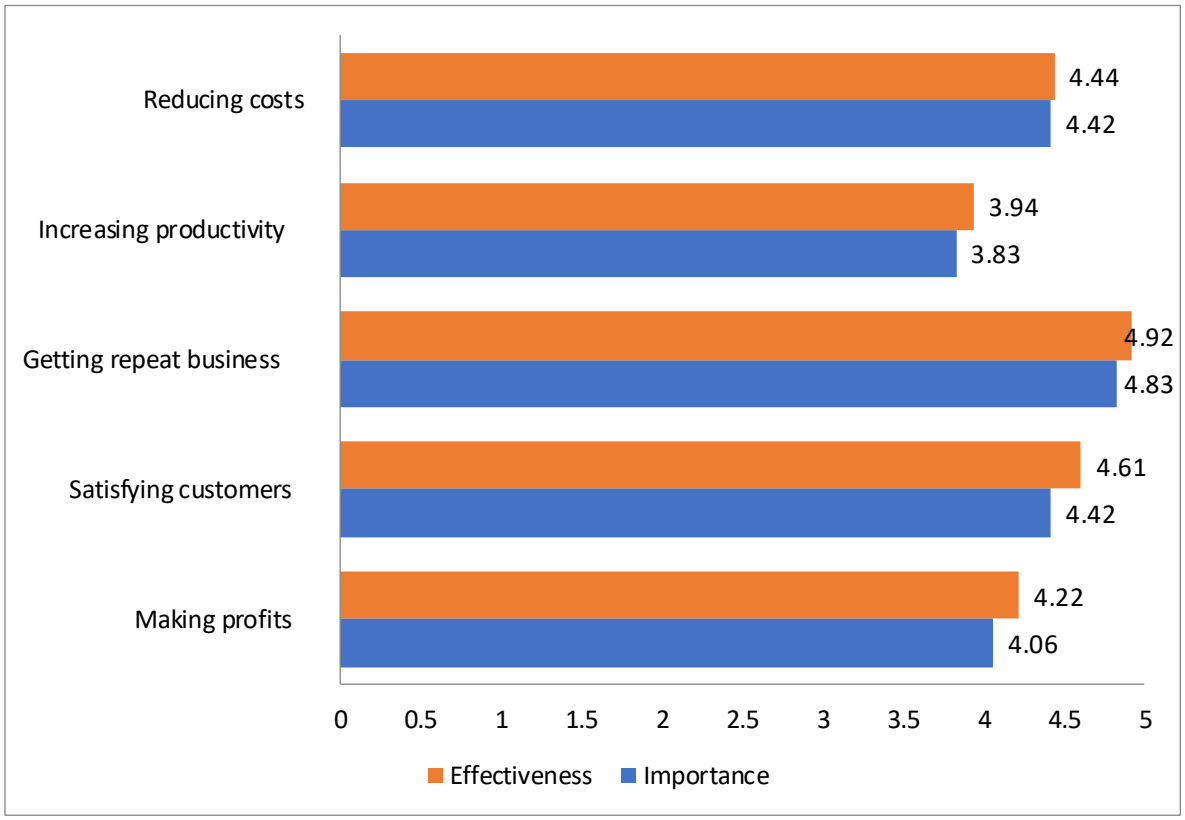


Figure 4-18 The importance and effectiveness of management of business objectives by food processing companies.

The results in **Figure 4-18** show that companies in food processing companies are concentrating too much to manage the business objectives such as getting repeated business, reducing costs, satisfying customers, making profits, and increasing productivity because they are important and effective for business development.

A multiple regression analysis was conducted by taking all the influential factors in the model to examine the importance of the previous influential factors on business development in food processing companies, by running the multiple regression analysis tests, through using the backward method. Using this method has generated 12 influential factors that have a significant relationship with business development's effectiveness. The usefulness of using multiple regression analysis, it will provide in-depth information about the most important influential factors on business development in food processing companies. Also, it will show the type of relationship between each factor and the effectiveness of business development. The results are presented in **Table 4-2**:

Model	B	Std. error	Beta	T-statistics	P-Value (sig)
Constant	4.181	1.864		2.243*	0.035
Value proposition	2.427	0.611	2.158	3.972**	0.001
Profit	-2.196	0.555	-2.289	-3.956**	0.001
Network partners	-1.857	0.437	-1.634	-4.250**	0.00
Marketing	-1.154	0.394	-0.751	-2.931**	0.008
Tax and Zakat	0.254	0.107	0.454	2.366*	0.027
Operation cost	-0.754	0.312	-0.849	-2.468*	0.024
Logistics cost	0.751	0.304	1.188	2.468*	0.021
Economic timing	-1.053	0.323	-0.802	-3.262**	0.003

Professional advisers	-0.512	0.208	-0.679	-2.467*	0.022
Management experiences	1.115	0.350	0.709	3.180**	0.004
Planning	1.492	0.353	1.621	4.227**	0.00
External environment	1.621	0.361	1.359	4.489**	0.00
$R = 0.806$, $R^2 = 0.65$	Adj. $R^2 = 0.467$		$F = 3.558$, $P = (0.004)$		

Table 4-2 Results of multiple linear regression to examine the effect of the influential factors on the effectiveness of business development in food processing companies.

**Indicated that T-test is significant at the (0.01) level.

*Indicated that T-test is significant at the (0.05) level.

The results in **Table 4-2**, show the results of running multiple regression analysis to examine some of the influential factors on business development in food processing companies. The results show that as the F-value is equal to (3.558) which is statistically significant at the (0.01) significant level as the (P-value = 0.004). The results also showed R-value of 0.806, which measure the multiple correlation coefficient between the variables in the model and the dependent variables (business development), indicating a statistically significant association between the independent variables and the dependent variable.

Furthermore, the results showed that the coefficient of determination (R^2) value is reaching (0.65), which means the 12 independent variables included in the model explain around 65.0% of the business development variation if other things remain equals.

Regarding each independent variable's effect and its contribution to the variations in business development, the model's factors can be divided into two groups. Group include the factors that have a significant and positive correlation relationship with business

development. In contrast, group two include the factors with a significant and inverse relationship with the business development in food processing companies.

As a result of this, the researcher tries to interpret the influence and relationship between each of the influential factors and the dependent variable (business development), based on each group's results.

Group One: This first group include the following influential factors:

- External environment
- Planning
- Value proposition
- Management experiences
- Logistics cost
- Tax and Zakat

Regarding the influence of external environment on business development, it was noticed that the regression coefficient of the factor is reaching (1.621) with T-test value equal to (4.489) which is statistically significant at the (0.01) level. This result indicates a significant and positive correlation between the external environment and business development in food processing companies. In other words, this means that the external environment is considered as one of the most important influential factors on business development.

The second factor that has a significant and positive influence on business development is planning, as the regression coefficient of the element is equal to (1.492) with T-test value (4.227) which is statistically significant at the (0.01) level. This indicated that there is a positive and significant association between planning and business development. In other words, if food processing companies have planning procedures, the effectiveness of business development will continue smoothly in future.

The third factor that has a significant and positive influence on business development is value proposition as its regression coefficient is equal to (2.427) with T-test value

reaching (3.972) which is statistically significant at the (0.01) level. This means that there is a significant and positive regression relationship between value proposition and business development. This means that if food processing companies can provide a value proposition to customers, that will positively influence business development in the future.

The factor number four that it has a significant and positive association with business development is the management experience, as its regression coefficient is reaching (1.115) with T-test value (3.180) which is statistically significant at the (0.01) level. This indicated a positive and significant relationship between management experience and business development in food processing companies. In other words, if food processing companies have a high management experience, this would contribute positively to support business development.

The factor number five that it has a significant and positive relationship with business development is logistics cost, as its regression coefficient is equal to (0.751) with T-test value (2.468) which is statistically significant at the (0.05) level. This indicated that there a positive correlation relationship between logistic cost and business development. Therefore, the success of the company to manage its logistic cost, will contribute positively to the effectiveness of the business development.

The factor number six, that it has correlated significantly with the effectiveness of the business development is tax, and Zakat, as its regression coefficient is equal to (0.254) with T-test value (2.366), which is statistically significant at the (0.05) level. This result indicated that there is a positive and significant correlation relationship between Tax, and Zakat, and business development.

Second group:

Regarding the analysis of the influence of the second group of factors that appeared to negatively influence business development. The factors come as follows:

- Profit
- Network partners

- Marketing
- Economic timing
- Operation cost
- Professional advisers

The results of multiple regression analysis showed that the above factors have an inverse and statistically significant influence on business development. Among them, the results found that the most influential factors that negatively influence the business development in food processing companies is profit, as its regression coefficient is reaching (-2.196) with T-test value (-3.956), which is statistically significant at the (0.01) level. This result indicated that there is a negative correlation relationship between profit and business development. This means as food companies generating more profit; this will not be employed successfully for business development.

The second factor that has a significant and negative association with business development is the network partners, as its regression coefficient is equal to (-1.857) with T-test value (-4.250), which is statistically significant at the (0.01). This result revealed that network partners affect negatively on business development. Furthermore, the results also confirmed that the third factor that negatively affects business development is marketing as the regression coefficient of the factor is equal to (-1.154) with T-test value (-2.931). Which is statistically significant at the (0.05) level? This means the marketing strategies of the food processing companies has a negative influence on business development.

On the other hand, the factor Number of four that contributed negatively on business development is economic timing, as its regression coefficient is equal to (-1.053) with T-test value equal to (-3.262), which is statistically significant at the (0.01) level. This result indicated that economic timing affects negatively on business development. The factor number five that has a negative influence on business development orientation is the operation cost, as its regression coefficient is reaching (-0.754), with T-test value is equal to (-2.418), which is statistically significant at the (0.05) level. Therefore, food processing companies need to manage the operation cost. It is worth noting that operating cost here

refers to the running cost of the business meaning money spent to buy materials, pay salaries, marketing and storage.

Finally, the factor number six that influence negatively on business development is the professional advisers, as its regression coefficient is reaching (-0.512) with T-test value (-2.467) which is statistically significant at the (0.05) level. This result revealed a negative significant correlation relationship between professional advisers' role and business development. This means that food processing does not employ effectively professional advisers to create their business development.

4.7 Findings

The following is an analysis and discussion of each of the influential factors identified from the field study, describing how they will have an impact on business development, business sustainability and growth of SMEs in the food sector of the GCC.

Specifically, the factors observed from the field study are listed below.

1. Increasing sales
2. Lack of a framework or a process for business development
3. Identifying the needs in the market
4. Meeting demand for more of the same product
5. Making new products
6. Newmarket research beyond the typical commercial area
7. Marketing
8. Market study
9. Loan as investment
10. Business planning capability
11. Availability of competitively priced raw agricultural products

As the aim of this study is to offer a business development framework or business model, which can guide the SMEs of the food sector in the GCC to carry out their business development, the factors are thus further analysed as they relate to the BMC, and then grouped into similar themes for ease of understanding.

1. **Increasing sales:**

   this aspect is considered the key goal of business development activities among most firms; it is the results of various other activities including- improvement of the production process, increased access to key resources (including the raw materials used in production), or due to an increase in the number of product lines from new product developments. It is, therefore related to key activities, resources, and value proposition elements of the BMC.

2. **Identifying the need in the market:**

   this is related to the value proposition and customer segment of the BMC. It requires the firms to determine who are their key customers and also how best to satisfy them.

3. **New product development:**

   this aspect is also associated with the value proposition aspect of the business. It involves identifying demands and gaps in the market, utilizing research and development, to introduce new products to the market. Therefore, this will also include customer segmentation to identify the key customers and then define the value proposition to provide products that satisfy them.

4. **Market study:**

   This is also similar to 'new market research' and is related to the customer segmentation and value proposition elements; it involves researching and documentation of established markets for the business products.

5. **Meeting demand for more of the same product:**

   this is chiefly associated with the key resource's element of the BMC; it requires access to finance to acquire increased production capacity, and also to help in acquiring more raw materials. This factor is also associated with the distribution channel needed to make the products available to the customers.

6. **Newmarket research**

   Research networking beyond the typical commercial area is also associated with key activities and customer segmentation elements of the BMC. It involves

scanning the market to establish more customer base - both locally and internationally, to increase the business's sales.

7. **Marketing:**

   this is also associated with the customer relationship' element of the BMC. It requires the business to promote the company's product to the customers.

8. **Loan investment:**

   this refers to access to finance to support all of the business growth activities. It is also needed to access raw materials and other key resources required by the business. It is therefore related to the key resources' element of the BMC.

9. **Business planning capability:**

   this aspect is unique to the business model, as it encompasses all elements of the BMC. It is the final documentation of all the elements of the BMC and their interaction. It is carried out before the onset of a business or at the start of a business's new activity, to ensure that it succeeds. In this context, it is an activity carried out as a key requirement to access investment, loan and other financial instruments, to allow the business to access the needed resources and capabilities to start-up or grow.

10. **Availability of competitively priced raw agricultural products:**

    This is one of the most important 'key resources' of the business. The availability of raw materials at competitive prices allows the business to provide lower prices to the customers and earn more in revenue and profit. It also helps the company meet increased demand and an increase in sales.

From the analysis of the results and findings, as elaborated above, three common themes are identified.

The first two relate to the elements of the BMC, which includes customer segmentation and developing the right value proposition. The last part is related to the entire BMC elements related to documenting it as a business plan. Customer segmentation stands

out here, as it was not one of the most highly cited in the literature in **Table 2-1**, and even far less in **Table 2-3**.

The first two themes are the key starting points of any business modelling activity (Osterwalder et al., 2015). The responses within the themes show that there is a hardship defining the value concept required. This implies that they have a challenge of establishing a 'product-market fit'. This supports previous findings that the value proposition and customer segmentation interact mainly in developing the product-market fit (Osterwalder et al., 2015).

Product market fit can be defined to be the fit between the offering and value provided, to the market requirements created by the needs of customers; and this fit creates the first step in formulating a successful business model (Andreessen, 2007).

If no fit is achieved at any level, then the product or service offered will not satisfy the market, and ultimately the business will not survive or thrive.

It's understandable that the results will show product-market fit as a challenge in the GCC; as has been identified in the study, the region is experiencing rapid changes in customer demand as a result of tourism, change in tastes and lifestyle (Algethami, 2015; Malek, 2014; Napier, 2014). This will also mean changes in the type of food customers desire and how they would like to access their food. These changes have several implications on the SMEs in terms of 'what' products or service to offer, and 'how'.

Lastly, business planning here as a theme relates to the instrument used to access to finance. As can be seen, access to finance (or loan) as a key factor in business development, is linked to the ability to conduct market research and develop a business model. The business plan is the final product of the business modelling activity, which documents the overall business model, including what it seeks to achieve and how (Türko, 2016).

For new or cash strapped companies, the business plan is what they use to apply for a loan and other financial instruments. In the case of established companies seeking to

grow, the business plan is the basis of decision making, with which management can inject finance to new activities (Jukova et al., 2019).

However, despite being a popular and widely used tool for business development, the BMC still has its limitations and criticism, as was highlighted previously. Regarding its effectiveness to support SMEs in the GCC, so that they can achieve product-market fit, the key weakness identified in this study needs to be addressed. Firstly, is the BMC's lack of explicit modelling method, whereby, there are no instructions explicitly defining the approach to developing the BMC elements (Aarntzen, 2016). It cannot easily be translated into practice by a new or inexperienced manager (Solaimani and Bouwman, 2012). This is more critical regarding the development of the value proposition among SMEs.

Therefore, the BMC must be complemented with more information, so that even a novice SME manager can be guided through step by step process of what to do in developing their business model. This supports previous studies of Ching and fauvel (2013).

Secondly, as the business development process using the BMC is not a linear process, but goes back and forth, until the right product-market fit is achieved, among the shortcomings of BMC is that it mixes different levels of abstraction among different elements. Level of abstraction is one of the reasons that business owners with no business development experience or education, cannot understand how to go about developing their business model, or how to fill up the various boxes of the BMC (Kraaijenbrink,2012). This makes it more imperative that a step by step guide be provided to support decision making in developing the BMC for SMEs in the GCC.

4.8 Chapter Summary

This study's findings have made it evident that SMEs in the GCC food sector need to have a clear business model based on their business development to start up their business or grow it. They also need a business model to run their businesses. This study has highlighted the importance of the influential factors of business development among the GCC food SMEs, and how they impact the business owners' decision-making process

in seeking to meet their business development objectives. Such factors have been identified through extensive literature review and subsequent analysis of the industrial field study's data. Understanding these influential factors would provide a knowledge base for SMEs in the GCC's food sector, so they can know the most important considerations and activities required to help them achieve their growth targets. It will also enable them to identify the pitfalls and challenges they should watch out for.

5 EMPIRICAL CASE STUDY TO ASSESS THE BENEFIT OF THE BUSINESS MODEL CANVAS AND LEAN START-UP IN AN SME.

5.1 Introduction

This chapter presents the process of constructing the company's value proposition, which further derived the business model canvas (BMC). Henceforth, the case study follows the application of the Lean Start-up process from start to finish highlighting all the stages of building BMC around a clear pre-defined value proposition to demonstrate how the lean start-up approach can be used to addressing developing SMEs in the food industry.

Lean start-up approach can be defined as a method used in a new company to develop a product based on customer desire, so the market already exist when launching the product (Ries, 2011).

Zonice company started in 2013 in a city called Qassim, Saudi Arabia with a small shop and less than 50 employees, therefore, the company can be considered an SME. Zonice began to gradually expand after two years from establishment branching out into 9 locations around Saudi Arabia major cities.

In the beginning, Zonice as a company was managed by a single-handedly by an entrepreneur who wanted to bring the concept of frozen yoghurt as a new product to enter Saudi Arabia markets to expand to a new market. However, to ensure that customers would accept frozen yoghurts, a minimum viable product was produced and pivoted based on the customer perceptions gathered from primary data through a survey questionnaire. This chapter addresses the fifth research objective, which is to evaluate the Lean start-up approach and the Value Proposition Canvas approach (VPC) and BMC for business development from SMEs' perspective in the food sector in GCC. The following sub-sections as shown in **Figure 5-1** will justify the application of lean start-up at Zonice frozen yogurt.

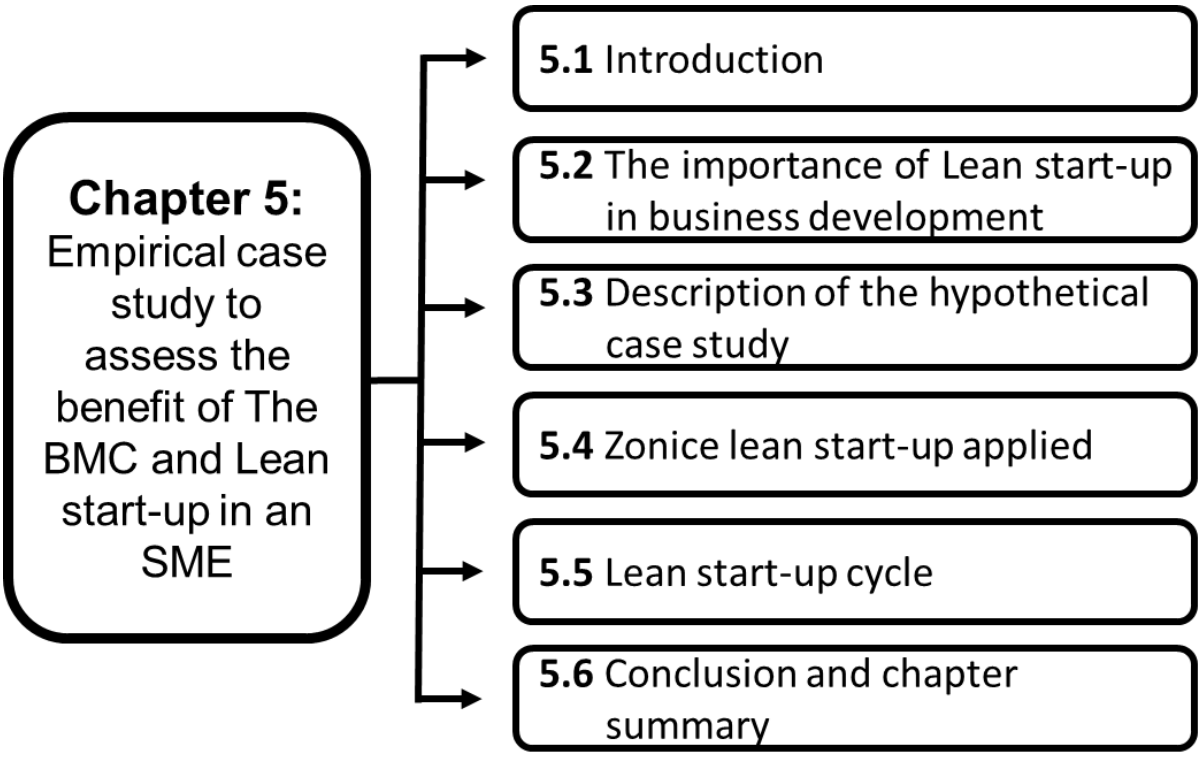


Figure 5-1 The main sections of chapter five.

5.2 The importance of Lean Start-Up in business development

The way to start a business was basically, writing a business plan, assemble a team, introducing a product, and started selling. In this sequence of event, companies tend to experience several setbacks (Blank,2013). According to Shikhar Ghosh, Shikhara senior lecturer at Harvard Business School's 75% of all start-ups fail. Shikhar stated that start-up fails due to failing to meet their initial projection.

Table 5-1 shows that around 36% of start-ups fall into the mistake of creating a product that does not have a market. Therefore, it is vital to identify what the customer would buy before putting the product in the markets.

NO	Top 10 start-up mistakes	Percentage
1	Building product with no market for it (Product market-fit)	36 %
2	In adequate hiring	18 %
3	Lack of focus	13 %
4	Underperforming sales	12 %
5	Team incompetency	7.9 %
6	Focusing on investors rather than customers	5.4 %
7	Poor financial modelling	3.3 %
8	Spending excessively	2.1 %
9	Lack of support	1.4 %
10	Ignoring social media	0.7 %

Source: adapted from (Sanchez 2019)

Table 5-1 Top 10 reasons for start-ups failing (Sanchez 2019).

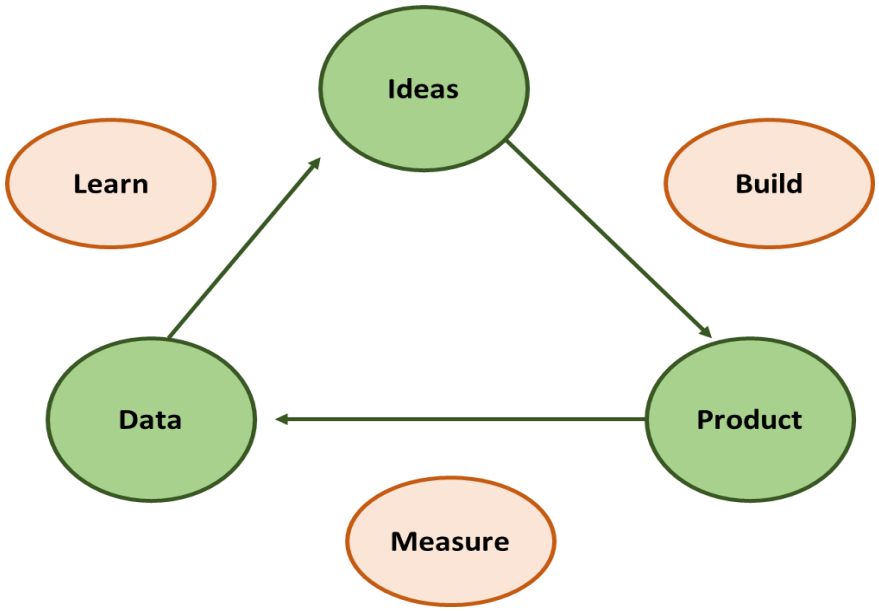
Lean start-up came as a methodology to eliminate the risk of falling. This approach favours experimentation over-elaborate planning and considering customer feedback over intuition; it invites the business's iterative approach. Despite being recent, it's concepts of "minimum viable product" and "pivoting" have been widely even in academia (Sanchez 2019).

Figure 5-2 illustrated the lean start-up process (Reis, 2011) that shows the process's key milestones. Lean Start-up applies" Leap of Faith" which means placing assumptions for the near future for which a business must treat as a hypothesis for testing. In other words, the once the idea is formulated and the product is produced the data received from the

product (through customer feedback) is then reflected back on the idea in order to iterate and improve the product.

Lean Start-up approach seeks to identify the customer segment by asking three simple questions (Ries 2011):

1. Is the customer aware of the problem you are trying to solve?
2. Would a customer pay for it?
3. Why would they buy it from you, not from someone else?



Source: adapted from (Ries, 2011)

Figure 5-2 Lean start-up cycle.

5.3 Description of the hypothetical case study

As mentioned previously, Zonice company started in 2013 in Qassim, Saudi Arabia, with a small shop and less than 50 employees. Zonice began to gradually expand after two years from establishment branching out into 9 locations around Saudi Arabia major cities.

Zonice owner and entrepreneur formed the top management team. The team consisted of food executive, sales executive, marketing executive and a nutritionist. The team

looked to answer questions 1 and 2 that lean start-up implies, the first question is ‘’ does the target audience recognize the problem you are trying to solve?’’ and the second ‘’ If there was a solution, would they buy it?’’. Following the Lean start-up process will help answer these questions and the fundamental assumptions in the right and most straightforward method.

The top management team at Zonice built a network of connections around professionals from the agriculture and health sectors who further supported frozen yogurt's launching into the market. For a start-up, such access to the health sectors provided them with domain-specific information which is often critical for overcoming foreseeable issues. On the other hand, the team was looking into the need for frozen yoghurt in the food sector; therefore, research was conducted on the industry's state and its outlook.

Their research used data collected from superstores wholesalers and food manufacturers about processed desserts and treats. Collected data included the type of food, price, caloric intake, sugar content and other nutritional values. The research results revealed that there is a lack in the availability of healthy treats and diets in the market. This is also compounded by the fact that obesity and diabetes have been on the increase in the KSA, with the latter being the highest in the world. Furthermore, with the change in the economy with more people leading busy lives and preferring to get fast food, coupled with the availability of disposable income has led to the health concerns and demand for healthy food options (AlJazira Capital, 2017)

Having identified the problem, the team began to conduct more profound research to define customer gains and pains. At this point, Zonice will be able to formulate or define their value proposition. The value proposition was defined using the value proposition canvas template was filled out as detailed in Section 5.4.

5.4 Zonice Lean Start-up case study

In this case study, the lean start-up approach will be followed. The process cycle was illustrated in Figure 5.2 Reis (2011) stated in his book, the lean start-up approach in terms

of steps to follow. **Figure 5-3** shows the process of following the lean-start-up approach, and each step is then explained in the following sub-section.

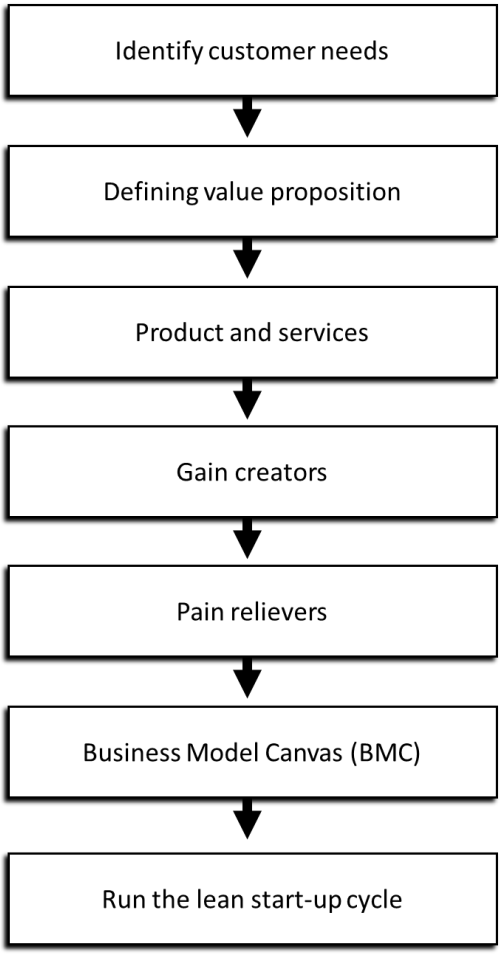


Figure 5-3 The process of following the lean start-up approach

5.4.1 Case study data collection

For each of these processes, the data was collected through utilising a semi-structured interview with Zonice owner and team. **Table 5-4** presents the company's questions and answers for the first part of the process, which creates the value proposition canvas.

Question No.	Question	Answer by Zonice
1	How did you decide your customer?	'' First, in the community, we live in we noticed that people are starting to become more about aware about caloric intake and based on intuition we decided that the target customer would be females interested in a healthy lifestyle. We gathered information about healthy desserts in the market. We noticed that the market does not offer that. We looked at health reports published by the SFDA (Saudi Food and Drugs Authority'', it was clear that obesity is on the rise and from our own field study we could not find the perfect product. We concluded that it is challenging to create healthy desserts; it was hard to balance the ingredients in a way that makes it tasty but healthy.''
2	Define the value proposition? What are 1. Customer Jobs 2. Customer Pains 3. Customer Gains	''In terms of customer jobs, we assume the customer is looking for easy access for a healthy treat not to feel guilty for after eating, in fact, we believe that our customer is looking for a way to convey that he/she is living a healthy lifestyle. Regarding customer pains, we believe that the customer is struggling to find a healthy treat

		in the market in general, and there is a lack of creativity when it comes to frozen yogurt. Finally, the customer would gain an affordable, healthy and flavour rich, healthy treat and eventually helping them achieve their health target.''
3	What are your products and services?	''The product we are aiming to provide is a healthy frozen yogurt dessert with a variety of flavours at a prime location.''

Figure 5-4 The questions and answers from Zonice for the first part of the process which creates the value proposition canvas.

5.4.2 Identifying the customer needs

The top management team at Zonice built a network of connections around professionals from the agriculture and health sectors who further supported the lunching of frozen yogurt into the market. For a start-up, such access to the health sectors provided them with domain-specific information which is often critical for overcoming foreseeable issues. On the other hand, the team was looking into the need for frozen yoghurt in the food sector; therefore, research was conducted on the industry's state and its outlook.

Their research used data collected from superstores wholesalers and food manufacturers about processed desserts and treats. Collected data included the type of food, price, caloric intake, sugar content and other nutritional values. The research results revealed a lack in the availability of healthy treats and diets in the market. This is also compounded by the fact that obesity and diabetes have been increasing in the KSA, with the latter being the highest in the world.

Also, with the change in the economy with more people leading busy lives and preferring to get fast food, coupled with the availability of disposable income has led to the health concerns and demand for healthy food options (AlJazira Capital, 2017)

The team, having identified the problem they wanted to address, began more in-depth research on the customer gains and pains, and how they could solve those problems. This is the point at which the value proposition template was filled out as detailed in Section 5.4.2.

5.4.3 Defining the value proposition

The new frozen yoghurt's value proposition canvas is shown in **Table 5-2**, **Table 5-3,** and **Figure 5-3**. Defining value proposition started with identifying customer jobs, pains, and gains. Subsequently, gain creators and pain relievers are clearly articulated.

Having defined the customer's need (health food and treats options), it becomes more apparent that the main customer job would be developing healthy food recipes. Even if packaging in the form of takeaways is important, the people need to indulge in treats that are enjoyable and satisfy their cravings without the associated health ailments caused by non-health available fast foods and treats. Although this is the critical job, the market implies other jobs such as the place's quality and aesthetics to encourage families and kids to meet (**Table 5-2)**.

The customer job No.2,3&4 **Table 5-2** of dining at the best place is specified in terms doing so with the quality of service provided, furnishing of the restaurant and the locations of the restaurants, thereby giving it a classy appeal which is important in high power distance cultures of the middle east when impressing business associates or romantic outings (Hofstede, 2010). However, the customer gains and pains lean towards the convenience of having a takeaway-based solution. For example, gain No.2 and pain No.3 (see **Table 5-2**) indicated that swiftness preparation and food packaging would meet these customers' demand. Finally, through understanding the requirements from a customer's point of view, the value proposition canvas is then used to determine some of Zonice' s product features

Customer profile factors	
Customer Jobs	1. Fast and affordable Healthy food 2. Convey the image of healthy leaving 3. Healthy treats.
Customer Pains	1. Most available treats/desserts are unhealthy 2. Most flavours of frozen yoghurts taste the same 3. Most healthy food and treats are time-consuming to get 4. People are falling sick from the indulgence of unhealthy treats
Customer Gains	1. Good pricing 2. Healthy treats 3. Fast and accessible food and treats 4. Variety of flavours 5. Unique flavours 6. Compliments from friends on health and fitness

Table 5-2 The customer profile of the empirical Case study

Value map	
Pain relives	1. Sugar and fat-free yoghurts 2. Aesthetically pleasing restaurants 3. Variety of flavours 4. Locally available raw materials that result in low cost
Product & service	1. Delicious healthy yoghurts 2. A healthy variety of frozen yogurt flavours 3. Good atmosphere with likeminded Affordable treats /deserts
Gain Creators	1. Signature flavours of yoghurt 2. Exotic and Bright coloured restaurants furnished to high taste 3. Strategically located outlets

Table 5-3 The Value map of the empirical Case study

Firstly, the business development and design team decided to keep using frozen yoghurts as the main offerings and provide it as both a takeaway package treat and sit in dinner offers. The assumption was made that most people will prefer to go into local retail stores and pick up packaged frozen yoghurts from the refrigerated sections and or the Zonice outlets and take it home with them to enjoy at their own time.

Another set of customers will prefer to take out the family or spouse to enjoy time out at a fancy location or even meet with business associates at an impressive place. This will need a choice of locations., appealing furnishing and finishing, and the high standard quality of service. However, the easiest route to market will be to provide the takeaways packaged food distributed to the retail stores and sold. This only needs effective design of product and packaging and marketing and branding (shown in Appendix B).

Furthermore, using the MVP approach of only providing the takeaway packaged option saves the hassles of getting dedicated locations training staff and overheads associated, which would severely limit the time to market and profitability.

By deciding to decouple the restaurant eating and packaged takeaway from the solution, the team hypothesised a packaged frozen yogurt brands called Zonice healthy yoghourt. Zonice yogurt will primarily be a frozen yoghourt packaged it well branded and heath conserving package, sold across various retail stores. It will be made up of healthy and nourishing ingredients with no artificial flavours but still offering a sweet sensation in various flavours. Some key points in the value proposition canvas are discussed from Section 5.4.1 to 5.4.3.

5.4.4 Products and services

The product will be frozen yogurt packaged in well branded and heat conserving package, sold across various retail stores that are easily accessible to the customers. It will be made up of healthy and nourishing ingredients with no artificial flavouring but still offering a sweet sensation. It will come in a variety of flavours.

The Zonice yoghourt directly targets the customer job of reducing health ailments, whilst the flavouring and packaged nature provide a fast-sweet treat.

Since the Zonice yoghourt's primary purpose is to offer health benefits and satisfy cravings, natural ingredients with no artificial flavours are necessary.

5.4.5 Gain Creators

The use of natural ingredients and product packaging that are attractive and conserve heat to jeep the yogurts frozen and cold for longer, at the same time being as low cost as possible. Furthermore, High quality and variety of flavours, will help solve the customer gain of sweet fast treat different from existing options. **Figure 5-3** hypothesised a high number of possible fruits flavoured ingredients as well as packaging. However, Zonice management decided to trim it down to only use a subset of these in the initial MVP.

5.4.6 Pain Relievers

Hypothetically, flavoured yogurts were set as pain relievers. It is using a combination of fruits and natural ingredients to create a unique taste. There is pressure to have various flavourings and aesthetically pleasing packaging that helps conserve heat and make the products attractive in the retail's stores and during promotional campaigns. By utilising locally available ingredients in the regional market and experts design contractors for the packaging design, the Zonice frozen yogurt can relieve these pains. The distribution through retail stores also helps to make the Zonice yoghourt readily available to the customers on the go and makes it affordable for customers.

From the gain creators, pain relievers and previously value proposition canvas **Figure 5-3** shows how to value proposition was defined

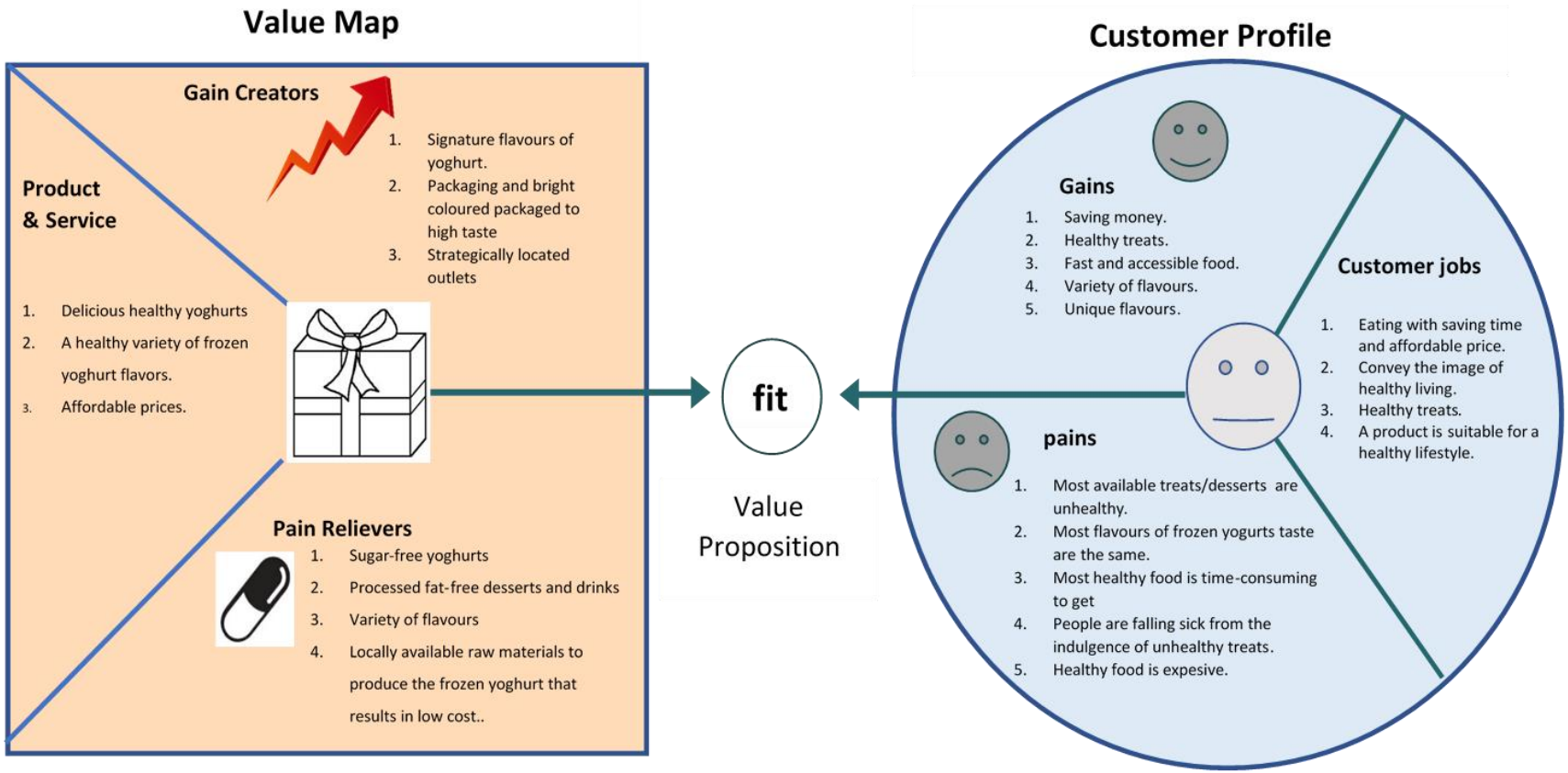


Figure 5-5 Value proposition canvas of the frozen yogurt product of the Zonice company

5.4.7 Business model canvas (BMC)

For this part of the case study, every block in the Business Model Canvas (BMC) was asked to Zonice and answered were used to fill it. Table x shows the questions associated with each block, and then the answers are listed in the following subsection.

Question	Block
Who are you customer? please list in detail	Customer segment
What value are you offering to the customer?	Value proposition
What are your channels to distribute your products?	Channels
How are you maintaining relationships with your customers?	Customer relationships
What are the main sources of cash for the company?	Revenue stream
What are your key resources to make this product manufactured and sold?	Key resources
What are the activities you will be carrying regularly?	Key activities
Who are you, partners or stakeholders?	Key partnerships
What costs are needed to run the business?	Cost structure

Figure 5-6 The questions were asked Zonice company to build their own BMC.

5.4.7.1 Business model components

5.4.7.1.1 Customer segments

This block identifies the target customer segments as the following:

- People interested in leading a healthy lifestyle
- Parents who want an alternative to giving children ice- cream.
- People who are on the move want to take a healthy snack, particularly in the hot KSA climate.

- Families and children
- Dieters
- Health Professionals
- Diabetics

5.4.7.1.2 Value proposition

Zonice' s products deliver high-quality frozen yoghurt to a range of target markets:

- Provide the KSA's number 1 deliciously tasty frozen yoghurt, made from real and fresh cows' milk.
- To offer a variety of flavours and sizes, therefore meeting different tastes and price needs.
- Offers healthy frozen yoghurt bars that can be eaten as a snack whilst on the move.
- Offer the takeaway family size tube that can be kept in the freezer at home.

5.4.7.1.3 Channels

This block resembles the company's plan to deliver a value proposition for its customers. The main channels are as follows.

- B2C sales; means selling directly to customers, hence giving the company the strength of controlling the process of purchasing through being closer to the customer.
- Online food delivery services (UberEats. Deliveroo, etc.); provides easy access to customers through wider online spread that supports company's online selling channels.
- Own company website; another method of reaching online customers.
- Retail stores: helps in promoting the products closer to the customer through the use of third-party marketing strategies.
- Social network: targeted advertisements to specific customer segments in search for treat alternatives healthy products.

5.4.7.1.4 Customer relationships

This block resembles the means of interacting with customers.

- Online selling and delivery: delivering product direct to consumer at their time and place of convenience, which also helps build an online customer profile that can be utilized for targeted marketing.
- Customer loyalty program: customer will be collecting points every time they purchase the products. This always to promote the rewarding system for buying the company's products.

5.4.7.1.5 Revenue streams

This block explains how the company are generating revenue.

- Direct sales: This customer paying at a company's booth, shops and directly ordering from the company's online website
- Contracts with retailers; this source of revenue is generated through an agreement between the company and the retailers in which the company is pre-paid for wholesales price to be listed at retailers' stores
- Online delivery providers: this also generates revenue for the company through an agreement between the company and the online delivery couriers.

5.4.7.1.6 Key resources

This block explains the primary resources utilized to provide the ensure the success of the business model. The following are the key to generating value proposition and revenue stream.

A- People:

- Trained workers: supervising and manually (if needed) carrying out the process of creating frozen yoghurt mixes.
- Salespeople: responsible for generating new business for the company either directly to customer, retailers and other potential partners.

- Marketing team: people who are responsible for designing and promoting the company's brand online and offline.
- IT Team
- Delivery team
- Finance team
- Engineers: responsible for the maintaining, monitoring and controlling of equipment's (Mixers, freezers, etc.)

B-Equipment and storage.

- Refrigerators
- Mixing machines
- Storage for raw materials

5.4.7.1.7 Key Activities

This block resembles the key activities carried out by the company for the business model to work.

- Build BMC and edit when appropriate
- Direct more investments into R&D
- Develop and maintain lean manufacturing techniques
- Data collection for improving marketing and sales

5.4.7.1.8 Key partnership

- Health professionals
- Gyms
- Restaurants
- Retailers
- Healthy snack providers
- Nutritionists
- Media such as TV, Radio and newspaper

5.4.7.1.9 Cost structure

- Employees' salaries
- Equipment, facilities, maintenance.
- R&D.
- Raw materials
- Rents of shops.
- Marketing.

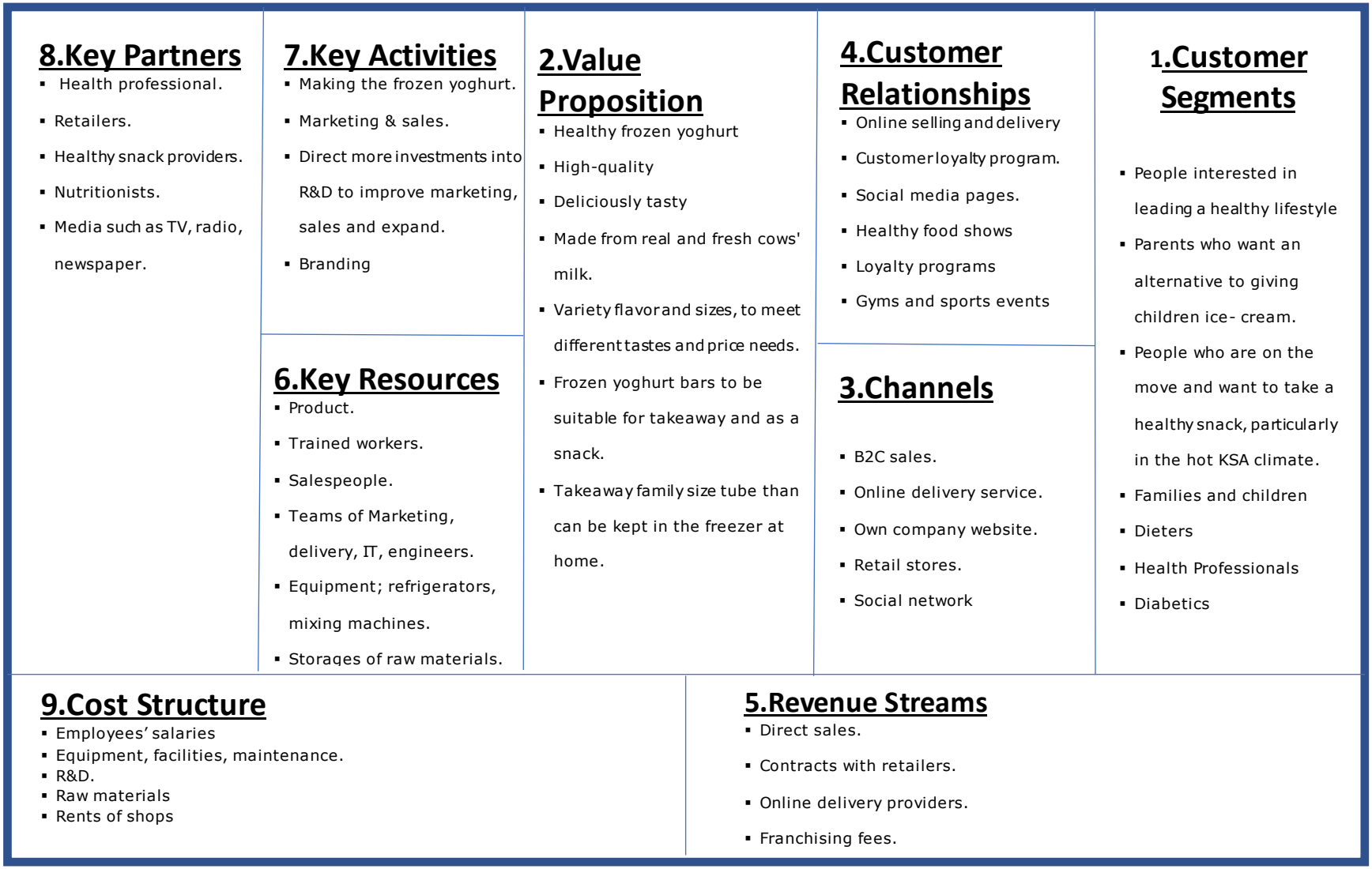


Figure 5-7 Business Model Canvas of the frozen yogurt of the Zonice company

5.5 Lean start-up cycle

Zonice aimed to build their product line rapidly; therefore, they followed the lean start-up cycle (Ries, 2011) in **Figure 5-2**. Zonice launched the initial product as MVP1 to swiftly collect market response. Based on customers' feedback, the initial MVP (MVP1) was adjusted, and the Lean Start-up Cycle was initiated again to test the adjusted MVP1, MVP 2. This process allowed Zonice to consider customer feedback and lowered the risk of high spending in budget and time to adapt to the market request.

5.5.1 Market analysis

Before launching any product to the market, Zonice conducted a survey to test the market's response for the need of frozen yogurt as a healthy treat (see Appendix B.1). The results were as follows.

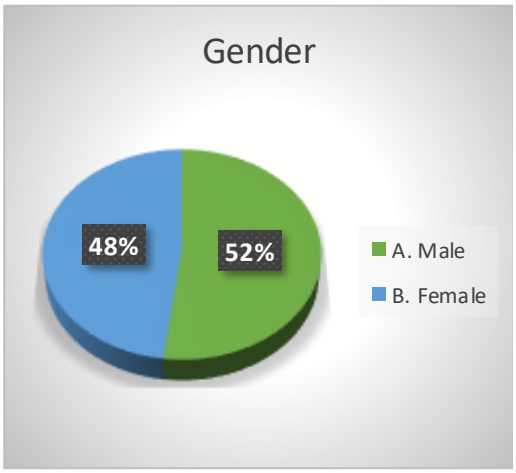


Figure 5-8 gender of the participated in (MVP1) survey

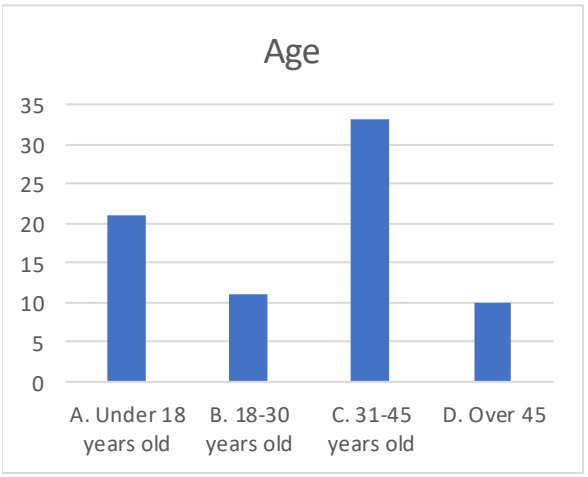


Figure 5-9 ages of the participated in (MVP1) survey

The sample surveyed for market analysis consisted of 50 participants (24 Males and 26 Females). Around 50% of the participants are within 18-45 years old age range. A high proportion of participants are full time employed.

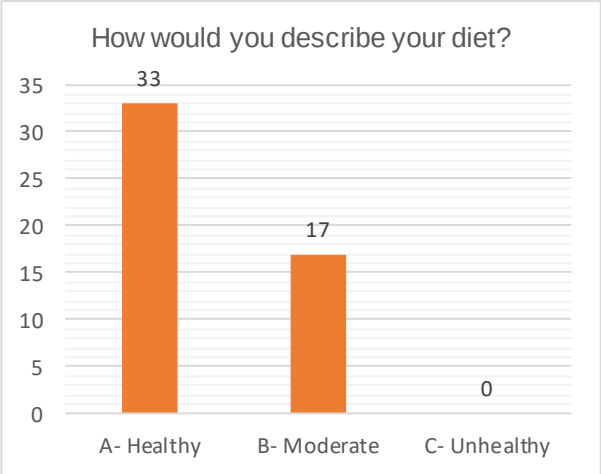


Figure 5-11 How the participated diet in (MVP1) survey

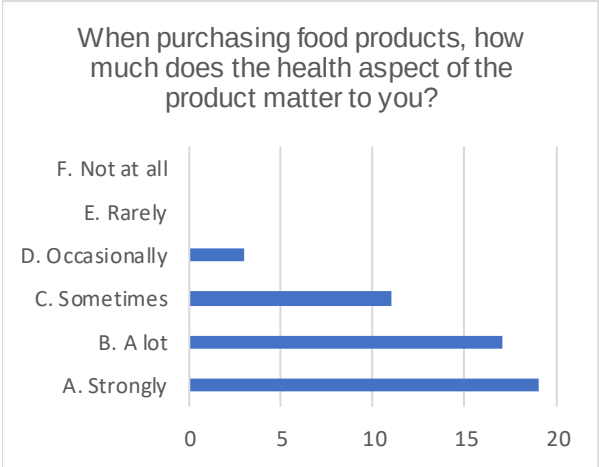


Figure 5-10 The health aspects in (MVP1) survey

In addition to basic demographics were asked about their diet and lifestyle. The figures indicated that a high proportion described their diet is healthy or moderate. Despite that, over 50% indicated that their diets are healthful, around 40% indicated that they must follow a healthy diet. That could be interpreted that participants prefer having a healthy snack but necessary due to diet restriction, reflecting the trend in the current food market, which is eating healthy.

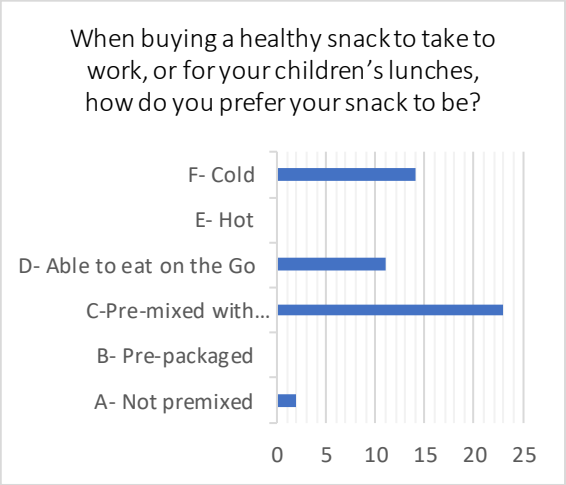


Figure 5-13 Snack types (MVP1) survey

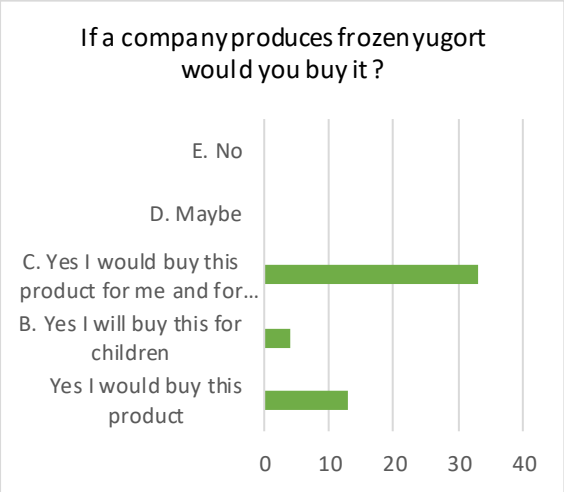


Figure 5-12 Frozen yogurt as a new product (MVP1) survey

Moreover, around 48% of participants indicated that the health aspect is the most important factor in driving their decision to purchase a healthy snack. Approximately 50 % of participants stated the health factor as '' Strongly'' important. Furthermore, the type of snack preferred by participants was preferably mixed with Yogurt, Able to eat on the go and cold, respectively, where 60% of participants answered that they would buy this product. The pack and the flavour's size were the most attractive points for such a product where more than 50% of participants indicated those two factors as primary for purchasing the product.

Following the market survey results, the Minimum Viable Product (MVP) was launched into the markets. A detailed description of (MVP1) is presented in the following sub-section.

5.5.2 Minimum Viable Product 1 (MVP1) of the Zonice frozen yogurt

According to Zonice business model canvas and value proposition, the product shall provide a healthy treat for customers seeking lower calorie intake, less sugar or merely a cold treat for themselves and their families at their local reach.

Initially, the first product was made from two of the most important elements in frozen yogurt are water and air. The primary ingredient was milk which accounted for 0.5-6% of overall ingredients of the product. According to Zonice management, the milk was imported from outside the country from a luxuries milk brand which increased the over-head cost of production.

"Milk solids, not fat" (MSNF) makes up between 8-14% of frozen yoghurt. MSNF must be balanced in inverse proportion to fat for the best body of the product. MSNF consists of about 55% milk sugar, or lactose, 37% protein, and the remaining 8% are various minerals. The protein element increases the viscosity, smoothness, and compactness of the frozen yogurt. Other ingredients were added in small quantities such as egg solids, colour, mineral salts, and caseinate derivatives. Additional flavours include fruit and fruit extracts were added.

It is noteworthy that MVP1 was made from mostly imported high-end products due to lack of these products in the local market.

After lunching MVP1, another survey was conducted (see Appendix B.2) to collect the buyer's profile and perception about the first product. Results were as follows:

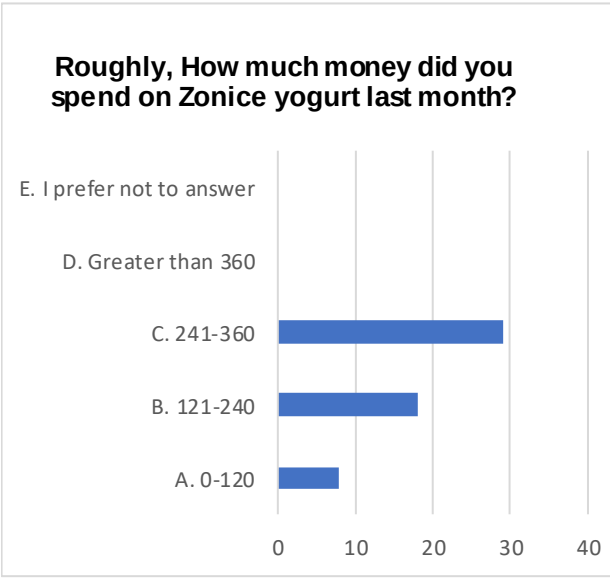


Figure 5-15 Customer purchases in Saudi Riyals (SR)

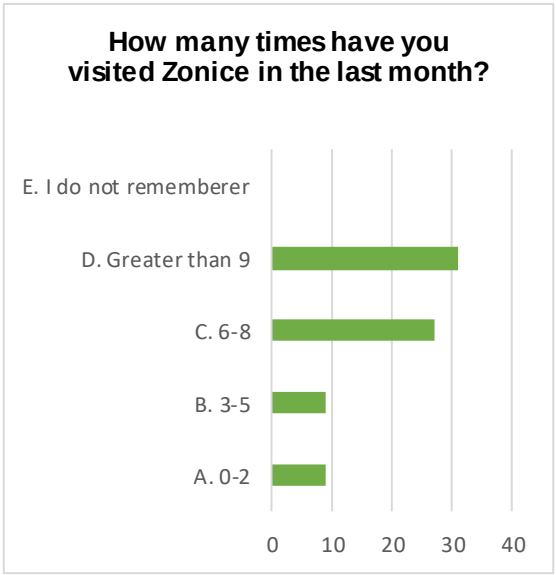


Figure 5-14 the number of monthly visiting

The results from the survey regarding MVP1 was analysed before launching MVP2. First, the survey covered the demographics of people visiting Zonice. There was no significant difference from the customer profile initially indicated by the first market survey regarding age, gender, and education.

Demographics related questions were followed by information about how much people spent while visiting Zonice. Around 45% of visitors spent between 240 to 360 Saudi Riyals per visit. In another question's visitors were asked how many times they saw Zonice in the last month, the vast majority of visitors have visited the store over nine times, indicating that the place was an attractive factor for visiting Zonice.

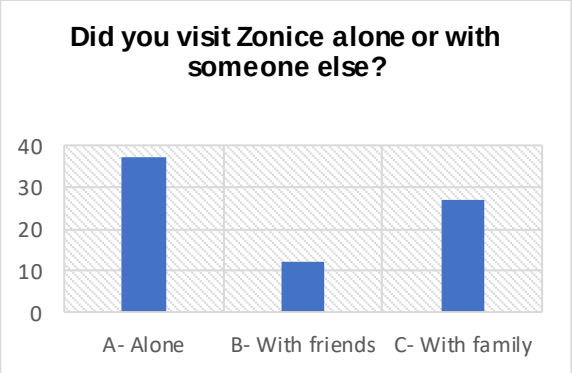


Figure 5-17 Family visiting

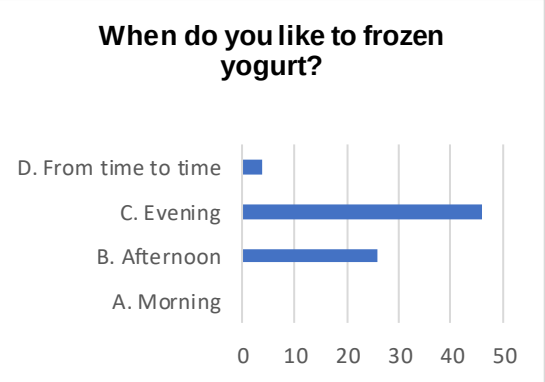


Figure 5-16 The time preferred by customers.

Around 47% of visitors have visited Zonice alone, and the rest have visited Zonice with friends or family. Almost 100% of visitors visited Zonice during the afternoon and night-time.

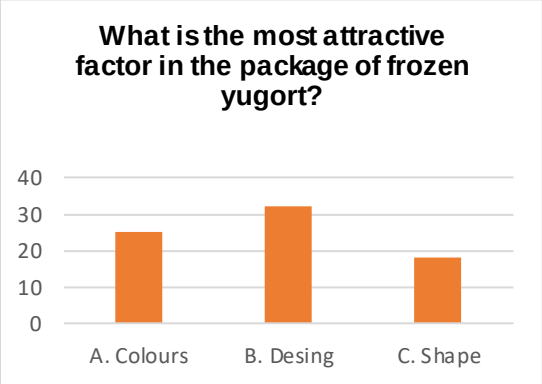


Figure 5-18 Attractive factor in the packaging

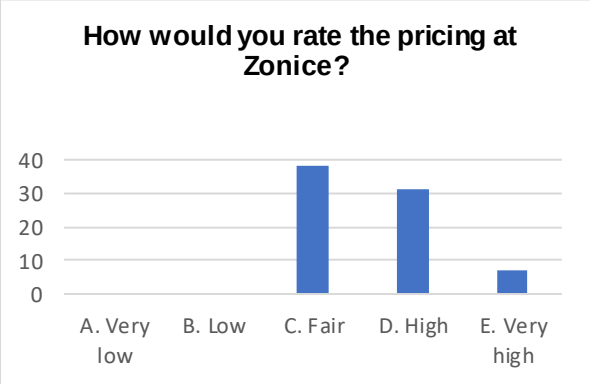


Figure 5-19 Price rating

Further questions were asked about the product design, which was found very attractive for over 50% of the customers. However, over 50% of visitors indicated that the price is high to very high in another question. Finally, visitors were asked to rate the flavour, and most of the visitors did not rate flavour for more than 3 on a scale of 5. Therefore, in MVP2 flavour was the focus.

5.5.3 Minimum Viable Product 2 (MVP2) of the Zonice frozen yogurt

Based on the customer feedback. Surprisingly, the taste was not the issue in MVP1 it was the source of ingredients and nutritional benefits of the products used. For example, the product was criticized because of using full-fat milk and for being too sweet. Also, the product was unfriendly for lactose intolerants. Furthermore, the product was considered high in calories and unhealthy. Therefore, the company had to make the following changes in MVP2.

- Using low-fat milk from the local market
- Using lactose-free milk from local markets
- Using sweeteners instead of sugar
- Not using animal gelatines

5.5.4 Final MVP of the Zonice frozen yogurt

The second MPV, which is called MVP2, was launched in a marketing campaign highlighting the benefits of healthy solutions and using locally produced products. The product was considered a success and the customer feedback had shown a positive incline response for the product.

5.6 Conclusion and chapter summary

Implementing the Lean Start-up Cycle concept helped create the most suitable product for the targeted audience based on customer feedback on MVP1 and MVP2. As discussed, the main issue in MVP1 previously was the use of imported full-fat milk and sugars, thinking that the product would be better if the materials were considered imported high-end products. Customer reviews described the products as unhealthy and too sweet. Therefore, the company revised the mix for making the frozen yoghurt and used low fat, locally produced milk and sweeteners to replace sugars.

Applying lean start-up approach at Zonice has proved that this approach is faster and more accurate than a traditional business plan. Starting from the customer need and perception of the market and creating the value specified for a certain customer profile had united company efforts across all department to meet the demand and the customer need. For instance, the company could identify and launch the product with a feature in a relatively short time. Simultaneously, identifying essential resources and channels through building the BMC helped set up a clear approach on where and how the company shall direct its sales force.

Evidently from the company profile, the company could expand within two years due to high market demand. The expanding was possibly due to designing a suitable product for a more significant population within a relatively short time. The launch of MVP1 then collecting customer feedback to create MVP2 had reassured to customers that Zonice is aware of the market and customer needs. Finally, being at such clarity, Zonice did not need to spend a lot of capital on branding. Instead, funds were directed into buying materials and producing enough inventory for the customers.

In this chapter, the BMC was tested in a real-life scenario and findings were presented and discussed. Experts from the industry were asked to give their opinion on the BMC.

It was found that the BMC requires modification to be adapted in the GCC business; therefore, in the next chapter, the necessary changes are presented.

6 THE DEVELOPMENT OF KNOWLEDGE DRIVEN BUSINESS DEVELOPMENT MODEL

6.1 Introduction

This chapter aims to display a knowledge-driven business model canvas for SMEs' business development in food processing scoter in the GCC. **Figure 6-1** shows the sections relied on to achieve this chapter's aim successfully.

This chapter addresses the fifth research objective: developing a knowledge-driven business model canvas based on the captured Knowledge of the influential factors and good practices. Section 6.2 outlines the chapter methodology followed by section 6.3, which includes the findings and discussion. Section 6.4 discusses the Knowledge model development and presents the final model before highlighting the model's implications in section 6.6. Finally, section 6.7 summarises the key points from chapter 6.

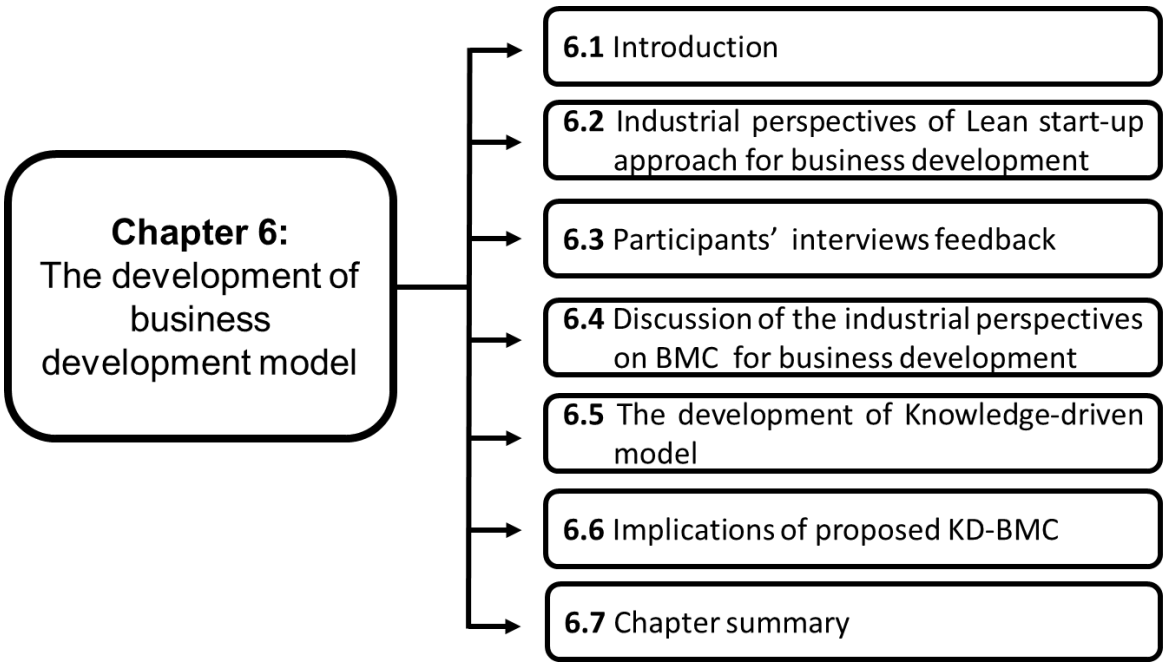


Figure 6-1 The main sections of chapter six.

6.2 Industrial perspectives of Lean Start-up for business development

The Lean Start-up approach presented in chapter five is the framework adapted to stimulating the interviewee's knowledge of Business Model Canvas (BMC).

Participants consisted of six different SME owners from the GCC region as shown in Table 6-1 to capture their Knowledge from a real-life scenario for a business development process of a food development process. Interviews (see Appendix C) were conducted remotely via video conferencing software WebEx and Microsoft Skype.

Participant ID	Company name	position	Type of food	Years of experiences	Location
1	Zonice	CEO	Ice cream processing	11	KSA
2	Alameera food	COO	Food oil processing	19	UAE
3	Alaryaf company	COO	Sweets processing	26	KSA
4	Al Baseqah Company	CEO	Dates processing	13	KSA
5	Al-Qassim Food Factory	CEO	pastry processing	10	KSA
6	Alsalman factory	COO	Baking processing	18	KSA

Table 6-1 Participants consisted of six different SME's owners from the GCC

Each interview was conducted as follows:

Step one: The empirical case study Zonice company was first presented to participants to familiarise each participant with the steps Zonice followed to build their BMC.

Step two: Participants were asked to provide or suggest modifications to each one of the nine blocks.

Step three: Participants were asked open-ended questions (Appendix C) to evaluate BMC and advise if the current practice BMC requires any modification.

It is noteworthy that all participants had neither previous Knowledge of the lean start-up approach nor BMC.

6.3 Participants' interviews and feedback

In Step one, participants were first asked to critically describe each step of the Lean-Start-up approach from Zonice case study. Answers are presented in **Table 6-2** showing which answer was answered by which participants. It is worth noting that the considered answers are the answers that highlight a lack of ''incompleteness'' in the approach.

6.3.1 Participants feedback on the empirical case study (Zonice` s BMC)

In this section, the answers of participants are presented in **Table 6-2**. The first column of the table presented each element of the Zonice BMC model shown in figure 5-7 and illustrated in section 5.4.6. The third column shows the answer regarding the element in the first column, and the last column shows which of participants answered with the same answer. This also indicated the frequency of responses among customers.

NO	BMC's elements	Answers / description	Participants ID
1	Identifying customer segmentation (Customer`s job, pain and gain)	"identifying age, gender and, lifestyle is not comprehensive in identifying customers segments."	1, 3 ,5
2	Value proposition (pain relievers, product/service, gain creators)	"value proposition makes sense; however, it seems very generic and unrelated to core business."	2, 3, 5
3	Channels	"Channels seemed generic and traditional."	1, 2, 3, 4
4	Customer relationships	"generic channels"	1, 2, 3, 4, 5, 6
5	Revenue stream	"Revenue streams seems straight forward."	1, 2, 3, 4, 5, 6
6	Key resources	"Resources are not well identified; there is more to it."	1, 4, 6
7	Key activities	"similar to any other"	2, ,3, 4, 5
8	Key partnerships	"Lacks online providers."	2, 3, 4
9	Cost structure	"No comments."	

Table 6-2 The participants feedback on the BMC model of Zonice`s case study(refer to figure 5-7).

6.3.2 The participants feedback on the original BMC template

This section presents step two in obtaining Industrial perspectives of the value of the Lean Start-up application; Participants asked to provide or suggest modifications to each of the nine blocks (refer to **Figure 2.7**).

NO	BMC blocks	Answers / description	Participants ID
1	Identifying customer segmentation (Customer`s job, pain and gain)	1. Extra characteristics about customer profile should be added, such as segmenting customers according to terms of market trends.	1, 3,5
		2. Consumer behaviour in the current market is very important. Therefore, continuous monitoring and pivoting of the current business plan are vital.	1, 3, 4, 6
		3. This block should be under regular review from the research and development department	1, 2, 5, 6
2	Value proposition (pain relievers, product/service, gain creators)	1. The value proposition should be very specific and show a unique competitive advantage to other business.	2, 3, 5
		2. Should clearly state how different this company product that competitive products.	1, 6
3	Channels	1. Channels in the GCC market could be solely based on online providers.	1, 4

		2. Channels should extensively include every single available channel in the country.	2, 3, 5, 6
4	Customer relationships	“generic channels”	1, 2, 3, 4, 5, 6
5	Revenue stream	“Revenue streams seems straight forward.”	1, 2, 3, 4, 5, 6
6	Key resources	“Resources are not well identified there is more to it”	1, 4, 6
7	Key activities	“similar to any other”	2, ,3, 4, 5
8	Key partnerships	“Lacks online providers.”	2, 3, 4
9	Cost structure	Cost structure should be split in variable and fixed cost	1,6

Table 6-3 The participants feedback on BMC.

6.3.3 Modifications of Business Model Canvas (BMC)

This section presents the third and final step, where participants were asked to suggest how would they modify the business model in terms of building blocks and content of the different elements of the BMC.

The table 6-5 shows the participants answer to question 2: In your opinion, do you think that the current business model fits your business, or it needs modification and why (e.g. additional blocks)?

Participants ID	Answer
1	"for me the current BMC is very broad and could apply to any business, however when we get into the details of the business, there are a lot more that can be included. For instance, we can simply think about executing the business according to the BMC but that does not consider the ongoing market situation. The GCC market is very competitive there a lot of money being invested in branding and creating cultures among customers this creates a new trend nearly every day. Also, laws regulations and the economic situation is fluctuating in an unpredictable manner. It would be ideal if each market trends and economic situation can be monitored by a dedicated team do real-time research and support our decisions"
2	"the BMC as it is a simple tool to organise thoughts, resources and strategies for a business, but for an SME's where decision have to be made quickly and accurately meaning that learning should be quicker, therefore, in my opinion, SME's need to have Research and development team or at least consider research and development as an independent block in their business model"
3	"in my opinion as a business owner, I feel that in Saudi Arabia and in the GCC in general, markets are unique in nature. Culture and social trends combined with online use behaviour had created a direct impact on the market. For example, when a new business open, they direct most of the capital into branding by pushing online advertising to the maximum to create an impact on customer behaviour. For me, as a business owner, this is hard to predict, in fact, I do not have the time to follow every new business to learn about and pivot my business strategy, so what would be ideal in my point of view is once the business is financially stable and

	investment should be put into further studying market behaviour and classifying consumers on what or whatnot is an influencing business idea that creates a social and cultural impact"
4	"In my opinion, BMC fits any business at an early stage, but not my business at the current status. The reason for that is that the current model is broad and static while business in this country requires a dynamic business strategy, meaning that all the block need to be constantly reviewed and updated. For instance, as a business owner, my daily tasks are reviewing the market situation in terms of laws regulations and access to finance where possible. Also, I need to make sure that raw materials are always available, it is well known that the GCC market relies heavily on imported materials, meaning that any logistical disruption may cause severe damage. With the current BMC, it clearly does not address the nature of the market and limitation to business growth"
5	"Now for me, this business model is useful as a tool of visualising my business, but it is not capable of representing the current status of my business. if it was for me to add some new blocks what I would be adding is a decision support system that helps in addressing and consulting on how to react to the market situation in terms of the law , regulation technology, competition and social trends"
6	"The current business model does not represent my business at the time being, it is more like a general framework of my business when it first started but not at this moment. There are additional considerations that could be added to the model such as Market situation, technological advancement, internal procedures, managerial capabilities etc…, what I mean is running a business at this time and is Saudi Arabia, requires a special mindset hence a special business model which constantly needs to be reviewed and updated. In terms of blocks, I would add external and internal factors affecting the business, with a special focus on the key resources for every business given that in The GCC there are limited resources of raw materials due to heavy reliance on import."

Table 6-4 the participants answer to question 2: In your opinion, do you think that the current business model fits your business, or it needs modification and why (e.g. additional blocks)?

6.4 Discussion of the industrial perspectives on BMC for business development

Results from interviews were recorded and transcribed, as shown in **Tables (6-2,6-3 and 6-4)**. Each participant could elaborate on each part of Zonice' s BMC and about the process and the model whether the BMC is a suitable tool for business development for food SME's in the GCC

6.4.1 Customers' Behaviour:

According to participants answers on customer's jobs, pains and gains recorded in **Table 6-3**, The first point observed was that the BMC does not incorporate customers behaviour. For instance, customer segment section is limited on demographics and merely an assumption of customer profiles. Furthermore, participants claimed that the GCC market has a special and unique nature compared to other market caused by social and cultural attributes that should be considered when considering business development.

The majority of participants mentioned that customer in the region is highly influenced by branding. With technological advancement in the social media, participants claimed that customers' behaviour towards products is hard to predict and that it was always changing due to media where business owners invest heavily on marketing and branding making the brand picture one of the most important factors.

6.4.2 Market Regulations:

When asked about what modification to add to the current business model, participants mentioned that the market is subjected to stringent and rigid laws and regulations. **(Table 6-4).** It is vital for a business in the region to abide by those rules to gain the reputation that leads into an influence in the community. In contrast, the general opinion on a brand or a product is crucial for a business's popularity. On the same note, it is not to mention that the GCC region can be described as a traditional business environment where word of mouth still has a high impact on brands.

6.4.3 Raw Materials Sources:

Another important point is that the sourcing of raw materials is sometimes challenging where the region's nature does not support sustainable agriculture. Therefore, in many cases, businesses need to import raw materials, hence adding extra costs to logistics and operation. However, it is most beneficial if materials are locally sourced to cut down on logistics and operations cost allowing more liquidity to invest in marketing.

In addition to previous challenges raised by participants, some further elaborated on internal challenges such as lack of research and development as an independent task. Two of the participants (**Table 6-4**) indicated that it is very important for a business to review its product performance by measuring market response continuously. In a nutshell, research must be included in any business development model.

6.4.4 Internal decision-making process

Moreover, participants 4 and 5 from **Table 6-4** mentioned that the decision-making process is not adequately defined internally. For instance, some of the business owners said that they wished that they did not make some decision before their time where some financial difficulties were not foreseen, and they further attributed it to the lack of internal research

Nevertheless, the participant also commented on the shape, the number of blocks and the whole approach. The model was described more than once that it's not comprehensive it lacks details in components such as market regulations and that it does not show or does not allow for the inclusion of dynamic factors of the market such as customer behaviour or research. Generally, it was described as broad and generic.

According to this study, the challenges of using BMC as a business development tool can be classified into two problem categories:

1- Internal such:

- Lack of research
- Decision making

2- External

- Raw materials
- Customer behaviour
- High competition

In conclusion, it can be observed that experts suggested that the modification of the current BMC accommodate additional factors in business development, such as customer behaviour, research, and market regulations. In the following subsections of this chapter, the knowledge model of a modified BMC will be developed based on the findings in this research.

6.5 The development of Knowledge-driven model

The Knowledge-driven business model canvas was developed based on Knowledge captured (from chapters, 3, 4, 5 and 6, as shown in **Figure 6-2**.

6.5.1 Knowledge captured.

The first step in creating the Knowledge-driven business model is capturing knowledge **Figure 6-2** resembles the sources of captured Knowledge in this research.

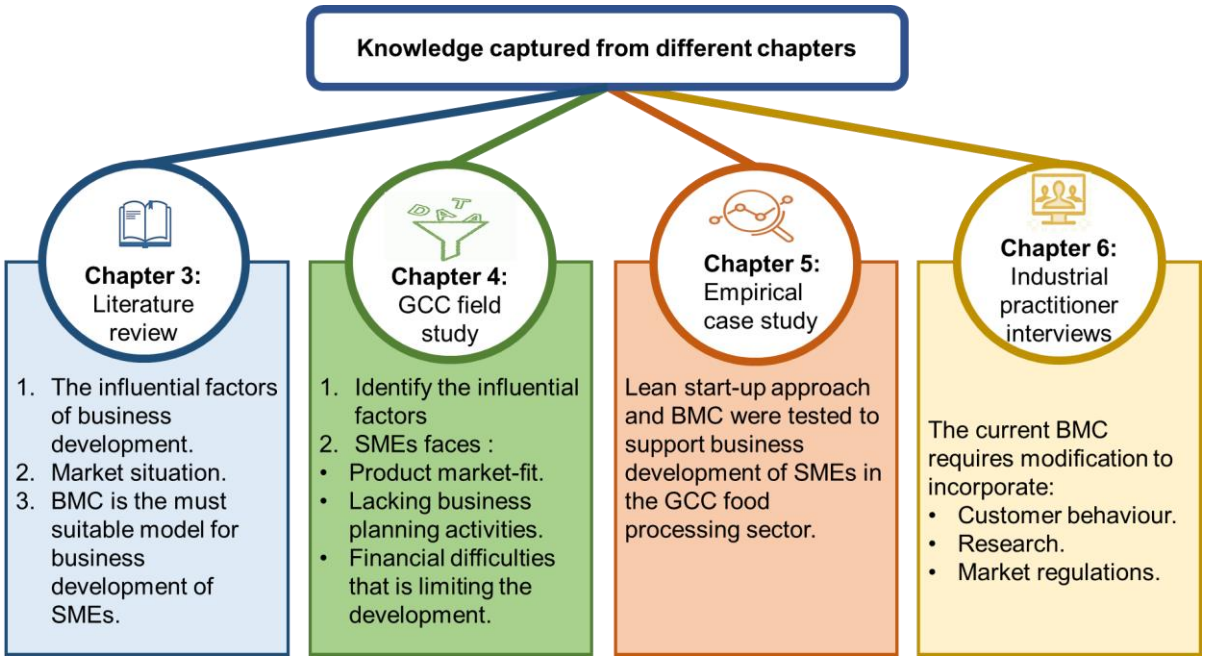


Figure 6-2 knowledge captured from different chapters.

The following subsection presents the knowledge map that helps to identify the major business development problems and the methods to solve it.

6.5.2 Knowledge map model

Figure 6-3 illustrates the knowledge map that shows the linkage between the influential factors affecting business development and Business Model Canvas elements. The knowledge model consists of three main parts which are as follows: -

Part A: influential factors on business development.

Part B: Lean start-up approach.

Part C: Modified Business Model Canvas.

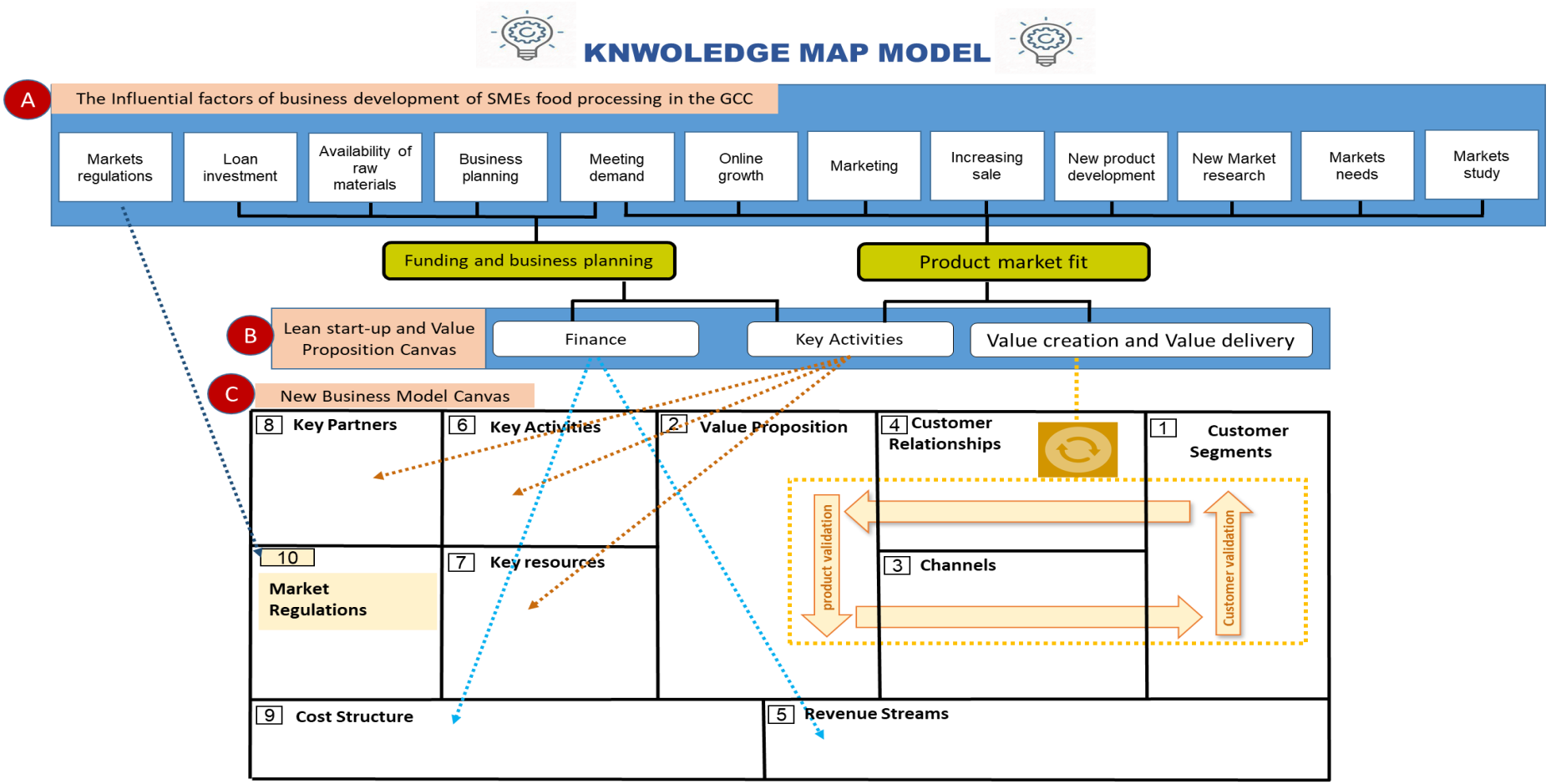


Figure 6-3 The proposed Knowledge to drive the development of the new modified business development model.

Part A: influential factors of business development

As a result of the field study in chapter four, eleven main influential factors were identified. These factors were grouped into three main problem categories. The three categories were:

1. Product-market fit
2. Business planning
3. Funding

To eliminate these problem's part B was added to the model showing the solution to overcome these challenges.

Part B: Lean start-up approach

Part B of the model demonstrates the lean start-up approach which was applied and tested through a case study on Zonice company discussed in chapter 5. The reason for using this approach is because it is based on overcoming challenges caused by the product market-fit problem. Solving this problem means creating and delivering value to the customer through building a feedback system.

A company needs to launch a product (MVP1) to get feedback then analyse it. Following the analysis, a new version of the product or utterly different product should be launched (MVP2), and feedback should be collected again. In that way, the value of the product in the market is met. Hence development can be considered successful.

In terms of the BMC the product market-fit problem relates the right-hand-side of the business model containing customer segments proposition, channels, and customer relationships.

The second and third group of influential factors were grouped under business planning problem and financial problem, respectively. The lean start-up approach is not limited to solving the product market-fit problem, in fact, as a result of applying the principles of lean start-up approach also helps in determining the most suitable key activities which is related to the business planning problem.

Finally, solving the product market fit problem, through value creation and value delivery through running suitable key activities eventually helps in the elimination of financial problem

Part C: Modified business model canvas

Part of the lean start-up approach is using the Business Model Canvas as the structure of the business strategy. However, it was found that the BMC does not incorporate the dynamic nature of the GCC market and does not take into consideration the market regulations. This was evident from the field study and expert, as previously shown in this chapter. Therefore, the existing BMC from the Lean start-up approach was deemed incomprehensive and necessary changes to suit the GCC region's business climate.

To create a comprehensive and dynamic BMC for food processing SME's in the GCC. Findings from chapter 4 each component was of the business model linked to participants answers. Each block contains related Knowledge on how they should be defined in the GCC region, as shown in **Figure 6-3**.

Finally, an additional block was introduced to the model due to the final stage of the analysis from this chapter. The finding from this chapter asserted that a business model in the GCC region requires market regulation.

6.5.3 The modification of the business model canvas.

After considering the influential factors and highlighting the problems of product-market fit, finance and business planning, a modified business model canvas **Figure 6-4** was developed as a guide for SME's to use for as business development tool in a new form that suits the GCC region food processing industry. The modification included an addition of an extra block labelled as ''Market regulations''.

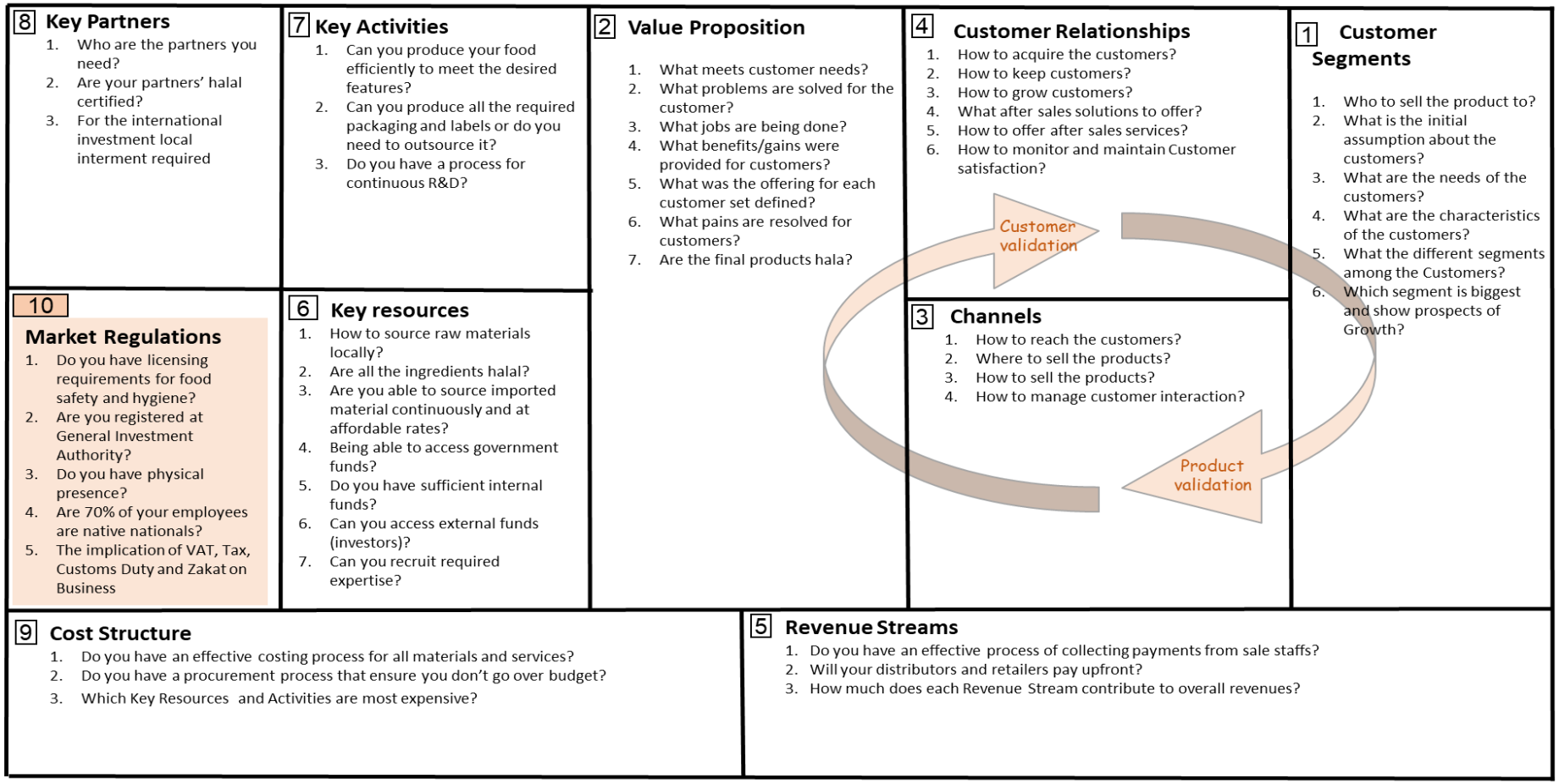


Figure 6-4 A The new modified Business Model Canvas (BMC)

6.5.4 The development of the Knowledge-Driven Business Model Canvas (KD-BMC)

The new and modified Business Model Canvas incorporated the ‘’ Loop of Faith’’ from the Lean start-up method to ensure value creation and value delivery. As shown in **Figure 6-4** the ‘’ Loop of Faith’’ was used on the right-hand side of the BMC linking blocks 1,2,3 and 4. The loop created between the blocks mentioned earlier resembles an iterative process between the leading value creators and value delivery component of business development. For instance, to start from block one where the customer segment is identified and which a product was designed for that specific group of customers was launched through company channels utilising customer relationships creates a tangible source of customer experience feedback. Hence, a well-defined value proposition is clarified.

This process of continuous data collection from customer and re-creating the value based on the customer feedback is the main modification added to the BMC.

Another modification was applied to the model that added the market regulations to the model as it seemed a crucial part of the region's business development plan.

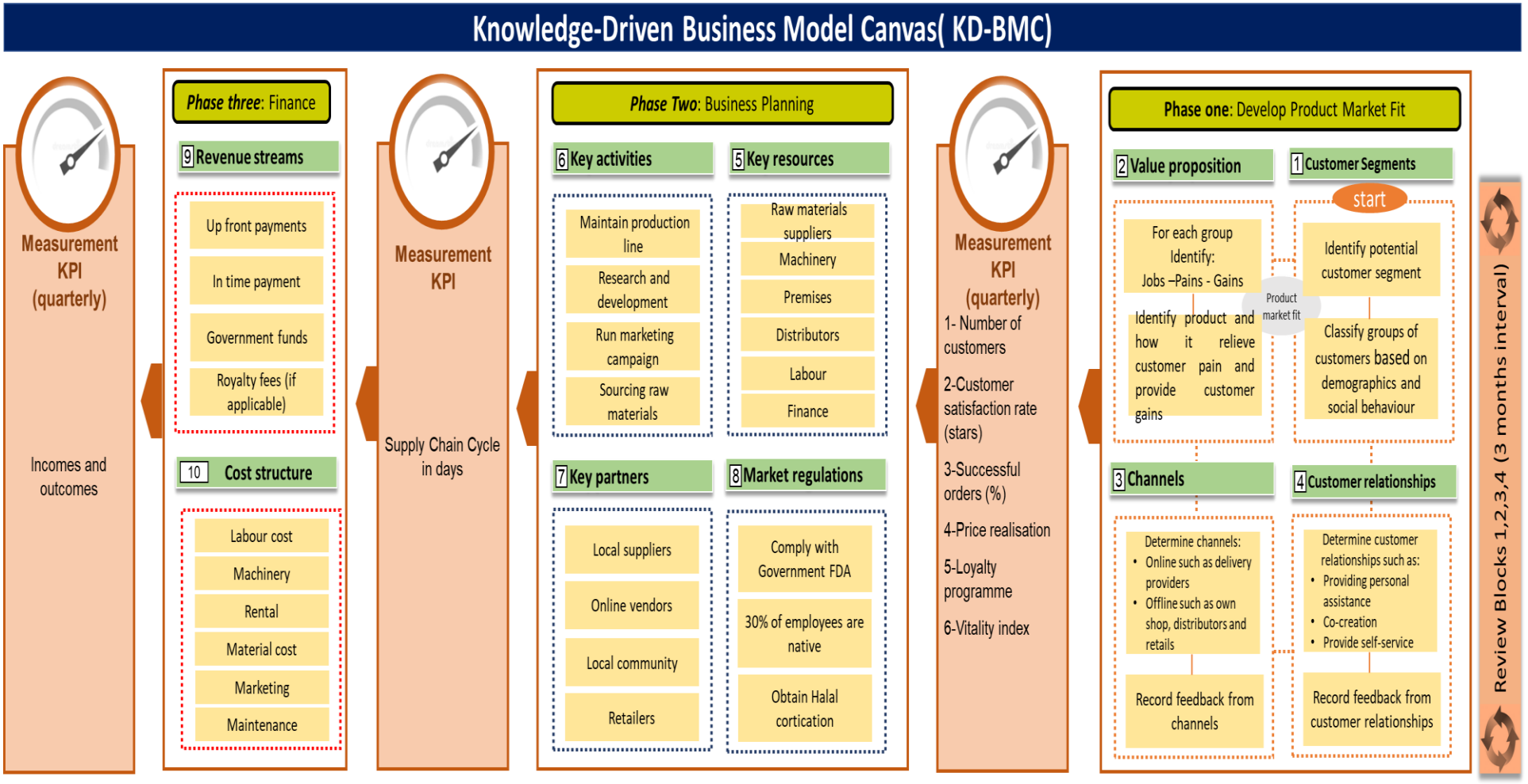


Figure 6-5 The proposed Knowledge to drive the development of the new modified business development model canvas (KD-BMC)

As mentioned previously, the model starts from the right side of the Business Model Canvas, where the blocks are related to value creation and value delivery for customers. Therefore, part of the model was enhanced to stipulate the importance of continuous review of value proposition, customer segmentation and customer relationships in the form of the never-ending cycle of information to consolidate full and reliable information into shaping the value proposition at different stages of the business development, hence solving the product-market-fit problem.

The KD-BMC reads from right to left. From the right-hand side, the four main drivers of creation and value delivery apply an iterative process of product validation and customer validation through continuous reviewing of block 1, 2 3 and 4 to solve product-market fit as phase one.

Phase two of this model represent the business planning activities in blocks 5,6,7 and 8, where it is necessary for driving business as found from the field study in chapter 4. And finally, phase 3 represent the financial aspects of the business development process. The following sub-sections explain the KD-BMC in some details.

After the BMC is complete, it then becomes a primary tool of reference. But it still does not consider the time of this iterative process of continuous verification. Therefore, key performance indicators (KPIs) were added to the model. To arrive at these KPIs, in each of the three phases, KPI's are determined based on what could be measured in each phase.

6.5.5 Phase one: Product-market fit

6.5.5.1 Customer Segmentation/Segments

Stemming from the Lean-start-up approach KD-BMC starts from would start from the customer segments. Typically, SME will begin with a hypothetical customer segment assuming that the product is suitable for the targeted customer segment. This part of the process is considered the core of that drives other business aspects around. It is important to note that the GCC market has its characteristic

and challenges, as presented in Section 2.11. One of these challenges is that it is not clear how to predict customer choice due to the customer becoming highly influenced by different trends almost daily. Therefore, customers' segmentation is instead classified by customer behaviour influenced by trends in the market and not be limited to demographics.

Furthermore, there is a systematic approach to identifying the customer segment block in the new modified BMC as illustrated in Figure 6-4 the steps to follow, allowing SME's to address the customer's need. These steps allow SME's to comprehend customer characteristics and classify it into different groups to be tested against the hypotheses of size and growth to conclude and then pivot.

This is only the beginning of the cycle of customer validation and product validation. Once the customers are identified, then the product is launched to customer feedback. SME's can go back again and start by reflecting on their initial assumption and make necessary changes.

6.5.5.2 Value Proposition

The value proposition is the hardest part of the canvas to be formulated, especially in the early stages of business development—it as a challenge to the perfectly articulate value proposition in the business model. Therefore, the enhanced BMC incorporated the Knowledge required to shape the value proposition by clearly identifying customer segment, customer relationships and channels.

The new KD-BMC requires users to reflect on defining value proposition regularly. Reflecting on the value proposition means considering all the aspects that create value proposition such as customer segments. This system helps users to create and develop products based on real-time market information. This is important to solve the product-market fit problem.

It is considering the nature of the market in the GCC literary and the food industry in the GCC. The value of any food product is highly concerned with the health

aspect, easy access, and packaging. Therefore, the nature of the value must be redefined regularly to ensure that it meets the market's nature.

In that sense, the model stipulated the cycle of continuous re-definition of the customer, customer relationship and channels. At the same time collecting data on from the market and the customer to feedback into the model.

The value proposition for a food processor in the GCC can be concluded in ;

- Providing a healthy product
- Availability online
- Delivery
- Shape
- Flavour variety
- Using local raw materials.

In terms of KPI's the associated KPI's with value propositions are:

1- Number of customers

2-Customer satisfaction rate (stars): This means the reviews the product is getting online either on the company's official website or on any other providers.

3- Successful orders (%)

4- Loyalty programme

4- Price realisation

5- Vitality index: this represents the reviews generated from a new product.

6.5.5.3 Channels

From the analysis in chapter four channels are an important part of business development. Channels are elements of the product validation and customer validation in phase one. They are interconnected in defining the value for the

customer. Channels are an important part of communicating back the value proposition, hence helping in achieving product-market-fit.

These components of the BMC are also specifically designed to adapt to the nature of the GCC. For the GCC the channels are perceived as sales channel or point of sales rather than communication channels. It is vital to identify the channel as it affects customer relationship and the cost further down the line. The type of channel is subjected to review in the product and market validation cycle. However, it is vital to decide if the sales channel is an in-house or outsource channel to oversee the implication on HR and finance in the future. In a sense, it was found that in the food processing industry, it is preferable to have an in-house sales team to maintain the brand image under close monitoring as it was crucial in the region.

In the GCC, there are four main channels:

- Retailers
- Online delivery providers
- Own shop
- Social media

6.5.5.4 Customer relationship

Regarding customer relationships, it was also designed to fit the nature of the market. After determining customer relationships, the information retrieved is feedback into defining the value proposition in phase one. Information received from the customer relationships method can be used to re-adjust the product's sales and marketing plan, so it ensures that the product fits the customer perception.

Turning back to the GCC nature, the most values customer relationship channel was social media engagement and customer loyalty programmes.

Up to this point in the model, building all the blocks is the iterative process of the model where things must be continuously reviewed to achieve optimal value proposition.

In the GCC, the most common and effective type of customer relationships are:

- Providing a personal service
- Allowing the customer to collaborate in creating the product (co-creation)
- Self-service

6.5.6 Phase 2: Business planning

6.5.6.1 Key resources

The key resources are a vital part of the whole model it is imperative to identify the source of the materials, storage facility, equipment, and labour. For the GCC, it was evident that in recent years materials are gradually becoming more available in the market which cuts down on logistics in the development process.

Labour is a key resource for SME's and the GCC region is well known in attracting professional and skilled workers from around the world. Recently there was a rise in the number of food professionals in the region.

6.5.6.2 Key Activities

A number of key activities are found essential in the GCC for a food processing SME. Firstly, as mentioned in key resources, the sourcing of materials is quiet, and activity needs to be carried out regularly. To ensure that there is no shortage of materials at any stage that highly affects the brand name, it is perceived in the region as a bad indication of the company performance in the customer's eyes.

Another key activity is research. Research is a very important aspect of this model. Information from the market and customer must always be documented and reviewed to ensure that value delivery is required for the selected customer segment. Moreover, customer engagement activities include being responsive to

social media inquiries and having social events where customers can share their opinions on product development.

An essential key activity in the market is regularly checking government feeds on new regulations and schemes that may benefit the company.

In terms of the KPI assigned to this block, it would be the Supply Chain Cycle in days. This would be an important activity to keep the business running and avoid shortages of product at any time, which may negatively affect customer satisfaction, hence jeopardising value proposition.

6.5.6.3 Partners

Partnerships and network constitute a significant part of the business development process and the model. Having the right partner is essential for growth. For instance, local partners would share a similar perspective on growth, and therefore, together, they could form a network that leverages the common advantage in the market over competitors.

For instance, local suppliers have deemed a very efficient source in terms of cost and availability. Having a local partner not only helps in cutting down costs on logistics and operations but also unifies the vision towards mutual growth.

6.5.6.4 Market regulation

The market is deemed highly affected by the government regulations, as mentioned before a certain percentage of employees must be of natives. It is also very important to be highly ranked on government data basis where the customer and other companies always review before they initiate contact with a company.

Nevertheless, it is very important to comply with a set of regulations in the region, and they might slow the process of growth at some points. However, it is essential to accommodate them into the business model and the business development process.

6.5.7 Phase 3: Finance

6.5.7.1 Revenue streams

There are various opportunities to seek funding from the government due to government initiatives supporting SME's in the region. This could be an initial source of revenue. However, further down the line revenue must also compile with the nature of the business and the industry. For instance, sales must perform while sourcing and production are going at the same time. Like the famous Toyota production system '' Just in Time'', whereas a product is made whilst sales are being performed, and data is being collected from customers and the market on products. This means that payment payments for B-2-B are preferably made with advanced and deposit amount so that supplier can receive material money in advance.

The main KPI in this block is the number of sales representing the company's cash flow as gross income. A decrease or an increase in this number indicates the overall performance of the business development plan.

6.5.7.2 Cost structure

The region's cost structure is quire unique as a big part of the cost structure is that the government requires every company regardless of the size to 30% of employees as natives' nationals with relatively higher salaries.

However, for other costs such as material, machinery and labour, they are deemed affordable and supported by government schemes. A KPI that indicated the cost structure could be the percentage of the cost to sales. This allows the company to indicate the size of the proposition of cost in terms of sales.

6.6 Implications of Proposed Knowledge-Driven Business Model Canvas (KD-BMC)

There are several implications of such integrated KD-BMC. Firstly, it can be implied that previous chapters had provided a comprehensive amount of knowledge that can guide a knowledge-driven Business Model Canvas (KD-BMC). This research's findings have highlighted the importance of the product-market fit issue of the SMEs in the GCC food industry.

SMEs in the food sector have various daily problems, and these problems are hard to represent in a business model such as day-to-day management practices, bookkeeping, payments, and cash flows.

Another implication developed is that this model can be adopted and even modified for other sectors. Researchers can study and improve this model by adding or deducting parts based on the industry.

Finally, it can be claimed that this model is aimed to assist SME's to construct an exact and dynamic business model; however, some of the SME's may find it time-consuming. There is no guarantee that all SME's will or can adapt the new model. This will be discussed in the limitation in the final chapter of this research.

Nevertheless, the next chapter will test the model to determine its effectiveness in supporting SMEs in developing new products and setting up new ventures to identify their strengths and weakness.

6.7 Chapter summary

In this chapter, the Knowledge-driven business model canvas (KD-BMC) was presented and a detailed explanation of each component of the KD-BMC. Each element of the model was explicitly explained with examples of what was found to be the most suitable characterises from the GCC region food industry. Furthermore, for each block, a Key Performance indicator was also decided to enable a quantitative assessment of each of the blocks. In the next chapter, the model will be subjected to validation and evaluation in the GCC market.

7 CASE STUDIES VALIDATION AND EXPERT JUDGEMENTS EVALUATION

7.1 Introduction

This chapter aims to validate the main results of this study. The main sections of this chapter illustrated below in **Figure 7-1**. This chapter addresses the sixth research objective, which validates the research outcomes via case studies and evaluated through experts' judgement.

Participants in this part of the research were two food processing companies from Saudi Arabia. The following chapter discusses the results of presenting the KD-BMC (shown in figure 6-5) to these companies. The work starts by validating the influential factors, then validating the KD-BMC via industrial case studies, then finally by expert judgements evaluation.

The value proposition canvas and the KD-BMC were provided electronically via email for both companies to use in the following sections.

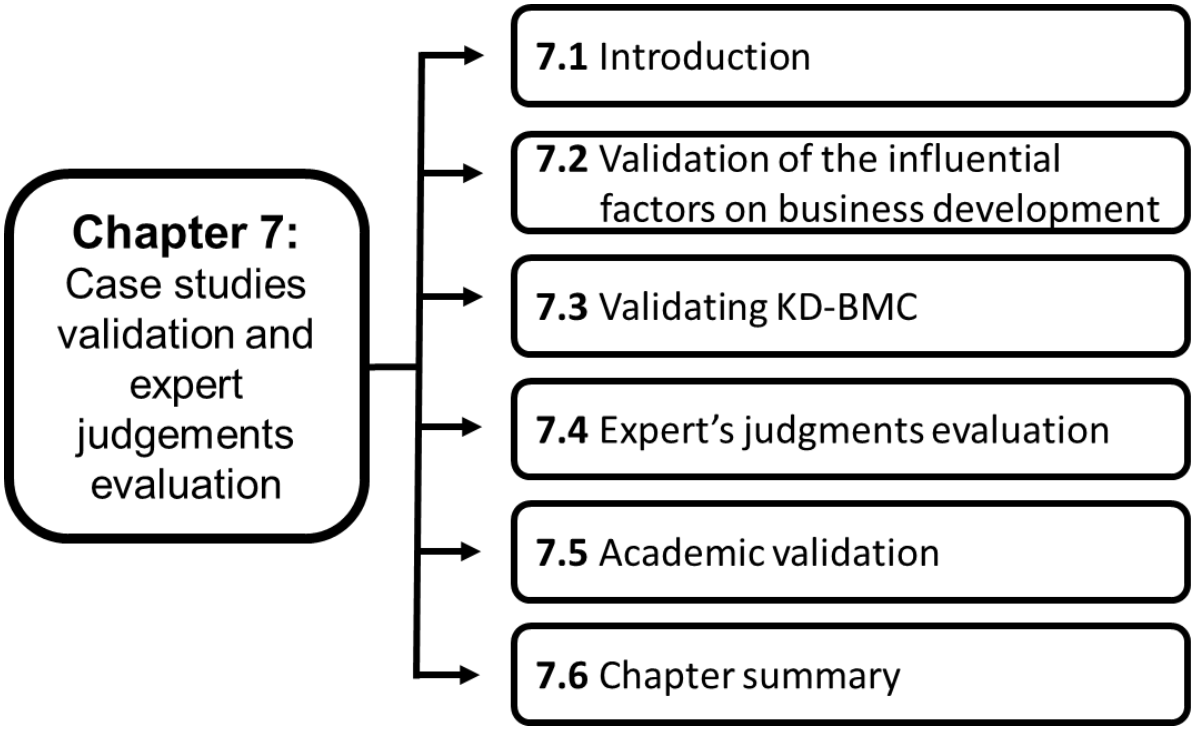


Figure 7-1 The main sections of chapter seven.

7.2 Validation of the influential factors on business development

To validate the influential factors affecting SMEs' business development in the GCC using a rating system. Participants were asked to evaluate KD-BMC (shown in figure 6-5) by answering a set of questions offered in **Tables 7-1, 7-2, 7-3** and **Table 7-4**.

7.2.1 Influential factors of business development of SMEs in food processing in the GCC

To what extent do you believe that these influential factors affect SMEs' business development process in the food processing sector in the GCC?

(1 = least effective, 2 = less effective, 3 = effective, 4 = Very effective, 5 = Extremely effective)

Options	effectiveness				
	1	*2*	*3*	*4*	*5*
1. Increasing sales					
2. Lack of a framework or process for business development					
3. Identifying the needs in the market					
4. Meeting demand for more of the same product					
5. Making new products					
6. Newmarket research beyond the typical commercial area					
7. Marketing					
8. Market study					
9. Loan as investment					
10. Business planning capability					
11. Availability of competitively priced raw agricultural products					

Table 7-1 Validating the Influential factors of business by Zonice company answers.

Options	effectiveness				
	1	*2*	*3*	*4*	*5*
1. Increasing sales					
2. Lack of a framework or process for business development					
3. Identifying the needs in the market					
4. Meeting demand for more of the same product					
5. Making new products					
6. Newmarket research beyond the typical commercial area					
7. Marketing					
8. Market study					
9. Loan as investment					
10. Business planning capability					
11. Availability of competitively priced raw agricultural products					

Table 7-2 Validating the Influential factors of business by Alsalman factory answers.

7.2.2 Problems categories of business development of SMEs in food processing sector in the GCC

To what extent do you believe that the following problems affect the business development process of SMEs in food processing in the GCC?

(1 = least effective, 2 = less effective, 3 = effective, 4 = Very effective, 5 = Extremely effective)

Options	effectiveness				
	1	2	3	4	5
1. Product market-fit: meeting market demand					
2. Financial: financial abilities					
3. Business planning					

Table 7-3 Validating the problem groups of business development in SMEs in GCC through Zonice company case study answers

Options	effectiveness				
	1	2	3	4	5
1. Product market-fit: meeting market demand					
2. Financial: financial abilities					
3.Business planning					

Table 7-4 Validating the problem groups of business development in SMEs in GCC through Alsalman company case study answers

Tables 7-1, 7-2, 7-3 and **Table 4-4** both companies rated the influential factors as high to very highly effective in the business development process. Turning back to chapter four, the findings showed that the significant factors are shown in **Tables 7-1**, **7-2**, **7-3** and **Table 7-4** are highly effective in business development. Now, assessing the effectiveness of these factors in these case studies asserted that these influential factors are valid based on the two companies' ratings.

Despite the validation of the influential factors, the author deems it necessary to integrate these factors in the model as measurable units for business development to move forward. Therefore, to convert these factors into a measurable company to provide a quantitative measure for the influential factors. This quantitative measure in business terms is referred to as KPI's. Furthermore, for each stage of the model, a relevant group of KPI's is added to measure the effect of influential factors on each group.

It is noteworthy here that these factors are the main driver of the knowledge model, meaning that the model is designed based on influential factors to adjust the business development process. These factors using business development terminology, which in the model are represented as KPI's. For each stage of the model, there are designated set of KPI's to measure to assess the business growth.

7.3 Validating Knowledge-Driven Business Model Canvas (KD-BMC)

7.3.1 Zonice case study validation

In Zonice the original product is frozen yogurt. The company noticed that the cash flow during winter season drops significantly. Therefore, it was needed for them to find another revenue source that can maintain the business and help in expansion. Hereafter, the idea of selling coffee emerged, and it was an important time for the company to validate its new business idea.

Zonice decided to source its coffee locally, including equipment, beans and serving cups. The company did follow the surrounding market in offering the coffee. It merely considered having three serving sizes (small, medium and large) priced similar to the other coffee shops in the area.

The process of defining the value proposition was performed based on the lean start-up approach used in chapter five. The process started with identifying the customer and product through filling the value proposition canvas **Figure 7-2** to clearly define their value proposition by putting in the knowledge needed for value creation.

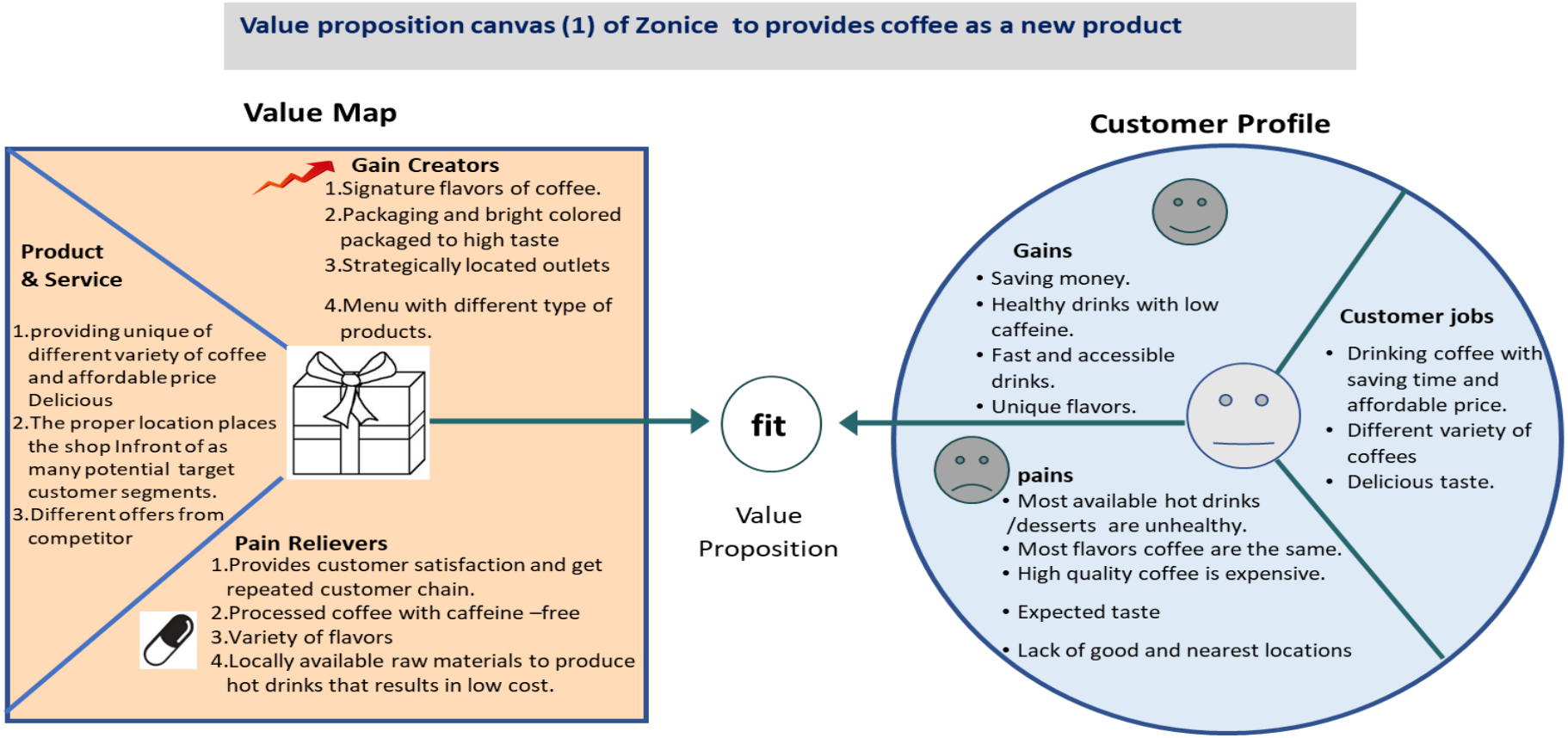


Figure 7-2 Value proposition canvas (1) of Zonice to provides coffee as a new product.

After filling the value proposition canvas, the company is hypothetically defining their value propositions. The hypothesis was that offering coffee at the company's branches would help with the decline in cash flow in the winter season, assuming that customers would come for coffee at these branches. Moving forward with the lean start-up process the KD-BMC blocks are then filled based on initial assumptions, hence creating a hypothetical model **Figure 7-3** where all blocks are made on the assumption to be tested every three months to check product performance in specific and business development process in general. It is noteworthy here that the periodic testing of product performance was not part of the lean start-up process, and it is the author's addition to the model.

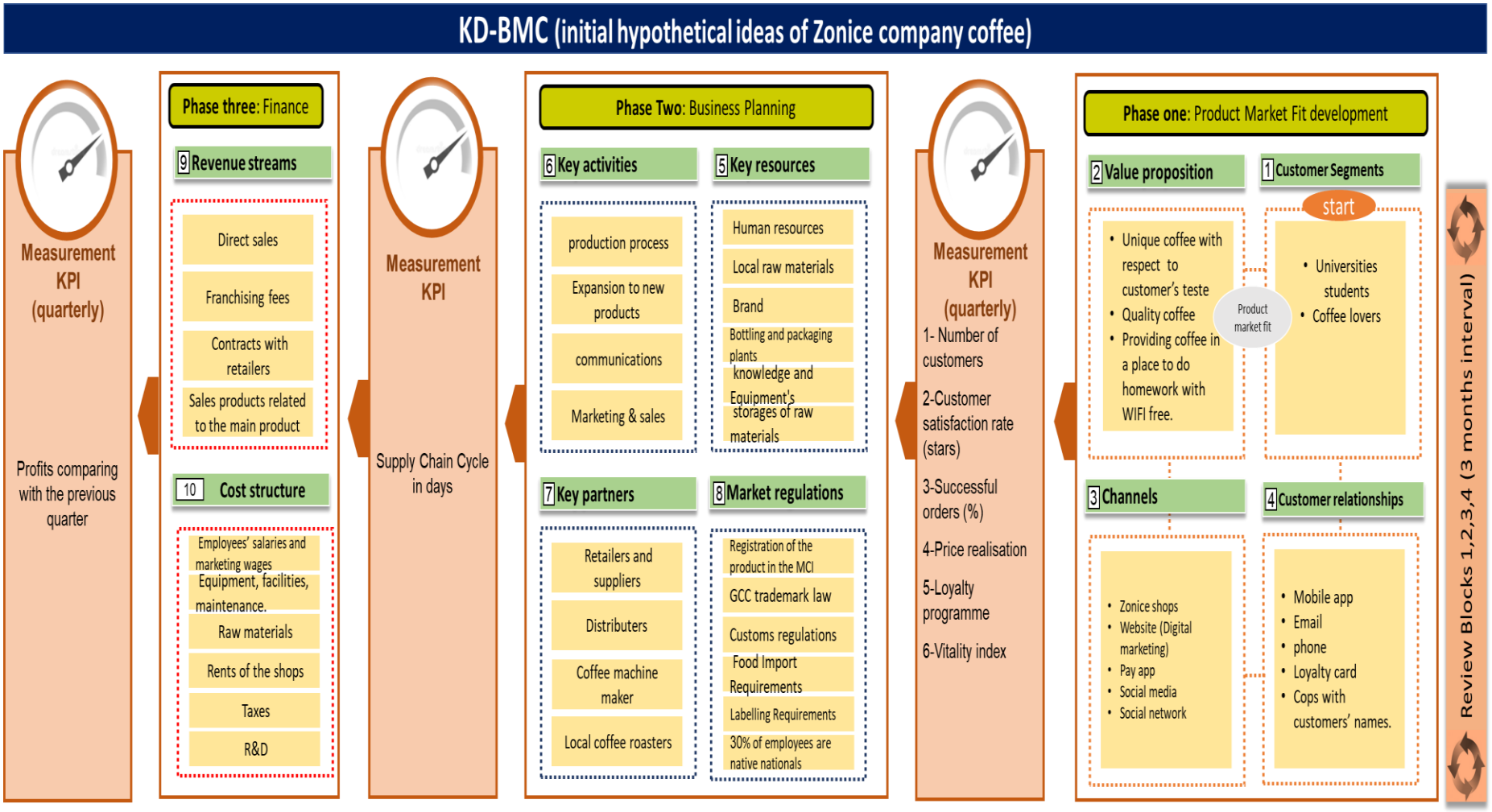


Figure 7-3 KD-BMC (initial hypothetical ideas of Zonice company frozen yoghurt, healthy snack and beverages)

The model shown in **Figure 7-3** was provided via email as a soft copy with all empty blocks. The company then started filling the model from the first phase from the right-hand side with an assumption of the customer segments, value propositions, channels, and customer relationships.

To move to the second phases of the model company had to fill in the company's key resources, key activities, key partners, and market regulations. These were also hypothetical since it relies on the information filled in phase one. Finally, Phase three is finance; again, this is assumed to be a suitable revenue stream and cost structure.

After launching the coffee product as MVP1 based on the first model (**Figure 7-3**). The company collected feedback from the market through a survey. Information and feedback are collected back from the market through a survey consisting of 100 responses (see Appendix C.1.1) To determine the product performance in the overall business development. Process KPI's are reviewed every quarter. For every phase in the model (**Figure 7-3**) there is a set of KPI's that are associated with the group of blocks in that phase there were linked to the influential factors in chapter six in the knowledge map (**Figure 6-3**).

Quarter: 3					
Model Phase	KPI (Key performance indicator)	Unit	Month 1	Month 2	Month 3
Phase one	Sales	SR.	338000	350000	362000
	Successful ordered	N	186	200	208
	Customer satisfaction	%	95	95	95
	Price realisation	%	96	96	96
	Vitality index	%	42	33	34

Phase two	Supply chain cycle	days	50	50	50
Phase three	Profit	SR	120000	132000	144000

Table 7-5 KPIs of Zonice company case study with the MVP1 (coffee product)

In **Table 7-5** the Zonice company was asked to fill out the KPI form. After filling the form, the company owner was asked the following questions:

Questions: '' To what extent you think that knowing your KPI's helps your business development.''

Answer:'' Measuring KPI's helps me understand my business more, it is a clear way of quantifying each block or phase of the business model. It is now clearer for me otherwise; we only focus on profit if the profit is high then we assume it is fine.''

As shown in **Table 7-5** the feedback from market and business performance (KPI) was monitored for three months, and the results were integrated into the model. After measuring the KPI's, the company owner was asked how much it helped to do so, and it was evident that quantifying business performance helped the owner in decision-making. The KPI's indicated that the new product (MVP1) was generating 40% of the company's cash flow. This is deemed significant for a new product. However, although market research data, although indicated high satisfaction noted that the customer asked for an additional product when buying coffee such as sweet, healthy snack since the brand is known for that. Hereafter, the process of filling value proposition canvas and the KD-BMC was repeated. The value proposition canvas Figure 7-4 is filled again based on customer feedback on MVP1. Then, the KD-BMC is filled also Figure 7 **5**. Then MVP2 was launched, and the cycle of monitoring business performance and market research was performed again after adding the new product.

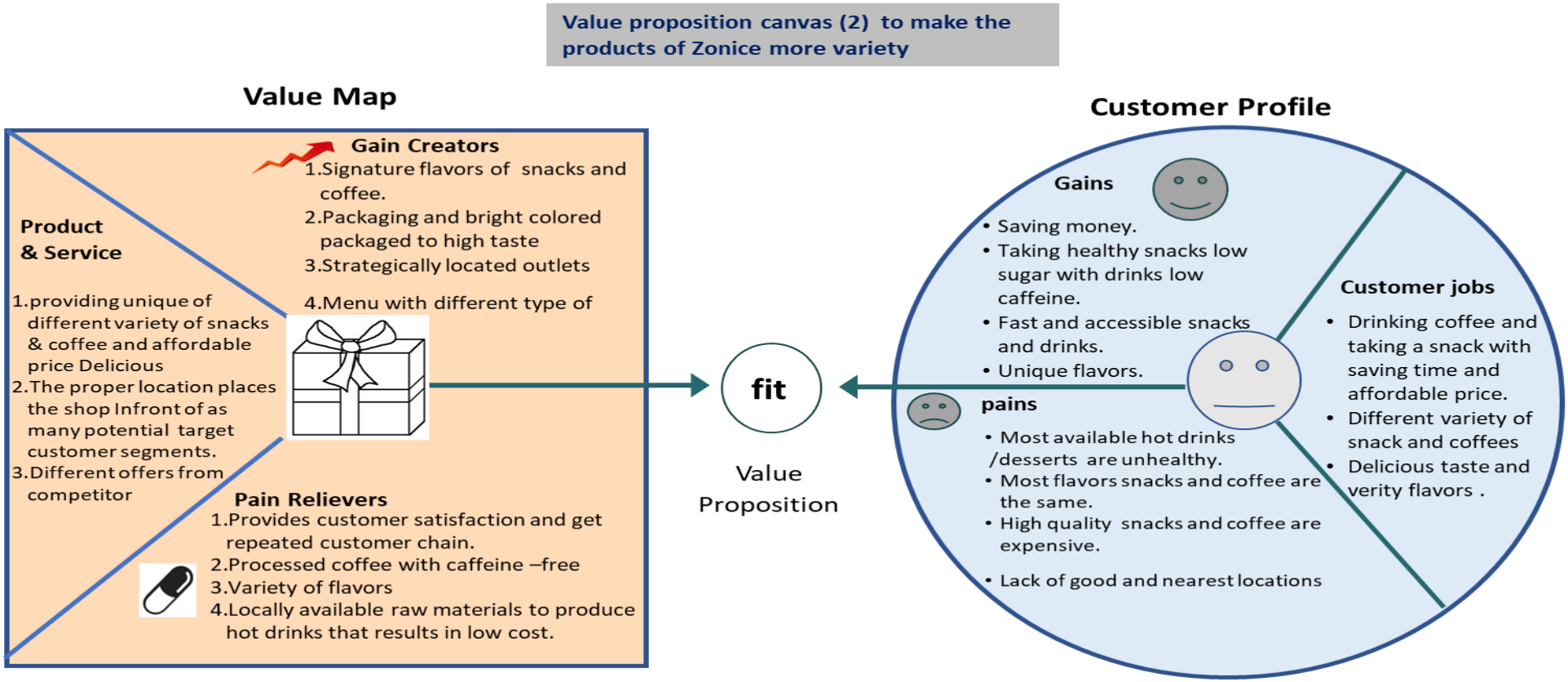


Figure 7-4 Value proposition canvas (2) of Zonice to provides MVP1 (coffee product as a new product)

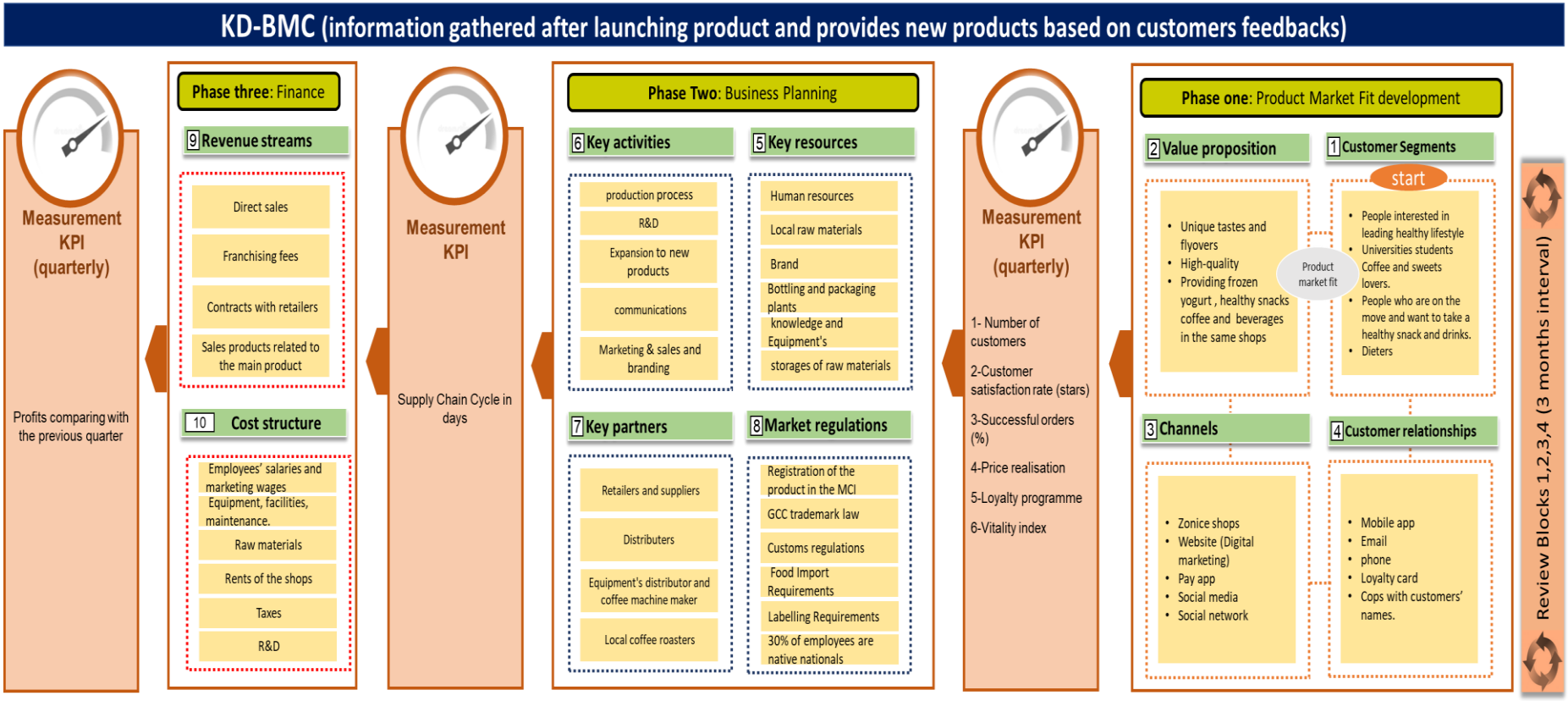


Figure 7-5 KD-BMC (information gathered after launching the product and provides new products based on customers feedbacks)

7.3.2 Alsalman case study validation

The second company, Alsalman, followed the same process to develop an existing product called Fosshati pastry. The initial idea of this company is to provide meals for children at schools. Based on a general assumption, the first product was a set of affordable

and enjoyable pastries by children at schools in launch time. The company used the value proposition canvas shown in **Figure 7-6**, and then the KD-BMC was filled based on the assumptions made in value proposition canvas, as shown in **Figure 7-7**.

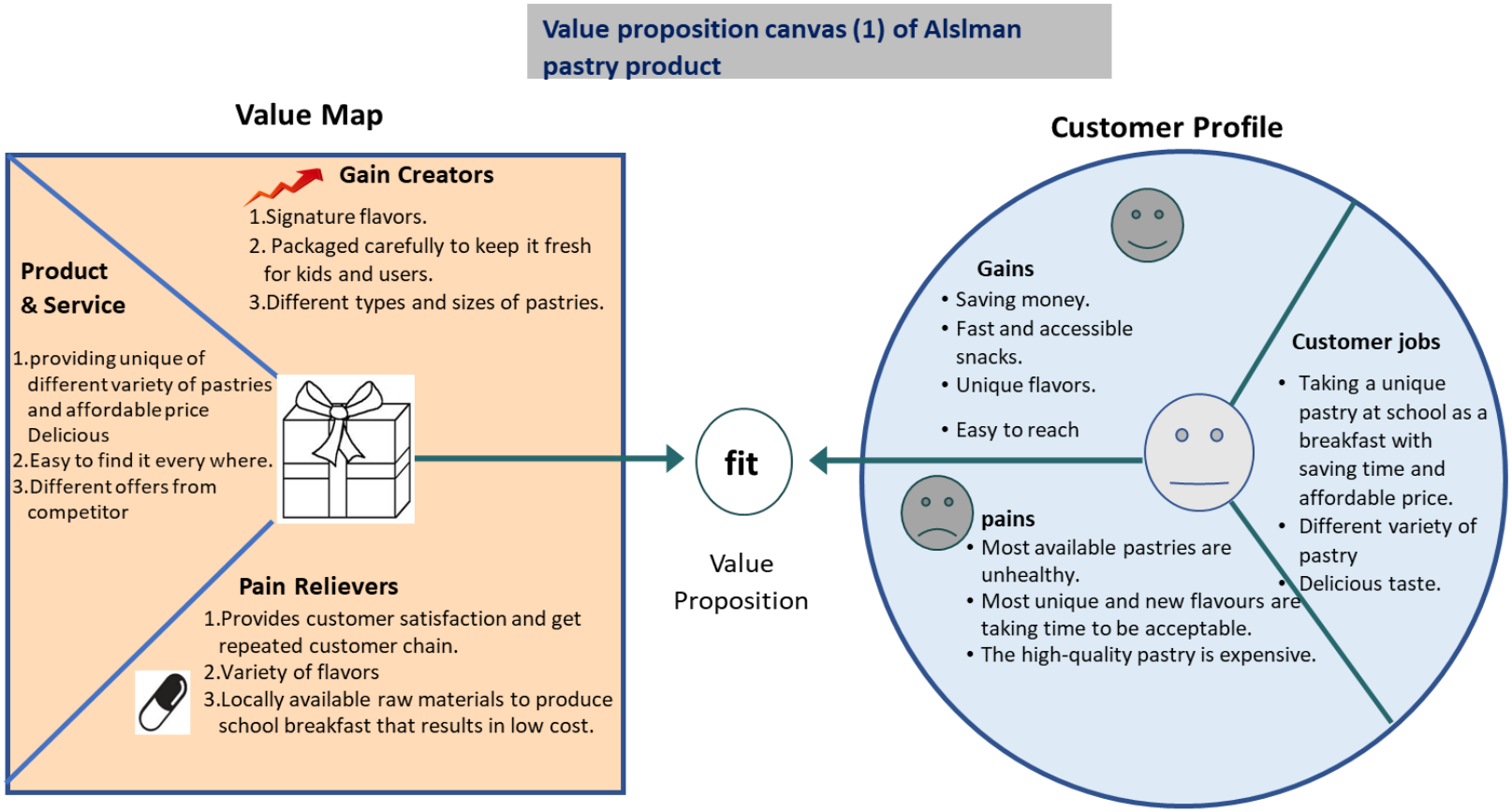


Figure 7-6 Value proposition canvas (1) of Alsalman pastry product (MVP1)

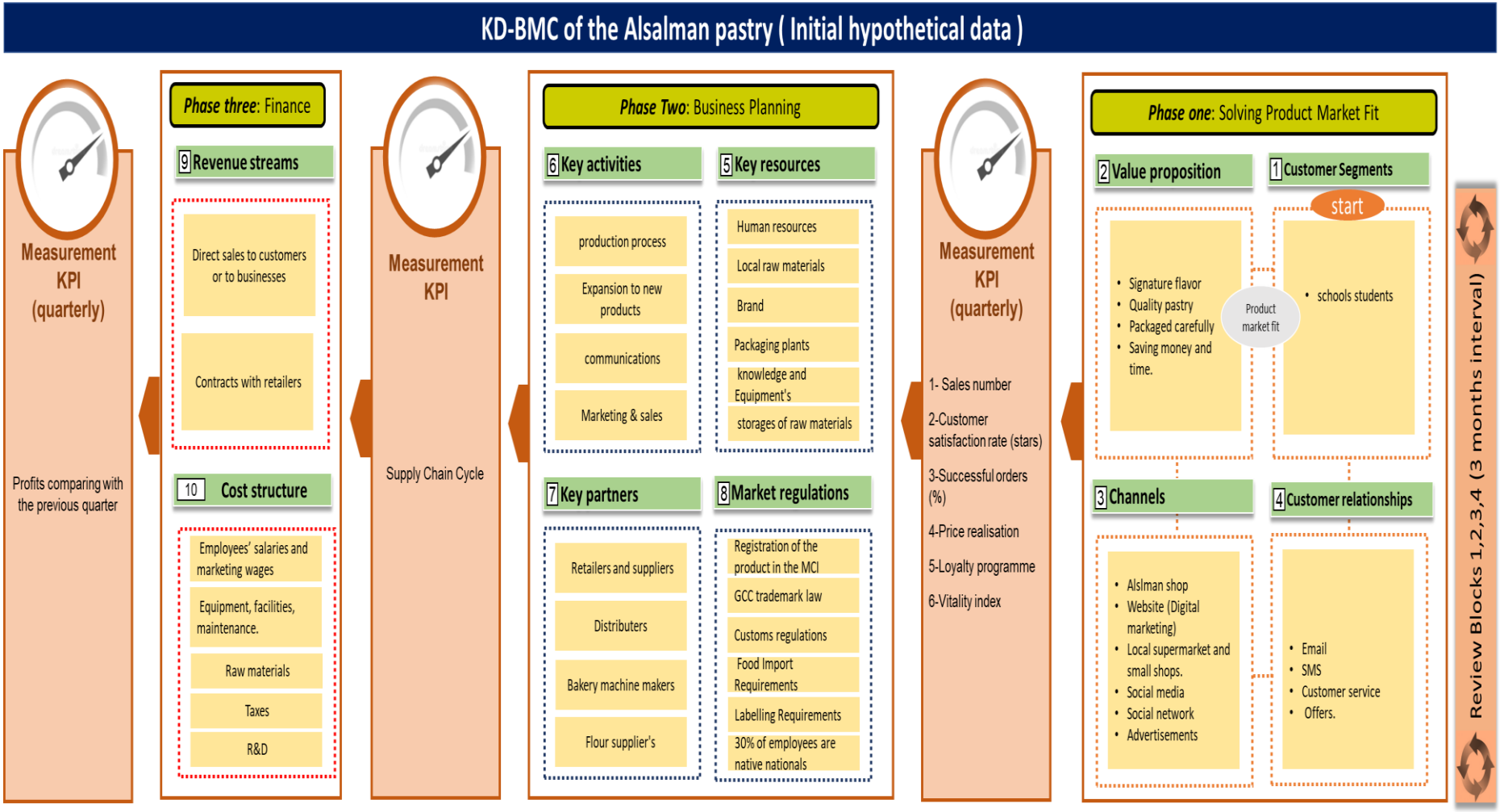


Figure 7-7 KD-BMC of the Alsalman pastry (Initial hypothetical data)

Similar to Zonice company, and Al-Salman company in the study started its operations with the new product. After three months, the business performance was recorded alongside customer feedback gathered through a survey that included 100 respondents (see Appendix C.2.1).

Quarter: 3					
Model Phase	KPI (Key performance indicator)	Unit	Month 1	Month 2	Month 3
Phase one	Sales	SR.	5,400,000	4,500,000	3,690,000
	Successful ordered	N	180000	150000	123000
	Customer satisfaction	%	83	76	70
	Price realisation	%	54	40	55
	Vitality index	%	42	38	55
Phase two	Supply chain cycle	days	40	40	40
Phase three	Profit	SR	2000000	1,800,000	1,440,000

Table 7-6 KPIs of Al-Salman company case study

In **Table 7- 6,** the Al-Salman company was asked to fill out the KPI form. After filling the form, the company owner was asked the following questions:

Questions: '' To what extent you think that knowing your KPI's helps your business development.''

Answer:'' Knowing my business performance in certain a period and being able to quantify each stage of the product lifecycle, it is constructive to think about the next step.''

After running the customer surveys' and monitoring the business performance, the company noticed a steady stream. However, the product was still not on high demand; it was barely covering the costs. The market research highlighted three main findings: the packaging was rigid for children to open, and the second finding was that the calorie intake was high per serving. The third finding was that another customer segment was interested in the idea: the key workers such as schoolteachers, police force, fire service, and NHS. Hereafter, the company used the model again to re-launch the product to meet the new demand.

Once again, the company was asked to fill the value proposition canvas shown in **Figure 7-8** and then build the KD-BMC Figure 7-9 based on the feedback from the market from the first product launch (MVP1).

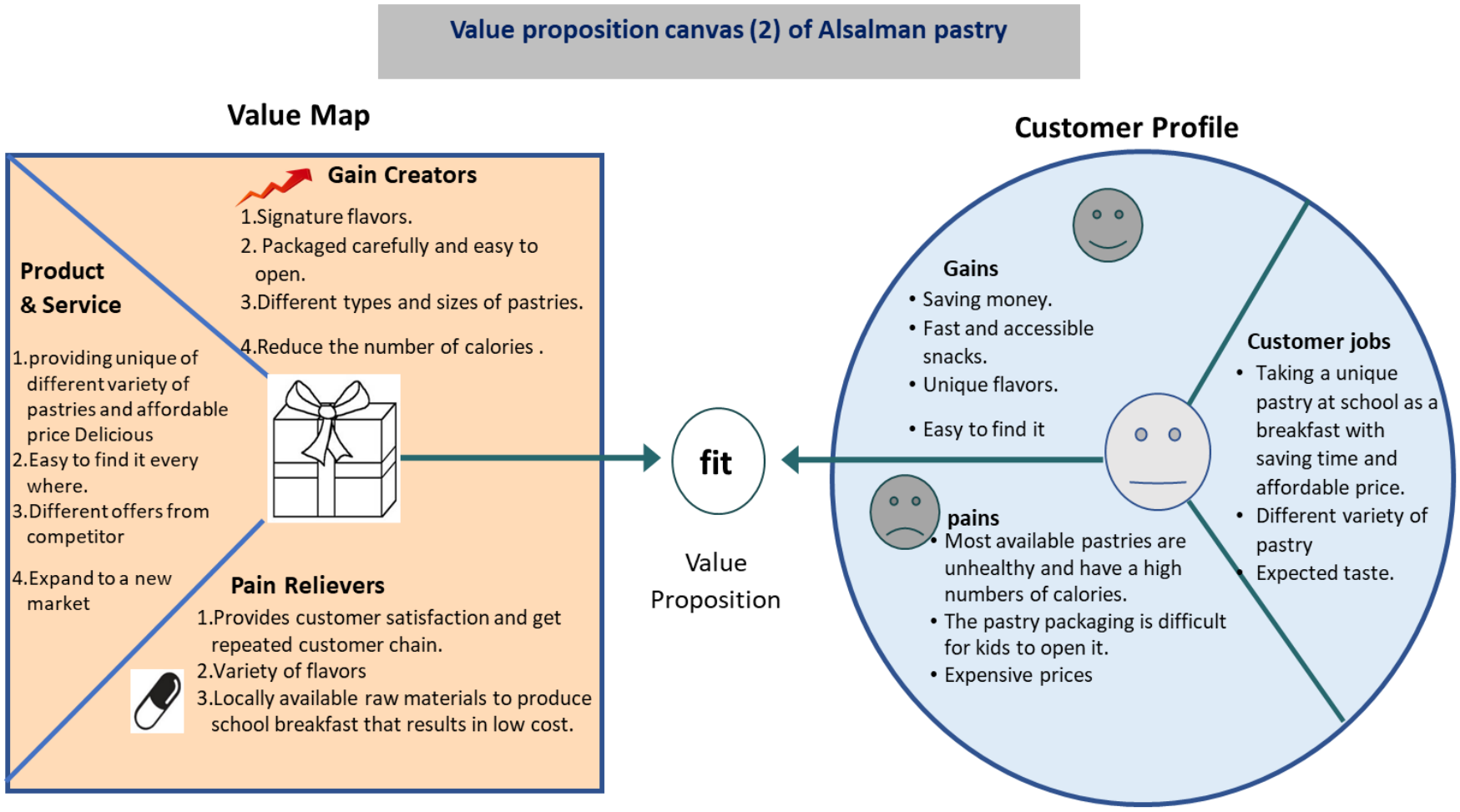


Figure 7-8 Value proposition canvas (2) of Al-Salman pastry product

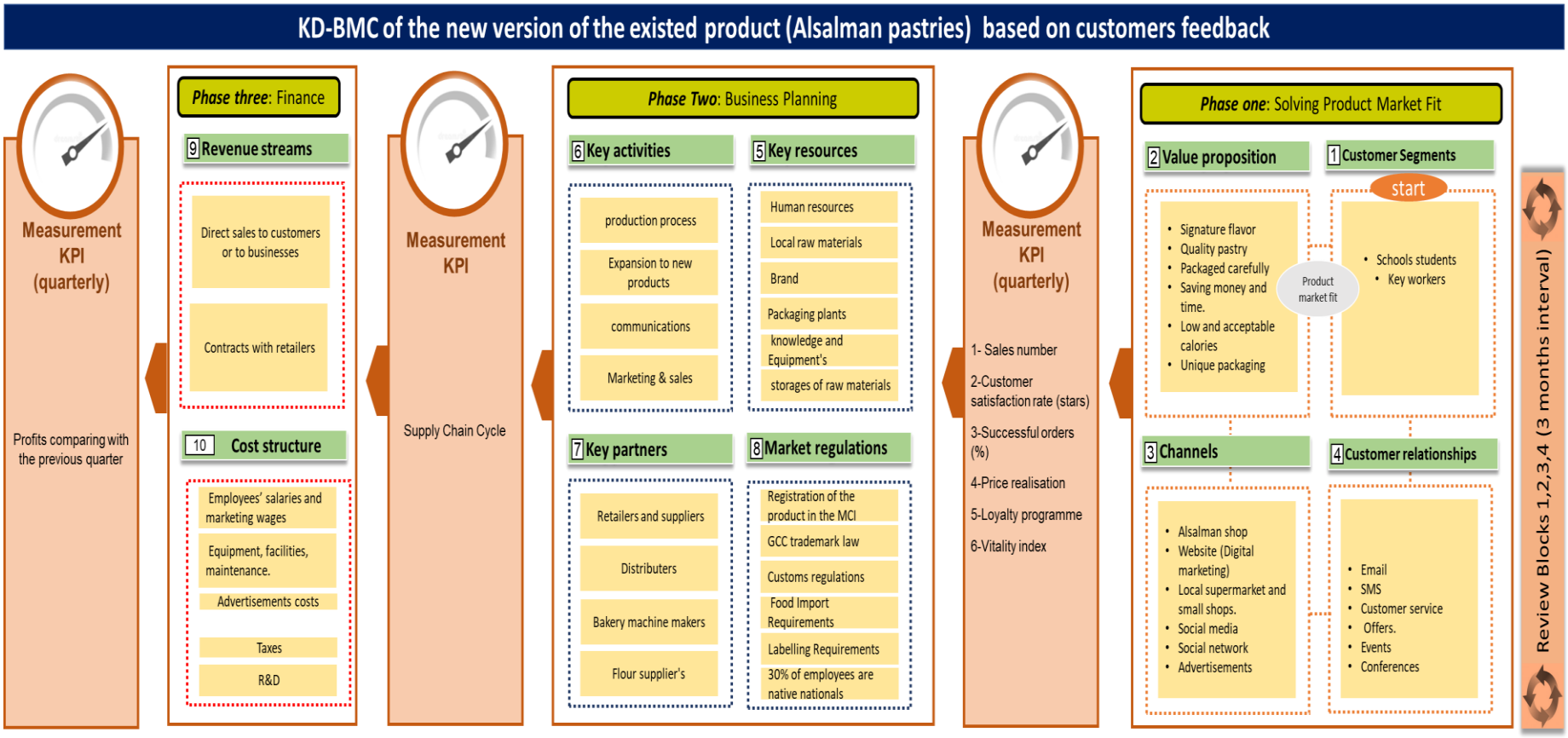


Figure 7-9 KD-BMC of the new version of the existed product (Alsalman pastries) based on customers feedback

After putting the model to use by two companies, an interview was performed with experts in the field to discuss their opinion on following the KD-BMC in developing business in Zonice and Alsalman pastry.

7.4 Discussion of results

From the two case studies in section 7.3 conducted on two food processing companies in the GCC. It was found that applying the KD-BMC had a positive impact on the company's financial performance. This was achieved through following the KD-BMC which allowed both businesses to continuously evaluate the outcome of from launching a product into the market and feeding back feedback from the market.

Turning back to previous studies discussed in chapter two, Arend (2013) stated that business models are frameworks that offer a cognitive tool for visualisation, that helps identifying the essential components for a business to operate. On the other hand, Fielt (2014) elaborated saying that business model is more than just components and captures the essence of how the business should focus. Furthermore, Cerchione, R. & Esposito (2017) stated that a business model should allow business decision-makers to capture, understands, communicates, design, analyse and if necessary, change their business.

The KD-BMC did not only offer a visual tool for that presents the business components but also gave a path to follow for decision makers in a business to take actions and iterate on products to deliver a value to the customer. Furthermore, Osrterwalder (2010) claimed that business model should be able to provide even inexperienced businesses with a visual representation of the value logic required to succeed in the market. Therefore, the KD-BMC provided the components and the logic to follow.

In terms of value Chesbrough and Rosenbloom (2002), Johnson et al., (2008), Kaplan (2012), and Osterwalder et al., (2005) all emphasised on the importance of value creation for the customer and the company itself. This can be observed at phase one of the KD-BMC which is the part where the value is shaped and then re-shaped based on the market feedback. This ensures that the value is delivered to the customer and the value is captured from the market. Thereafter, the value proposition for the company is clearly identified.

From the two case studies in section 7.3 it can be observed that both companies had a significant increase in sales and revenue after the collection of feedback form the market which was used in iterations on the product in both companies. Johnson et al. (2008) stated that success is achieved by first focusing on the opportunity to satisfy the customer and recommend that the organisations should constantly re-evaluate the effectiveness of its business model against set targets and decide if a new model is required which basically means defining value proposition. Furthermore, Johnson et al. (2008) mentioned three more areas to focus on to succeed which are identifying key resources, key process and profit making.

It was evident that the KD-BMC connected these area and attached a measurement indicator (KPI) for each stage to enable a continuous evaluation form each stage to reflect on each area and allow business to benchmark the business development process.

7.5 Expert's judgment evaluation

Implementing experts' judgment to validate research outcome has been used by various researchers (Haq & Boddu 2014). Expert review gained through working cooperatively with two food processing companies. There were 6 participants in the evaluation interviews process, each with over 15 years of experience. Interviews were performed to capture feedback from experts', hence validate the model. Interviews were conducted with the participants in each company, and validity-centred sessions were held about the following Questions:

1. Question 1: "To what extent the KD-BMC phases and activities considered to be vital for successful business devolvement in food processing companies?''

2. Questions 2: "To what extent do you agree or disagree that the KD-BMC is understandable by the business owners in the industry?''

3. Questions 3: "To what extent do you agree or disagree that the KD-BMC represents reality?''

4. Questions 4: “To what extent do you agree or disagree that the KD-BMC helps in value creation for customers?”

The following tables will present the answers by each participant

Question 1: “To what extent the KD-BMC phases and activities considered to be vital for successful business devolvement in food processing companies?”	
Respondent	Answers
1	‘’I believe that the model is very simple and very logical to follow. I think it is very important to put structure into our business development process and that basically what I can see from this approach.’’
2	‘’ As part of business operations team this I believe I know all of this is common sense, however, I think it is very important that such common sense is visual and structured and it helps with getting everyone in a company to be on the same page with company’s management.’’
3	‘’The phases and activities of implementing knowledge into the business development process are crucial for the business, especially in food and beverage, it is always easy to assume the customer preference, but without a structured approach it is very hard for a business to change its strategies to grow and expand the business.’’
4	‘’ I find it very useful and effective creating a clear path for business development process. ‘’
5	‘’ For a business to grow in the region this is the best step-by-step approach I have seen for the food industry in this region, also the timeframe of three months is reasonable for these times of digital marketing.’’

6	'' Such model seems comprehensive in its phases and activities; it seems very clear and very logical presentation of business development process.''

Table 7-7 The answer of Q1 by each participant expert

Questions 2: "To what extent do you agree or disagree that the KD-BMC is understandable by the business owners in the industry"?	
Respondent	Answers
1	'' I believe this model is very easy to follow by any business owner, it represents common sense, and any owner with little experience is able to understand and use the model.''
2	'' The model is a clear step-by-step guide for any owner with limited or long experience in the industry. I believe it is very easy to understand since it seems very relevant to the understanding of the business development process in the region.''
3	'' it is definitely understandable, the model is a clear path and having it as a visual tool helps the business owner to manifest his business development process, thus increase his attention and awareness to the process.''
4	'' From a business owner, I would actually use this to explain to my employees the aspects of the business and products, so they are all aware including myself on all aspects of the business or products.''
5	'' For me as a business owner I already do this kind of things, but with this model, I can put my thoughts in one place and act accordingly. It is very easy to follow and very easy to implement in any business environment.''

6	'' The model is great. This is a great tool for business owners to visually present their business performance it also helps them deliver ideas to their staff in an attractive manner.''

Table 7-8 The answer of Q2 by each participant expert

Questions 3: "To what extent do you believe that the KD-BMC represents reality?"	
Respondent	Answers
1	'' The model is so much related to reality. The steps included in this model and the overall content is very relevant to our day-to-day business.''
2	'' The model is a perfect resemblance of reality. It is the logical process that we, as business owners, follow in real-life to tackle business development. The difference is this model provides a clear timeline to when this should be used
3	'' in terms of reality, this is a good representation of reality in all business aspects. However, there are unforeseen and uncontrollable issues that may rise sometimes.''
4	'' Reality is unpredictable, with this model it is a perfect representation of taking action in business and dealing within the reaction in the same and improved way.''
5	'' Having this model in any company will help companies to visualise reality in business terms. I believe this model is very much comprehensive and covers all aspects of business.''
6	'' The model is the perfect representation of the business reality in the region.''

Table 7-9 The answer of Q3 by each participant expert

Questions 4: "To what extent do you believe that the KD-BMC helps in value creation for customers?"	
Respondent	Answers
1	'' The value creation process is the most attractive aspect about this model. This model makes sure that the value is created and measured to act on the right time as seen from both companies.''
2	'' it is evident that the validating customer segment and providing the right customer and the right product is crucial in modern-day business and this model the KD-BMC is providing a clear path on creating value.''
3	'' From experience value creation is very important aspect and I have personally struggled with that over the past year. I believe this model provides a consolidates with the key elements of a business development process.''
4	'' I believe that this model is driven by the value creation.''
5	'' Basically, the way I understood this model is to provide customers with the right product to improve and grow the business. I believe this is value creation and model are providing a clear path for value creations.''
6	'' In terms of value creation, the model clearly presents a measurable approach to create value and be on the top of market demand all the time.''

Table 7-10 The answer to Q4 by each participant expert

Previous tables showed the questions and answers by participants. The final overview of the participant's comments is that the model seems to be very

suitable for the region's food processing industry. It was noticed that the activities and phases resemble an apparent path of business development for customer-centric products and that business development process based on customer and business performance especially, in the food industry is crucial. Also, running the process on three-month intervals is suitable for business in the region.

7.6 Academic Validation

The new model's cornerstone is the influential factors that initially affect the business development process and how it is connected to the Business Model Canvas. The work was reviewed and criticised by referees from a leading journal. For example, one of the referees commented on the work by saying:

"This research has a high degree of originality. Little published research exists on this topic. It is worthy of publication. The research does a good job of reviewing and applying the appropriate literature. The methodology of the research is based on the development of a new business development model. The results of the research are clearly stated and analysed appropriately. The research clearly addresses a gap in the current body of research and identifies implications for the research's future application. The research is fairly well written".

This work was peer-reviewed and published in the Journal of Business and Retail Management Research (JBRMR), Vol. 14 Issue 2 under the title *"The influential factors of business development among SMEs in the Food Industry of the GCC Region"*; Publication is one of the most reliable validation strategies, due to feedback and criticism.

This paper was based on chapter two of this research where findings from the literature review were consolidated to publish this paper.

7.7 Chapter summary

As mentioned earlier in this chapter. The goal of this chapter is to validate the outcomes of this research project. The influential factors and problems affecting business development process through two cases studies followed by interviews with six experts. The model was then validated.

8 CONCLUSION

8.1 Introduction

This chapter presents a conclusion of the researcher's main findings of the research, presents a discussion, contributes to knowledge and limitations, and finally presents future work. The main sections of this chapter, as illustrated in **Figure 8-1**.

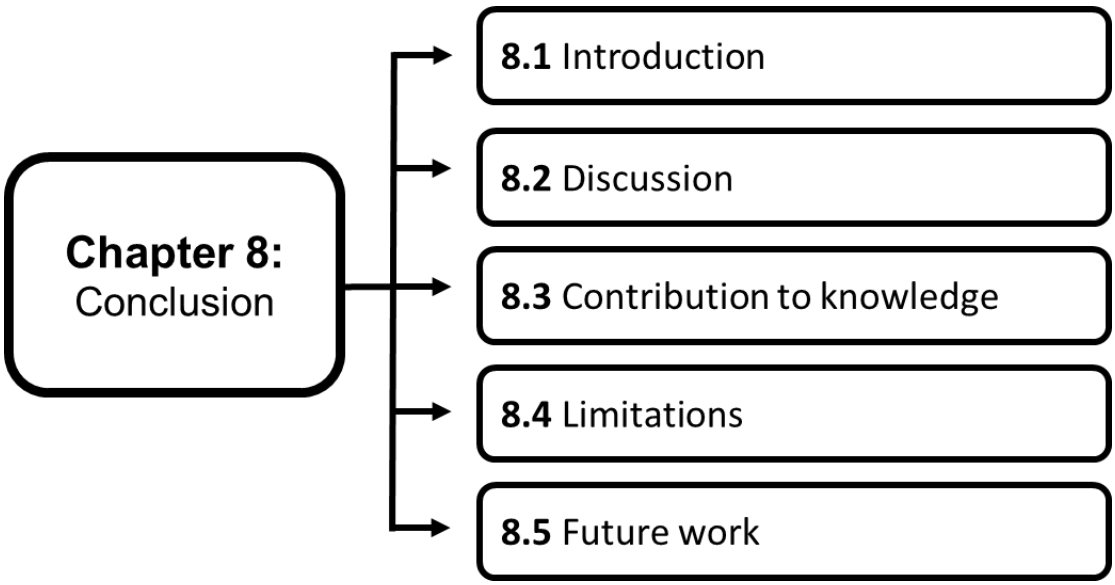


Figure 8-1 Chapter eight structure

8.2 Discussion

The analysis, results and proposal of this research showed two significant contributions to knowledge. First, this research's findings add considerable value to the field's existing body of knowledge. Through studying the existing literature on business models, it was found that yet, there is no business model that is designed especially for SMEs in the food industry. Although it could be argued that other models can be used for SMEs in the food industry however, the existing models did not show the interrelation between the business model components and did not provide a clear tool to measure this process, while the novel knowledge driven business canvas model provided a clear business model that clarifies the business development process with measurements indicators.

Furthermore, this research highlighted the significant challenges in business development faced by SMEs in the food industry in the GCC. This study filled the gap where no similar studies had been conducted on the Business Model Canvas and development process in the region.

The findings from this study have made it clear that SMEs in the GCC food sector need to have a clear business model based on their business development to start up their business or grow it. They also need a business model to run their businesses. This research has highlighted the importance of the influential factors of business development among the GCC food SMEs, and how they impact the business owners' decision-making process in seeking to meet their business development objectives. Such factors have been identified through extensive literature review and subsequent analysis of the industrial field study's data. Understanding these influential factors provided the knowledge base for SMEs in the GCC food sector, so they can know the most important considerations and activities required to help them achieve their growth targets. It will also enable them to identify the pitfalls and challenges they should watch out for.

However, despite having identified the influential factors of business development, such factors need to be presented to show how they interrelate with other business activities, and how they can be communicated so that even a novice in the business or the organisation can apply it. This is what business models such as the business model canvas (BMC) are intended for.

The identified factors were interlinked to the element of BMC. This linkage was created based on extensive research that was presented in the literature review in this research. Business model elements were discussed in this research, and its component and relation to the business development factors were explored. The link between the factors affecting business development in the GCC was linked to the model elements in its standard version. It was further developed based on additional information found throughout the research.

From a practical perspective, the key influential factors reflect key BMC elements. Two key elements were identified within which the influential factors were mostly

associated with. These are the elements of the value proposition and customer segmentation. The interplay of the two elements helps a business achieve 'product-market fit'.

Consequently, to enhance the usefulness of the BMC, what is needed is subtitles within the various elements, and these should describe issues the manager should consider, in making product development decisions to fit the available market demands.

However, these details needed to be presented to show how they interrelate with other business activities, as this will help maintain the visual representation strength of the BMC so that it can be communicated to even novice business managers. Therefore, further research was required to see what knowledge can be captured by experienced practitioners in the industry.

An easy to use newly developed knowledge-driven BMC supports SME's in eliminating confusion in addressing value and value delivery through solving the product-market fit problem. This contribution highlighted new research gap, which is the gap between the current BMC and the quantifiable and tangible information required to drive a business model. This invites for more research on knowledge-driven BMC, especially designed country or an industry.

Another major contribution is the KPI's in the new knowledge business model canvas. This addition to the model helped quantify the factors that influence the business development process. It was deemed necessary because it calibrates the abstract concept of knowledge drive business model to clear the relationship between the visual tool and the real-life business development scenario.

8.3 Contribution to Knowledge

The following points highlight the contributions to knowledge in this research:

- Identify the influential factors of the business development of SMEs in the GCC region
- provides a study that gives a detailed definition of the use of Business Model Canvas in business development.

- Provides a useful knowledge created from Business Model Canvas and documenting it as a detailed step by step approach of business development, for companies seeking to invest in the GCC food sector.
- Developed a detailed GCC business development methodology based on the business model canvas approach.

By contributing to knowledge in this research, the following research gaps were covered:

- The BMC has not been fully explored as a business development approach in food processing Industry by SMEs.
- lack of studies on how BMC is the right business development model for SMEs of the food industry in GCC.
- There is a lack of research to have a customized business development model to the SMEs of the food processing industries of GCC.
- There is a lack of study about the influential factors of business development for the GCC food sector.

8.4 Limitations:

This study's first limitation is the sampling which was judgmentally selected, where some biases may have existed. Most of the subjects are based in the KSA may be considered bias, yet this cannot be confirmed because of the study's nature. A hypothesis to explain this would be that the KSA has a very developed entrepreneurial ecosystem compared to any other GCC country.

The second limitation is that the KD-BMC is well structured, and this may cause over generalisation across different business inside the food industry. This limitation is the outcome of research methodology, which can be later modified to look at this research's aim and objective from a different angle.

Thirdly, the KD-BMC does not take into account the factor of coemption. This is because of this research efficiency of a Business Model Canvas based on the product-market-fit problem and its business planning and finance problems.

However, the mode still solves and explains the relationships between different parts of the BMC, especially when it comes to value creation and value delivery.

Last of all limitations is that the model might not seem simple for some users. User may often see this BMC as an extra task to perform, especially when it comes to SME's where time and resource are often limited.

8.5 Future work

This research provided a newly modified knowledge-driven Business Model canvas (KD-BMC). It is recommended that future studies conduct a more in-depth analysis of the factors influencing business development in SME's considering the day-to-day business activities and its relation to the value chain.

Future research could consider larger samples to study. This could help in implying a rather statistically significant finding that can reject or support the proposed KD-BMC. Furthermore, a study can be conducted in the usability of the new model where a time-based evaluation can evaluate the effectiveness of the model.

Another potential field for future research can be to explore the potential of creating a computer-based system that guides SME's through a software package. This can help SME's with the utilisation of the KD-BMC to maintain business expansion and profitability.

Finally, this research was focused on a single region. Therefore, a similar study could be performed in another region, and results could be compared with this study. This highlights a great potential for SME's around the world to benefit from a variety of research to help them achieve their goals.

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APPENDICES

Appendix A Field Study Methods

Appendix A shows the semi-structured interviews that was used during the field study as discussed in sections 4.1. The interviews were conducted with 36 food processing SMEs in the GCC region. The aims were to investigate the GCC food market situation to understand their needs and capability to growth and expand to new markets as well as to identify the influential factors of business development.

Structured Questionnaire

Introduction

The aim of this questionnaire is to investigate the market situation, in food industrial sector, in the GCC states to understand and capture their needs and capabilities to expand.

The questionnaire is divided into 9 parts:

1. Participants background details
2. Business development Overview
3. Company Value Proposition
4. Company Customer Segments
5. Key Activities
6. Customer Relationship
7. Channels
8. Influential factors of business development
9. Market situation and business Capability

Please take note of the following definitions of relevant terms in the questionnaire:

- **Value proposition**: the value the product or service delivered by the company to satisfy the customer needs.

- **Customer segments: the different customer groups for which the your product and service offer value**
- **Channels: how your company reaches its customer segments to deliver the value**
- **Customer relations: the types of relationships your company maintains with the customer segments**
- **Revenue streams: the ways your company generates revenue from offering value to each customer segment**
- **Key resources: the resources used by the company in creating and offering the value proposition**
- **Key activities: the actions the company undertakes in order to create and offer value**
- **Key partners: partnerships the company makes in order to create and offer value**
- **Cost structure: the different costs the company incurs to create and offer value.**

1 Participant's background details

1.1 Detail of Participant

NAME:
COMPANY:
COUNTRY:
POSITION:
YEARS OF EXPERIENCE:
TELEPHONE:
E-MAIL:

1.2 How company ownership structure of your company? (Please select as appropriate)

OPTIONS	SELECT
1. Private corporation	
2. Partnership	
3. Sole trader	
Others (please specify):	

1.3 How long has your company been doing business in the GCC?

Options	Select
1. Less than 3 years	
2. 3-5 years	
3. 6-10 years	
4. Morethan10 years	

1.4 How many people does your company employ?

Options	Select
1. 1 – 10	
2. 11 –50	
3. 51–250	

2 Business development Overview

2.1 How would you define a business model in your company?

Options	**Importance**	**Effectiveness of your practice**	

	Very Low	*Low*	*Medium*	*High*	*Very High*	*Very poor*	*Poor*	*Fair*	*Good*	*Excellent*	**Please provide any supporting record/evidence**
1. Strategic management process to create value											
2. An organised plan for business development											
3. Others (please specify):											

2.2 Could I have access to your current business model/business development model?

.....

.....

2.3 How would you define business development in your company?

Options	**Importance**					**Effectiveness of your practice**					**Please provide any supporting record/evidence**
	Very Low	*Low*	*Medium*	*High*	*Very High*	*Very poor*	*Poor*	*Fair*	*Good*	*Excellent*	
1. Process of expanding product line											
2. Strategy for increasing sales											
3. Strategic approach for increasing capability of the organisation											
4. Others (please specify):											

2.4 Who is involved in business development in your company? You (the owner –Managing director) or any from the following list: -

Options	Frequency					Effectiveness of your practice				
	Never	*Seldom*	*Sometimes*	*Usually*	*Always*	*Not at all*	*Not so important*	*Neutral*	*Fairly important*	*Very important*
1. No business development activity										
2. Business owner/entrepreneur										
3. Top management										
4. Dedicated management for development										
5. External consultants										
6. Individual staffs										
7. Others (please specify):										

3 Company Customer segments

3.1 Who are the main customers of the company? (On what kind of markets, the company is positioned):

Options	Frequency					Effectiveness of your practice				
	Never	*Seldom*	*Sometimes*	*Usually*	*Always*	*Not at all important*	*Not so important*	*Neutral*	*Fairly important*	*Very important*
1. Individuals (via direct purchase from the company store)										
2. Distributors										
3. Wholesales										
4. Retailers										
5. Markets										
6. Online shopping										

7. Home delivery										
8. Others (please specify):										

3.2 Please rate your perception of the "customers-orientation" of your company.

Options	Importance					Effectiveness of your practice				
	Very Low	*Low*	*Medium*	*High*	*Very High*	*Very poor*	*Poor*	*Fair*	*Good*	*Excellent*
1. Customer satisfaction is a key component in all management decisions.										
2. Customer complaints are quickly resolved										
3. Customer feedback is solicited										
4. Customer satisfaction is an important part of employee evaluation and compensation										
5. Others (please specify):										

3.3 Please indicate the percent distribution of your establishment's total food sales to the following.

MARKET	%
1. Saudi Arabia	
2. United Arab Emirates	
3. Kuwait	
4. Bahrain	
5. Qatar	
6. Oman	
7. Arab countries	
8. Other	

Total	100%

4 Company Value proposition

4.1 What key value does you company provide to customer? (Please select as appropriate)

Options	Importance					Effectiveness of your practice				
	Very Low	*Low*	*Medium*	*High*	*Very High*	*Very poor*	*Poor*	*Fair*	*Good*	*Excellent*
1. Convenient shopping experience										
2. Affordable pricing										
3. Nutrients										
4. Health benefits										
5. Product quality										
6. Customer service										
7. Product design										
8. Packaging										
9. Delivery										
10. Wide-ranging of products										
11. Frequently introducing new products										
12. Accessibility for products or services										
13. Others (please specify):										

4.2 which of the following areas has it made the most important innovation decisions choices to satisfy the customers (Please select as appropriate)?

Options	Importance					Effectiveness of your practice				
	Very Low	*Low*	*Medium*	*High*	*Very High*	*Very poor*	*Poor*	*Fair*	*Good*	*Excellent*
1. products										
2. Services										
3. Organizational processes										
4. Responsibility of company employees										
5. Training internal expertise										
6. Distribution channels										
7. Tools and web policy										
8. Digital marketing and online communications										
9. Brand reputation										
10. E-commerce										
11. Corporate social responsibility										
14. Others (please specify):										

5 Channels

Through which channels the company distributes value to their customers? (Please select as appropriate)

Options	Importance					Effectiveness of your practice					How do you know them? Please provide any supporting record/evidence
	Very Low	*Low*	*Medium*	*High*	*Very High*	*Very poor*	*Poor*	*Fair*	*Good*	*Excellent*	

1. Sales force											
2. The company website											
3. Websites marketed											
4. Marketing through social media											
5. Own stores											
6. Partner stores											
7. Wholesaler											
8. Others (please specify):											

6 Customer relationship

What types of customer relationships have you established and how? (Please select as appropriate)

Options	Frequency					Effectiveness of your practice				
	Never	*Seldom*	*Sometimes*	*Usually*	*Always*	*Very poor*	*Poor*	*Fair*	*Good*	*Excellent*
1. Promotion on/offline										
2. Sales on/offline)										
3. Customer caring on/offline)										
4. Communicate with the community through the company's website										
5. Communicate with the community through social media										
6. Social responsibility										
7. Co-creation										
8. Others (please specify):										

7 Key Activities

What is the principal food manufacturing activity of your establishment based on proportion of annual total food sales? (Please select as appropriate)

Options	Frequency					Effectiveness of your practice				
	Never	*Seldom*	*Sometimes*	*Usually*	*Always*	*Very poor*	*Poor*	*Fair*	*Good*	*Excellent*
1. Primary processing of raw agricultural products (e.g., flour milling, feed milling, animal slaughter, oilseed processing)										
2. Supplying semi-prepared food products for use in further processing (e.g. flour mixes, fruit desert fillings, dairy based ingredients)										
3. Manufacturing food products ready for human consumption (e.g. breakfast cereal, frozen dinners, canned foods, sausages, salad dressing, pet food, Pastries sweets , bakery products, dates)										
4. Others (please specify):										

8 Influential factors for business development

8.1 How the following does influence your decision to grow your business or expand to new market? (Please select as appropriate)

Options	Importance					Effectiveness of your practice					Please provide any supporting record/evidence
	Very Low	*Low*	*Medium*	*High*	*Very High*	*Very poor*	*Poor*	*Fair*	*Good*	*Excellent*	
12. Opportunity of expansion											
13. Need for increase in variety of products,											
14. To meet demand for more of the same products,											
15. Fast growth in the market											

16. Capture greater market share in the same market											
17. Identified need in another market											
18. Others (please specify):											

8.2 What type of support do you get from each of the following? (Please select as appropriate)

Options	What type of support	Importance					Effectiveness of your practice				
		Very Low	*Low*	*Medium*	*High*	*Very High*	*Very poor*	*Poor*	*Fair*	*Good*	*Excellent*
1. Agriculture development found											
2. Industrial development found											
3. Social development bank											
4. Chamber of commerce											
5. Regional GCC support											
6. National government support											
7. Others (please specify):											

8.3 Which of the following are the reasons for you thinking of expanding your business to new markets

Options	Importance					Outcome/Effectiveness to business expansion				
	Very Low	*Low*	*Medium*	*High*	*Very High*	*Very poor*	*Poor*	*Fair*	*Good*	*Excellent*
1. Purchase power										

2. How many retailers										
3. Flexibility of movement										
4. Market size										
5. The number of companies in competition										
6. Availability of skilled labour										
7. Availability of suppliers										
8. The size of the national economy										
9. Available infrastructure										
10. Rules and Regulations (like Tax & legal issues, corporate structure, intellectual property protection, business contracts enforcement, accounting and fiscal management, etc.)										
11. Others (please specify):										

8.4 How do you access finance for your business expansion? (Please select as appropriate)

Options	Importance					Effectiveness of your practice				
	Very Low	*Low*	*Medium*	*High*	*Very High*	*Very poor*	*Poor*	*Fair*	*Good*	*Excellent*
1. Personal savings										
2. Bank loan										
3. Borrow from friends and family										
4. Private equity investment										
5. Grant										
6. Networking with retailer										
7. Government support										
8. GCC financial support										
9. Join to adventures with other companies										
10. Others (please specify):										

8.5 What are your main challenges in raising finance? (Please select as appropriate)

Options	Importance					What is your evaluating issue?
	Very Low	*Low*	*Medium*	*High*	*Very High*	
1. Lack of business planning capability						
2. Credit worthiness						
3. Financial track records						
4. Poor book keeping						
5. Difficulty accessing loan						
6. Lack of information of sources of finance						
7. Others (please specify):						

8.6 Which of the following activities are you currently undertaking as part of business development? (Please select as appropriate)

Options	Importance					Effectiveness of your practice					Please provide any supporting record
	Very Low	*Low*	*Medium*	*High*	*Very High*	*Very poor*	*Poor*	*Fair*	*Good*	*Excellent*	
1. New market research beyond the typical commercial area											
2. Hiring new personnel											

3. Making new investment											
4. Increase the rate of production											
5. Making new products											
6. Making international deals											
7. Others (please specify):											

8.7 Please rank the importance to the management of your company of the following business objectives

Options	Importance					Effectiveness of your practice				
	Very Low	*Low*	*Medium*	*High*	*Very High*	*Very poor*	*Poor*	*Fair*	*Good*	*Excellent*
1. Making profits										
2. Satisfying customers										
3. Getting repeat business										
4. Increasing productivity										
5. Reducing costs										
6. Others (please specify):										

8.8 Please rate the Influential factors according to their level of importance in terms business development

Options	Importance					Effectiveness of your practice				
	Very Low	*Low*	*Medium*	*High*	*Very High*	*Very poor*	*Poor*	*Fair*	*Good*	*Excellent*
1. Value proposition										
2. Business capacity										
3. Profit										
4. Competition										
5. Barriers to entry										
6. Network partners										
7. Market situation and motivation										
7.1 Market size										
7.2 Market maturity										
7.3 Market regulations										
7.4 Market entry strategy										
7.5 Marketing										
7.6 Tax and Zakat										
7.7 Market security										
8. Cost										
8.1 Investment cost										
8.2 Operation cost										
8.3 logistics cost										
9. Economic timing										
10. Staffing										
11. Skills of employees										
12. Professional Advisors										
13. Management Experience										
14. Planning										

15. Product / Service Timing										
16. Infrastructure										
17. External environment										
18. Others (please specify):										

9 Market situation and Business capability

9.1 Why do you need to expand your business?

Options	Importance					Effectiveness of your practice					Please provide any supporting record/evidence
	Very Low	*Low*	*Medium*	*High*	*Very High*	*Very poor*	*Poor*	*Fair*	*Good*	*Excellent*	
1. We have a unique product											
2. we are not utilising our full capacity											
3. there is evidence of the need of our product in other markets											
4. Others (please specify):											

9.2 Which of these describes business capability to you? (Please select as appropriate)

Options	Frequency					Effectiveness on your business				
	Never	*Seldom*	*Sometimes*	*Usually*	*Always*	*Very important*	*Fairly Important*	*Neutral*	*Not so Important*	*Not at all important*
1. Ability to invest										
2. Ability to produce more products										
3. Ability to expand to new markets										
4. Others (please specify):										

9.3 What are your biggest competition? (Please select as appropriate)

Options	Frequency					Effect your business				
	Never	*Seldom*	*Sometimes*	*Usually*	*Always*	*Not at all*	*Not so important*	*Neutral*	*Fairly important*	*Very important*
1. International products from other countries outside GCC										
2. Products from GCC										
3. products from KSA										
4. Others (please specify):										

9.4 What do you need to expand? (Please select as appropriate)

Options	Importance					Effectiveness of your practice					Please provide any supporting record
	Very Low	*Low*	*Medium*	*High*	*Very High*	*Very poor*	*Poor*	*Fair*	*Good*	*Excellent*	
1. A good market study											
2. More investment as a loan											
3. Investment as partnership											
4. Forming alliances with similar projects											
5. Commercial alliances with kay partners											
6. Commercial brand introduced for franchise											
7. Expansion upon the internet											
8. Other (please specify):											

9.5 Please rate how each of the following factors constrained your establishment's ability to expand?

Options	Importance					Effectiveness of your practice					Please provide any supporting record
	Very Low	*Low*	*Medium*	*High*	*Very High*	*Very poor*	*Poor*	*Fair*	*Good*	*Excellent*	
1. Lack of access / availability of competitively priced raw agricultural products for processing											
2. Mergers and acquisitions by competitor firms											

3. Consolidation of equipment suppliers and/or packaging suppliers											
4. Consolidation of food retailers and/or wholesalers											
5. Restricted access to distribution channels because of listing fees, exclusivity.											
6. Outdated/inflexible food safety regulations											
7. Lack of food safety regulations/national standards											
8. Currency value against other currencies											
9. Other(please specify):											

Appendix B The surveys used in the Empirical case study to assess the benefit of the business model canvas and lean start-up in an SME

Appendix B shows the surveys used in the empirical case study to assess the benefits of the business model canvas and lean start-up in Zonice company as discussed in section 5.3. The surveys were conducted with 50 customers in MVP1 and 70 customer in MVP1. The aim was to assess the benefit of the business model canvas and lean start-up approach.

B.1 MVP1 survey of Zonice company frozen yogurt product

1. **Gender:**
   A. Male
   B. Female

2. **Age:** What is your age?
   A. Under 18 years old
   B. 18-30 years old
   C. 31-45 years old
   D. Over 45

3. **Education:** what is the highest degree or level of school you have completed?
   A. Less than a high school diploma
   B. High school degree or equivalent
   C. Bachelor`s degree
   D. Master`s degree
   E. Doctorate
   F. Other

4. **Employment Status:** Are you currently…?
   A. Employed Full-Time.
   B. Employed Part-Time.
   C. Self-employed.
   D. Unemployed.
   E. Seeking opportunities.
   F. Retired.
   G. Student.
   H. Unable to work.

5. **How would you describe your diet?**

A- Healthy

B- Moderate

C- Unhealthy

6. **Are you required to follow a certain diet due to a health condition?**

   A- Yes

   B- No

   If yes, please specify health condition

7. **How often do you purchase a healthy snack (fruit, smoothies, dried fruit, etc)?**

   A- Once a day

   B- Several times a week

   C- Once a week

   D- Once every two weeks

   E- Less than two

8. **When purchasing food products, how much does the health aspect of the product matter to you?**

   A. Strongly
   B. A lot
   C. Sometimes
   D. Occasionally
   E. Rarely
   F. Not at all

9. **When buying a healthy snack to take to work, or for your children's lunches, how do you prefer your snack to be?**

   A- Not premixed

   B- Pre-packaged

   C-Pre-mixed with other ingredients (e.g. Yogurt)

   D- Able to eat on the Go

   E- Hot

   F- Cold

10. **A company which attempts to reinvent 'traditional' products, by using only milk and natural fruits.**
    The product is a range of frozen yoghurt in a variety of different flavours to satisfy all customer tastes. It is made from milk and fruits ONLY with no added sugar or additives to ensure they are healthy for the customer. It is bringing the concept of a sweet into a healthy snack.
    Frozen yoghurt has great adaptability as they can be eaten on their own as a snack or can be mixed with a variety of different ingredients to create healthy but tasty snacks or meals.
    The product can be eaten at home, at work or on the go, with the product being suitable for both adults and children.
    Further to that, this product can help parents to increase the level of fruits their children consume daily, while still keeping the child excited about the product as it tastes and looks like a sweet or ice cream.
    The product is being made to go in a 100ml pot, meaning that it can be taken in a school or work lunch (much like yoghurt) or enjoyed as a healthy snack, but requires no preparation and can be eaten on the go.
    Would you buy this product?
    A. Yes I would buy this product
    B. Yes I will buy this for children
    C. Yes I would buy this product for me and for others

D. Maybe
E. No

11. What do you like about this product?

A. The health aspect
B. No additives
C. Size of the snack
D. Flavours
E. Can eat in different places
F. Other specify,

12. What do you NOT like about this product?

A. Size of the snack
B. Flavours available
C. I do not like frozen yoghurt.
D. I do not know what I would mix the frozen yoghurt with.
E. There is nothing I DO NOT like about this product idea.

13. What flavours would you like this product to come in?

A. Raspberry
B. Mango
C. Cherry
D. Pineapple
E. Mixed berries
F. Original flavour

B.2 MVP2 survey for Zonice company frozen yogurt product

1. Gender:

A. Male
B. Female

2. Age: What is your age?

A. Under 18 years old
B. 18-30 years old
C. 31-45 years old
D. Over 45

3. **Education:** what is the highest degree or level of school you have completed?
   A. Less than a high school diploma
   B. High school degree or equivalent
   C. Bachelor`s degree
   D. Master`s degree
   E. Doctorate
   F. Other

4. **Employment Status:** Are you currently…?
   A. Employed Full-Time.
   B. Employed Part-Time.
   C. Self-employed.
   D. Unemployed.
   E. Seeking opportunities.
   F. Retired.
   G. Student.
   H. Unable to work.

5. **Roughly, How much money did you spend on Zonice yogurt last month?**
   A. 0-120
   B. 121-240
   C. 241-360
   D. Greater than 360
   E. I prefer not to answer

6. **How many times have you visited Zonice in the last month?**
   A. 0-2
   B. 3-5
   C. 6-8
   D. Greater than 9
   E. I do not remember

7. **Did you visit Zonice alone or with someone else?**

   A- Alone

   B- With friends

   C- With family

8. **When do you like to frozen yogurt?**
   A. Morning
   B. Afternoon
   C. Evening
   D. From time to time

9. **What is the most attractive factor on the package of frozen yogurt?**
   A. Colours
   B. Design
   C. Shape

10. **What flavours did you try at Zonice?**
    A. Original flavour
    B. Mix

C. Raspberry
D. Chocolate
E. Strawberry
F. Pineapple
G. Raspberry
H. Orange
I. Vanilla
J. Mango
K. Peanut butter

11. Is there any specific flavour you would like to have at Zonice?

A. Yes, what is it?
B. No, all flavours are available

12. How would you rate the pricing at Zonice?

A. Very low
B. Low
C. Fair
D. High
E. Very high

Appendix C Industrial practitioners in business development of SMEs in food processing sector in the GCC interviews.

Part A- Participants feedback on the BMC model of Zonice' s case study

In your opinion, do you think that the Zonice' s BMC fits your business?

Part B- BMC

In your opinion, do you think that the BMC fits your business?

Part C- Discussion

In your opinion, do you think that the current business model fits your business, or it needs modification and why (e.g. additional blocks)?

Appendix D Case studies validation

D.1 First case study: Zonice company

D.1.1 The MVP1 survey

1. **Gender:**
   A. Male
   B. Female

2. **Age:** What is your age?
   A. Under 18 years old
   B. 18-30 years old
   C. 31-45 years old
   D. Over 45

3. **Education:** what is the highest degree or level of school you have completed?
   A. Less than a high school diploma
   B. High school degree or equivalent
   C. Bachelor`s degree
   D. Master`s degree
   E. Doctorate
   F. Other

4. **Employment Status:** Are you currently…?
   A. Employed Full-Time.
   B. Employed Part-Time.
   C. Self-employed.
   D. Unemployed.
   E. Seeking opportunities.
   F. Retired.
   G. Student.
   H. Unable to work.

5. **How do you find our products?**
   A. Dissatisfied
   B. Less satisfied
   C. Satisfied
   D. Very satisfied
   E. Completely satisfied

6. **Please rate the variety of our products?**
   A. Dissatisfied
   B. Less satisfied
   C. Satisfied

D. Very satisfied

E. Completely satisfied

7. How many times have you visited Zonice after lunching the coffee product in the last month?

A. 0-2

B. 3-5

C. 6-8

D. Greater than 9

E. Delay

F. I do not remember

8. Please rate the coffee most purchased.

A. Dissatisfied

B. Less satisfied

C. Satisfied

D. Very satisfied

E. Completely satisfied

9. When do you like to take Zonice coffee?

A. Morning

B. Afternoon

C. Evening

D. From time to time

10. What kind of coffee do you like to buy?

A. Black

B. Espresso

C. Mocha

D. Cappuccino

E. Latte

F. Ice coffee
G. Free caffeine

11. How would you rate the pricing at Zonice?

A. Very low
B. Low
C. Fair
D. High
E. Very high

12. Would you order and consume any other products with your coffee order? If yes, please answer question 10.

A. Yes
B. No

13. What other product do you want to find it in Zonice when you buy a coffee?.

A. Coffee cake
B. Waffles
C. Donut
D. Bagel
E. Pancakes
F. All of the previous choices

D.1.2 The MVP2 survey

1. **Gender:**

A. Male
B. Female

2. **Age:** What is your age?

A. Under 18 years old
B. 18-30 years old

C. 31-45 years old

D. Over 45

3. **Education:** what is the highest degree or level of school you have completed?

   A. Less than a high school diploma

   B. High school degree or equivalent

   C. Bachelor`s degree

   D. Master`s degree

   E. Doctorate

   F. Other

4. **Employment Status:** Are you currently…?

   A. Employed Full-Time.

   B. Employed Part-Time.

   C. Self-employed.

   D. Unemployed.

   E. Seeking opportunities.

   F. Retired.

   G. Student.

   H. Unable to work.

5. **How do you find our new products?**

   A. Dissatisfied

   B. Less satisfied

   C. Satisfied

   D. Very satisfied

   E. Completely satisfied

6. **Please rate the variety of our products after added new products ?**

   A. Dissatisfied

B. Less satisfied
C. Satisfied
D. Very satisfied
E. Completely satisfied

7. How many times have you visited Zonice after lunching ore new products in the last month?

A. 0-2
B. 3-5
C. 6-8
D. Greater than 9
E. Delay
F. I do not rememberer

8. Please rate the products most purchased.

A. Dissatisfied
B. Less satisfied
C. Satisfied
D. Very satisfied
E. Completely satisfied

9. Which product/products do you like to buy with the coffee?

A. Coffee cake
B. Waffles
C. Donut
D. Bagel
E. Pancakes
F. Frozen yogurt
G. Other ……

10. How would you rate the new pricing at Zonice after?

A. Very low
B. Low
C. Fair
D. High
E. Very high

D.2 Second case study : Alsalman factory

D.2.1 The MVP1 survey

1. **Gender:**
   A. Male
   B. Female

2. **Age:** What is your age?
   A. Under 18 years old
   B. 18-30 years old
   C. 31-45 years old
   D. Over 45

3. **Education:** what is the highest degree or level of school you have completed?
   A. Less than a high school diploma
   B. High school degree or equivalent
   C. Bachelor`s degree
   D. Master`s degree
   E. Doctorate
   F. Other

4. **Employment Status:** Are you currently…?
   A. Employed Full-Time.
   B. Employed Part-Time.
   C. Self-employed.
   D. Unemployed.

E. Seeking opportunities.
F. Retired.
G. Student.
H. Unable to work.

5. Roughly, How often do you consume cakes/pastries?

A. Daily
B. Weekly
C. Several time a month
D. Once in three months
E. Never

6. Where do you topically buy our product (Fosshati) from?

A. Our shop
B. Groceries
C. Supermarkets
D. Coffee shops
E. Other …….

7. Do you usually take Fosshati as a snack/breakfast?

A. Often
B. Sometimes
C. Rarely
D. Never

8. For who do you buy Fosshati for?

A. For me.
B. For my kids
C. Both

9. When do you / your kids like to take Fosshati pastries ?

A. Morning
B. Afternoon
C. Evening
D. From time to time

10. What is the most attractive factor on the package of Fosshati pastries?

A. Colours
B. Design
C. Shape
D. Other ……(difficult to open it)…….

11. What flavors' do you/ your kids prefer?

A. Original flavour
B. Chocolate
C. Vanilla
D. Pineapple
E. Fruit & Nut
F. Others please specify……

12. When purchasing a pastries/cakes, which of the following factors is more important?

A. Price
B. Long shelf life
C. Freshness
D. Low calories
E. Brand
F. Appearance
G. Natural ingredients

13. **How would you rate the pricing of Fosshati?**
    A. Very low
    B. Low
    C. Fair
    D. High
    E. Very high

D.2.2 The MVP2 survey

1. **Gender:**
    A. Male
    B. Female

2. **Age:** What is your age?
    A. Under 18 years old
    B. 18-30 years old
    C. 31-45 years old
    D. Over 45

3. **Education:** what is the highest degree or level of school you have completed?
    A. Less than a high school diploma
    B. High school degree or equivalent
    C. Bachelor`s degree
    D. Master`s degree
    E. Doctorate
    F. Other

4. **Employment Status:** Are you currently…?
    A. Employed Full-Time.
    B. Employed Part-Time.
    C. Self-employed.
    D. Unemployed.

E. Seeking opportunities.

F. Retired.

G. Student.

H. Unable to work.

5. What is the most attractive factor on the new packaging of the new products of our pastries (Fosshati previously) ?

A. Colours

B. Design

C. Shape

D. Ease of opening

E. Reducing calories and natural ingredients to be healthy products.

6. Is there any different between (Fosshati previously) and the new products in regard of taste and quality ?

A. Yes

B. No

C. Other…….

7. How would you rate the pricing of the new products (Fosshati previously) ?

A. Very low

B. Low

C. Fair

D. High

E. Very high

Appendix E Experts judgments evaluation

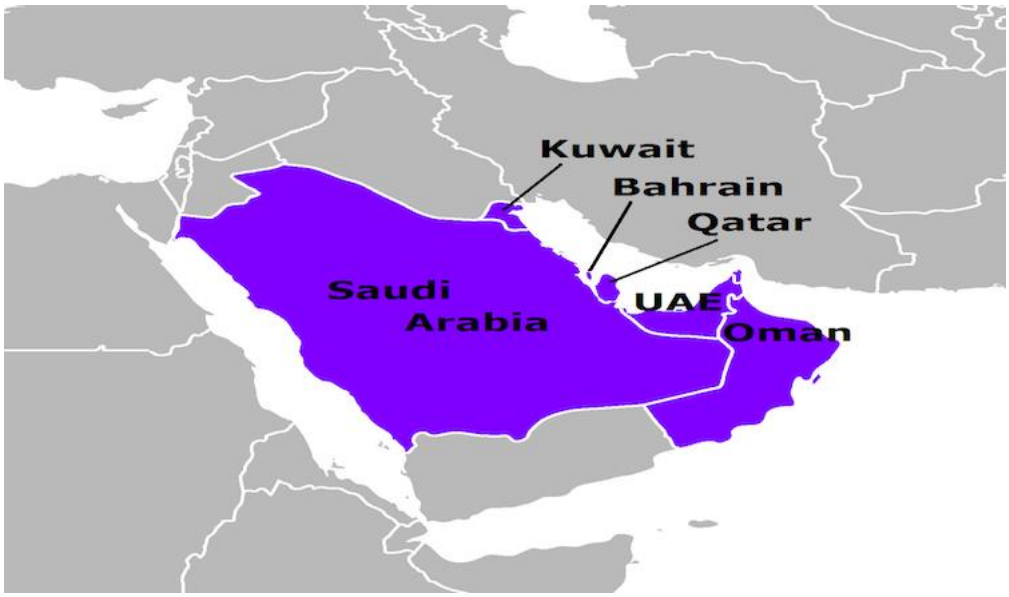
Interview questions

1. To what extent the KD-BMC phases and activities considered to be vital for successfully business devolvement in food processing companies
2. To what extent do you believe that the KD-BMC is understandable by the business owners in the industry'?
3. To what extent do you believe that the KD-BMC represents reality?'
4. To what extent do you believe that the KD-BMC helps in value creation for customers?

Appendix F Overview of the GCC food industry

This appendix provides additional context about the Gulf Cooperation Council (GCC) supplementing the discussion in section 2.11. The geographical location of GCC Countries is presented in appendix C.1.

F.1 Geographical location of Gulf Cooperation Council (GCC) Countries



Source: World Atlas 2020

Figure 0-1 Geographical location of Gulf Cooperation Council (GCC) Countries