BUSINESS STRATEGY, INNOVATION AND ORGANISATIONAL PERFORMANCE OF MALAYSIAN FOOD MANUFACTURING SMEs: DYNAMIC CAPABILITIES AS A MODERATOR

MOHD SALAHUDIN BIN SHAMSUDIN

DOCTOR OF PHILOSOPHY
UNIVERSITI UTARA MALAYSIA
AUGUST 2021

BUSINESS STRATEGY, INNOVATION AND ORGANISATIONAL PERFORMANCE OF MALAYSIAN FOOD MANUFACTURING SMEs: DYNAMIC CAPABILITIES AS A MODERATOR

By

MOHD SALAHUDIN BIN SHAMSUDIN

Thesis Submitted to
School of Business Management,
Universiti Utara Malaysia,
in Fulfillment of the Requirement for the Degree of Doctor of Philosophy

Pusat Pengajian Pengurusan Perniagaan
(School of Business Management)

Kolej Perniagaan
(College of Business)

Universiti Utara Malaysia

PERAKUAN KERJA TESIS / DISERTASI
(Certification of thesis / dissertation)

Kami, yang bertandatangan, memperakukan bahawa
(We, the undersigned, certify that)

MOHD SALAHUDIN B SHAMSUDIN (903795)

calon untuk Ijazah
(candidate for the degree of) DOCTOR OF PHILOSOPHY (MANAGEMENT)

telah mengemukakan tesis / disertasi yang bertajuk:
(has presented his/her thesis / dissertation of the following title):

BUSINESS STRATEGY, INNOVATION AND ORGANISATIONAL PERFORMANCE OF MALAYSIAN FOOD MANUFACTURING SMEs: DYNAMIC CAPABILITIES AS A MODERATOR

seperti yang tercatat di muka surat tajuk dan kulit tesis / disertasi.
(as it appears on the title page and front cover of the thesis / dissertation).

Bahawa tesis/disertasi tersebut boleh diterima dari segi bentuk serta kandungan dan meliputi bidang ilmu dengan memuaskan, sebagaimana yang ditunjukkan oleh calon dalam ujian lisan yang diadakan pada:
27 April 2021.

(That the said thesis/dissertation is acceptable in form and content and displays a satisfactory knowledge of the field of study as demonstrated by the candidate through an oral examination held on:
27th April 2021.

Pengerusi Viva *(Chairman for Viva)*	Assoc. Prof. Dr. Norashidah Bt Hashim	Tandatangan *(Signature)*
Pemeriksa Luar *(External Examiner)*	Prof. Dr. Mohd Rafi Yaacob	Tandatangan *(Signature)*
Pemeriksa Luar *(External Examiner)*	Assoc. Prof. Dr. Norfaridatul Akmaliah Othman	Tandatangan *(Signature)*

Tarikh: 27 April 2021

Nama Nama Pelajar (Name of Student)	:	**Mohd Salahudin B Shamsudin**
Tajuk Tesis / Disertasi *(Title of the Thesis / Dissertation)*	:	**BUSINESS STRATEGY, INNOVATION AND ORGANISATIONAL PERFORMANCE OF MALAYSIAN FOOD MANUFACTURING SMEs: DYNAMIC CAPABILITIES AS A MODERATOR**
Program Pengajian *(Programme of Study)*	:	**Doctor of Philosophy (Management)**
Nama Penyelia/Penyelia-penyelia *(Name of Supervisor/Supervisors)*	:	**Dr. Nazlina Bt Zakaria**

Tandatangan

Assoc. Prof. Dr. Azahari B Ramli

Tandatangan

PERMISSION TO USE

In presenting this thesis in fulfilment of the requirements for a Post Graduate degree from the Universiti Utara Malaysia (UUM), I agree that the Library of this university may make it freely available for inspection. I further agree that permission for copying this thesis in any manner, in whole or in part, for scholarly purposes may be granted by my supervisor(s) or in their absence, by the Dean of School of Business Management where I did my thesis. It is understood that any copying or publication or use of this thesis or parts of it for financial gain shall not be allowed without my written permission. It is also understood that due recognition shall be given to me and to the UUM in any scholarly use which may be made of any material in my thesis.

Request for permission to copy or to make other use of materials in this thesis in whole or in part should be addressed to:

Dean of School of Business Management
Universiti Utara Malaysia
06010 UUM Sintok
Kedah Darul Aman

ABSTRACT

Malaysian food manufacturing small and medium enterprises (SMEs) are yet to reach their full potential. Food manufacturing SMEs must focus on the variables that will increase their performance. As a result, the purpose of this research was to look into the possible variables that could better explain the performance of SMEs by investigating the link between cost-leadership strategy, differentiation strategy, product innovation and process innovation, and the organisational performance of SMEs in Malaysia's food manufacturing industry. Furthermore, the study intended to examine the moderating role of dynamic capabilities in the relationship between the organisational performance of food manufacturing SMEs and cost-leadership strategy, differentiation strategy, product innovation and process innovation. This study employed the resource-based view (RBV) and the dynamic capabilities theory as the underpinning theories. Based on a cross-sectional study design, data were collected from 141 food manufacturing SMEs in Malaysia using self-administered questionnaires. This study utilised the Partial Least Square Structural Equation Modelling (PLS-SEM) to establish the validity and reliability of the measurement model and to test the study's hypotheses. The findings showed that the cost-leadership strategy, differentiation strategy, product innovation and process innovation had significant relationships with organisational performance. Besides, the results also revealed that dynamic capabilities moderated the relationship between organisational performance and differentiation strategy and process innovation. This study provides important insights to owners-managers, policy-makers, and researchers to assist SMEs in the new paradigm of business operations. Additionally, the study also offers theoretical, practical and methodological implications for academics and professionals. Lastly, limitations and suggestions for future studies are highlighted.

Keywords: Cost-leadership strategy, differentiation strategy, product innovation, process innovation, dynamic capabilities

ABSTRAK

Perusahaan kecil dan sederhana (PKS) dalam industri pembuatan makanan di Malaysia masih belum mencapai tahap potensi sepenuhnya. PKS perlu memfokus kepada faktor-faktor yang diperlukan untuk meningkatkan prestasi mereka. Justeru, kajian ini bertujuan untuk mengkaji pemboleh ubah-pemboleh ubah yang boleh menerangkan prestasi PKS dengan lebih kukuh iaitu dengan menyiasat hubungan antara strategi kepimpinan kos, strategi pembezaan, inovasi produk, inovasi proses dan prestasi organisasi PKS dalam industri pembuatan makanan di Malaysia. Tambahan pula, kajian ini juga bertujuan memeriksa kesan penyederhanaan keupayaan dinamik terhadap hubungan di antara strategi kepimpinan kos, strategi pembezaan, inovasi produk, inovasi proses dan prestasi organisasi PKS. Kajian ini menggunakan teori berasaskan sumber dan teori keupayaan dinamik sebagai teori dasar. Data telah dikumpul daripada 141 PKS pembuatan makanan yang beroperasi di Malaysia dengan menggunakan reka bentuk kajian rentas melalui borang kaji selidik yang ditadbir kendiri. Kajian ini menggunakan Pemodelan Persamaan Kuasa Dua Terkecil Separa Berstruktur (PLS-SEM) untuk memeriksa kesahihan dan kebolehpercayaan model pengukuran dan juga menguji hipotesis kajian. Dapatan kajian ini menunjukkan strategi kepimpinan kos, strategi pembezaan, inovasi produk dan inovasi proses mempunyai hubungan yang signifikan terhadap prestasi organisasi PKS. Hasil kajian juga mendapati bahawa keupayaan dinamik menjadi penyederhana kepada strategi pembezaan dan inovasi proses terhadap prestasi organisasi PKS. Dapatan daripada kajian ini telah memberikan kefahaman yang lebih terperinci kepada pengurus-pemilik, penggubal polisi serta penyelidik untuk membantu operasi PKS dalam menghadapi paradigma baharu dalam operasi perniagaan. Kajian ini juga turut membincangkan implikasi kepada pembangunan teori, praktikal dan metodologi kepada para akademik dan profesional. Akhir sekali, kajian ini juga turut membincangkan kekangan dan juga cadangan untuk kajian akan datang.

Katakunci: Strategi kepimpinan kos, strategi pembezaan, inovasi produk, inovasi proses, keupayaan dinamik

ACKNOWLEDGEMENT

Laa ilaaha illa Allah, Muhammad Rasul-lullah, in every glance and breath, as many times as all that is contained in the knowledge of Allah. With his bless and will, I have completed this thesis.

In preparing this thesis, many people, researchers, academicians, and practitioners have contributed to my understanding and thoughts about the study. I would like to express my sincere appreciation to my main supervisor, Dr. Nazlina Zakaria and I am also very thankful to my co-supervisor Associate Prof. Dr. Azahari Ramli for their guidance, advice, and motivation throughout my PhD journey.

Nevertheless, a mountain of gratitude is owed to the Advanced Learning Unit, Registrar Department, Universiti Utara Malaysia, and Dean of School of Business Management, Universiti Utara Malaysia for the maximum support during my PhD study. Also, the highest gratitude to the Human Capital Development Committee of School of Business Management, Universiti Utara Malaysia, especially Prof. Dr. Rushami Zein Yusoff, and all other members (too many to name) for their enthusiastic support, encouragement, and continuous assistance in order to ensure the success of my PhD.

Lastly, heartfelt gratitude and appreciation are specially dedicated to my family members especially my father (Shamsudin), mother (Nik Nariman), father-in-law (Adnan), mother-in-law (Roslily), wife (Mahfudzah), sons (Mikail and Arash), brothers and sisters for all their love, support, assistance, understanding, and encouragement towards the accomplishment of my study.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

AVE	Average Variance Extracted
CR	Construct Reliability
CLS	Cost Leadership Strategy
DC	Dynamic Capabilities
DS	Differentiation Strategy
DV	Dependent Variable
DOSM	Department of Statistics Malaysia
FMM	Federation of Malaysian Manufacturers
GDP	Gross Domestic Product
IV	Independent Variable
OP	Organisational Performance
PLS-SEM	Partial Least Squares-Structural Equation Modeling Processes
PRI	Product Innovation
PSI	Process Innovation
RBV	Resource Based View
ROA	Return on Assets
ROE	Return on Equity
ROS	Return on Sales
SMEs	Small and Medium Enterprises
SPSS	Statistical Package for Social Science
VIF	Variable Inflation Factor

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Small and medium enterprises (SMEs) are vital for the growth of a country's economy. The importance of SMEs is demonstrated by SMEs' high level of establishment, i.e. more than 90% of all businesses formed, in various countries, for instance, Spain (99.8%), Indonesia (99.0%), Thailand (97.2%), and Singapore (99.0%) (Antara & Sumarniasih, 2017; Kato & Charoenrat, 2018; Olvera-Lobo & Castillo-Rodríguez, 2018). Similarly, in Malaysia, 98.5% of all business establishments are SMEs (SME Corp. Malaysia, 2017). The high level of establishment proves that SMEs are the foundation of every country's economy.

Hence, the significant role of SMEs in a developing country is increasingly being recognised. Notably, SMEs are considered key contributors and drivers of economic growth and development in numerous countries (Obi et al., 2018). SMEs have played an important role in fostering the national revenue (SME Corp. Malaysia, 2017). Figure 1.1 presents the gross domestic product (GDP) percentage for five SME sectors in Malaysia from 2015 to 2017. The construction sector experienced a decline in the proportion of GDP contribution, whereas the other sectors saw an increase. The GDP percentage in the construction sector decreased from 47.5% to 47.1%. Meanwhile, for the manufacturing sector, the GDP percentage was only 34.6% in 2017. Next, the services sector contributed 40.6% of GDP in 2017, while the agriculture sector recorded half of the GDP among the SME sectors with 50.7% in

2017. Lastly, the mining and quarrying sector accounted for the smallest GDP contribution, with only 1.9% in 2017.

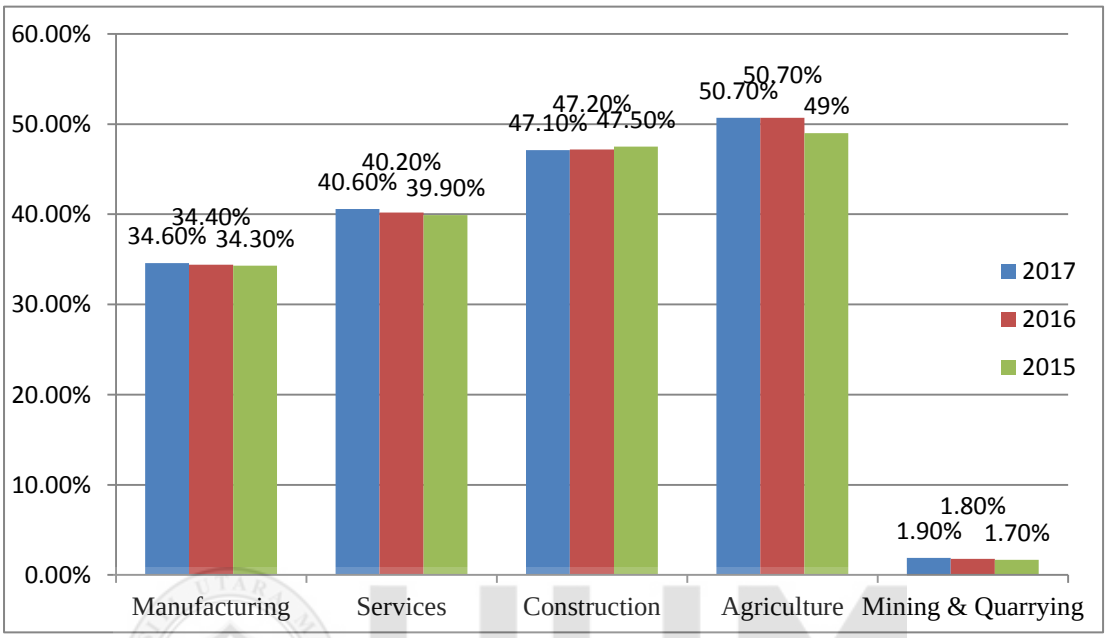

Figure 1.1
GDP contribution of SMEs by Sector for 2015–2017
Source: DOSM (2017a)

SMEs are often described as job creators and a contributor to the national revenue and country's export. In 2017, Malaysian SMEs provided 66% of the total employment. Besides, SMEs contributed 37.1% of GDP and generated 17.3% of export (SMECorp, 2019). Although the SMEs' performance has remained favourable, Table 1.1 shows that SMEs are expected to achieve 41% of GDP, 65% of employment, and 23% of export by the year 2020.

Table 1.1
The Performance of SMEs

	SMEs Master Plan 2012-2020	SMEs' performance in 2017
GDP	41.0%	37.1%
Employment	65.0%	66.0%
Export	23.0%	17.3%

Source: SME Master Plan, 2012; DOSM (2017a)

SME Corporation Malaysia (SME Corp) has categorised SMEs into five sectors, namely, manufacturing, service, construction, agriculture and mining, and quarrying. The manufacturing sector is divided into eleven subsectors, for example, the manufacture of food products, the manufacture of clothing, and the manufacture of furniture. The food and beverages sub-sector is significant in terms of the number of establishments compared to the other manufacturing sub-sectors. The number of manufacturing SMEs by sub-sector is listed in Table 1.2.

Table 1.2
The Number of Manufacturing SMEs by Subsector

Sub-sector	2015	2010
Manufacture of food products	7,876	5,809
Manufacture of wearing apparel	7,491	9,103
Manufacture of fabricated metal product, except machinery and equipment	5,284	4,021
Printing and reproduction of recorded media	3,194	2,942
Repair and installation of machinery and equipment	2,857	915
Manufacture of furniture	2,487	1,892
Manufacture of rubber and plastics products	2,446	1,868

Table 1.2 (Continued)

Sub-sector	2015	2010
Manufacture of non-metallic, mineral products	1,999	1,402
Manufacture of machinery and equipment	1,886	1,238
Manufacture of wood and products of wood and cork	1,737	1,485
Others	10,441	7,878

Source: DOSM, (2017b)

As shown in Table 1.2, the highest number of establishments belonged to the manufacture of food products SMEs (7,876), followed by the manufacture of wearing apparel SMEs (7,491), and manufacture of fabricated metal product, except machinery and equipment SMEs (5,284) (DOSM, 2017b). The food manufacturing SMEs provided 150,926 jobs, generated RM 14.8 billion of industry value added and contributed RM 109.1 billion of overall gross output (DOSM, 2017b).

However, the food manufacturing SMEs in Malaysia face several issues in terms of low gross output performance, low value-added performance, and less GDP contribution (DOSM, 2017, 2019). Therefore, this study attempted to investigate the organisational resources and capabilities such as business strategy, innovation and dynamic capabilities that might contribute to the organisational performance of food manufacturing SMEs in Malaysia.

1.2 Problem Statement

SMEs' significant contribution to the overall economic performance of Malaysia is acknowledged. Nonetheless, the statistics show that the food manufacturing sector's gross output performance is still low (see Table 1.3). For instance, DOSM (2017)

reported that in 2015, the gross output performance in the manufacture of food products had substantially decreased from 33.5% in 2010 to 30.5%. The annual growth of gross output performance was low compared to other sectors for instance manufacture of coke and refined petroleum products (17.4%), manufacture of fabricated metal products except machinery and equipment (16.3%), manufacture of other non-metallic mineral products (13.9%) and manufacture of machinery and equipment (10.8%).

Table 1.3
The Gross Output Performance of Manufacturing SMEs

Manufacturing Subsector	**2010 (%)**	**2015 (%)**	**Annual Growth (%)**
Manufacture of food products	33.5	30.5	4.8
Manufacture of fabricated metal products, except machinery and equipment	6.0	9.2	16.3
Manufacture of chemicals and chemical products	10.5	9.1	3.7
Manufacture of rubber and plastics products	11.1	8.1	0.2
Manufacture of other non-metallic mineral products	3.8	5.2	13.9
Manufacture of basic metals	6.0	4.0	-1.6
Manufacture of machinery and equipment	3.2	3.8	10.8
Manufacture of coke and refined petroleum products	2.1	3.4	17.4
Manufacture of electrical equipment	3.4	3.4	6.7
Manufacture of wood and products of wood and cork	3.1	3.4	8.7
Others	17.3	19.9	9.7

Source: DOSM (2017a)

The low value-added performance of the food manufacturing SMEs compared to the other sectors is another issue. Table 1.4 presents the value-added performance statistics of manufacturing SMEs by sector for 2010 and 2015. For instance, the value-added annual growth percentage of the manufacture of food products subsector was 7.9%, whereby the performance had dropped significantly from 20.4% in 2010 to only 18.0% in 2015. This annual growth was low compared to other sectors such as the manufacture of fabricated metal products, except machinery and equipment (19.6%), manufacture of chemicals and chemical products (9.2%), manufacture of other non-metallic mineral products (14.3%), manufacture of wood and products of wood and cork (11.3%), manufacture of machinery and equipment (15.0%), and manufacture of coke and refined petroleum products (17.4%). Thus, these statistics revealed that the food manufacturing SMEs underperformed.

Table 1.4
Value-added Performance of Manufacturing SMEs

Manufacturing Subsector	2010 (%)	2015 (%)	Annual Growth (%)
Manufacture of food products	20.4	18.0	7.9
Manufacture of fabricated metal products, except machinery and equipment	7.7	11.4	19.6
Manufacture of chemicals and chemical products	12.3	11.6	9.2
Manufacture of rubber and plastics products	10.9	8.8	5.8
Manufacture of other non-metallic mineral products	5.1	6.1	14.3
Manufacture of basic metals	5.0	3.6	3.7
Manufacture of machinery and equipment	4.9	5.8	15.0
Manufacture of coke and refined petroleum products	2.1	3.4	17.4

Table 1.4 (Continued)

Manufacturing Subsector	2010 (%)	2015 (%)	Annual Growth (%)
Manufacture of electrical equipment	4.8	3.6	4.9
Manufacture of wood and products of wood and cork	3.5	3.6	11.3
Others	21.8	23.9	12.7

Source: DOSM (2017a)

Despite the contribution of SMEs, especially those in the food manufacturing sector, statistics (Table 1.5) indicate that the contribution of food manufacturing SMEs to Malaysia's GDP is still low compared to neighbouring countries. As shown in Table 1.5, the contribution of food manufacturing SMEs to Malaysia's GDP is smaller than in Indonesia (60.3%) and Thailand (41.1%). These statistics have exposed that a problem exists in the food manufacturing sector in Malaysia. Thus, the performance of food manufacturing SMEs in Malaysia must be examined.

Table 1.5
Contribution of Food Manufacturing SMEs to GDP

Country	GDP (%)
Indonesia	60.3
Thailand	41.1
Malaysia	34.4

Source: Department of Statistics (2020); Lussak et al. (2020); Ueasangkomsate and Jangkot (2018)

To gain superior performance and outperform competitors, the food manufacturing industry must have a clear strategy (Porter, 1985). Among the business strategy

typologies available, Porter's business strategy has been regularly utilised by organisations to improve performance. According to Porter, a business can maximise its performance either by striving to be the low-cost producer in an industry (cost-leadership strategy) or by differentiating its line of products or services from those of other businesses (differentiation strategy) (Nandakumar et al., 2011).

For cost-leadership strategy, various empirical studies have investigated this strategy to increase a firm's profitability (Dess & Davis, 2018; Karnani, 1984; Parker & Helms, 1992; White, 1986; Wright et al., 1991). Several studies have reported a significant relationship between cost-leadership strategy and organisational performance of manufacturing SMEs (Acquaah & Agyapong, 2015; Gure & Karugu, 2018b; Rua et al., 2018). Nevertheless, another study found no significant relationship between these two variables (Danso et al., 2019). Due to such inconsistent findings, more empirical studies must be performed to examine the relationship between cost-leadership strategy and organisational performance of manufacturing SMEs.

On the other hand, for differentiation strategy, firms attempt to produce products that are different from their competitors and transform them into a clear competitive advantage that enhances their performance (Mohammadi et al., 2019). Prior studies revealed that the differentiation strategy increased the organisations' performance (Karnani, 1984; Koo et al., 2004; O'Farrell et al., 1993; White, 1986; Wright et al., 1991). Furthermore, several studies reported a significant relationship between differentiation strategy and firm performance (Acquaah & Agyapong, 2015; Danso et al., 2019; Liang & Frösén, 2020). In contrast, some studies did not find a significant

relationship (Kaya, 2015; Rua et al., 2018; Yanney, 2014). Thus, past research has reported inconsistent findings concerning the relationship between differentiation strategy and firm performance of manufacturing SMEs. Additionally, little evidence has been found linking Porter's generic strategy to improving SMEs' performance, specifically in the food industry (Omsa, 2017). Therefore, the inconsistent results reported in previous studies have exposed the research gap to be explored.

According to past studies, innovation plays a significant role in enhancing an organisation's quality and performance (Barrett & Wynarczyk, 2009; Lockyer et al., 2016; Mone et al., 1998). Product innovation encompasses the production of new products, improvements in the design of current products or the use of new materials or parts to manufacture innovative features and represent product quality developments for customers (Barlow, 1998; Michael White et al., 1988). Hence, SMEs need to engage with innovation to improve their performance. Product innovation has been reported to have a significant relationship with the performance of manufacturing SMEs (Expósito & Sanchis-Llopis, 2019; Mamun, 2018; Psomas et al., 2018; Saeidi et al., 2018; Shashi et al., 2019; Turulja & Bajgoric, 2019). However, a recent study has reported that no significant relationship exists between product innovation and firm performance (DORAN et al., 2019). Therefore, the lack of consistency among previous studies indicates that there is still a lack of evidence to support research findings.

On the other hand, Damanpour and Aravind (2012) have stated that innovation is one of the drivers to lower the production cost and increase firms' performance. According to prior studies found that there is a relationship between process

innovation and firm performance (Rammer et al., 2009; Reichstein & Salter, 2006; Rouvinen, 2002; Simonen & McCann, 2008). Recent empirical studies showed a significant relationship between process innovation and performance of manufacturing SMEs (Expósito & Sanchis-Llopis, 2019; Lussak et al., 2020; Psomas et al., 2018). Whereas, another study found no significant relationship between process innovation and firm performance (DORAN et al., 2019). Therefore, due to these inconsistent findings and a lack of investigation of the food sector's innovation (Lockyer et al., 2016), more research is needed to fill the knowledge gap concerning process innovation and organisational performance, especially Malaysia's food manufacturing SMEs.

Empirical studies on the relationship between performance and cost-leadership strategy, differentiation strategy, product innovation, and process innovation have often presented inconclusive findings. These inconclusive results have resulted in the introduction of a moderator for the relationship between the variables (Baron & Kenny, 1986). One of the potential moderators that may influence performance is dynamic capabilities (Eisenhardt & Martin, 2000; Teece, 2007a). Numerous scholars have suggested that dynamic capabilities moderate firm performance (Arend, 2013; Caloghirou et al., 2004; Chen et al., 2012; Chien & Tsai, 2012; Fainshmidt et al., 2016; Li & Liu, 2014; Zhan & Chen, 2013). As such, dynamic capabilities might strengthen the relationship between the organisational performance of food manufacturing SMEs in Malaysia and cost-leadership strategy, differentiation strategy, product innovation, and process innovation.

According to Zahra, Sapienza, and Davidsson, (2006), most research and theory building on dynamic capabilities have focused on established companies, thus, ignoring SMEs. Nevertheless, recent studies on manufacturing SMEs determined that dynamic capabilities had an effective moderating role in the relationship between the tested variables (Agostini et al., 2017; Bii & Onyango, 2018; Engelen et al., 2014; Han & Li, 2015; Hernandez-Perlines, 2018; Noor & Aljanabi, 2016; Patel et al., 2015). Fainshmidt et al. (2016) have reported that dynamic capabilities are strongly related to firm performance in a developing country. Regardless, a review of dynamic capabilities research on manufacturing SMEs revealed a lack of evidence, especially for Malaysia. Therefore, this inadequacy of knowledge has offered an opportunity to provide new empirical insights into the food manufacturing SMEs in Malaysia.

The assessment of SMEs' performance is critical in maintaining the viability of their business. In general, SMEs' performance is assessed via financial measurement (Mustapha & Sorooshian, 2019; Shashi et al., 2019; Ukko et al., 2019; Zaborek & Mazur, 2019). However, the Balanced Scorecard (BSC) is a strategic performance measurement tool that provides a financial and non-financial measurement of organisational performance. According to several scholars, this is a useful tool for measuring an organisation's performance (Kaplan & Norton, 1992; Kaplan & Norton, 1998; Kaplan & Norton, 2007; Sartor, 2019). Previous literature has revealed that researchers have been using a financial and non-financial method to measure firm performance (Khallaf et al., 2017; O'Connell & O'Sullivan, 2014, 2016). Several researchers employed the BSC tool to measure the firm performance, for instance, manufacturing companies, auto-part manufacturers, and firms in the pipe and petrochemical industries (Dabhilkar & Bengtsson, 2004; Danaei & Hosseini, 2013;

Seyedhosseini et al., 2011; Valmohammadi & Ahmadi, 2015). Nevertheless, limited studies have been conducted using the BSC method to measure SMEs' organisational performance and its use is rarer for SMEs in the food manufacturing sector (Costa et al., 2019; Gawankar et al., 2015; Vu Thi et al., 2018). Thus, this current study utilised the BSC approach to measure food manufacturing SMEs' performance in Malaysia.

The foundation of this study was based on the resource-based view (RBV) by Barney (1991) and the dynamic capabilities theory by Teece and Pisano (1994). This study proposed a conceptual model to examine the relationship between organisational performance and cost-leadership strategy, differentiation strategy, product innovation, and process innovation, as well as the moderating role of dynamic capabilities. Hence, this study was undertaken to bridge the knowledge gap concerning Malaysian food manufacturing SMEs from the academic and industrial perspectives.

1.3 Research Questions

Based on the problem statement, this study attempted to answer the following research questions:

1. What is the relationship between cost-leadership strategy and organisational performance of food manufacturing SMEs in Malaysia?
2. What is the relationship between differentiation strategy and organisational performance of food manufacturing SMEs in Malaysia?
3. What is the relationship between product innovation and organisational performance of food manufacturing SMEs in Malaysia?
4. What is the relationship between process innovation and organisational performance of food manufacturing SMEs in Malaysia?

5. Do dynamic capabilities have a moderating role in the relationship between cost-leadership strategy and organisational performance of food manufacturing SMEs in Malaysia?
6. Do dynamic capabilities have a moderating role in the relationship between differentiation strategy and organisational performance of food manufacturing SMEs in Malaysia?
7. Do dynamic capabilities have a moderating role in the relationship between product innovation and organisational performance of food manufacturing SMEs in Malaysia?
8. Do dynamic capabilities have a moderating role in the relationship between process innovation and organisational performance of food manufacturing SMEs in Malaysia?

1.4 Research Objectives

The objectives of this research were as follows:

1. To examine the relationship between cost-leadership strategy and organisational performance of food manufacturing SMEs in Malaysia.
2. To examine the relationship between differentiation strategy and organisational performance of food manufacturing SMEs in Malaysia.
3. To examine the relationship between product innovation and organisational performance of food manufacturing SMEs in Malaysia.
4. To examine the relationship between process innovation and organisational performance of food manufacturing SMEs in Malaysia

5. To identify the moderating role of dynamic capabilities in the relationship between cost-leadership strategy and organisational performance of food manufacturing SMEs in Malaysia.
6. To identify the moderating role of dynamic capabilities on the relationship between differentiation strategy and organisational performance of food manufacturing SMEs in Malaysia.
7. To identify the moderating role of dynamic capabilities in the relationship between product innovation and organisational performance of food manufacturing SMEs in Malaysia.
8. To identify the moderating role of dynamic capabilities in the relationship between process innovation and organisational performance of food manufacturing SMEs in Malaysia.

1.5 Significance of the Study

The central issue addressed in this research was examining the relationship between organisational performance and the variables cost-leadership strategy, differentiation strategy, product innovation, process innovation, and dynamic capabilities. It was anticipated that these variables' adaptability would lead to a significant relationship with organisational performance. The significance of this study encompasses three points of view, i.e. theoretical, practical, and national

The first significance concerns the theoretical aspect. There are numerous literatures on business strategy, innovation, dynamic capabilities, and organisational performance. Nonetheless, literature and empirical evidence on these critical issues are still insufficient. Therefore, this present empirical research could provide

meaningful and new insights in the context of RBV and dynamic capabilities theory. Moreover, this study added knowledge to the literature and demonstrated the significance of cost-leadership strategy, differentiation strategy, product innovation, process innovation, dynamic capabilities, and organisational performance.

Second, is the practical significance. This study uncovered some fundamental issues and gaps in the literature associated with cost-leadership strategy, differentiation strategy, product innovation, process innovation, dynamic capabilities and organisational performance, particularly regarding the food manufacturing SMEs in Malaysia. The results of this research could empower the SME owners and managers to improve their strategic decisions to achieve superior performance. As such, this study produced a framework that could increase the confidence level and potential of owners and managers for formulating reliable decisions and relieve the food manufacturing SMEs from the extreme rivalry and market turbulence.

Lastly, in terms of national significance, this study provided the best strategic applications, outlines, and options that could increase SMEs' competitiveness, quality, and organisational performance. The improvement of the food manufacturing SMEs will boost the GDP, employment generation, and productivity. This in turn paves the way to achieve Malaysia's goal of turning into a high-income country.

1.6 Scope and Limitations of the Study

This study focused on the food manufacturing SMEs in Malaysia as the unit of analysis. The current research investigated the relationship between organisational performance and cost-leadership strategy, differentiation strategy, product innovation

and process innovation. Additionally, this study focused on the moderating role of dynamic capabilities in the relationship between organisational performance and cost-leadership strategy, differentiation strategy, product innovation, and process innovation.

The study was conducted in Malaysia using the survey research method. Questionnaires were administered to the owner-managers of the SMEs. The unit of analysis for this study was at the firm or organisational level, whereby the owners or managers involved in decision-making were identified as the critical respondent to represent their business to answer the questionnaire. All the variables were considered at the organisational level.

1.7 Definition of Key Terms

Some important terms repeatedly mentioned in this study are briefly and operationally defined as follows:

Organisational Performance: Organisational performance is sort of performance measurement based on BSC to benchmark themselves into specific goals (Kaplan & Norton, 1992; Vu Thi et al., 2018).

Cost-leadership Strategy: Lowering the cost to gain the cost advantage and internal efficiency in the industry (Parnell, Koseoglu, Long, & Spillan, 2012).

Differentiation Strategy: Offering a superior, different and unique product or service to fulfil the customers' needs and wants (Parnell et al., 2012).

Product Innovation: The introduction of a new product to meet an external user or market need (Psomas et al., 2018).

Process Innovation: The implementation of a new or significantly improved production or delivery method (Psomas et al., 2018).

Dynamic Capabilities: The ability of an organisation to provide resources and to be allocated and adjusted (Kump, Engelmann, Kessler, & Schweiger, 2016).

1.8 Organisation of the Thesis

This thesis consists of five chapters. Chapter 1 has provided the study's background, problem statement, research objectives and research questions, the study's scope and significance, and the definition of key terms.

Next, Chapter 2 presents the related literature review, which critically scrutinises the various issues of cost-leadership strategy, differentiation strategy, product innovation, process innovation, dynamic capabilities and organisational performance.

Following that, Chapter 3 describes the research methodology, highlighting the theoretical framework, population and sampling technique, unit of analysis, data collection procedure, research instrument, and data analysis procedure. Chapter 4 presents the results of the study while Chapter 5 discusses the findings, the implications and limitations of the study, and finally, recommendations for future research.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews the literature on SMEs and cost-leadership strategy, differentiation strategy, product innovation, process innovation, dynamic capabilities, and organisational performance. Besides, this chapter discusses the underpinning theories, conceptual framework, and hypotheses development.

2.2 Definition of Small and Medium Enterprises (SMEs)

There are several definitions for SMEs based on the type of organisation and the country of establishment. According to the World Bank (2013), SMEs are defined based on the enterprise's size in terms of the total number of employees and total assets value. Table 2.1 highlights the differences in the definitions for SMEs in Asian and Western countries. Overall, various criteria are used to define SMEs in different countries, and the definition of SME in one country would likely differ from that in another country. Table 2.1 lists the definitions of SMEs in China, EU, USA, Japan, Brunei, Indonesia, Philippines, and Singapore, including the specifications for micro-, small-, and medium-sized firms. For the manufacturing industry in China, a medium-sized firm has less than 1,000 employees or less than 400 million RMB in terms of annual revenue. This specification differs from that of the EU, whereby a medium-sized firm has less than 250 employees and a turnover of less than €10 million or a balance sheet total of less than €43 million. In the USA, a medium-sized firm has less than 500 employees whereas for Japan the total number of employees is less than 300 with 300 million Yen of stated capital.

Next, in Brunei, SMEs are defined by the number of employees, i.e. between 1 to 100. In contrast, SMEs in Indonesia are defined by asset, i.e. from IDR 50 million to IDR 10 billion and sales/year of IDR 300 million to IDR 50 billion. In the Philippines, SMEs are defined based on the total asset value of between P 3,000,000 or less and P 100,000,000. Lastly, in Singapore, SMEs are categorised based on the annual sales turnover (< SGD 1 million to < SGD 100 million). Thus, the definition of SME may vary depending on the real economic development situation (Zhao, 2005).

Table 2.1
Definitions of SMEs by Country

Country/Category	**Medium**	**Small**	**Micro**
China (manufacturing industry)	Employees < 1,000 AND RMB 400 million > Revenue ≥ 20 million	Employees < 300 AND RMB 20 million > Revenue ≥ 3 million	Employees < 20 OR Revenue < RMB 3 million
EU	Employees < 250 AND Turnover ≤ € 10 million OR Balance sheet total ≤ € 43 million	Employees < 50 AND Turnover ≤€ 10 million OR Balance sheet total ≤ € 10 million	Employees < 10 AND Turnover ≤€ 2 million OR Balance sheet total ≤ € 2 million
USA (manufacturing industry)	Employees < 500	NA	NA
Japan (manufacturing industry)	Employees ≤ 300 AND Stated Capital ≤ Japanese Yen 300 million	NA	Employees ≤ 20
Brunei	Employees 51 to 100	Employees 6 to 50	Employees 1 to 5
Indonesia	Asset > IDR 500 million to IDR 10 billion Sales > 2.5 billion to IDR 50 billion	Asset > IDR 50 million to IDR 500 million Sales > 300million to IDR 2.5 billion	Asset IDR 50 million Sales IDR 300 million

Table 2.1 (Continued)

Country/Category	Medium	Small	Micro
Philippines	Asset of P 15,000,000 to P 100,000,000	Asset of P 3,000,001 to P 15,000,000	Asset of P 3,000,000 or less
Singapore	Sales > SGD 10 million, < SGD 100 million	Sales > SGD 1 million, < SGD 10 million	Sales < SGD 1 million

Source: Ministry of Industry and Information Technology (MIIT), National Bureau of Statistics, National Development and Reform Commission, Ministry of Finance, China (2011); (European Commision, 2015); Small and Medium Enterprise Agency, Ministry of Economy, Trade and Industry, Japan (2013), (Badar Alam Iqbal & Mohd Nayyer Rahman, 2015)

Table 2.2 shows a definition of SMEs in Malaysia, categorized into three groups, namely micro, small, and medium. The SMEs also defined based on the sector, which are manufacturing, services and other sectors. The detail of SMEs in Malaysia as follows:

Table 2.2
Definition of SMEs in Malaysia

Category	Manufacturing	Services & Other Sectors
Micro	Sales turnover less than RM 300,000 OR full-time employees less than 5	Sales turnover less than RM 300,000 OR full-time employees less than 5
Small	Sales turnover from RM 300,000 to less than RM 15 million OR full-time employees from 5 to less than 75	Sales turnover of RM 300,000 to not exceeding RM 3 million OR full-time employees from five to not exceeding 30

Table 2.2 (Continued)

Category	Manufacturing	Services & Other Sectors
Medium	Sales turnover from RM 15 million to less than RM 50 million OR full-time employees from 75 to less than 200	Sales turnover of RM 3 million to not exceeding RM 20 million OR full-time employees from 30 to not exceeding 75

Source: SME Corp. Malaysia (2019)

This study adopted the definitions of SMEs provided by SME Corp. Malaysia (2019) for the manufacturing sector. The micro category enterprises are those that employ less than 5 full-time employees or have a sales turnover of below RM 300,000. Meanwhile, enterprises that employ 5 to 75 full-time employees or have a RM 15 million sales turnover are considered small, whereas enterprises that employ between 75 to 200 full-time employees are known as medium enterprises. The next subtopic discusses the importance of manufacturing SMEs.

2.2.1 Importance of Manufacturing SMEs

SMEs have been identified as one of the growth engines of various countries since they constitute over 90% of all enterprises. For instance, in Spain, 99.8% of all business enterprises are SMEs, while in Indonesia it is 99.0%, in Thailand 97.2%, in Singapore 99.0%, and in Malaysia 98.5% (Antara & Sumarniasih, 2017; Kato & Charoenrat, 2018; Olvera-Lobo & Castillo-Rodríguez, 2018; Jain & Gupta, 2018; SME Corp. Malaysia, 2017). These worldwide establishments of SMEs prove that they are the major contributor to the economy. Based on the latest statistics from the Malaysian Department of Statistics and the Malaysian Investment Development Authority (MIDA), SMEs have a significant role in contributing to the economy in

terms of the number of establishments, value of gross output, value-added performance, and employment in Malaysia.

I. Number of Establishments

Table 2.3 provides information about the proportion of SME establishments in the manufacturing sector in 2010 and 2015. Overall, the number of SMEs rose to 47,676 in 2015 compared to 38,553 in 2010. Furthermore, between 2010 and 2015, the annual growth increased by about 4.3%.

Table 2.3
Number of Establishments

2010	2015	Annual Growth (%)
38,553	47,676	4.3%

Source: DOSM (2019)

II. Value of Gross Output

Table 2.4 lists the value of gross output among manufacturing SMEs in 2010 and 2015. In 2015, the gross output value significantly increased from RM 258.4 billion in 2010 to RM 357.6 billion. Within this period, the annual growth recorded was around 6.7%.

Table 2.4
Value of Gross Output

2010 (RM billion)	2015 (RM billion)	Annual Growth (%)
258.4	375.6	6.7%

Source: DOSM (2019)

III. Value-added Performance

Table 2.5 shows the value-added performance of manufacturing SMEs. The performance was higher in 2015 with RM 62.1 billion, compared to RM 49.5 billion in 2010. These statistics indicate that the annual growth of value-added performance increased by about 10.6%.

Table 2.5
Value-added Performance

2010 (RM billion)	2015 (RM billion)	Annual Growth (%)
49.5	62.1	10.6%

Source: DOSM (2019)

IV. Employment

Table 2.6 lists the total number of employees in manufacturing SMEs for the years 2010 and 2015. The manufacturing SMEs provided jobs for 873,154 individuals in 2010 and this figure drastically increased to 1,038,662 individuals in 2015. Overall, the annual growth of employees in manufacturing SMEs was recorded at 3.6%. The following subsection discusses the food manufacturing SMEs in Malaysia.

Table 2.6
Employment in Manufacturing SMEs

2010 (Person)	2015 (Person)	Annual Growth (%)
873,154	1,038,662	3.6%

Source: DOSM (2019)

Hence, statistics shown that SMEs have a significant role in contributing to the economy in terms of the number of establishments, value of gross output, value-added

performance, and employment in Malaysia. The next subtopic discusses the food manufacturing SMEs by segment.

2.2.2 Food Manufacturing SMEs by Segment

Food manufacturing SMEs register the highest number of establishments in the manufacturing sector. Table 2.7 outlines the food manufacturing SMEs in Malaysia by segment. MIDA has identified seven segments for food manufacturing SMEs, namely, livestock and dairy, fisheries, cereal products and flour-based products, chocolate and sugar confectionaries, peppers and peppers products, fruits and vegetables, and palm oil based products.

Table 2.7
Food Manufacturing SMEs by Segment

Food Segment
Livestock and Dairy
Fisheries
Cereal Products and Flour Based Products
Chocolate and Sugar Confectionaries
Peppers and Peppers Products
Fruits and Vegetables
Palm Oil Based Products

Source: MIDA (2019)

I. Total Production of Food Manufacturing SMEs by Sub-segment

Table 2.8 presents the total production of Malaysian food manufacturing SMEs in 2016 by sub-segment. Overall, the manufacture of condensed, powdered and

evaporated milk produced the highest total production. Meanwhile, the lowest production was recorded by the manufacture of other food products. The manufacture of condensed, powdered and evaporated milk produced RM 200.9 million, followed by the manufacture of biscuits and cookies with RM 193.3 million and the manufacture of ice cream and other edible ice such as sorbet with RM 167.4 million. The manufacture of compound cooking fats and the manufacture of chocolate and chocolate products produced RM 164.5 million and RM 151.3 million, respectively.

Table 2.8
Total of Production of Food Manufacturing SMEs by Sub-segment

Sub-segment	**2016 (RM million)**
Manufacture of crude and refined vegetable oil	132.2
Manufacture of compound cooking fats	164.5
Manufacture of ice cream and other edible ice such as sorbet	167.4
Manufacture of condensed, powdered and evaporated milk	200.9
Rice milling	134.2
Flour milling	98.0
Manufacture of biscuits and cookies	193.3
Manufacture of bread, cakes and other bakery products	136.5
Manufacture of snack products	119.1
Manufacture of sugar	107.3
Manufacture of cocoa products	98.1
Manufacture of chocolate and chocolate products	151.3
Manufacture of sugar confectionery	107.9
Manufacture of meehoon, noodles and other related products	121.9

Table 2.8 (Continued)

Sub-segment	2016 (RM million)
Manufacture of prepared meals and dishes	145.1
Manufacture of coffee	112.2
Manufacture of sauces and condiments	112.8
Manufacture of spices and curry powder	148.1
Manufacture of other food products	95.7

Source: MITI (2019)

II. Sales of Food Manufacturing SMEs by Sub-segment

Table 2.9 reports the sales of Malaysian food manufacturing SMEs in 2016 by sub-segment. The manufacture of condensed, powdered and evaporated milk produced the highest total sales, whereas the lowest total sales belonged to pineapple canning and manufacturer of jams, marmalades and table jellies. The manufacture of condensed, powdered and evaporated milk recorded the highest sales of RM 5,576,999 million. The sales of the manufacture of biscuits and cookies were also high (RM 2,334,443 million) along with flour milling (RM 2,095,574 million). Meanwhile, the manufacture of crude and refined vegetable oil and manufacture of compound cooking fats and the manufacture of chocolate and chocolate products recorded sales of RM 4,794,318 million and RM 1,391.3 million, respectively.

Table 2.9
Sales of Food Manufacturing SMEs by Sub-segment

Sub-segment	2016 (RM million)
Canning of fish, crustaceans and molluses & Processing, curing preserving of fish, crustaceans and molluses	2,190.4
Pineapple canning & Manufacturer of jams, marmalades and table jellies	77.7
Manufacture of coconut oil	68,780
Manufacture of crude and refined vegetable oil & manufacture of compound cooking fats	4,794,318
Canning of fish, crustaceans and molluses & Processing, curing preserving of fish, crustaceans and molluses	2,190.4
Pineapple canning & Manufacturer of jams, marmalades and table jellies	77.7
Manufacture of coconut oil	68,780
Manufacture of condensed, powdered and evaporated milk	5,576,999
Rice milling	1,820,600
Flour milling	2,095,574
Manufacture of biscuits and cookies	2,334,443
Manufacture of bread, cakes and other bakery products	1,959,693
Manufacture of snack products	963,991
Manufacture of sugar	3,609,523
Manufacture of cocoa products	6,568.6
Manufacture of chocolate and chocolate products & Manufacture of sugar confectionery	1,391.3
Manufacture of sauces and condiments	1,061.8
Manufacture of other food products	2,146.6

Source: MITI (2019)

III. Export of Food Manufacturing SMEs by Sub-segment

Table 2.10 shows the total export of Malaysian food manufacturing SMEs in 2016 by sub-segment. Most of the total export came from seafood processed while tea and mate registered the lowest total export among the 10 sub-segments of food manufacturing SMEs in Malaysia. The two highest exports were from seafood processed and edible products and preparations (RM 807,737.5 million and RM 5,977.5 million, respectively). Compared to these two sub-segments, the other food manufacturing SMEs recorded a much lower total export. For example, the total export for tea and mate and meat processed was only RM 171.6 million and RM 428.4 million, respectively.

Table 2.10
Export of Food Manufacturing SMEs by Sub-segment

Sub-segment	**2016 (RM million)**
Cocoa & cocoa preparations	4,588.0
Dairy products	1,234.8
Edible products and preparations	5,977.5
Margarine and shortening	1,321.4
Meat, processed	428.4
Prepared cereals & flour preparations	3,304.7
Seafood processed	807,737.5
Sugar & sugar confectionery	1,005.3
Tea and mate	171.6
Vegetables & fruits, prepared/preserved	1,148.7

Source: MITI (2019)

Table 2.11
Food Products Export by Country

Country	Percentage (%)
Indonesia	4.38
Malaysia	2.6
Thailand	7.87
Vietnam	2.45

Source: World Bank (2018)

On the other hand, according to World Bank (2018), Malaysia's food product export percentage is still lacking compared to other countries. Table 2.11 shows the export percentage of food products in 2018. Out of four countries, Thailand recorded the highest export of food products, 7.87%, followed by Indonesia, 4.38%, and Malaysia, only 2.6%. In contrast, Vietnam has the lowest export percentage of food products, at 2.45%. Thus, it can be concluded that food manufacturing SMEs in Malaysia plays an important role in the growth of the Malaysian economy and are recognised as one of the main economic drivers. Hence, the performance of food manufacturing SMEs must be enhanced to obtain the optimum output level. The following topic discusses the definition of organisational performance.

2.3 Definition of Organisational Performance

Organisational performance plays a vital role in the success of organisations. The performance is viewed based on various aspects of the organisation. March and Sutton (1997) have defined an organisation’s performance as an instrument of purpose, for instance, business firms are compared in terms of profits, sales, market share, productivity, debt ratios, and stock prices. In contrast, Cho and Dansereau

(2010) viewed the performance of a company based on its goals and objectives. Organisational performance allows researchers and managers to evaluate firms and managers' specific actions, where firms stand vis-à-vis their rivals, and how firms evolve and perform over time (Richard et al., 2008). Recently, Widjaja, Sumintapura, and Yani (2020) have defined organisational performance as the continuous process performed by an organisation to achieve the set of objectives measured through organisational performance.

There are several ways to measure organisational performance. An excellent performance measurement tool should be well balanced, matched with strategies, values, and persistent business objectives (March & Sutton, 1997; Richard et al., 2008, 2009). Many researchers and scholars have comprehensively studied organisational performance as a dependent variable. Previous studies have revealed that financial indicators are most used as performance measures. Table 2.12 highlights the organisational performance measurements employed in prior research.

Woodside, Sullivan, and Trappey (1999) measured the financial performance of 93 firms in the manufacturing sector based on their general profitability and return on investment (ROI). Meanwhile, Jusoh and Parnell (2008) measured the operating income, sales growth, sales revenue, ROI, and cash flow. Their study was conducted among 120 manufacturing firms from 12 industries. Next, Parnell, Lester, Long, and Koseoglu (2011), listed the main features of performance i.e. sales growth, growth in profit, market share, return on asset (ROA), return on equity (ROE), return on sales (ROS), overall performance and competitive position in examining the performance of manufacturing firms in China and Turkey. Similarly, with Zamani, Parnell, Labbaf,

and O'Regan (2013) used financial measures such as ROI, profitability, market share, growth, and overall performance to investigate Iranian manufacturing firms.

On the other hand, in the context of manufacturing SMEs, financial measures only concerned the ROE, ROA, ROS, growth in employment, growth in sales, growth in assets, market share, overall performance, and competitive position (Blackmore & Nesbitt, 2013; Parnell et al., 2015). Nonetheless, financial measures alone are insufficient for the decision-making process in the current challenging business environment. Hence, to remain competitive, manufacturing SMEs should consider non-financial measures to assess the overall performance.

Table 2.12
Measurements of Financial Performance

Author(s)	Measurement
Woodside et al. (1999)	General profitability, ROI
Jusoh and Parnell (2008)	Operating income, sales growth, sales revenue, ROI, cashflow
Parnell et al. (2011)	Sales growth, growth in profit, market share, ROA, ROE, ROS, overall performance, competitive position
Blackmore and Nesbitt (2013)	ROE, ROA, growth in employment, growth in sales, growth in assets
Zamani et al. (2013)	ROI, profitability, market share, growth, overall performance
Parnell et al. (2015a)	Sales growth, growth in profit, market share, ROA, ROE, ROS, overall performance, competitive position

The insufficiencies in financial measures have made researchers evaluate performance using both financial and non-financial indicators (Fullerton & Wempe, 2009). Prior studies indicated that non-financial performance measures were necessary for SMEs because non-financial indicators improved the performance, which cannot be obtained from a financial measurement (Al-Sharafi et al., 2019; Antunes et al., 2018; Elias et al., 2019).

Prior literature has shown that researchers used objective and subjective measures to assess performance (Blackmore & Nesbitt, 2013;.Parnell, 2015; Zamani et al., 2013). Nonetheless, a subjective approach is usually utilised in research when it is challenging to find the data (Dess & Robinson, 1984). Therefore, this study employed a subjective approach to assess food manufacturing SMEs' organisational performance in Malaysia. This study used a subjective approach because some managers may be reluctant to disclose the actual performance data to maintain privacy and confidentiality (Dess & Robinson, 1984). Furthermore, the subjective approach offers a proper way to improve the effectiveness of organisations on a long-term basis (Schachter, 2010). The following subsection discusses the BSC concept.

2.3.1 Balanced Scorecard (BSC)

Among the popular performance measurement frameworks in the management literature are balanced scorecard (BSC) (Kaplan & Norton, 1998), hierarchical models for value (Belton & Stewart, 2002), net promoter score (Reichheld, Frederick, 2003) and coda (Sarasohn & Protzman, 1948, 1998). However, Kaplan and Norton (1992) developed the BSC for performance measurement since BSC is considered an integrated and holistic measurement tool to measure organisational performance

(Islam & Tadros, 2012; Kaplan & Norton, 1992; Kaplan & Norton, 1998; Kaplan & Norton, 2007; Kettunen & Kantola, 2005). Furthermore, BSC comprises the financial perspective and three non-financial perspectives, namely customer, internal process, and learning and growth (Kaplan & Norton, 1992; Kaplan & Norton, 1998; Kaplan & Norton, 2007).

The financial perspective focused on the efficiency and effectiveness of an organisation. Meanwhile, the customer perspective focuses on customer satisfaction, business potential, and unit growth. Next, the internal process perspective focuses on the internal efficiencies of operation and output. Finally, the learning and growth perspective focuses on the organisation's capabilities in creating more excellent value for stakeholders (Kaplan & Norton, 1998). In short, each perspective in BSC is synchronised to ensure the organisation's objectives and strategies are achieved (Acuña-Carvajal et al., 2019). The following subtopic discusses the implementation of BSC in manufacturing SMEs.

2.3.2 The Implementation of BSC in Manufacturing SMEs

Several researchers have employed the BSC method to assess manufacturing SMEs' performance (Giannopoulos et al., 2013; Lonbani et al., 2015; Malagueño et al., 2018; Suprapto et al., 2009; Vu Thi et al., 2018). For example, Vu Thi et al. (2018) used the BSC measurement to evaluate manufacturing SMEs' performance in Vietnam's garment industry. Apart from that, Malagueño et al. (2018) examined the effects of innovation and performance utilising a BSC approach among 201 SMEs in Spain. Meanwhile, Giannopoulos et al. (2013) investigated 500 small enterprises in the UK

and Cyprus using the BSC method, which measured four perspectives, i.e. financial, customer, internal process, and learning as introduced by Kaplan and Norton (1992).

The previous studies have shown that BSC is very valuable for SMEs because it bolsters both companies including stakeholders (Giannopoulos et al., 2013; Lonbani et al., 2015). The findings revealed BSC approach had a positive impact on organizational performance results (Giannopoulos et al., 2013; Lonbani et al., 2015; Malagueño et al., 2018; Suprapto et al., 2009; Vu Thi et al., 2018). Therefore, it is useful to conduct an assessment of food manufacturing SMEs with the BSC approach. Further researches on BSC performance metrics are highly needed in manufacturing SMEs context (Vu Thi et al., 2018).

According to Kaplan and Norton (1993) BSC is instilled within each organisation, and as a result, establishing and enforcing organisational standards take place on a particular timeline and through a distinct methodology. Although the overall study of the BSC model shows the history of organisational strategy, it's particularly important because it adds an additional detail about the strategy's beginning and end. Next topic discusses on business strategy.

2.4 Business Strategy

2.4.1 Definitions of Strategy

In strategic management literature and textbooks, many scholars have defined the terms strategy and strategic management. There is no specific or generally accepted definition of strategic management. Instead, the definition depends on the scholar's

interpretation of and approach to strategy. Table 2.13 lists the definitions of strategy and strategic management.

Table 2.13
Definitions of Strategy and Strategic Management

Definition	Scholar(s)
Long-term goal and objective, adopt the right actions and necessary resources to achieve the goal.	Chandler (1962)
Formulating, designing the capabilities and managing the implementation of strategies.	Ansoff (1965)
Choosing to execute activities which differ from the competitions.	Porter (1985)
Concerns the direction of the organisation and business by the senior management.	Rumelt et al. (1994)
Decision and action of formulation, implementation, and control of strategies to obtain objectives and goals.	McCann (1991)
Not only creating advantages for own but also creating destructions for the competitor's advantages.	
A pattern or plan which integrates organisational major goals, policies and actions based on internal competencies and changes in the environment.	Porter (1985)
Managerial decisions and actions which establish the long-term performance growth.	Wheelen and Hunger (2010)
The process of establishing long-term direction, specific performance objectives, developing strategies and action plan to overcome internal and external circumstances by managers.	A and Strickland, (2003)
Consist of major organisational goals for value creation and distribution.	Sanchez and Heene (2004)
Adopting a strategic intent, formulates a best strategic fit business model and unique right planning for an organization to outperform than rivals.	Chaudhuri et al. (2006)
Process of integrating tools and frameworks for formulating and implementing the strategy.	Simpson et al. (2007)

Table 2.13 (Continued)

Definition	Scholar(s)
The entrepreneurial process of a firm to achieve the objectives via the formulation and implementation of effective strategies based on unique capabilities and the business environment.	Hashim (2000)

Table 2.13 lists the different range of ideas, approaches, and strategic management applications by prominent scholars and researchers. Mohamed, Ann and Yee (2014) have described strategic management as drafting, implementing, and assessing cross-functional decisions to achieve long-term goals. According to Kenworthy and Verbeke (2015), the scientific discipline of strategic management addresses the establishment and pursuit of a firm's long-term goals and how business leaders or managers respond to and shape environmental forces and orchestrate internal resources. Meanwhile, Grant (2016) strategic management, as an academic field, has been relabelled from business policies dealing with various academic disciplines or fields to explain why some companies outperform others.

Recently, Ertek, Tokdemir, Sevinç, and Tunç (2017) have defined strategic management as the manner of resource combination, an essential function of a company. Additionally, they have listed the primary resources linked to culture and identity, i.e. policies, systems, documents, and employees that are considered socially involved, and the associated assets can produce long-term advantages. The following section discusses the business strategy typologies.

2.4.2 Business Strategy Typologies

Business strategy is known as a company strategy in the corporate management literature that focuses on how to succeed in a specific field or commodity market segment and is a source of intra-industry heterogeneity in company strategies (Dess & Davis, 1984; Evered et al., 1980; Venkatraman & Ramanujam, 1986). Furthermore, business strategy represents the decisions and choices made by an organisation to consider and respond to the marketplace and to put itself on the market to attain superior performance (Porter, 1997a).

Numerous types of business strategies are discussed in the literature which explain how companies perform in their respective markets. For instance, Miles et al. (2006) and Miles and Snow (1984) have identified three feasible business strategies, namely prospector, analyser, and defender, focused on a firm's changes that occur with regard to its products and markets. Next, based on whether a company chooses to be a low-cost producer or a unique supplier of products, Porter (1985) has classified a company's business strategy as either cost-leadership strategy or product differentiation strategy. On the other hand, March (1991) has described business strategies as either exploration or exploitation. Depending on the value of customer demand, Treacy and Wiersema (1993) have described business strategy as, for example, organisational leadership, product leadership, and consumer engagement. This current study utilised the business strategy introduced by Porter (1985). The next subsection explains the Porter's generic strategy.

2.4.2.1 Cost-leadership Strategy

A cost-leadership strategy focuses on gaining a competitive advantage by generating and retaining low-cost positions compared to competitors (Porter, 1985). Being the lowest-cost supplier of products and services for a given quality level is what cost leadership means. Cost leadership strategy is described by Hoskission, Ireland and Hitt (2011) as an orchestrated collection of actions taken to deliver products or services with appropriate features to consumers at the lowest cost relative to competitors.

This approach is characterised by strict cost and overhead management, the minimization of operating costs, the reduction of labour costs, and the reduction of input costs (Porter, 1985). Firms are implementing a cost leadership strategy that emphasizes aggressive cost management and quality in all operational areas. Cost leadership firms can leverage value-chain operations at a lower cost than rivals (Porter, 1985). It is all about lower costs and standardisation in the low-price leadership strategy.

Porter (1985) contends that retaining a low total cost position often requires a significant relative market share or other advantages, such as preferential access to raw resources. Therefore, SMEs will achieve cost leadership by providing standardised goods, concentrating on mission-critical no-frills items, and limiting service personalisation and customisation. However, Porter (1985) believes that cost leadership is not a viable strategy for just large firms owing to the benefits of scale economies.As a result, small companies will also profit from cost leadership if they

benefit from low costs (Parnell et al., 2015). The following subsection discusses the differentiation strategy.

2.4.2.2 Differentiation Strategy

Differentiation strategy establishes an industry-wide and long-term market position that is viewed as distinct (Porter, 1985). Differentiated products and services meet client needs by establishing a sustained competitive edge. A differentiation strategy helps organisations counter consumers to pricing and instead emphasise the benefit of a higher price and a more significant margin. Numerous parts of the differentiation approach include outstanding customer service, enhanced product performance, design, brand identity, and distribution channels (Frambach et al., 2003; Porter, 1985).

Due to the differentiation strategy, the firm may charge a premium price for its products or services (Acquaah, 2011; Porter, 1985, 1997b). Increased revenue generated by higher prices must cover the expense of providing a unique product or service in order for the business to succeed (Porter, 1985). Porter (1985) suggested that a corporation pursuing a differentiation strategy would suffer additional expenditures.

Additionally, Porter (1985) recommended that the firm manage a few specific needs, including advertising, service or product operations, technology management, staffing capabilities, and training programmes, to obtain optimal performance through differentiation strategy. Next, the subsection discusses focus strategy.

2.4.2.3 Focus Strategy

A focus strategy is primarily focused on a particular portion of the market rather than on the entire market (Nandakumar et al., 2011; Porter, 1985, 1997b). In other words, the firm focuses on a specific segment of the market. Businesses using a segmentation strategy may determine the target market segment (Porter, 1985). The focus strategy will aid the firm in efficiently meeting the demands and desires of its consumers (Porter, 1985, 1997a; Sumer & Bayraktar, 2012).

There are constant nudges, and an organisation can pursue both general methods concurrently (Köseoglu et al., 2013; Moon et al., 2014). Porter stated that a company might become "stuck in the middle" if it pursued both general methods concurrently (Porter, 1985). Thus, the next part covers the "stuck in the middle" argument and hybrid strategy.

2.4.2.4 Stuck in the Middle and Hybrid Strategy

Porter's generic strategy framework argued that organisations that pursue both differentiation and cost leadership strategies would face significant challenges due to being stuck in the middle. As a result, Porter emphasised that an organisation may only follow a single generic strategy due to the disparate requirements for organisational capabilities.

Numerous scholars have theoretically or experimentally established the potential of a hybrid strategy. Hambrick (1982) and Miller and Friesen (1986)established that the preconditions for cost leadership and product differentiation are mutually exclusive, allowing a business to pursue both strategies concurrently. The primary goal of

having a hybrid strategy is to pursue both low cost and distinction compared to possible competitors. Organisations must offer low-cost products or services while investing adequately in developing different products or services to succeed with a hybrid strategy (Gopalakrishna & Subramanian, 2001; Hambrick, 1982).

A hybrid strategy is not only practical, but it may also be more lucrative than pure low-cost or differentiation methods. Several studies demonstrate a correlation between hybrid competitive strategy and firm performance (Acquaah & Yasai-Ardekani, 2008; Leitner & Güldenberg, 2010; Miller & Friesen, 1986).

However, the hybrid strategy is even more complex to detect and copy than these pure ones since the hybrid strategy incorporates multiple elements connected to low costs and differentiation (Leitner & Güldenberg, 2010). Thus, organisations that adopt such pure strategies may be disadvantaged relative to those who creatively blend them (Miller, 1986). Therefore, this study only investigated a cost-leadership strategy and differentiation strategy as a business strategy. The following subtopic explains the measurement of business strategy.

2.4.3 Measurement of Business Strategy

This section provides an overview of the measurement of business strategy and explains each component of Porter's generic strategy. Past literature has revealed that the theoretical measurement of business strategy has distinguished and measured the managerial strategy's main characteristics. Furthermore, the measurements assist managers in the interrelation and diversification of certain strategies. Thus, the classification of measurements requires more attention from scholars and researchers

(Nandakumar et al., 2011; Sumer & Bayraktar, 2012). Table 2.14 presents the measurements of business strategy.

Table 2.14
Measurements of Business Strategy

Author(s)	Measurement
Ansoff (1965)	Market penetration, product development, market development, diversification
Buzzell et al. (1975)	Building, holding, harvesting
Utterback and Abernathy (1975)	Performance maximizing, sales maximizing, cost minimizing
Miles and Snow (1984)	Prospector, analyzer, defender, reactor
Evered et al. (1980)	Share increasing, growth, profit, market concentration, turnaround, asset reduction and liquidation
Patel et al. (2015)	All out push for share, hold position, grow with industry, harvest, selectively push for position Phased out withdrawal, turnaround, find a niche and protect it, abandon
Porter (1985)	Cost leadership, differentiation, focus, stuck in the middle
Bullock et al. (1982)	Domain defense, domain offense, domain creation
Miller and Friesen (1986)	Innovators, marketers, cost leaders, niche marketers
Mintzberg and Waters (1985)	Price differentiation, image differentiation, support differentiation, quality differentiation, design differentiation, undifferentiation
Venkatraman and Ramanujam, (1986)	Aggressiveness, analysis, defensiveness, futurity proactiveness, riskiness
Wright et al. (1991)	Low-cost, differentiation, low-cost differentiation mixed, focus low cost, focus differentiation focus low-cost differentiation
Sirmon et al. (2011)	Cost leadership, differentiation, focus Integrated cost leadership and differentiation

Table 2.14 (Continued)

Author(s)	Measurement
Hambrick (1982)	Cost leadership, asset conscious followers, high-quality gendarme, broad-based differentiation, prospectors, asset conscious focusers
Kim et al. (2004)	Product differentiators, market differentiators overall cost leaders, stuck in the middle
Powers and Hahn (2004)	General differentiation, focus, stuck in the middle
Parnell (2015)	Cost leadership, customer service diff., cost
Parnell et al. (2012)	Uniqueness, focus
Panwar et al. (2016)	Cost leadership, Differentiation
Stoian and Gilman (2017)	Cost leadership, Differentiation
Liu and Atuahene-Gima (2018)	Cost leadership, Differentiation

Table 2.14 lists the measurements of the business strategy employed by various researchers in their studies. For example, Ansoff (1965) highlighted four types of growth strategies, namely, market penetration, product development, market development, and diversification, while Buzzell et al. (1975) used building, holding, and harvesting to classify business strategies. Next, Utterback and Abernathy (1975) described the business strategy associated with firms' innovative patterns i.e. performance maximising, sales maximising, and cost-minimising.

On the other hand, Miles, Snow, Meyer and Coleman (1978) introduced strategic types, namely defenders, prospectors, analysers, and reactors. For Hofer and Schendel (1978), business strategy consists of share increasing, growth, profit, turnaround, market concentration, and asset reduction and liquidation. Meanwhile, Patel and

Younger (1978) used a matrix consisting of nine strategies, i.e. all-out push for share, hold the position, grow with the industry, harvest, selectively push for position, phased out withdrawal, turnaround, find a niche and protect it, and abandon.

Besides, Porter (1985) has developed a business strategy that provides organisations with a competitive advantage. He suggested differentiation strategy, cost-leadership strategy, and focus strategy. Miller (1988) categorised business strategy into innovators, marketers, cost leaders, and niche marketers whereas Miles and Cameron (1982) proposed domain defence, domain offence, and domain creation.

Next, Mintzberg (1988) proposed several significant aspects of business strategy, i.e. price differentiation, image differentiation, support differentiation, quality differentiation, design differentiation, and undifferentiation. On the other hand, Venkatraman and Ramanujam (1986) identified aggressiveness, analysis, defensiveness, futurity, proactiveness, and riskiness. In addition, based on Porter's typology, Wright, Pringle and Kroll (1992) introduced low cost, differentiation, low-cost differentiation, mixed, focus low cost, focus differentiation, and focus low cost-differentiation. Besides, several recent studies used a cost-leadership strategy and differentitaion strategy as measurement of business strategy for instance Parnell (2015), Panwar et al. (2016), Stoian and Gilman (2017) and Liu and Atuahene-Gima (2018). Thus, business strategy operationalisation constitutes a vital subject in the strategic management literature (Venkatraman & Ramanujam, 1986). The following subtopic discusses cost-leadership strategy.

2.4.4 Cost-leadership Strategy

Cost-leadership strategy is a concept developed by Porter (1997) and is utilised as a business strategy. This strategy involves how a firm works hard to achieve the lowest production and distribution costs than its competitors Porter (1997). Parnell et al. (2012) defined cost-leadership strategy as lowering the cost to gain the industry's cost advantage and internal efficiency. Moreover, recent definitions refer to cost-leadership strategy as cost reduction in the manufacturing sector via statistical quality control (Kharub et al., 2019).

Porter has suggested cost-leadership strategy as an approach to gain competitive advantages. Furthermore, the purpose of employing cost-leadership strategy is to avoid defects and wastes and to reduce operational and production costs (Belohlav, 1993; Chung et al., 2010; Porter, 1997a). By pursuing a cost-leadership strategy, firms also decrease the cost of human resources, raw material, and distribution (Dagley, 1971).

The basic principle of this strategy is to reduce the cost of all the actions. Hence, by applying the cost-leadership strategy, a firm can gain a competitive advantage over its competitor by having higher returns on assets and producing products with reasonable quality (Porter, 1997b). Consequently, the gap between the prices at the market and costs will be bigger, and a firm can obtain a competitive advantage by acquiring high income and profit.

Based on past research, no standard scale exists to measure cost-leadership strategy. For instance, Acquaah and Agyapong (2015) examined the relationship between cost-leadership and firm performance among 581 micro and small enterprises in Ghana. This study measured the cost-leadership strategy using the five items developed by Dess and Davis (1984) and tested by Campbell-Hunt (2000). Another study by Parnell et al. (2012) measured the cost-leadership strategy among 107 and 404 manufacturing SMEs in China and Turkey, respectively. Their study comprised five items based on the scale developed by Zahra and Covin (1993) and this scale was also used by Luo and Zhao (2004).

Moreover, Dutse and Aliyu (2018), adopted 16 items of cost-leadership strategy from Li, Nathan, Nathan, and Subba Rao (2006). The study conducted among 287 manufacturing SMEs in Nigeria. Therefore, the literatures indicate that cost-leadership strategy could achieve lower cost of manufacturing by making overall procedures more cost efficient in manufacturing SMEs. The following subsection discusses the importance of a cost-leadership strategy and performance.

2.4.4.1 The Importance of Cost-leadership Strategy and Performance

Past studies have reported various findings on cost-leadership strategy and performance. Numerous researchers and practitioners have applied cost-leadership strategy in many manufacturing SMEs to increase performance (Acquaah & Agyapong, 2015; Danso et al., 2019; Dutse & Aliyu, 2018; Gure & Karugu, 2018; Herzallah et al., 2014; Kaya, 2015; Lechner & Gudmundsson, 2014; Mungai & Ogot, 2017; Rua et al., 2018; Parnell et al., 2012).

For instance, Lechner and Gudmundsson (2014) examined 335 small firms in Iceland and determined that cost-leadership strategy affected firm performance. In another study Yanney (2014) cost-leadership strategy was found to be statistically significant in influencing firm performance. Next, the results of a study on a sample of 202 manufacturing SMEs in Palestine indicated the positive effect of cost-leadership strategy on performance. More importantly, the relationship between cost-leadership strategy and financial performance was more positively significant (Herzallah et al., 2014).

Another study on the generic competitive strategy and performance among 70 SMEs in Turkey's manufacturing industry reported that cost-leadership strategy was directly related to performance (Kaya, 2015). Furthermore, based on a survey of 581 manufacturing SMEs in Ghana, cost-leadership strategy was found to have a significant relationship with firm performance (Acquaah & Agyapong, 2015). Similarly, a study involving 119 small businesses in the furniture manufacturing industry in Kenya was conducted to examine the relationship between Porter's typology and firm performance. The findings indicated that cost-leadership strategy was significantly related to firm performance (Mungai & Ogot, 2017). The significant relationship was also noted in Gure and Karugu's (2018a) study, which examined 100 manufacturing SMEs in Kenya to determine the relationship between strategic management practices and organisational performance. The study found that SMEs that employed cost-leadership strategy had a better organisational performance. Besides, Dutse and Aliyu (2018) investigated 278 manufacturing SMEs in Nigeria and reported that cost-leadership strategy had a significant relationship with business performance. Meanwhile, Rua et al. (2018) determined that cost-leadership strategy

significantly influenced export performance. This study explored a sample of 247 manufacturing SMEs in Portugal.

On the contrary, Danso et al. (2019) found that cost-leadership strategy had no significant effect on firm performance based on 269 SMEs surveyed in Ghana. This current study used the cost-leadership strategy measures by Parnell et al. (2012) to measure cost-leadership strategy among food manufacturing SMEs in Malaysia.

Table 2.15
Summary of Selected Studies on Cost-leadership Strategy

Author (Year)	**Dependent Variable**	**Sample**	**Results***
Acquaah and Agyapong (2015)	Firm performance	581 manufacturing SMEs in Ghana	Yes
Danso et al. (2019)	Firm performance	269 manufacturing SMEs in Ghana	No
Dutse and Aliyu (2018)	Business performance	278 manufacturing SMEs in Nigeria	Yes
Gure and Karugu (2018)	Organisational performance	100 manufacturing SMEs in Kenya	Yes
Herzallah et al. (2014)	Financial performance	202 manufacturing SMEs in Palestine	Yes
Kaya (2015)	Performance	70 SMEs in the manufacturing industry in Turkey	Yes
Lechner and Gudmundsson (2014)	Firm performance	335 small firms in Iceland	Yes
Rua et al. (2018)	Export performance	247 manufacturing SMEs in Portugal	Yes
Mungai and Ogot (2017)	Firm performance	119 furniture manufacturing SMEs in Kenya	Yes

Table 2.15 (Continued)

Author (Year)	Dependent Variable	Sample	Results*
Parnell et al. (2012)	Firm performance	Manufacturing SMEs in China and Turkey	Yes

Note: *Yes: relationship is significant, No: relationship is not significant

Based on the review of past literature and the summary of selected studies shown in Table 2.15, the results are inconsistent. It is challenging to sum up the relationship between cost-leadership strategy and performance due to these inconsistent findings. Therefore, this predictor needed further research in the context of organisational performance among food manufacturing SMEs since all the previous studies focused on the direct relationship between cost-leadership strategy and performance.

2.4.5 Differentiation Strategy

Differentiation strategy is used by a firm to be unique in its sector with characteristics that are valued by most buyers. According to (Porter, 1997a), brand name, technology, customer services, and sales network are used to differentiate from other competitors. Differentiation strategy helps firms build customer loyalty by offering unique products or services, which then assists them to perform better than competitors (Allen & Helms, 2002). The aim of differentiation is to create superior fulfilment of customer needs in one, or several product attributes to develop customer satisfaction and loyalty, which can often be used to charge a minimum price for the product. Acquaah and Yasai-Ardekani (2008) concur that firms using the differentiation strategy can achieve a competitive advantage over their rivals because of their products and services' perceived uniqueness. Hence, a creative firm will

always remain one step ahead of the competition by constantly working on new ideas or innovations.

Scholars have presented several scales to measure differentiation strategy. For instance, Agyapong, Ellis, and Domeher (2016) measured the differentiation strategy among 200 manufacturing SMEs in Ghana using four items adapted from Dess and Davis (1984). In a study by Parnell et al. (2012), a scale of seven items was used to measure SMEs' differentiation strategy in China and Turkey. The scale was developed by Zahra and Covin (1993) and also used by Luo and Zhao (2004). Besides, Herzallah et al. (2014) measured the differentiation strategy based on the scale developed by Miller (1986). In a recent study by Danso et al. (2019) seven items were employed to measure the differentiation strategy among manufacturing SMEs in Ghana. The differentiation strategy scale was adopted from Acquaah and Yasai-Ardekani (2008). The following subsection discusses the importance of differentiation strategy and performance.

2.4.5.1 The Importance of Differentiation Strategy and Performance

Previous literature has provided various findings on differentiation strategy and performance. Many researchers and practitioners have applied the differentiation strategy in numerous manufacturing SMEs to obtain a superior performance (Acquaah & Agyapong, 2015; Agyapong et al., 2016; Danso et al., 2019; Gure & Karugu, 2018; Herzallah et al., 2014; Lechner & Gudmundsson, 2014; Mungai & Ogot, 2017; Parnell et al., 2012)

For example, Herzallah et al. (2014) investigated 202 SMEs in Palestine and reported that the differentiation strategy significantly affected firm performance. Similarly, Lechner and Gudmundsson (2014) reported that differentiation strategy had a significant relationship with the firm performance of 355 manufacturing SMEs in Iceland. Furthermore, based on the investigation of 581 manufacturing SMEs in Ghana, differentiation strategy was found to have a significant relationship with firm performance (Acquaah & Agyapong, 2015). In the same vein, Agyapong et al. (2016) reported that a significant relationship between differentiation strategy and firm performance existed among SMEs in Ghana.

Next, in their study of 135 furniture manufacturing SMEs in Kenya on generic strategy and firm performance, Mungai and Ogot (2017) reported a significant relationship between differentiation strategy and firm performance. Meanwhile, Gure and Karugu (2018) found that differentiation strategy significantly affected firm performance. This study was conducted among 100 manufacturing SMEs in Kenya. Recently, Danso et al. (2019) investigated 269 SMEs in Ghana on the competitive strategy and its relationship with financial performance. They reported that firms that were pursuing the differentiation strategy had a significant relationship with financial performance.

Nevertheless, a contrasting result was reported by Yanney (2014) who examined SMEs' business strategy and organisational performance in Ghana. The study found no significant relationship between differentiation strategy and organisational performance. Furthermore, Kaya (2015) indicated that there was no significant relationship between differentiation strategy and firm performance. This study

examined 70 Turkish SMEs in the manufacturing industry that were executing the generic competitive strategy. Similarly, Rua et al. (2018) studied the impact of competitive strategy on the performance of 247 SMEs in Portugal and reported that there was no significant relationship between differentiation strategy and performance. This present study used the differentiation strategy measures by Parnell et al. (2012) in measuring the differentiation strategy among food manufacturing SMEs in Malaysia.

Table 2.16
Summary of Selected Studies on Differentiation Strategy

Author (Year)	**Dependent Variable**	**Sample**	**Results***
Parnell et al. (2012)	Firm performance	Manufacturing SMEs in China and Turkey	Yes
Lechner and Gudmundsson, (2014)	Firm performance	355 manufacturing SMEs in Iceland	Yes
Herzallah et al., (2014)	Firm performance	202 SMEs in Palestine	Yes
Acquaah and Agyapong, (2015)	Firm performance	581 manufacturing SMEs in Ghana	Yes
Agyapong et al., (2016)	Firm performance	SMEs in Ghana	Yes
Parnell et al. (2012)	Firm performance	Manufacturing SMEs in China and Turkey	Yes
Mungai and Ogot, (2017)	Firm performance	119 furniture manufacturing SMEs in Kenya	Yes
Gure and Karugu (2018)	Firm performance	100 manufacturing SMEs in Kenya	Yes

Table 2.16 (Continued)

Author (Year)	Dependent Variable	Sample	Results*
Danso et al., (2019)	Financial performance	269 firms in Ghana	Yes
Rua et al. (2018)	Performance	247 SMEs in Portugal	No
Kaya (2015)	Firm performance	70 SMEs in Turkey	No
Yanney (2014)	Organisational performance	SMEs in Ghana	No

Note: *Yes: relationship is significant, No: relationship is not significant

A large volume of studies that have explained the role of differentiation strategy in determining performance is available. Even though differentiation strategy and performance have been rigorously examined in various fields and settings, for the past few decades, the findings are still inconsistent as depicted in Table 2.16. Due to these inconsistent findings, a rigorous further study on the relationship between differentiation strategy and performance is needed by adding a moderating variable.

In summary, although there is a significant discrepancy in the findings, evidence obtained from the literature search supports that differentiation strategy is a strong predictor of organisational performance. Hence, adding a moderator in the relationship might generate a better finding for the association between differentiation strategy and organisational performance (Acquaah & Agyapong, 2016; Parnell et al., 2012). The following subsection discusses the definition of innovation.

2.5 Definition of Innovation

Numerous scholars have conceptualised and defined innovation. Thus, there are various interpretations of innovation. The definitions of innovation by different scholars are listed in Table 2.17. Innovation is seen by Schumpeter (1982) as the positive effect of technical progress, and the use of new configurations of current productive factors to solve business problems. Schumpeter is considered the pioneer of the philosophy of innovation in the economic field. According to Drucker (1985), innovation is the specific instrument of developers to harness progress for a complex enterprise or service. Meanwhile, Wirtz (2011) has denoted innovation as the invention and successful creation of a technological, operational, business-related, systemic or social approach to a problem considered to be innovative and new, embraced by appropriate consumers, and sought by innovators in expectation of success.

Table 2.17
The Definitions of Innovation

Author(s)	Definition
Drucker (1985)	Innovation is the entrepreneurs' specific tool to exploit change for a diverse business or service.
Pavitt (1998) Damanpour (1996),	Innovation is a process of transforming an opportunity into fresh ideas and being widely used in practice.
Kimberly and Evanisko (1981), Lin (2007)	Innovation is any practices that are new to organisations, including equipments, products, services, processes, policies, and projects.
Parashar, M., and Singh (2005)	Innovation is the ability to combine two or more knowledge.
Hage (1999)	Innovation is a complex construct and overlaps with a few other prevalent concepts such as technology, creativity, and change.

Table 2.17 (Continued)

Author(s)	Definition
Tran (2008)	Innovation is the creative and commercial embodiment of organisational learning.
Lim, Schultmann and Ofori (2010)	Innovation is a potential new combination that results in radical breaks with the past, making a substantial part of accumulated knowledge obsolete.
Wirtz (2011)	Innovation is the development and successful establishment of a technical, organisational, business-related, institutional or social solution to a problem, which is perceived as ground-breaking and new, accepted by pertinent users and pursued by innovators in anticipation of an achievement.

Nevertheless, in a recent definition provided by (Parashar & Singh, 2005), innovation is defined as a new or enhanced product or process (or a variation thereof) that substantially varies from the previous products or processes of the unit and has been made usable or placed into use by prospective consumers. Moreover, 'innovation activities include all developmental, financial and commercial activities undertaken by a firm that are intended to result in an innovation for the firm…' (OECD & Eurostat, 2018). The following subsection discusses measurement of innovation.

2.5.1 Measurement of Innovation

Table 2.18 summarises the dimensions of innovation commonly used in studies in various fields. The dimensions consist of technological and administrative innovation that could lead to superior performance. Numerous studies on innovation have confirmed that product innovation and process innovation could lead to firm performance (Damanpour & Aravind, 2006; Turulja & Bajgoric, 2019).

Table 2.18
Measurements of Innovation

Author(s)	Measurement
Damanpour and Gopalakrishnan (2001)	Product and process innovation
Benner and Tushman (2002)	Technological innovation
Yam, Guan, Pun (2004)	Technology innovation capabilities
García-Morales et al. (2007)	Innovation
Jiménez-Jimenez et al. (2008)	Product, process and administrative innovation
Martínez-Costa and Martínez-Lorente (2008)	Product and process innovation
Bigliardi and Dormio (2009)	Technological/technical innovation (product and process innovation) and non-technological/non- technical innovation (marketing and organisational innovation)
Kok and Biemans (2009)	Innovation characteristics
Sethi and Sethi (2009)	New product innovativeness
Sadikoglu and Zehir (2010)	Innovation performance
Rhee et al. (2010)	Innovativeness
Liao et al. (2010)	Innovation
Evangelista and Vezzani (2010)	Product, process and organisational innovations
Valencia et al. (2010)	Product innovation
Hilmi et al. (2010)	Product innovativeness, process innovativeness, strategic innovativeness
Inauen and Schenker-Wicki (2011)	The number of product innovations, the number of process innovations
Jiménez-Jiménez and Sanz-Valle (2011)	Product, process, administrative Innovation

Table 2.18 (Continued)

Authors	Measurement
Gunday et al. (2011)	Product, process, organisational, and marketing innovation
Martinez-Sanchez et al. (2019)	Radicality in products and processes Innovations
Yuan et al. (2010)	Product innovation, firm performance
Hoonsopon and Ruenrom (2012)	Radical and incremental product innovation
Baregheh et al. (2012)	Position innovation, process innovation, product innovation, paradigm innovation
Rosli and Sidek (2013)	Product innovation, process innovation, market innovation
Pekkola et al. (2016)	Innovation capability
Rubmann et al. (2015)	Business model innovation, innovation
Rubmann et al. (2015)	Product, process, marketing and organisational innovation
Kafetzopoulos and Psomas (2015)	Product, process, organisation innovation and marketing innovation
Psomas et al. (2018)	Product and process innovation
Turulja and Bajgoric (2019)	Product innovation, process innovation
Nielsen and Lund (2018)	Innovation performance (product, exploration, services and technology)
Wang (2019)	Radical innovation, incremental innovation
Sudja (2018)	Innovation strategies

Table 2.18, lists the measurements of the innovation employed by various researchers in their studies. For example, Damanpour and Gopalakrishnan (2001) highlighted two types of innovation namely product innovation and process innovation, while Benner

and Tushman (2002) used technological innovation to classify innovation. Next, Jimenez-Jimenez et al. (2008) describe the innovation associated with product, process and administrative innovation. Besides, Kafetzopoulos and Psomas (2015) examined innovation in the perspective of product, process, marketing and organisational innovation, whereas Psomas et al. (2018) identified innovation as product and process innovation.

On the other hand, Christian Nielsen (2018) proposed several significant aspects of innovation i.e product, exploration, services and technology. Overall, the literatures showed that innovation as a process of new idea generation by organisations to enhance the quality and quantity of existing process or product possibly creating added value for performance of organisation. Hence, the following subsection discusses about the product innovation.

2.5.2 Product Innovation

Product innovation is the invention of a new product using new materials (a brand new product) or the modification of a current product to achieve customer satisfaction (an improved current product) (Gopalakrishnan & Damanpour, 1997; Langley, Pals & Ort, 2005).

According to White and Bruton (2007), product innovation involves changing a product, which is led by a research and development (R&D) process in a company. Besides, product innovation is the introduction and development of new types of goods or services that complement the prior product's deficiencies with more emphasis on quality (Atalay et al., 2013). It is an act to create a new product based on

market needs (Walker et al., 2011). Craig and Hart (1992) have added that product innovation offers a diverse selection of products. By performing product innovation, the quality of products could be improved, which enhances the business performance and provides a competitive advantage to organisations (Garvin, 1987; Forker, Vickery & Droge, 1996).

Prior research has identified several scales to measure product innovation in the context of manufacturing SMEs. For instance, Psomas et al. (2018) measured product innovation using four items adapted from Jiménez and Valle (2011). Another study used a five-item scale to measure product innovation Shashi et al. (2019). The scale was adapted and tested by Gunday et al. (2011). This present study used the product innovation measures by Psomas et al. (2018) to measure the product innovation among food manufacturing SMEs in Malaysia. The following subsection explains the importance of product innovation and performance.

2.5.3 The Importance of Product Innovation and Performance

Various findings on product innovation and performance are available in past literature. Many researchers and practitioners have employed product innovation in numerous manufacturing SMEs to enhance the performance of the organisation (Expósito & Sanchis-Llopis, 2019; Lussak et al., 2020; Psomas et al., 2018; Saeidi et al., 2018; Shashi et al., 2019; Turulja & Bajgoric, 2019; Doran, McCarthy and O'Connor 2019). For example, Expósito and Sanchis-Llopis (2019) reported a significant relationship between product innovation and Spanish manufacturing SMEs' performance. Similarly, Lussak et al. (2020) discovered a significant association between product innovation and the financial performance of SMEs in

Indonesia's food manufacturing sector. Meanwhile, Psomas et al. (2018) showed a significant association between product innovation and Greek manufacturing SMEs' performance. The findings in (Saeidi et al., 2018) also revealed that product innovation had a significant relationship with the financial performance of Iranian manufacturing SMEs.

Additionally, Shashi et al. (2019) discovered that product innovation was significantly related to the financial performance of manufacturing SMEs in India. In line with previous studies, Turulja and Bajgoric (2019) found a significant relationship between product innovation and business performance among SMEs in South-Eastern Europe. On the other hand, Doran, McCarthy and O'Connor (2019) reported that no significant relationship existed between product innovation and the performance of SMEs in Ireland.

Table 2.19
Summary of Selected Studies on Product Innovation

Author (Year)	**Dependent Variable**	**Sample**	**Results***
Psomas et al. (2018)	Performance	SMEs in Greek	Yes
Saeidi et al. (2018)	Financial performance	SMEs in Iran	Yes
Expósito and Sanchis-Llopis (2019)	Performamce	SMEs in Spain	Yes
Shashi et al. (2019)	Financial performance	SMEs in India	Yes
Turulja and Bajgoric (2019)	Business performance	SMEs in South-Eastern Europe	Yes

Table 2.19 (Continued)

Author (Year)	Dependent Variable	Sample	Results*
Lussak et al. (2020)	Financial performance	SMEs in Indonesia	Yes
Doran, McCarthy and O'Connor (2019)	Performance	SMEs in Ireland	No

Note: *Yes: relationship is significant, No: relationship is not significant

Even though there are mixed results from previous studies, as shown in Table 2.19, empirical evidence has indicated the relationship between product innovation and performance of SMEs. Hence, additional research is required to understand the direct relationship between product innovation and organisational performance and their relationship with a moderating variable.

2.5.3.1 Process Innovation

Damanpour (1991) has defined innovation as 'a new element introduced into an organisation's production or service operations input materials, task specifications, work and information flow mechanisms, and equipment used to produce a product or render a service'. Processes in the manufacturing sector cover material input, supporting materials, packaging materials, semi-finished product, and finished product ready to be delivered to customers. Process innovation represents changes in the way firms produce the end product for the benefit of their customers (Seng et al., 2011). It is the implementation of a new or significantly improved production or delivery method. Besides, process innovation includes significant changes in techniques, equipment, and software (Guillaume, 2010). In general, the purpose of process innovation is to save costs rather than to attract (new) customers or partners

(Damanpour, 2010; Gopalakrishnan et al., 1999Moreover, the benefits of process innovation comprise quality improvements, cost and time savings, productivity gains, and turnover growth (Baer and Frese, 2003; He and Wong, 2004; Klomp and Van Leeuwen, 2001; Pisano, Bohmer, and Edmondson, 2001). Therefore, scholars have suggested that the introduction of process innovation has positive performance effects (Damanpour and Gopalakrishnan, 2001; Reichstein and Salter, 2006).

Previous investigations have introduced several scales to measure process innovation among SMEs in the manufacturing sector. For example, Psomas et al. (2018) measured process innovation using four items adapted from Jiménez-Jiménez and Sanz-Valle (2011). Next, Turulja and Bajgoric (2019) used a four-item scale to measure process innovation. The scale was adapted and tested by Ellonen et al. (2008). This present study used the process innovation measures of Psomas et al. (2018) to measure the process innovation of Malaysian food manufacturing SMEs. In the next subsection, the importance of process innovation and performance will be discussed.

2.5.4 The Importance of Process Innovation and Performance

The link between process innovation and performance of manufacturing SMEs has been well established by several researchers (Doran et al., 2019; Mamun, 2018; Psomas et al., 2018; Shashi et al., 2019; Turulja & Bajgoric, 2019; Expósito and Sanchis-Llopis 2019; Maldonado-Guzmán, Garza-Reyes, Pinzón-Castro, and Kumar 2019). For instance, Doran et al. (2019) discovered that process innovation had a significant relationship with the performance of 3,018 manufacturing SMEs in Ireland. Another empirical evidence was provided by Turulja and Bajgoric (2019),

who reported a significant association between South-Eastern Europe SMEs' business performance and process innovation. Shashi et al. (2019) identified that process innovation had a significant relationship with the financial performance of 221 manufacturing SMEs in India. Additionally, Maldonado-Guzmán, Garza-Reyes, Pinzón-Castro, and Kumar (2019) indicated that process innovation had a significant relationship with the business performance of 308 Mexican SMEs. Similarly, in a study of 360 manufacturing SMEs in Malaysia, a significant relationship between process innovation and firm performance was revealed (Mamun, 2018). Besides, Psomas et al. (2018) found a significant relationship between process innovation and the market performance of 433 manufacturing SMEs in Greece. In contrast, Expósito and Sanchis-Llopis (2019), determined that no significant relationship existed between process innovation and the firm performance of manufacturing SMEs in Spain.

Table 2.20
Summary of Selected Studies on Process Innovation

Author (Year)	**Dependent Variable**	**Sample**	**Results***
Mamun (2018)	Firm performance	SMEs in Malaysia	Yes
Psomas et al. (2018)	Market performance	SMEs in Greek	Yes
Shashi et al. (2019)	Financial performance	SMEs in India	Yes
Doran et al. (2019)	Performance	SMEs in Ireland	Yes
Turulja and Bajgoric (2019)	Business performance	SMEs in South-Eastern Europe	Yes
Expósito and Sanchis-Llopis (2019)	Firm performance	SMEs in Spain	No

Table 2.20 (Continued)

Author (Year)	Dependent Variable	Sample	Results*
Maldonado-Guzmán, Garza-Reyes, Pinzón-Castro, and Kumar (2019)	Business performance	SMEs in Mexico	Yes

Note: *Yes: relationship is significant, No: relationship is not significant

In summary, as shown in Table 2.20, the inconsistent findings of prior studies in the context of process innovation and performance are complex and need further research. An additional variable needs to be incorporated to establish a conclusion regarding the relationship between process innovation and organisational performance. The following subsection will discuss the dynamic capabilities as a moderator.

2.6 Dynamic Capabilities as a Moderator

Several scholars are still sceptical about the definition of dynamic capabilities, the possibility of its practical application or the scientific researchable status of the dynamic concept (Winter, 2003). Numerous scholars have scrutinised dynamic capabilities. Table 2.21 lists several established definitions of dynamic capabilities by prominent scholars.

Table 2.21
Definitions of Dynamic Capabilities

Author(s)	Definition
Teece and Pisano (1994)	'The subset of the competences and capabilities that allow the firm to create new products and processes and respond to changing market circumstances.'
Teece et al. (1997)	'The firm's ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments.'
Eisenhardt and Martin (2000)	'The firm's processes that use resources—specifically the processes to integrate, reconfigure, gain, and release resources—to match and even create market change; dynamic capabilities thus are the organizational and strategic routines by which firms achieve new resource configurations as markets emerge, collide, split, evolve, and die.'
Teece (2007a)	'The ability to sense and then seize opportunities quickly and proficiently.'
Zollo and Winter (2002)	'A dynamic capability is a learned and stable pattern of collective activity through which the organisation systematically generates and modifies its operating routines in pursuit of improved effectiveness.'
Winter (2003)	'Those (capabilities) that operate to extend, modify, or create ordinary capabilities.'
Zahra et al. (2006)	'The abilities to reconfigure a firm's resources and routines in the manner envisioned and deemed appropriate by its principal decision maker(s).'
Helfat et al. (2007)	'The capacity of an organisation to purposefully create, extend, or modify its resource base.'

Table 2.21 (Continued)

Author(s)	Definition
Teece (2007b)	'Dynamic capabilities can be disaggregated into the capacity (a) to sense and shape opportunities and threats, (b) to seize opportunities, and (c) to maintain competitiveness through enhancing, combining, protecting, and, when necessary, reconfiguring the business enterprise's intangible and tangible assets.'
Barreto (2010)	'A dynamic capability is the firm's potential to systematically solve problems, formed by its propensity to sense opportunities and threats, to make timely and market-oriented decisions, and to change its resource base.'
Piening (2013)	'Dynamic capabilities can be described as bundles of interrelated routines which, shaped by path dependency, enable an organisation to renew its operational capabilities in pursuit of improved performance.'
Helfat and Martin (2015)	'The capabilities with which managers create, extend, and modify the ways in which firms make a living-helps to explain the relationship between the quality of managerial decisions, strategic change, and organisational performance.'

As shown in Table 2.21, Teece and Pisano (1994) have defined dynamic capabilities as a subset of the competences and capabilities that allow a firm to create new products and processes and respond to changing market circumstances. Furthermore, Teece, Pisano, and Shuen (1997) have introduced dynamic capabilities as a firm's ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments.

Several studies on the moderating role of dynamic capabilities concerning the performance of SMEs have been conducted (Agostini et al., 2017; Bii & Onyango, 2018; Engelen et al., 2014; Han & Li, 2015; Hernandez-Perlines, 2018; Noor & Aljanabi, 2016; Patel et al., 2015). For example, Agostini et al. (2017) indicated that dynamic capabilities had positively moderated the relationship between rational capital and the performance of 975 SMEs in Italy.

Similarly, a study determined the significant moderating effect of dynamic capabilities on the relationship between entrepreneurial orientation and SMEs' business performance (Bii & Onyango, 2018). Furthermore, the vital moderating role of dynamic capabilities in the association between entrepreneurial orientation and the firm performance of 219 SMEs in Germany was reported (Engelen et al., 2014). Another study revealed that dynamic capabilities was a significant moderator in the relationship between intellectual capital and the innovative performance of manufacturing firms in China (Han & Li, 2015). Besides, Hernandez-Perlines (2018), presented evidence that dynamic capability positively moderated the relationship between entrepreneurial orientation and the international performance of 218 SMEs in Spain.

In the same context, a study investigating the entrepreneurial orientation and innovation technology capabilities of 249 SMEs in Iraq found that dynamic capabilities played a critical role as a moderator (Noor & Aljanabi, 2016). Meanwhile, Patel et al. (2015) reported the significant effect of dynamic capabilities as a moderator. The study examined the relationship between entrepreneurial orientation and the firm performance of 147 SMEs in Finland. Lastly, Kump et al. (2016)

examined the dynamic capabilities scales based on Teece (2007b) for the relationship between business and innovation performance. The following subsection explains the underpinning theories.

2.7 Underpinning Theories

In the field of strategic management, the main concern is on how firms achieve high performance. Several theoretical approaches for studying resources and organisational performance exist. This study adopted the RBV and dynamic capabilities theories to explain the relationships between cost-leadership strategy, differentiation strategy, product innovation, process innovation, dynamic capabilities, and organisational performance.

2.7.1 Resource Based View

RBV analyses and interprets organisations' resources to understand how organisations achieve competitive advantage and superior performance. The RBV focuses on the concept of difficult-to-imitate attributes of a firm as superior performance sources and competitive advantage (Barney, 1986; Hamel & Prahalad, 1996). Resources that cannot be easily transferred or purchased, require an extended learning curve or a significant change in the organisational climate and culture are more likely to be unique to the organisation and, therefore, more difficult to imitate by competitors. Furthermore, resources that are valuable, rare, and imperfectly imitable are primary sources of competitive advantage for superior performance (Barney, 1991). A resource must fulfil the VRIN criteria to provide a competitive advantage and improve performance. Table 2.22 explains the 'VRIN' criteria.

Table 2.22
The 'VRIN' Criteria

Value (V)	Resources are valuable if they provide strategic value to the firm. Resources provide value if they help firms in exploiting market opportunities or in reducing market threats. There is no advantage in possessing a resource if it does not add or enhance the value of the firm.
Rare (R)	It must be difficult for existing and potential competitors of the firm to find the resources. Hence, resources must be rare or unique to offer competitive advantages. Resources that are possessed by several firms in the marketplace cannot provide a competitive advantage because the firms cannot design and execute a unique business strategy in comparison with other competitors.
Imperfect Imitability (I)	Imperfect imitability means making a copy or imitating the resources will not be feasible. Bottlenecks of imperfect imitability include difficulties in acquiring resources, an ambiguous relationship between capability and competitive advantage, and complexity of resources. Resources can be the basis of a sustained competitive advantage only if firms that do not hold these resources cannot acquire them.
Non-Substitubility (N)	Non-substitutability of resources implies that resources cannot be substituted by other resources. A competitor cannot achieve the same performance by replacing the resources with alternative resources.

In the context of cost-leadership strategy and differentiation strategy, Porter (1985) has claimed that firms achieve competitive advantage either by having the lowest product cost or by having products that are different in ways that are valued by customers. Therefore, cost-leadership strategy and differentiation strategy are a firm's VRIN. Barney (1991) has highlighted that valuable resources must enable a firm to do things and behave in ways that lead to high sales, low costs, high margins, or in other ways add financial value to the firm.

Product innovation helps firms achieve competitive advantage by differentiating their products or range of products from their competitors, whereas, with process innovation, firms improve their efficiency and products' quality (Utterback and Abernathy, 1975; Abernathy, 1978; Damanpour & Gopalakrishnan, 2001). As such, product innovation and process innovation are also a firm's VRIN. According to Barney (1991), resources are valuable when they enable a firm to conceive or implement strategies that improve its efficiency and effectiveness.

Hence, this study has employed the RBV theory by Barney (1991) that suggests a firm's critical strategic resources can be sources of strategic competitive advantage if they are scarce, difficult to imitate, non-substitutable, and valuable. The next subsection will discuss the dynamic capabilities theory.

2.7.2 Dynamic Capabilities

The dynamic capabilities concept has evolved as a dynamic version of the RBV theory that suits rapidly changing environments. Teece, Pisano, and Shuen (1997) have defined dynamic capabilities as a firm's ability to integrate, build, and reconfigure internal and external competences to address environments that are rapidly changing. Figure 2.1 illustrates the dynamic capabilities model (Teece, 2018; Teece & Pisano, 1994). Meanwhile, Table 2.23 lists the dynamic capabilities dimensions, namely sensing, seizing, and transforming.

Table 2.23
Dynamic Capabilities Dimensions

Sensing	Identification, development, co-development and assessment of technological opportunities in relation to customer needs
Seizing	Mobilisation of resources to address needs and opportunities, and to capture value from doing so
Transforming	Nothing less than 'continued renewal'

Source: Teece (2018)

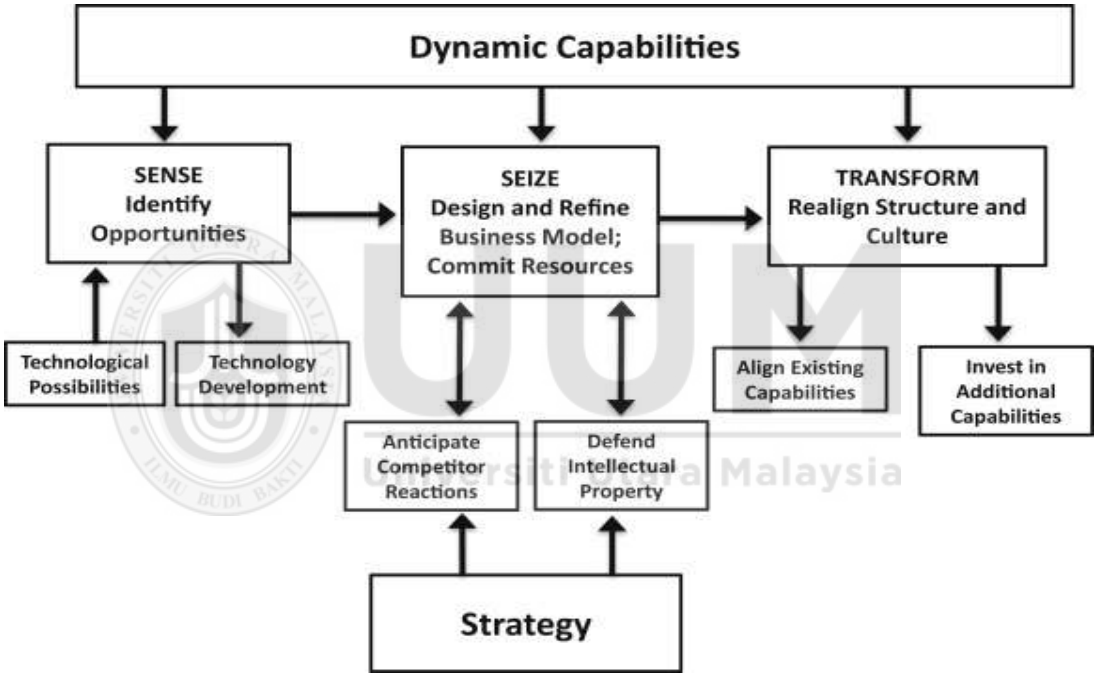

Figure 2.1
Dynamic Capabilities Model
Source: Teece (2018)

The dynamic capabilities concept concerns the preparation to facilitate new distinctive and difficult to imitate advantages that include the creation of new products and a firm's present competence to meet future challenges (Teece et al., 1997). Moreover, the concept also posits that a firm's dynamic mechanism would help build, integrate, and reconfigure internal and external resources to address rapidly changing

environments. Dynamic capabilities involve collecting market (customer and competitor) intelligence and technological information from both inside and outside the firm, making sense of it, and figuring out the implications for action (Teece, 2007b).

In the initial stage of developing the dynamic capabilities theory, Teece et al. (1997) assumed a direct impact of dynamic capabilities on firm performance. Furthermore, Teece (2014) explained that the dynamic capabilities framework was created with an ambitious agenda of helping scholars and practitioners understand the foundations of firm-level competitive advantage. Nevertheless, other scholars have viewed that dynamic capabilities do not directly lead to improved performance (Eisenhardt & Martin, 2000). They added that competitive advantage and improved firm performance do not rely on dynamic capabilities but resource configurations (Eisenhardt & Martin, 2000). Hence, prominent scholars argue that dynamic capabilities enable firms to match the resource base with changing environments, create market change, and facilitate resource access and resource development (Eisenhardt & Martin, 2000; Teece et al., 1997).

This study conceptualised based on the dynamic capabilities theory. The conceptual model proposed that cost-leadership strategy, differentiation strategy, product innovation, and process innovation, moderated by dynamic capabilities, lead to organisational performance. The next subsection disucsses the contigency theory.

2.7.3 Contingency Theory

The contingency hypothesis states that a firm's superior performance depends on its internal and external circumstances (Donaldson, 2001; Ramanujam et al., 1986). Mintzberg (1983) laid the groundwork for contingency theory. Rather than that, managerial activities should be determined by distinctive firm-specific elements, both endogenous and external. Organizations are compelled to strategize differently in response to their unique circumstances (Donaldson, 2001).

Donaldson (2014) characterises the contingency method as an equilibrium theory, stating that it regards organisational changes as a means of achieving balance or equilibrium. However, this theory suggests that a business must consider external environmental conditions. According to Mintzberg (1983), contingency variables influence the design of organisational structure. Thus, this theory demonstrates how the environment acts as a direct source of variety inside an organisation. As a result, contingency theory constrained organisational flexibility through the reactive adaptation ability required to deal with a turbulent environment (Beleska-Spasova, 2014). The following subtopic explains the relational view of the firm theory.

2.7.4 The Relational View of The Firm Theory

Dyer et al. (2018) are the leading advocates of the relational perspective. They contend that while the resource-based theory has made significant contributions to the knowledge of differential business performance, it ignores the reality that a business's shortcomings and strengths are related to the connection network's shortcomings and strengths. According to the resource-based concept, competitive advantage is determined by the inimitable nature of a firm's internal resources and competencies.

On the other hand, Dyer et al. (2018) point out that a firm's vital resources may extend beyond its operational limits. According to the idea, corporations generate relational rents through essential resources that may be external to the parties (Lavie, 2006). Wong (2011) concurs with this approach, asserting that business performance is the outcome of the simultaneous interplay of the environment, rivals' resources, and a business's resources.

Therefore, this study found that RBV theory and dynamic capabilities could underpin the conceptual framework, consisting of cost-leadership strategy, differentiation strategy, product innovation, process innovation, dynamic capabilities, and organizational performance. The next topic discusses the conceptual framework.

2.8 Conceptual Framework

Based on the literature reviewed and suggestions in several studies, this current study developed a framework to examine the moderating role of dynamic capabilities in the relationships between the organisational performance of food manufacturing SMEs in Malaysia and cost-leadership strategy, differentiation strategy, product innovation, and process innovation.

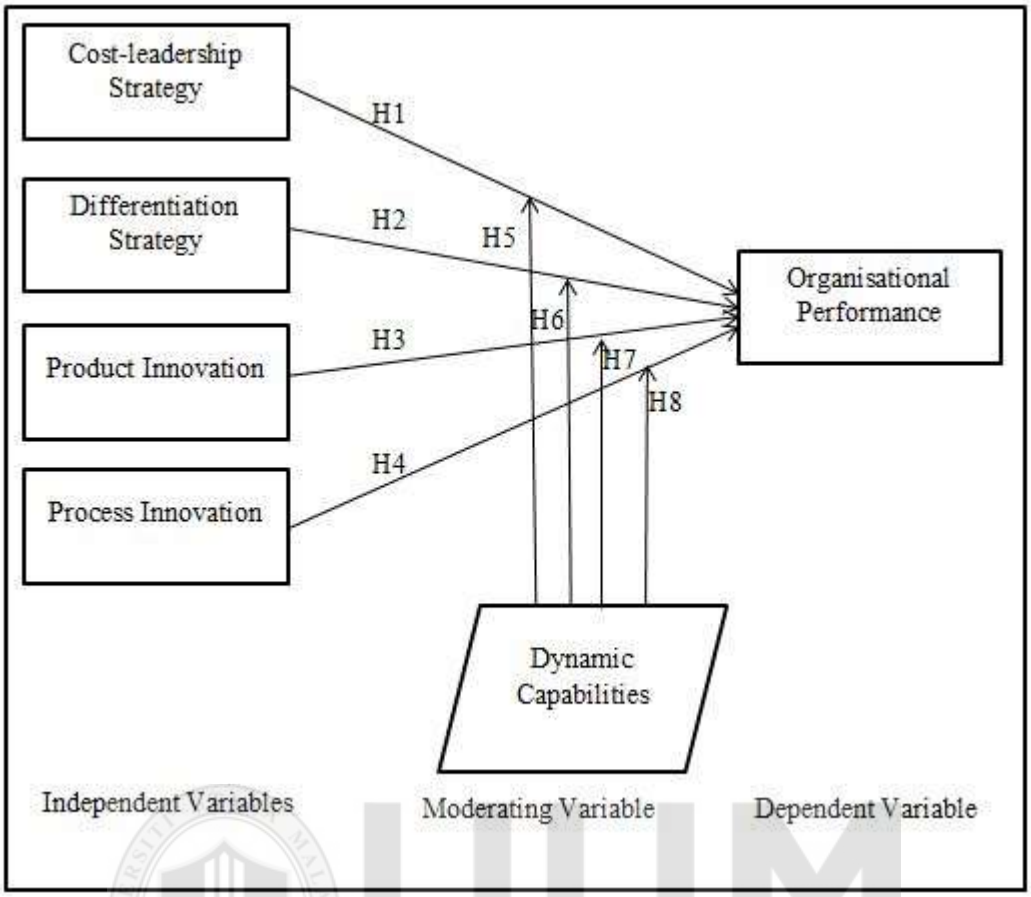

Figure 2.2
Conceptual Framework

Figure 2.2 showed the conceptual framework has four independent variables representing firms' valuable resources, namely cost-leadership strategy, differentiation strategy, product innovation, and process innovation. Organisational performance is the dependent variable while dynamic capabilities is the moderating variable. The following section discusses the research hypotheses development.

2.9 Research Hypotheses Development

Based on the research questions, research objectives, and conceptual framework, this study proposed eight hypotheses. The links among the variables in the framework have been discussed and justified in the previous subsections. Hence, the prior discussion was used as a basis to construct the hypotheses of this study.

2.9.1 Relationship between Cost-leadership Strategy and Organisational Performance

A cost-leadership strategy focuses on achieving the lowest cost, economies of scale, capacity utilisation, and experience curve (Porter, 1997a). Allen and Helms (2006), have stated that a cost-leadership strategy may lead to higher demand and a larger market share. Previous empirical studies have provided evidence that indicates the linkage between cost-leadership strategy and performance (Jokiel, 2011; Karnani, 1984; White, 1986; Wright et al., 1991). Besides, the findings of more recent studies such as Acquaah and Agyapong (2015), Danso, Adomako, Amankwah-Amoah, Owusu-Agyei, and Konadu (2019), Dutse and Aliyu (2018), Gure and Karugu (2018), and Herzallah, Gutiérrez-Gutiérrez and Munoz Rosas (2014) have also demonstrated the existence of a relationship between cost-leadership strategy and the organisational performance of manufacturing SMEs. Other studies include Kaya (2015), Lechner and Gudmundsson (2014), Liang and Frösén (2019), Mungai and Ogot (2017), Rua, França and Fernández Ortiz (2018), Yanney (2014), and Parnell et al. (2012). Therefore, the following hypothesis was proposed:

H1: There is a positive relationship between cost-leadership strategy and organisational performance of food manufacturing SMEs in Malaysia.

2.9.2 Relationship between Differentiation Strategy and Organisational Performance

The literature review has shown that the differentiation strategy offers a unique, superior, and different product to the customers. Porter (1997) has claimed that organisations consider customers as their priority. Consequently, differentiation

enhances customers' interest in buying a unique product (Franke & Schreier, 2008; Mangus & Ruvio, 2019). Prior studies by Karnani (1984), Koo, Koh and Nam (2004), O'Farrell, Moffat, and Hitchens (1993), White (1986), and Wright et al. (1991) have found a link between differentiation strategy and performance. Additionally, recent studies, for example, Acquaah and Agyapong (2015), Agyapong, Osei and Akomea (2016), Danso, Adomako, Amankwah-Amoah, Owusu-Agyei and Konadu (2019), and Gure and Karugu (2018) have reported that differentiation strategy has a relationship with the organisational performance of food manufacturing SMEs. Herzallah et al. (2014), Lechner and Gudmundsson (2014), Liang and Frösén (2019), Mungai and Ogot (2017), Omsa (2017), and Parnell et al. (2012) have also reported a similar finding. Thus, the following hypothesis was proposed for this study:

H2: There is a positive relationship between differentiation strategy and organisational performance of food manufacturing SMEs in Malaysia.

2.9.3 Relationship between Product Innovation and Organisational Performance

Product innovation refers to a new product or service introduced to meet an external user or market's need (Fariborz Damanpour & Gopalakrishnan, 2001). Consequently, firms change or create entirely new products or services according to the existing and potential customers' needs and requirements (Forsman, 2011). There is some evidence that has revealed the association between product innovation and organisational performance, for instance, in the studies by García-Morales et al. (2008), Matzler et al. (2008), Noruzy et al. (2013), Overstreet et al. (2013), Rajapathirana and Hui (2018), and Visnjic et al. (2016). Besides, recent studies on

manufacturing SMEs by Expósito and Sanchis-Llopis (2019), Mamun (2018), Psomas, Kafetzopoulos and Gotzamani (2018), Saeidi, Saeidi, Othman and Saeidi (2018), Shashi, Centobelli, Cerchione and Singh (2019), Turulja and Bajgori (2019), and Psomas et al. (2018) have also reported the existence such a relationship. Hence, the following hypothesis was proposed:

H3: There is a positive relationship between product innovation and organisational performance of food manufacturing SMEs in Malaysia.

2.9.4 Relationship between Process Innovation and Organisational Performance

Several scholars have defined process innovation as implementing a new or significantly improved production or delivery method (Gunday et al., 2011; ul Hassan et al., 2013). Process innovation is a valuable source to increase productivity (Reichstein & Salter, 2006). Furthermore, prior studies have discovered a link between process innovation and performance (Rammer et al., 2009; Reichstein & Salter, 2006; Rouvinen, 2002; Simonen & McCann, 2008). In addition, more recent studies examining manufacturing SMEs such as Christy Twaliwi and Michael Isaac (2017), Doran, McCarthy and O'Connor (2019); Mamun (2018), Shashi et al. (2019), Turulja and Bajgoric (2019), Vladimirov (2016), and Psomas et al. (2018) have also determined that process innovation has a relationship with organisational performance. Therefore, this study proposed the following hypothesis:

H4: There is a positive relationship between a process innovation and organisational performance of food manufacturing SMEs in Malaysia.

2.9.5 The Moderating Role of Dynamic Capabilities

In general, an organisation requires dynamic capabilities to improve its resources (Eisenhardt & Martin 2000; Teece et al., 1997). Dynamic capabilities emphasises how firms manage to adapt, integrate, and reconfigure internal and external resources to compete with dynamic environmental conditions (Teece, 2007a). Sari et al. (2017) have stated that the advancement of performance is obtainable by understanding the need to integrate the organisation's dynamic capabilities. Numerous studies have indicated the importance of dynamic capabilities and its moderating role in influencing organisational performance. For instance, studies on manufacturing SMEs discovered that dynamic capabilities significantly moderated the relationships between organisational performance and cost-leadership strategy, differentiation strategy, product innovation, and process innovation (Agostini et al., 2017; Bii & Onyango, 2018; Engelen et al., 2014; Han & Li, 2015; Hernandez-Perlines, 2018; Noor & Aljanabi, 2016; Patel et al., 2015; Kump et al., 2016). Thus, the following hypotheses were formulated:

H5: Dynamic capabilities moderates the relationship between cost-leadership strategy and organisational performance of food manufacturing SMEs in Malaysia.

H6: Dynamic capabilities moderates the relationship between differentiation strategy and organisational performance of food manufacturing SMEs in Malaysia.

H7: Dynamic capabilities moderates the relationship between product innovation and organisational performance of food manufacturing SMEs in Malaysia.

H8: Dynamic capabilities moderates the relationship between process innovation and organisational performance of food manufacturing SMEs in Malaysia.

2.10 Chapter Summary

This chapter has discussed the theoretical aspects and previous literature on cost-leadership strategy, differentiation strategy, product innovation, and process innovation (independent variables), dynamic capabilities (moderating variable), and organisational performance (dependent variable) relevant to the research objectives and research questions of this study. Additionally, the links between cost-leadership strategy, differentiation strategy, product innovation, process innovation, dynamic capabilities, and organisational performance were justified. These justifications were used as a basis to develop a conceptual framework and the hypotheses. The next chapter will discuss the methodology of this study.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter discusses the methodology of the study including the research design, population, sampling techniques, data collection instruments, and data collection and analysis procedures.

3.2 Research Design

A research design establishes a framework or action plan for the research, and the study's objectives are incorporated to guarantee that the information acquired is pertinent to resolving the problem. This research is descriptive, explanatory, and hypotheses testing in character. The purpose of hypothesis-testing research is to determine the variance in the dependent variables (Sekaran & Bougie, 2016). As a result, the primary objective of this research is to conduct hypothesis testing to ascertain the link between cost leadership strategy, differentiation strategy, product innovation, process innovation, and organisational performance. Additionally, this study explores the moderating effect of dynamic capabilities on the relationship between independent and dependent variables. Whereas the relationships between these constructs have been established via prior study, little study has been conducted to study the relationships between the abovementioned factors concurrently. Hence, this study explores the study hypotheses simultaneously.

According to the description above, this study adopted a quantitative research method by a survey instrument. Thus, structured self-administered questionnaires were

considered the most appropriate method for this study due to adaptability and capability for extensive geographic coverage, cheap cost, and convenience for respondents (Sekaran & Bougie, 2016). Additionally, it enables the researcher to collect a vast amount of data from respondents, is the simplest way to administer, and requires minimum technical effort (Zikmund et al., 2013). Details of the population and sample are explained in the following section.

3.3 Population and Sampling Procedure

3.3.1 Population

The study population was every food manufacturing SME in Malaysia, i.e. 336 SME firms registered with the Federation of Malaysian Manufacturers (FMM). Table 3.1 lists the population considered for this study.

Table 3.1
The Population of Food Manufacturing SMEs

	Categories of Food Manufacturing SMEs	Total
1	Production, Processing and Preserving of Meat and Seafood Products	22
2	Production, Processing and Preserving Fruits and Vegetables	7
3	Vegetable and Animal Oil, Coating Fats, Shortening, Butter and all Dairy Products	56
4	Snacks, Biscuits, Bread, Preserved, Frozen and Canned Food	91
5	Grain, Noodles and Other Products Containing Starch	15
6	Sugar, Cocoa and Chocolate Confectionery and Bakery Products	49
7	Spices, Seasonings, Flavourings, Condiments and Sauces	58
8	Health, Supplements, Nutritional and Related Food	14

Table 3.1 (Continued)

	Categories of Food Manufacturing SMEs	Total
9	Animal Food	6
10	Other Food not Elsewhere Classified	18
	Total	336

Source: FMM Industry Directory (2019)

Several factors must be considered when determining the sample size, including time, accuracy prediction, and faith level (Hair, Black, Babin, Anderson, & Tatham, 2010). If a population is large, it is difficult to determine the size of the sample that represents the population. Therefore, Hair (2015), has stated that many samples do not represent accurate results in the research conducted. In this study, the stratified disproportionate random sampling method was employed (Hair et al., 2007; Sekaran, 2003). A randomise table was used to randomly select the food manufacturing SMEs based on categories provided in the 5th edition of the Food and Beverage (FMM, 2019). Based on the stratified disproportionate random sampling method, the sample was well-represented. The following subtopic discusses the unit of analysis and sample size.

3.3.2 Unit of Analysis and Sample size

This study's unit of analysis was the SMEs in the food manufacturing sector in Malaysia. The respondents were the managers or owners of the food manufacturing SMEs who could give a valid and accurate view of their organisation. The selection criterion for the food manufacturing SMEs was small- or medium-sized manufacturing SME in Malaysia's food sector. This was based on the definition of SME in Malaysia: 1) small manufacturing enterprises with a sales turnover of RM

300,000 to less than RM 15 million or 5 to less than 75 full-time employees, and 2) medium manufacturing enterprises with a sales turnover of RM 15 million to not exceeding RM 50 million or 75 to not exceeding 200 full-time employees (SME Corp., 2019).

As indicated by Saunders et al. (2008), stratified sampling involves dividing the population into two or more relevant and significant strata based on one or several attributes. This study employed stratified sampling techniques to group food manufacturing SMEs categorised by the FMM Industry Directory (2019). The sample was randomly selected from each stratum based on the respective sample size (Vinet & Zhedanov, 2011). Samples from each stratum were selected using the random number generated function in MS Excel 2016 (RAND) in line with Saunders et al. (2008). Nevertheless, some of the food categories' actual sample was smaller compared to the other food manufacturing SMEs. Therefore, this study adopted disproportionate random sampling to confirm that a sufficient number of respondents were selected from each stratum (Sekaran, Uma, & Bougi, 2012).

McMillan and Schumacher (2014) have noted that the sample size should be adequate for the research by being large enough to satisfactorily estimate the population's characteristics to deliver a credible result. As suggested by Sekaran (2003), the guidelines developed by Morgan and Krejcie (1970), following the guidelines developed by Krejcie and Morgan (1970), the appropriate sample size (n) for a population (N) of $320 < N < 340$ was 181. Hence, a total of 181 (minimum sample size) food manufacturing SMEs in Malaysia were selected as respondents for this study.

Table 3.2
Sample Size of the Study

	Categories of Food Manufacturing SMEs	Population	Sample size
1	Production, Processing and Preserving of Meat and Seafood Products	22	12
2	Production, Processing and Preserving Fruits and Vegetables	7	4
3	Vegetable and Animal Oil, Coating Fats, Shortening, Butter and all Dairy Products	56	30
4	Snacks, Biscuits, Bread, Preserved, Frozen and Canned Food	91	49
5	Grain, Noodles and Other Products Containing Starch	15	8
6	Sugar, Cocoa and Chocolate Confectionery and Bakery Products	49	26
7	Spices, Seasonings, Flavourings, Condiments and Sauces	58	31
8	Health, Supplements, Nutritional and Related Food	14	8
9	Animal Food	6	3
10	Other Food not Elsewhere Classified	18	10
	Total	336	181

Source*:* FMM Industry Directory (2019)

Nonetheless, this study employed a G*Power analysis program to estimate the appropriate sample size based on a statistical threshold (Faul, Erdfelder, Buchner, & Lang, 2009). The prior G* Power 3.1.9.4 was used with a significance alpha level ($\alpha = 0.05$), effect size ($f^2 = 0.15$), desired statistical power ($1-\beta = 0.80$), a total of nine predictors i.e. four independent variables (cost-leadership strategy, differentiation strategy, product innovation, and process innovation) and one moderating variable

(dynamic capabilities), and four interactions effect. As shown in Figure 3.1, a sample of 114 was appropriate for the multiple regression-based analysis.

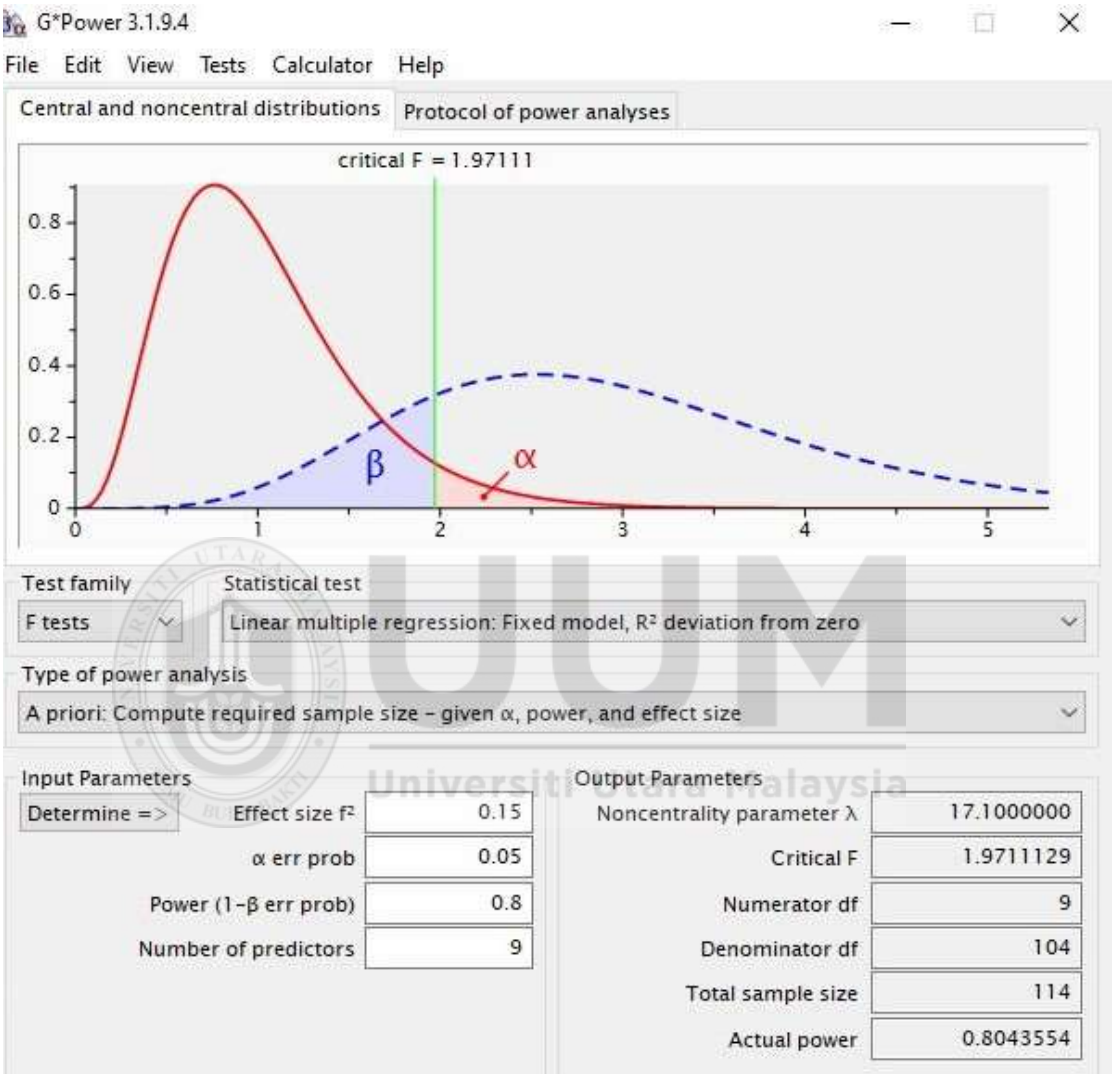

Figure 3.1
*The Output of G*Power*

In general, research involving SMEs will encounter low response rates in most developing countries, including Malaysia. Previous studies on manufacturing SMEs in Malaysia demonstrated a low response rate for instance studies by Nor-Aishah et al. (2020) 14.6%, Nawanir et al. (2020) 22.7%, Chuen et al. (2018) 22% and Alam et al. (2018) 69.33%. Therefore, the researcher distributed more questionnaires to the

respondents, which is commonly practised in social science studies. This method called an oversampling method to deal with a low response rate and unusable questionnaire, as suggested by Salkind (1997). Thus, the number of questionnaires for distribution was increased by doubling the sample size, i.e. 228 questionnaires were distributed. The next topic discusses about the research instruments.

3.4 Research Instruments

The questionnaire was developed based on the measurement used by previous researchers. It consisted of five parts, as follows:

Section A: Cost-leadership Strategy and Differentiation Strategy

Section B: Product Innovation and Process Innovation

Section C: Dynamic Capabilities

Section D: Organisational Performance

Section E: Demographic Profile

The measurement of the constructs was designed based on the literature review performed. This study's structured questionnaire was divided into five sections and the measures were adopted from several sources with acceptable reliabilities (Cronbach's alpha coefficient). Utilising previous validated and reliable research instruments can reduce the time needed to develop new instruments and can contribute to a study's credibility (Toledo-Pereyra, 2012). Therefore, this study employed instruments validated by expert researchers (practitioners and academics) and were found to be reliable and used in numerous other studies. Table 3.3 presents a summary of the measures used in this study.

Table 3.3
Measurement of the Variables

Variables	Items	Reported reliability	Source
Cost-leadership Strategy	6	0.921	Parnell et al. (2012)
Differentiation Strategy	10	0.921	Parnell et al. (2012)
Product Innovation	4	0.856	Psomas et al. (2018)
Process Innovation	5	0.893	Psomas et al. (2018)
Dynamic Capabilities	14	0.942	Kump et al. (2016)
Organisational Performance	18	0.939	Vu Thi et al. (2018)

3.4.1 Organisational Performance Measurements

A self-reported measure was employed for organisational performance, this study's dependent variable. Several past studies used this technique to obtain data on organisational performance (Khallaf et al., 2017; Mustapha & Sorooshian, 2019; O'Connell & O'Sullivan, 2014, 2016; Shashi et al., 2019; Ukko et al., 2019; Zaborek & Mazur, 2019). Prior studies also revealed that this technique's subjective nature was reliable (Acquaah & Agyapong, 2015; Gawankar et al., 2015; Gure & Karugu, 2018b; Hervas-Oliver et al., 2014).

Organisational performance was conceptualised as a first-order construct. Table 3.4 shows the questionnaire used and tested by Vu Thi et al. (2018) that was based on the questionnaire developed by previous scholars (Singh & Schmidgall, 2002; Chriyha, Beidouri, & Bouksour, 2012; Karabay & Kurumer, 2012; Kaplan & Norton, 1998; Felice & Petrillo, 2013). Meanwhile, Table 3.5 lists the scale adapted by Vu Thi et al. (2018) using a BSC method which had 18 items. Hence, this study adapted the instruments used and tested by Vu Thi et al. (2018).

The respondents were asked about their perception of their firm's performance over the past three years by determining the degree of each item based on a five-point Likert scale (1 = decreased significantly, 2 = decreased, 3 = unchanged, 4 = increased, and 5 = increased significantly). The original instruments of organisational performance are shown in Table 3.4. The items of the original questions were modified and four items in the original measure were dropped (i.e. item #6, #9, #10, #11) to avoid confusion as shown in Table 3.5.

Table 3.4
The Original Instruments of Organisational Performance Scale

1. Revenue growth rate
2. Profitability ratio
3. Return on investment (ROI)
4. Return on assets (ROA)
5.The rate of turnover of new customers
6. Frequent use of the product customer
7. Number of complaints customers
8. Time to settle a complaint
9. The percentage of customers leaving the company
10. Incorrect delivery rate
11. The percentage of new customers who want to return.
12. Sales rate of new products/total sales collection.
13. Rate of non-standard products
14. New product ratio/total product
15. The percentage of suppliers that meet the requirements
16. The rate of time the supplier delivers the goods properly

Table 3.4 (Continued)

17. The percentage of suppliers that is usually the supplier for the business
18. The proportion of indirect labours with postgraduate qualifications
19. The percentage of indirect labours has a college degree
20. The rate of direct labour with a high skill level
21. Rate of investment costs for information equipment
22. Rate of training costs, staff training/total cost

Source: Vu Thi et al. (2018)

Table 3.5
The Instruments Constituting the Organisational Performance Scale

1. Revenue growth rate
2. Profitability ratio
3. Return on investment (ROI)
4. Return on assets (ROA)
5. The rate of turnover of new customers
6. The number of complaints from customer
7. Number of customers
8. Time to settle a complaint
9. Sales rate of new products
10. Total sales collection
11. Revenue ratio of a new market
12. Total revenue
13. New product ratio/total product
14. The proportion of employees with postgraduate qualifications
15. The percentage of employees with a college degree

Table 3.5 (Continued)

16. The rate of employees with a high skill level
17. Rate of investment costs for information equipment
18. Rate of training costs

Source: Adapted from Vu Thi et al. (2018)

3.4.2 Cost-leadership Strategy and Differentiation Strategy Measurements

The cost-leadership strategy measure consisted of five items while the differentiation strategy had seven items. The instruments for cost-leadership strategy and differentiation strategy were used by Parnell et al. (2012) and tested among manufacturing SMEs in China and Turkey. Initially, the instruments were developed by Zahra and Covin (1993). Tables 3.6 and 3.7 show the details of the original items and adapted items, respectively, for cost-leadership strategy, while Tables 3.8 and 3.9 lists the details of the original items and adapted items, respectively, for differentiation strategy. The respondents determined the level of agreement for each item based on a five-point Likert scale (1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, and 5 = strongly agree). Therefore, this study adapted the instruments from Parnell et al. (2012).

Table 3.6
The Original Instruments of the Cost-leadership Strategy Scale

1. Efficiency in securing raw materials or components
2. Finding ways to reduce costs
3. Level of operating efficiency
4. Level of production capacity utilization
5. Price competition

Source: Parnell et al. (2012)

Table 3.7
The Instruments Constituting the Cost-leadership Strategy Scale

1. Our company is efficient in securing raw materials
2. Our company is efficient in securing components
3. Our company is finding ways to reduce costs
4. Our company has a high level of operating efficiency
5. Our company has a high level of production capacity utilisation
6. Our company emphasises price competition

Source: Adapted from Parnell et al. (2012)

Table 3.8
The Original Instruments of the Differentiation Strategy Scale

1. Using new methods and technologies to create superior products
2. New product development
3. Rate of new product introduction to the market
4. Number of new products offered to the market
5. Intensity of advertising and marketing
6. Developing and utilising sales force
7. Building a strong brand identification

Source: Parnell et al. (2012)

Table 3.9
The Instruments Constituting the Differentiation Strategy Scale

1. Our company emphasises on using new methods to create superior products
2. Our company emphasises on using new technologies to create superior products
3. Our company emphasises on new product development
4. Our company often introduces new products to the market

Table 3.9 (Continued)

5. Our company offers a variety of new products to the market
6. Our company intensively carries out advertising
7. Our company intensively carries out marketing
8. Our company emphasises on developing a sales force
9. Our company emphasises on utilising sales force
10. Our company emphasises on building a strong brand identification

Source: Adapted from Parnell et al. (2012)

3.4.3 Product Innovation and Process Innovation Measurements

The product innovation and process innovation measures consisted of four items each. Tables 3.10 and 3.12 show the original instruments of product innovation and process innovation that were tested among manufacturing SMEs in Greek by Psomas et al. (2018). Previously, the product innovation and process innovation measures were developed by several other researchers, for instance, Jiménez-Jiménez and Sanz-Valle (2011) and Martínez-Costa and Martínez-Lorente (2008). Tables 3.11 and 3.13 present the details of the adapted instruments for the product innovation and process innovation scales. The respondents determined each item's degree based on a five-point Likert scale (1 = strongly disagree, 2 = agree, 3 = neither agree nor disagree, 4 = agree, and 5 = strongly agree).

Table 3.10
The Original Instruments of the Product Innovation Scale

1. The level of newness (novelty) of the company's products is increased
2. The latest technological innovations are incorporated into the new products
3. The frequency of developing new products is high
4. The number of new products introduced to the market is high

Source: Psomas et al. (2018)

Table 3.11
The Instruments Constituting the Product Innovation Scale

1. Our level of product newness (novelty) is increased.
2. Our company's products are incorporated with the latest technological innovations
3. The frequency of developing new products is high
4. The number of our new products introduced to the market is high

Source: Adapted from Psomas et al. (2018)

Table 3.12
The Original Instruments of the Process Innovation Scale

1. The competitiveness of the company from the technology point of view is high
2. The latest technological innovations are frequently adopted in our processes
3. The technology used in our processes is characterised by novelty
4. The rate of changes in the processes and techniques is high

Source: Psomas et al. (2018)

Table 3.13
The Instruments Constituting the Process Innovation Scale

1. The competitiveness of our company from the technology point of view is high
2. The latest technological innovations are frequently adopted in our processes
3. The technology used in our processes is characterised by novelty
4. The rate of changes in the processes is high
5. The rate of changes in the techniques is high

Source: Adapted from Psomas et al. (2018)

3.4.4 Dynamic Capabilities Measurement

The dynamic capabilities construct was measured according to Teece (2007) conceptualisation, which contained 14 items. The questionnaire was adapted from Kump et al. (2016). It was developed by Kump et al. (2016) based on previous studies (Danneels, 2008; Flatten et al., 2011; Hamid Hawass, 2010; Jantunen, 2005; D. Li & Liu, 2014; Makkonen et al., 2014; Wilden et al., 2013). Kump et al. (2016) examined the relationship between dynamic capabilities and the business performance of 307 small enterprises in Austria. Thus, this present study adapted the instruments used by Kump et al. (2016). Tables 3.14 and 3.15 list each instrument's details for dynamic capabilities. The respondents determined the degree of each item based on a five-point Likert scale (1 = strongly disagree, 2 = agree, 3 = neither agree nor disagree, 4 = agree, and 5 = strongly agree).

Table 3.14
The Original Instruments of the Dynamic Capabilities Scale

1. Our company knows the best practices in the market
2. Our company is up to date on the current market situation
3. Our company systematically searches for information on the current market situation
4. As a company, we know how to access new information
5. Our company always has an eye on our competitors' activities
6. Our company can quickly relate to new knowledge from the outside
7. We recognise what new information can be utilised in our company
8. Our company is capable of turning new technological knowledge into process and product innovation
9. Current information leads to the development of new products or services
10. By defining clear responsibilities, we successfully implement plans for changes in our company
11. Even when unforeseen interruptions occur, change projects are consistently seen through in our company
12. Decisions on planned changes are pursued consistently in our company
13. In the past, we have demonstrated our strengths in implementing changes
14. In our company, change projects can be put into practice alongside the daily business

Source: Kump et al. (2016)

Table 3.15
The Instruments Constituting the Dynamic Capabilities Scale

1. Our company knows the best practices in the market
2. Our company is up to date on the current market situation
3. Our company systematically searches for information on the current market situation

Table 3.15 (Continued)

4. As a company, we know how to access new information
5. Our company always has an eye on our competitors' activities
6. Our company quickly adapts to new knowledge from the outside
7. We recognise what new information can be utilised in our company
8. Our company is capable of turning new technological knowledge into process and product innovation
9. Our company believes current information leads to the development of new products
10. With clear responsibilities, we successfully implement plans for changes in our company
11. Even when unforeseen interruptions occur change projects are consistently seen in our company
12. Decisions on planned changes are consistently pursued in our company
13. In the past, our company had demonstrated our strengths in implementing changes
14. In our company, change projects can be put into practice alongside the daily business

Source: Adapted from Kump et al. (2016)

3.5 Data Collection Procedure

In this study, the data collection process was started after the pilot test was conducted. Data collection was carried out between January and August 2020. The data were collected through a self-administered questionnaire, which was addressed and sent by post to the food manufacturing SMEs listed in the 5th edition of the Food and Beverage (FMM, 2019). A return envelope was sent along with a set of the questionnaire. The return envelope was printed with the address of the researcher with postage stamps attached to ease the respondents in returning the filled-up questionnaire. It was stated on the questionnaire that it should be filled by an owner or

a manager or someone with a high rank in the SME. This was a control measure since in general, such respondents could provide the correct information about the SME's business.

The survey period was divided into two parts. First, all the questionnaires that were collected from January to March 2020 were considered from early respondents. Specifically, 57 usable questionnaires were collected during the early response period. Follow-up phone calls and emails were sent to the respondents as a reminder. Additionally, extra effort was made in the distribution and collection of the questionnaires per day. This effort produced a good result, whereby a total of 84 usable questionnaires were collected. These questionnaires were collected from June to August 2020 and were considered from late respondents. These two groups of collected questionnaires were used to conduct non-response bias on the study variables. As a result, a sample size of 141 firms was deemed adequate for this study. The following subsection discusses the data analysis procedure.

3.6 Data Analysis Procedure

First, the data were transferred into the SPSS data sheet using the SPSS software after completing the data collection process. Then, the data were analysed using descriptive statistical tools. Next, Smart-PLS version 3.2.9 was employed to analyse the data. Figure 3.2 illustrates in-depth the stages of Partial Least Square Structural Equation Modelling (PLS-SEM) analysis.

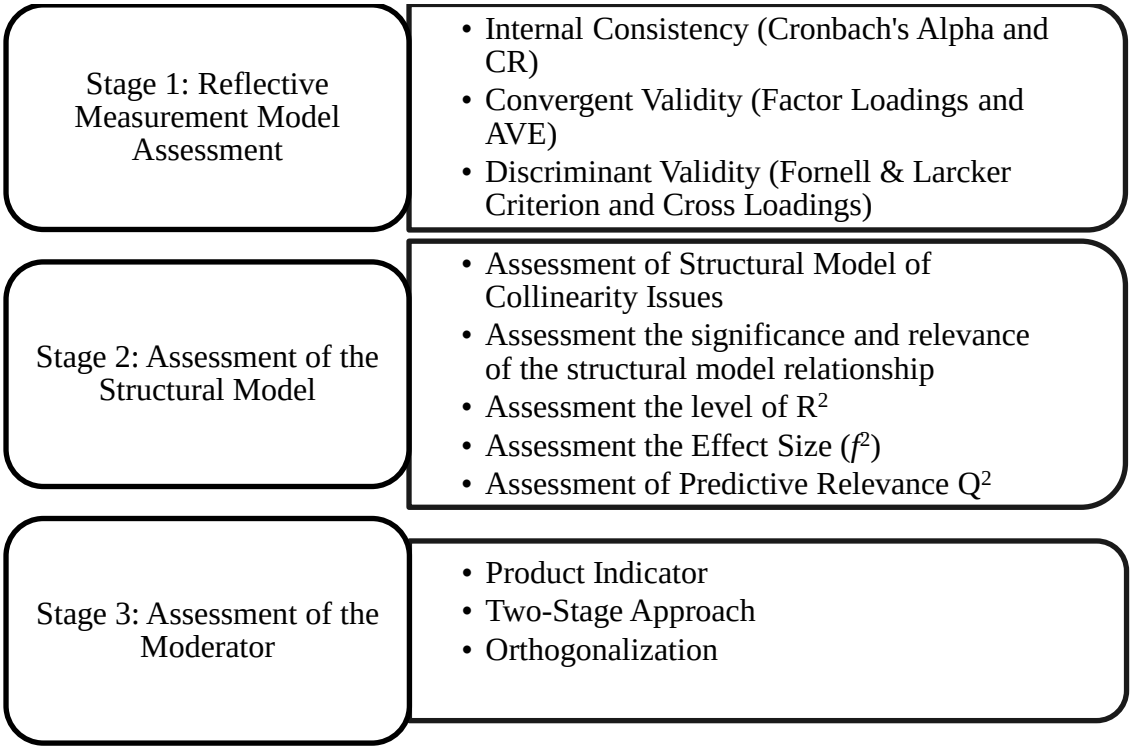

Figure 3.2
Stages of PLS-SEM Analysis

In stage 1, the reflective measurement model assessment was performed through the reliability and construct validity tests. The reliability test will ensure and identify if there is internal consistency between one construct and another construct. According to Nunnally (1979), the Cronbach's alpha cut-off value is set at 0.70; if the result of the reliability test is less than 0.70, it suggests an internal consistency problem in the items. Convergent validity and discriminant validity are the two types of construct validity tests that scholars regularly use (Ab Hamid et al., 2017). Average variance extracted (AVE) and composite reliability (CR) are the two main methods of assessing convergent validity. The convergent validity test will ensure that the constructs that should be related are indeed related. AVE's cut-off value is 0.5, which is considered acceptable, whereas a value above 0.7 is considered very good. On the other hand, the acceptable value for CR is 0.7.

Meanwhile, the discriminant validity was assessed through the Fornell-Larcker criterion and cross-loading value. According to Fornell and Larcker (1981), discriminant validity can confirm that an indicator within similar constructs should load more than the other constructs, while the average variance between the similar constructs must be greater than the other constructs' average variance. Another part of discriminant validity is cross-loading. Ramayah et al. (2018) have stated that to identify whether there is discriminant validity in the model the cross-loading value of each indicator within similar constructs should be higher than the cross-loading of each indicator from another construct.

Next, in stage 2, the structural model was assessed. As indicated by Ramayah et al. (2018), the assessment of the structural model contains five types of analyses, as follows:

I. Lateral collinearity analysis. According to Hair, Hult, Ringle and Sarstedt (2013), this analysis ensures that a variable is not measuring similar things as another variable, and the variance inflation factor (VIF) value must be 5.0 and less. If the VIF value is more than 5.0, it indicates the existence of a collinearity problem.

II. The significance and relevance of the structural model relationship. This analysis refers to the path coefficient between independent and dependent variables measured through the P-value that is set at 0.10 and below, which is considered significant (Hair et al., 2013).

III. Assessment of the level of R^2. This analysis measures the strength and direction of the linear relationship between the independent and dependent variables

(Sekaran, Uma, & Bougie, 2012). There are three levels of R^2 as indicated by Ramayah et al. (2018) (Table 3.16).

Table 3.16
Level of R^2

Weak (R^2)	Moderate (R^2)	Substantial (R^2)
0.02	0.13	0.26

IV. Assessment of the effect size, f^2. This analysis identifies the exogenous variable's strength to explain the endogenous variable (Ramayah et al., 2018). The levels of effect size are presented in Table 3.17.

Table 3.17
Level effect size f^2

Small (f^2)	Medium (f^2)	Substantial (f^2)
0.02	0.15	0.35

V. Assessment of the predictive relevance Q^2. This test is conducted to identify how relevant is the exogenous variable in predicting the endogenous variable (Ramayah et al., 2018). A Q^2 larger than 0 means that the exogenous variable is relevant in predicting the endogenous variable.

Lastly, stage 3 assessed dynamic capabilities as the moderator in the relationships between organisational performance and cost-leadership strategy, differentiation strategy, product innovation, and process innovation. Three types of approaches were used to analyse the moderating effect, as follows (Ramayah et al., 2018):

I. Product indicator approach. This analysis is ideal when both the independent and mediator constructs are reflective but is not applicable if the moderator is measured formatively. Hence, this study used the product indicator approach to analyse the moderating effect

II. Two-stage approach. This test can be used if the exogenous variables or the moderator constructs are both formative and reflective.

III. Orthogonalization approach. This method is the extension of the product indicator approach and is suitable when the exogenous variables or the moderator constructs are reflective.

3.7 Reliability and Validity Tests of the Measures

Before exploring and describing the relationships between cost-leadership strategy, differentiation strategy, product innovation, process innovation, dynamic capabilities, and performance, it was deemed necessary to gauge the extent of the reliability and validity of every instrument used in this study. The validity and reliability tests were conducted to ensure the goodness of the adapted items' measures. The items adapted to measure the concepts must be correctly measuring the variables and measuring the concept to be measured. Reliability concerns the extent to which items adapted in a study will yield the same results on different occasions (Greener, 2008). According to Hair (2015), reliability measures the adapted measurement's stability and consistency in measuring the concept. In this study, Cronbach's alpha and CR were used in the pilot study and primary analysis to determine the adapted measurement scale's internal consistency.

On the other hand, validity refers to the extent to which the instruments, methods or measures used in a study measure what it is supposed to describe or measure (Lancaster, 2005). According to Hair (2015), validity concerns the evidence that the instrument, technique or process employed in a study is appropriately measuring the intended concept. Therefore, this study conducted face validity to ensure the validity of the items in measuring the intended construct. This study also used convergent validity and discriminant validity to determine the construct validity as suggested by Hair (2015).

3.7.1 Pilot Study Validity and Reliability Tests

A pilot test was conducted in this study to test the validity and reliability of the survey instrument. This validation process may adequately reflect the impact assessment's real condition, which allows a researcher to anticipate the potential problems and adjust when embarking on the actual research. Sekaran and Bougie (2016) have explained that validity measures refer to an instrument measuring what it should be measuring while reliability measures are used to determine if an instrument is free from error, consistent, and stable across various items of the scale.

In the present study, content/face validity was conducted to determine how well the instrument measured what it should measure. A focus group consisting of a panel of experts was created to judge the appropriateness of the items chosen to measure the construct. The experts included professors, associate professors, and senior lecturers in the School of Business Management, Universiti Utara Malaysia. Additionally, some SME owners and managers operating food manufacturing companies in Kelantan were consulted for their input. This test afforded the advantage of re-

wording/re-phrasing the questionnaire to improve the potential respondents' understanding of the questions and ultimately to appropriately measure the construct. This study performed the validity test within three weeks in December 2019.

To provide credibility to the results, an improved version of the instrument was developed and administered in the pilot study. The questionnaires were personally administered to 50 randomly chosen food manufacturing SMEs in Kelantan. A total of 30 questionnaires were successfully received and considered for analysis. This process was performed and completed in December 2019. Cronbach's alpha coefficient is the standard benchmark of the reliability test as suggested by Sekaran and Bougie (2016). A reliability test indicates to what extent answers of the respondents to all the items are consistent. Table 3.18 presents a summary of the reliability test results of the pilot test. The reliability test was carried out using SPSS version 20. Findings from this preliminary study were satisfactory, with the Cronbach's alpha value ranging between 0.854 and 0.982. Cronbach's alpha coefficient of 0.60 is considered average reliability, while a value of 0.70 or higher indicates that the instrument has a high-reliability standard (Hair, 2015; Sekaran & Bougie, 2016).

Table 3.18
Reliability Test

Construct	Cronbach's Alpha	Result
Cost-leadership Strategy	.948	Reliable
Differentiation Strategy	.909	Reliable
Product Innovation	.911	Reliable
Process Innovation	.982	Reliable

Table 3.18 (Continued)

Construct	Cronbach's Alpha	Result
Dynamic Capabilities	.976	Reliable
Organisational Performance	.854	Reliable

Table 3.18 shows that in the pilot test all the Cronbach's alpha values are above 0.70. Hence, it was concluded that all the constructs were reliable.

3.8 Chapter Summary

This chapter has outlined the research design and methodology of the study. The population and sample size, research instruments, data collection procedure, data analysis procedure, and the reliability and validity tests of the pilot study were discussed.

CHAPTER FOUR

RESULT AND DISCUSSION

4.1 Introduction

This chapter presents the statistical data analysis results, organised into two essential parts. In the first part, the descriptive analysis of the food manufacturing SMEs' profile and the owner-managers' profile is discussed. The second part focuses on assessing the reflective measurement model and the structural model besides discussing the moderator analysis. All the results are tabulated and discussed to answer the research questions.

4.2 Response Rate

From the 228 questionnaires distributed to the owner-managers of food manufacturing SMEs in Malaysia, 141 usable questionnaires were returned, representing a 61.8% response rate. Table 4.1 shows the summary of the response rate.

Table 4.1
Response rate of the Questionnaire

Response	**Frequency**
Number of Distributed Questionnaires	228
Returned Questionnaires	146
Returned and Usable Questionnaires	141
Returned and Excluded Questionnaires	5
Questionnaires Not Returned	82
Response Rate	64.0%
Valid Response Rate	61.8%

Out of the 228 questionnaires distributed, 146 were returned. Nonetheless, 5 cases were omitted, whereby two were incomplete and three were answered by non-managers. Hence, only 141 questionnaires representing a valid response rate of 61.8% were used for data analysis.

4.3 Descriptive Analysis

This section presents the profiles of the food manufacturing SMEs (Table 4.2) and the owner-managers (Table 4.3).

4.3.1 Profile of the Food Manufacturing SMEs

The profile of the food manufacturing SMEs is provided in Table 4.2. The statistics results revealed that a majority of the food manufacturing SMEs that participated in this study have been operating for 16 to 20 years (48.2%). This is followed by firms operating for 11 to 15 years (39.2%), 5 to 10 years (11.2%), and above 20 years (0.7%).

In terms of the number of employees, 70.2% were medium-sized firms (75 to 200 employees), while 29.8% were small firms (5 to 75 employees). Additionally, most of the firms market their products locally and internationally (66%), whereas 34% market only locally.

Table 4.2 also indicates that among the nine food categories, Snacks, Biscuits, Bread, Preserved, Frozen and Canned Food and Vegetable and Animal Oil, Coating Fats, Shortening, Butter and all Dairy Products recorded the highest number of food manufacturing SMEs that participated in this study with 31.2% and 22.7%,

respectively. Spices, Seasonings, Flavourings, Condiments and Sauces and Sugar, Cocoa and Chocolate Confectionery and Bakery Products recorded the second-largest participation of SMEs (17.7% and 14.7%, respectively). Meanwhile, Production, Processing, and Preserving of Meat and Seafood Products registered 5% of participation. Other categories of food manufacturing SMEs that took part in this study were Grain, Noodles and Other Products Containing Starch (2.1%), Production, Processing and Preserving of Fruits and Vegetables (2.1%), Health Supplements, Nutritional and Related Food (2.8%), and Other Foods not Elsewhere Classified (1.4%).

Table 4.2
Profile of the Food Manufacturing SMEs

Demographic Variable	**Category**	**Frequency**	**Percentage (%)**
Establishment	5-10 years	16	11.3
	11-15 years	56	39.7
	16-20 years	68	48.2
	more than 20 years	1	0.7
Number of Employees	From 5 to less than 75	42	29.8
	From 75 to less than 200	99	70.2
Market	Local	48	34
	Local and international	93	66

Table 4.2 (Continued)

Demographic Variable	Category	Frequency	Percentage (%)
Food Category	Production, Processing and Preserving of Meat and Seafood Products	7	5.0
	Vegetable and Animal Oil, Coating Fats, Shortening, Butter and all Dairy Products	32	22.7
	Grain, Noodles and Other Products Containing Starch	3	2.1
	Spices, Seasonings, Flavourings, Condiments and Sauces	25	17.7
	Production, Processing and Preserving of Fruits and Vegetables	3	2.1
	Snacks, Biscuits, Bread, Preserved, Frozen and Canned Food	44	30.8
	Sugar, Cocoa and Chocolate Confectionery and Bakery Products	21	14.7
	Health Supplements, Nutritional and Related Food	4	2.8
	Other Foods not Elsewhere Classified	2	1.4

4.3.2 Profile of the Owner-managers

Table 4.3 demonstrates that more than half of the owner-managers were female (65.4%). Concerning age, half of them were between the age of 41 and 50 years old (55.3%), followed by 31–40 (29.1%), 51–60 (13.5%), and above 61 (2.1%). Next, in terms of race, almost half were Chinese (62.4%), followed by Malays (33.3%), Indians (2.8%), and others (1.4%). For qualification, 2.8% were master's holders, 56.7% were degree holders, and 40.4% had a diploma.

Regarding job tenure, 108 respondents (76.6%) had been working at the current firm for between 5 and 10 years, 29 respondents (20.6%) had less than five years of working experience, two respondents (1.4%) had between 11 and 15 years, one respondent (0.7%) had between 16 and 20 years, while one respondent (0.7%) had more than 20 years. In terms of job position, 94.3% were the manager and 5.6% were a business owner.

Table 4.3
Profile of the Owner-managers

Demographic Variable	Category	Frequency	Percentage (%)
Gender	Male	54	38.3
	Female	87	61.7
Age	31-40	41	29.1
	41-50	78	55.3
	51-60	19	13.5
	61 and above	3	2.1
Race	Malay	47	33.3
	Chinese	88	62.4
	Indian	4	2.8
	Others	2	1.4
Qualification	Master	4	2.8
	Degree	80	56.7
	Diploma	57	40.4
Position	Owner	8	5.7
	Manager	133	94.3
Tenure	Less than 5 years	29	20.6
	5-10 years	108	76.6
	11-15 years	2	1.4
	16-20 years	1	0.7
	More than 20 years	1	0.7

4.4 Non-response Bias Test

An independent sample t-test was conducted for all the variables to determine any bias among the groups. Table 4.4 reveals that the group mean and standard deviation for the early respondents and late respondents are not significantly different. In Table 4.5, Levene's test results based on organisational performance, cost-leadership strategy, differentiation strategy, product innovation, and process innovation show that the variance between the early respondents and late respondents is the same. In general, the two-tailed t-test indicated that there was no significant difference between the early respondents and late respondents based on the study variables.

Concerning cost-leadership strategy, the mean and standard deviation of early respondents were M = 3.52 and SD = .93, while for late respondents it was M = 3.56 and SD = .88. Besides, the results indicated that there was no significant difference between the early respondents and late respondents ($t = -.227$, $p < .05$). Therefore, the null hypothesis is accepted. Similarly, for differentiation strategy, the results showed that the early respondents registered M = 3.85 and SD = .63, whereas for late respondents it was M = 3.83 and SD = .81. The two-tailed t-test ($t = 0.1$, $p < .05$) revealed no significant difference between the early and late respondents. Thus, the null hypothesis is accepted.

Furthermore, results from an independent sample t-test based on product innovation indicated no significant difference between early respondents (M = 3.47, SD = .75) and late respondents (M = 3.82, SD = .72). The two-tailed t-test ($t = -2.71$, $p < .05$) showed that the variance between early and late respondents was nearly equal. Hence, the null hypothesis is accepted. Next, the results for process innovation were M = 3.4

and SD = .84 for early respondents and M = 3.59 and SD = .86 for late respondents. The results showed no significant difference in the early and late respondents' variances assumed (t = –1.33, p < .05). Thus, the null hypothesis is accepted.

Similarly, for dynamic capabilities, the independent sample t-test demonstrated that the response of the early respondents (M = 4.20, SD = .78) was the same as the late respondents (M = 4.22, SD = .62). Thus, there was no significant difference between early and late respondents (t = –0.15, p < .05). Consequently, the null hypothesis is accepted. Lastly, based on organisational performance, the early respondents (M = 3.47, SD = .55) and late respondents (M = 3.41, SD = .55) were not significantly different. There was no significant difference between the two groups (t = .61, p < .05). Hence, the null hypothesis is accepted. In summary, there was no difference between early respondents and late respondents. Therefore, there was no issue of non-response bias.

Table 4.4
Group Descriptive Statistics for the Early and Late Respondents

Variable	Response	N	Mean	Std. Deviation	Std. Error Mean
CLS	early	57	3.5263	.93158	.12339
	late	84	3.5615	.88600	.09667
DS	early	57	3.8509	.63023	.08348
	late	84	3.8381	.81535	.08896
PRI	early	57	3.4781	.75634	.10018
	late	84	3.8214	.72246	.07883
PSI	early	57	3.4000	.84684	.11217
	late	84	3.5952	.86092	.09393

Table 4.4 (Continued)

Variable	Response	N	Mean	Std. Deviation	Std. Error Mean
DC	early	57	4.2055	.78363	.10379
	late	84	4.2236	.62435	.06812
OP	early	57	3.4708	.55238	.07316
	late	84	3.4120	.55544	.06060

Note: CLS = Cost-leadership Strategy, DS = Differentiation Strategy, PRI = Product Innovation, PSI = Process Innovation, DC = Dynamic Capabilities, OP = Organisational Performance

Table 4.5
Independent Sample Test

Variable		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference Lower	Upper
CLS	Equal variances assumed	1.695	0.195	-0.227	139	0.821	-0.03519	0.15524	-0.34213	0.27175
	Equal variances not assumed			-0.225	116.284	0.823	-0.03519	0.15675	-0.34565	0.27526
DS	Equal variances assumed	1.378	0.242	0.1	139	0.921	0.01278	0.12807	-0.24044	0.266
	Equal variances not assumed			0.105	136.576	0.917	0.01278	0.12199	-0.22846	0.25402
PRI	Equal variances assumed	0.94	0.334	-2.717	139	0.007	-0.34336	0.12635	-0.59318	-0.09354
	Equal variances not assumed			-2.694	116.642	0.008	-0.34336	0.12747	-0.59582	-0.09089
PSI	Equal variances assumed	0.004	0.95	-1.33	139	0.186	-0.19524	0.14677	-0.48543	0.09495
	Equal variances not assumed			-1.334	121.704	0.185	-0.19524	0.1463	-0.48487	0.09439
DC	Equal variances assumed	5.734	0.018	-0.152	139	0.879	-0.01813	0.11891	-0.25324	0.21699
	Equal variances not assumed			-0.146	101.881	0.884	-0.01813	0.12415	-0.26439	0.22814

Table 4.5 (Continued)

Variable		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference Lower	Upper
OP	Equal variances assumed	0.289	0.592	0.617	139	0.538	0.05872	0.09511	-0.12932	0.24676
	Equal variances not assumed			0.618	120.828	0.538	0.05872	0.095	-0.12937	0.24681

Note: CLS = Cost-leadership Strategy, DS = Differentiation Strategy, PRI = Product Innovation, PSI = Process Innovation, DC = Dynamic Capabilities, OP = Organisational Performance

4.5 Common Method Variance

Since the data on the endogenous and exogenous variables were collected simultaneously using the same instrument, common method variance could distort the data collected. Therefore, this study conducted a test to ensure that there is no variance in observed scores and correlations are not inflated because of the method's effect. Common method variance refers to the variance attributable exclusively to the measurement procedure as opposed to the actual variables the measures represent (Podsakoff et al., 2003).

There are several procedures and statistical techniques to treat common method variance. These include wording questions in reverse, clarity of questions or items, confidentially of the respondents and statistical Harman's single factor test suggested by Podsakoff et al. (2003). In this study, un-rotated factor analysis with fifty-seven items of all the study variables revealed that no single factor accounted for more than 50% of the variance. The result of the analysis produced and only 33.28% of the variance in the data. This result in line with Podsakoff et al. (2003), who argue that common method variance is present when a single factor explains more than 50% of the variance. Hence, it can be concluded that common method variance is not an issue to this study. Accordingly, the result of the test is shown in Appendix B.

4.6 Normality Analysis

The normality assumption can be confirmed through the Kolmogorov-Smirnov and Shapiro-Wilk tests. In the Kolmogorov-Smirnov test, if the significant point (p-value) is less than 0.05, it can be summarised that the data are not normally distributed. Meanwhile, for the Shapiro-Wilk test, the null hypothesis of data are typically distributed will be rejected if the significant point (p-value) is less than 0.05 (Ghasemi

& Zahediasl, 2012). Table 4.6 lists the results of Kolmogorov-Smirnov and Shapiro-Wilk tests. All the p-values were lesser than the cut-off point of 0.05. It can be summarised that the data for all the variables were not normally distributed. Therefore, further analysis was conducted using PLS-SEM's statistical tool, which allowed not normally distributed data to be analysed (Hair, 2015).

Table 4.6
Test of Normality

Variable	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
PERF_MEAN	.111	141	.000	.962	141	.001
CLS_MEAN	.302	141	.000	.816	141	.000
DS_MEAN	.108	141	.000	.904	141	.000
PRI_MEAN	.224	141	.000	.909	141	.000
PSI_MEAN	.224	141	.000	.901	141	.000
DC_MEAN	.217	141	.000	.824	141	.000

Note: CLS = Cost-leadership Strategy, DS = Differentiation Strategy, PRI = Product Innovation, PSI = Process Innovation, DC = Dynamic Capabilities, OP = Organisational Performance

4.7 PLS-SEM Approach

Hair et al. (2017) have recommended a two-step process in the assessment of PLS-SEM. The approach involves the determination of the measurement model and the structural model. According to Henseler (2010), testing the structural model may be meaningless unless the measurement model has been evaluated. As such, this study assessed the measurement model before evaluating the structural model to determine the extent the data collected was according to the model. Figure 4.1 summarises the two-step process.

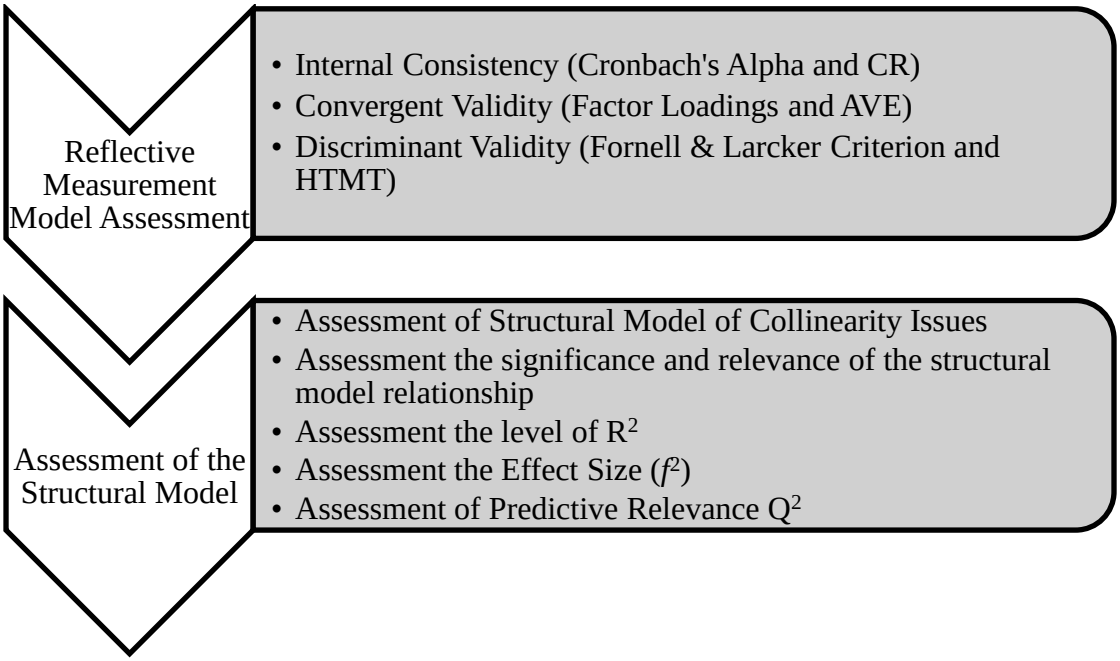

Figure 4.1
The Assessment of the Measurement Model and Structural Models

4.7.1 Reflective Measurement Model Assessment

In this study, the internal consistency, convergent validity, and discriminant validity of the variables were investigated. The reflective measurement model examined is illustrated in Figure 4.2.

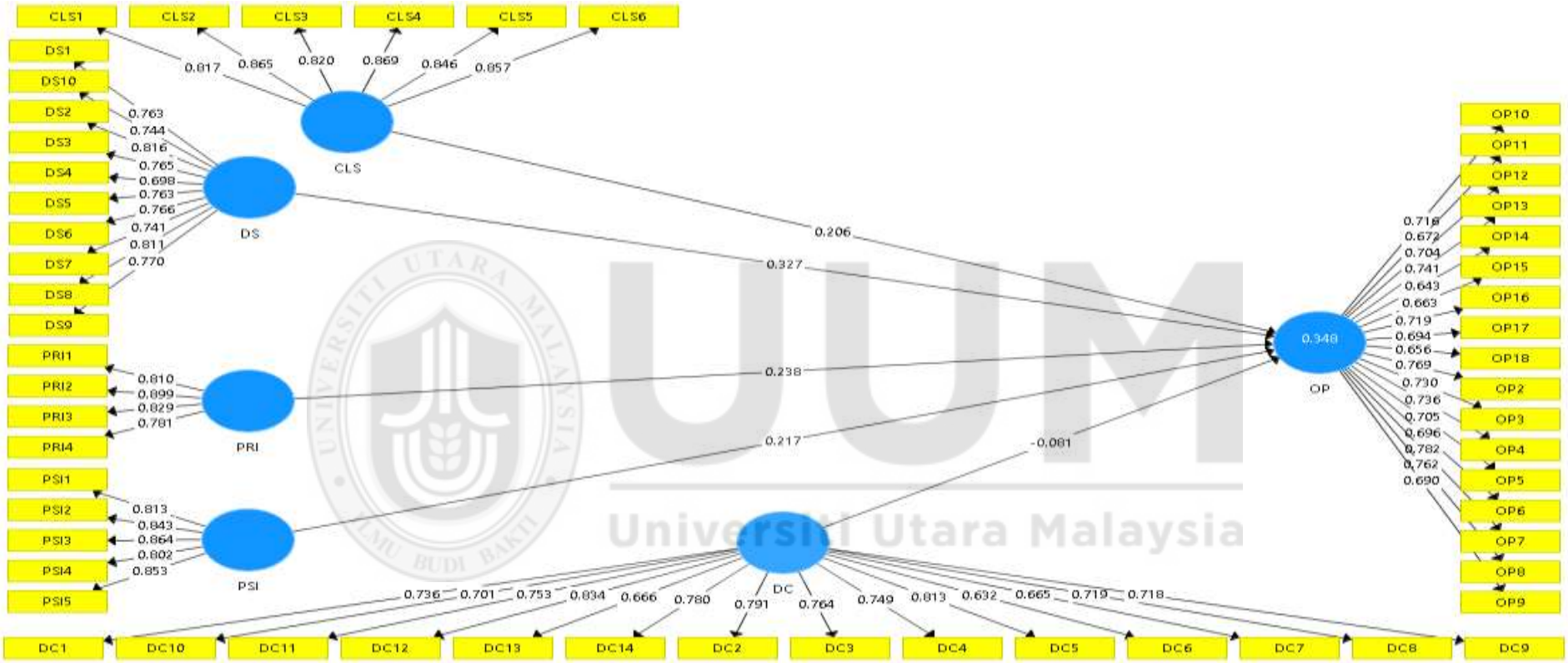

Figure 4.2

The Reflective Measurement Model

Note: CLS = Cost-leadership Strategy, DS = Differentiation Strategy, PRI = Product Innovation, PSI = Process Innovation, DC = Dynamic Capabilities, OP = Organisational Performance

4.7.1.1 Internal Consistency Reliability and Convergent Validity

In this study, the CR and Cronbach's alpha values for all the constructs were examined. The results in Table 4.7 show that all the CR and Cronbach's alpha values exceed the recommended threshold value of 0.70 (Hair et al., 2013; Henseler, 2010). The CR value ranged between 0.899 and 0.954, indicating the measurement model's reliability.

Table 4.7 shows that all the constructs' AVE value exceeds the threshold value of 0.50 (Hair, Hult, Ringle, & Sarstedt, 2013; Henseler, 2010). Due to AVE's threshold point, one item from organisational performance (OP1) with a low loadings value was dropped. After the item deletion process, the value of AVE ranged from 0.506 to 0.716. Therefore, convergent validity was established.

Table 4.7
The Internal Consistency and Convergent Validity

Construct	**Items**	**Loadings**	**AVE**	**CR**	**Cronbach's Alpha**
Cost-leadership Strategy	CLS1	0.817	0.716	0.938	0.921
	CLS2	0.865			
	CLS3	0.820			
	CLS4	0.869			
	CLS5	0.846			
	CLS6	0.857			
Differentiation Strategy	DS1	0.763	0.584	0.933	0.921
	DS10	0.744			
	DS2	0.816			
	DS3	0.765			
	DS4	0.698			
	DS5	0.763			
	DS6	0.766			
	DS7	0.741			
	DS8	0.811			
	DS9	0.770			

Table 4.7 (Continued)

Construct	Items	Loadings	AVE	CR	Cronbach's Alpha
Product Innovation	PRI1	0.810	0.690	0.899	0.856
	PRI2	0.899			
	PRI3	0.829			
	PRI4	0.781			
Process Innovation	PSI1	0.813	0.698	0.920	0.893
	PSI2	0.843			
	PSI3	0.864			
	PSI4	0.802			
	PSI5	0.853			
Dynamic Capabilities	DC1	0.736	0.547	0.944	0.942
	DC10	0.701			
	DC11	0.753			
	DC12	0.834			
	DC13	0.666			
	DC14	0.780			
	DC2	0.791			
	DC3	0.764			
	DC4	0.749			
	DC5	0.813			
	DC6	0.632			
	DC7	0.665			
	DC8	0.719			
	DC9	0.718			
Organisational Performance	OP10	0.716	0.506	0.946	0.939
	OP11	0.672			
	OP12	0.704			
	OP13	0.741			
	OP14	0.643			
	OP15	0.663			
	OP16	0.719			
	OP17	0.694			
	OP18	0.656			
	OP2	0.769			
	OP3	0.730			
	OP4	0.736			
	OP5	0.705			
	OP6	0.696			
	OP7	0.782			
	OP8	0.762			
	OP9	0.690			

Note: CR=Composite Reliability, AVE=Average Variance Extracted

4.7.2 Discriminant Validity

Discriminant validity is established when the squared root of AVE of each construct is higher than the construct's highest correlation with any other latent construct (Hair et al., 2013; Henseler, 2010). Hence, in this study, discriminant validity was analysed using the Fornell-Larcker criterion and Heterotrait-Monotrait ratio (HTMT).

Fornell-Lacker Criterion

Table 4.8 presents the results of discriminant validity determined using the Fornell-Larcker criterion. The tabulated results show that the average variance of the constructs is larger than the variance of the other constructs. Thus, the value of discriminant validity determined using the Fornell-Larcker criterion was satisfactory.

Table 4.8
Discriminant Validity (Fornell-Lacker Criterion) Results

Variable	**CLS**	**DC**	**DS**	**OP**	**PRI**	**PSI**
CLS	0.846					
DC	-0.174	0.739				
DS	0.060	-0.277	0.764			
OP	0.313	-0.239	0.405	0.711		
PRI	0.215	-0.028	-0.011	0.268	0.831	
PSI	0.104	-0.178	0.214	0.313	-0.037	0.835

Note: CLS = Cost-leadership Strategy, DS = Differentiation Strategy, PRI = Product Innovation, PSI = Process Innovation, DC = Dynamic Capabilities, OP = Organisational Performance

Heterotrait-Monotrait ratio (HTMT)

Discriminant validity can also be identified using the HTMT value. HTMT is the ratio of the 'between-trait correlations' (Hair et al., 2017). The threshold value for the

HTMT criterion is 0.9, which implies that two of the construct measures should not correlate above 0.9 to confirm its discriminant validity. Table 4.9 lists the results of HTMT that indicate the absence of discriminant validity, i.e. the values are below the threshold level of 0.9.

Table 4.9
Discriminant Validity (HTMT) Results

Variable	**CLS**	**DC**	**DS**	**OP**	**PRI**	**PSI**
CLS						
DC	0.156					
DS	0.087	0.232				
OP	0.328	0.204	0.419			
PRI	0.241	0.120	0.125	0.274		
PSI	0.118	0.184	0.228	0.330	0.100	

Note: CLS = Cost-leadership Strategy, DS = Differentiation Strategy, PRI = Product Innovation, PSI = Process Innovation, DC=Dynamic Capabilities, OP = Organisational Performance

4.8 Assessment of the Structural Model

The structural model assesses the outer model's predictive abilities and the relationships between the constructs. According to Hair (2015), collinearity should be examined before evaluating the structural model.

4.8.1 Lateral Collinearity Assessment

This analysis identified the existence of any multicollinearity issue between the exogenous and endogenous variables. Table 4.10 lists the VIF values. All the inner values of VIF were below the threshold of 5.0, as suggested by Hair (2015). Therefore, no multicollinearity issue was found in this study and further analysis was carried out.

Table 4.10
Lateral Collinearity Assessment Results

Construct	VIF
CLS	1.093
DS	1.117
PRI	1.056
PSI	1.074
DC	1.131

Note: CLS = Cost-leadership Strategy, DS = Differentiation Strategy, PRI = Product Innovation, PSI = Process Innovation, DC = Dynamic Capabilities, OP = Organisational Performance

4.8.2 Hypotheses Testing and Path Coefficients for Direct Hypotheses

After confirming the absence of collinearity, this study proceeded to the next analysis of the structural model. The critical criteria for examining the PLS-SEM structural

model were the path-coefficients, coefficient of determination (R^2), effect size (f^2), and predictive relevance (Q^2).

4.8.2.1 Direct Relationship

A systematic model analysis of the structural model was carried out to provide a detailed picture of the results and to test the hypotheses. The path coefficient's size was examined through the PLS-SEM algorithm, whereas the relationship's significance was analysed via the PLS-SEM bootstrapping procedure. The original number of cases was used as the number of cases, and this study used 5000 bootstrap samples (Hair, 2015).

Table 4.11
Hypotheses Results

Hypothesis	Relationship	Std. Beta	Std. Error	t-value	p-value	Decision
H1	CLS → OP	0.206	0.080	2.572	0.005*	Supported
H2	DS → OP	0.327	0.114	2.865	0.002*	Supported
H3	PRI → OP	0.238	0.103	2.299	0.011*	Supported
H4	PSI → OP	0.217	0.098	2.215	0.014*	Supported

Note: *p < 0.05
H1: There is a positive relationship between cost-leadership strategy and organisational performance of food manufacturing SMEs in Malaysia.

As indicated in Table 4.11, a significant relationship between cost-leadership and organisational performance was found. This direct relationship demonstrated the values $\beta = 0.206$, $t = 2.572$, and $p < 0.05$. Hence, H1 is supported.

H2: There is a positive relationship between differentiation strategy and organisational performance of food manufacturing SMEs in Malaysia.

Table 4.11 shows that differentiation strategy is significantly related to organisational performance ($\beta = 0.327$, $t = 2.865$, $p < 0.05$), indicating support for H2.

H3: There is a positive relationship between product innovation and organisational performance of food manufacturing SMEs in Malaysia.

A significant relationship between product innovation and organisational performance was found ($\beta = 0.238$, $t = 2.299$, $p < 0.05$), as demonstrated in Table 4.11. Thus, H3 is supported.

H4: There is a positive relationship between process innovation and organisational performance of food manufacturing SMEs in Malaysia.

As presented in Table 4.11, a significant relationship between process innovation and organisational performance was noted ($\beta = 0.217$, $t = 2.215$, $p < 0.05$). Therefore, Hypothesis 4 is supported.

Next, the coefficient of determination (R^2) of the endogenous latent variables was used to assess the structural model (Hair et al., 2017). According to Chin (2010), an R^2 value of 0.67 is substantial, 0.33 is moderate, and 0.19 is weak. Therefore, based on Table 4.12, the R^2 value for this model is 0.348, which can be categorised as a moderate model (Chin, 2010). Subsequently, the effect size was used to evaluate whether the omitted exogenous construct had a substantial impact on the endogenous variables (Hair et al., 2013). Cohen (2013) has stated that an f^2 value of 0.35 is a substantial effect size, 0.15 is a medium effect size, and 0.02 is a small effect size. Table 4.12 reveals that all the variables indicate a small effect size to predict the R^2,

with cost-leadership strategy (0.053), differentiation strategy (0.188), product innovation (0.067), and process innovation (0.064).

Finally, this study employed the Stone-Geisser test to assess the Q^2, through the blindfolding procedure. The result in Table 4.12 shows that the Q^2 value is 0.158, which is larger than the threshold point of 0 (Hair et al., 2013). Therefore, it can be summarised that the model had sufficient predictive relevance.

Table 4.12
Summary of Results

Hypothesis	**Relationship**	**Std. Beta**	**Std. Error**	**t-value**	**p-value**	**Decision**	**R^2**	**f^2**	**Q^2**
H1	CLS →OP	0.206	0.080	2.572	0.005*	Supported	0.348	0.059	0.158
H2	DS →OP	0.327	0.105	3.110	0.001*	Supported		0.146	
H3	PRI→OP	0.238	0.097	2.457	0.007*	Supported		0.082	
H4	PSI→OP	0.217	0.096	2.257	0.012*	Supported		0.067	

Note: *p < 0.05
CLS = Cost-leadership Strategy, DS = Differentiation Strategy, PRI = Product Innovation, PSI = Process Innovation, OP = Organisational Performance

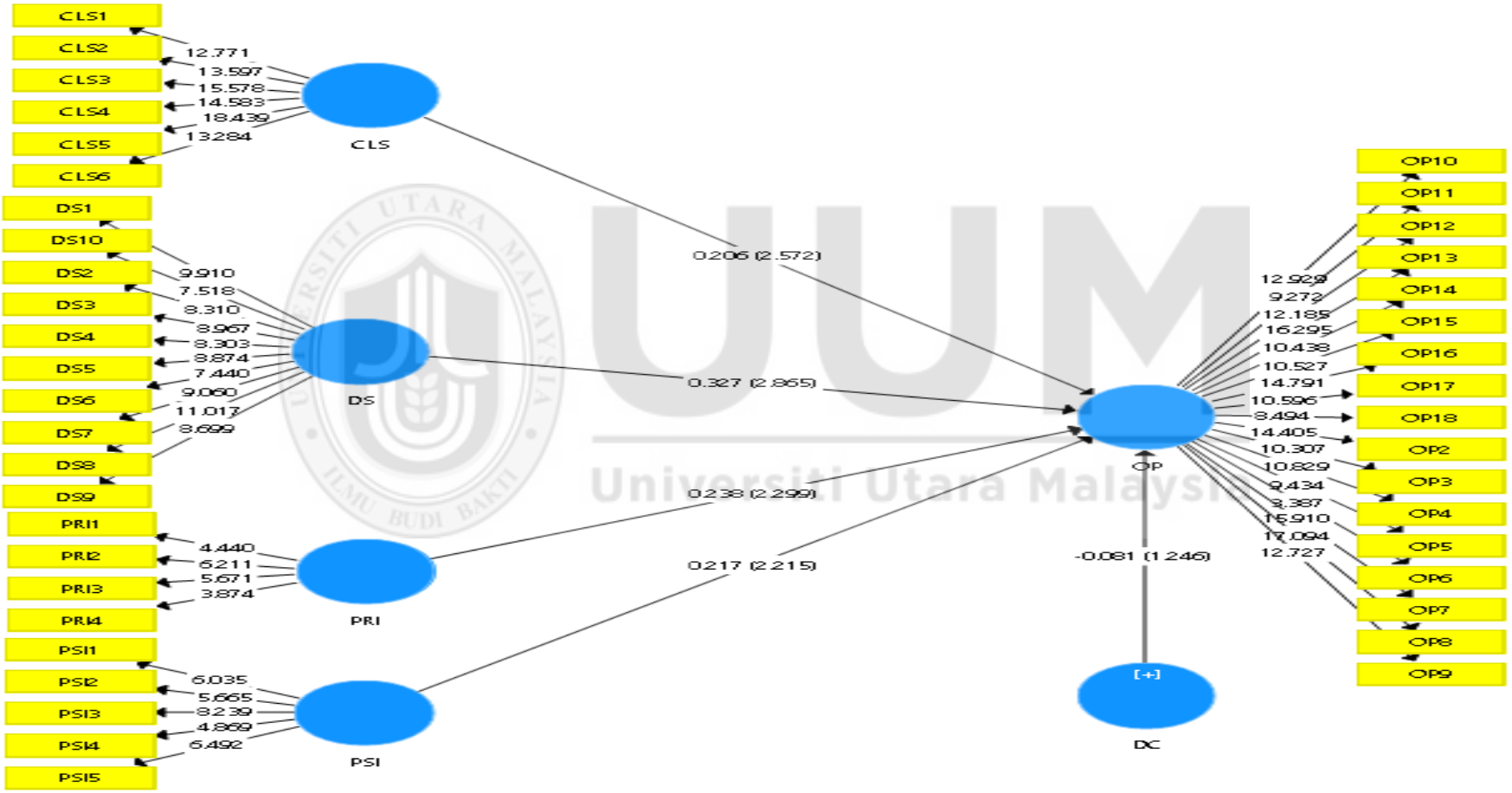

Figure 4.3

The Direct Path Coeffiecient and T-Values of the Structural Model (Bootstraping)

4.9 Assessment of the Moderation Analysis – The Product Indicator

To test the moderating effect of dynamic capabilities on cost-leadership strategy, differentiation strategy, product innovation, and process innovation, the product indicator approach was employed via SmartPLS 3. As suggested by Chin et al. (2003), the product indicator approach is the best model approach when all the constructs (independent variables and moderator) are reflective. Hence, this study employed a product indicator approach to examine the moderating effect on the relationship between independent and dependent variables.

Table 4.13
Results of the Moderating Effect Model

Hypothesis	Relationship	Std. Beta	Std. Error	t-value	p-value	Decision
H5	CLS*DC→OP	0.119	0.079	1.500	0.067	Not supported
H6	DS*DC→OP	0.339	0.136	2.502	0.006	Supported
H7	PRI*DC→OP	0.095	0.158	0.602	0.274	Not supported
H8	PSI*DC→OP	0.198	0.105	1.895	0.029	Supported

Note: $p < 0.05$
CLS = Cost-leadership Strategy, DS = Differentiation Strategy, PRI = Product Innovation, PSI = Process Innovation, OP = Organisational Performance

H5: Dynamic capabilities moderates the relationship between cost-leadership strategy and organisational performance of food manufacturing SMEs in Malaysia.

As shown in Table 4.13, there was no credible evidence of dynamic capabilities' moderating effect on the relationship between cost-leadership strategy and organisational performance ($\beta = 0.119$, $t = 1.500$, $p > 0.05$). Hence, H5 is rejected, and no conclusion can be drawn (Lane, 2011; Rainey, 2012). Since all the necessary

steps in the methodology regarding sampling and measurement error had been considered, and the power of analysis (G*power) at 0.80, this insignificant relationship can be considered not related to the methodological issues.

H6: Dynamic capabilities moderates the relationship between differentiation strategy and organisational performance of food manufacturing SMEs in Malaysia.

H6 is supported (Table 4.13) and the relationship is statistically significant ($\beta = 0.339$, $t = 2.502$, $p < 0.05$). The results showed that dynamic capabilities moderated the relationship between differentiation strategy and organisational performance. Figure 4.4 illustrates the interaction effect between differentiation strategy and organisational performance is stronger when dynamic capabilities are high. Nevertheless, when dynamic capabilities are low, no effect on the relationship between differentiation strategy and organisational performance.

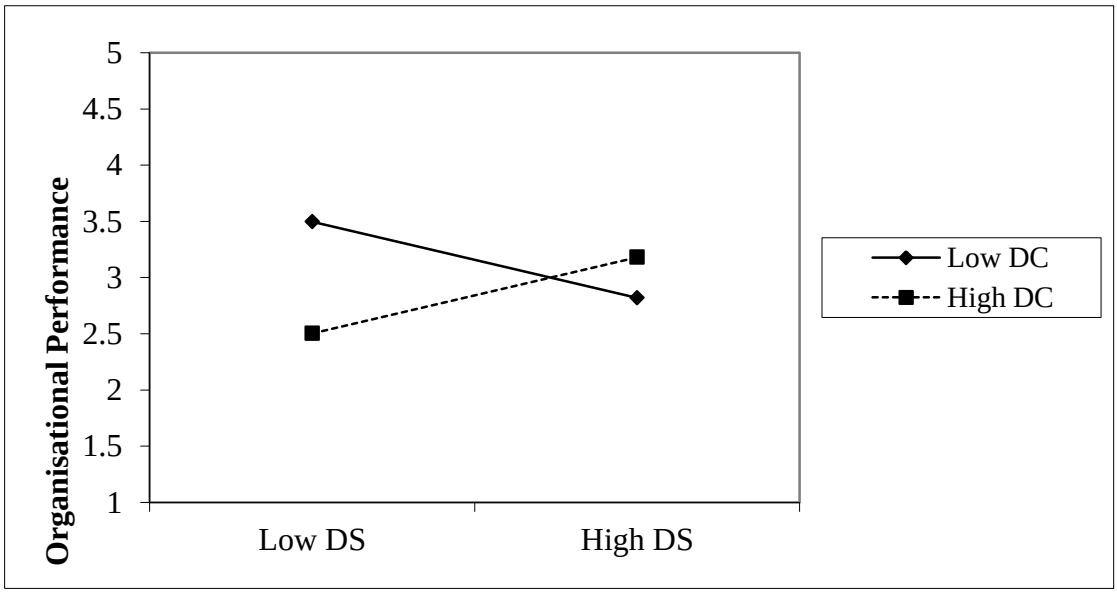

Figure 4.4
Interaction effect of Differentiation Strategy and Dynamic Capabilities on Organisational Performance

H7: Dynamic capabilities moderates the relationship between product innovation and organisational performance of food manufacturing SMEs in Malaysia.

As presented in Table 4.13, for H7, the t-value of 0.602 was lower than the cut-off value, indicating that the result was not statistically significant. Thus, H7 is not supported ($\beta = 0.095$, $t = 0.602$, $p > 0.05$) and a conclusion cannot be drawn (Lane, 2011; Rainey, 2012). Since all the appropriate steps in the methodology pertaining to sampling and measurement error were considered, and the power of analysis (G*power) at 0.80, the insignificant relationship can be considered not related to the methodological issues.

H8: Dynamic capabilities moderates the relationship between process innovation and organisational performance of food manufacturing SMEs in Malaysia.

H8 is supported and the relationship is statistically significant ($\beta = 0.198$, $t = 1.895$, $p < 0.05$). As such, the results showed that dynamic capabilities moderated the relationship between process innovation and organisational performance. Figure 4.5 illustrates the interaction effect in which when dynamic capabilities are high, relationship between process innovation and organisational performance are also stronger. Nonetheless, when dynamic capabilities are low, no effect on the relationship between process innovation and organisational performance. Thus, H8 is supported.

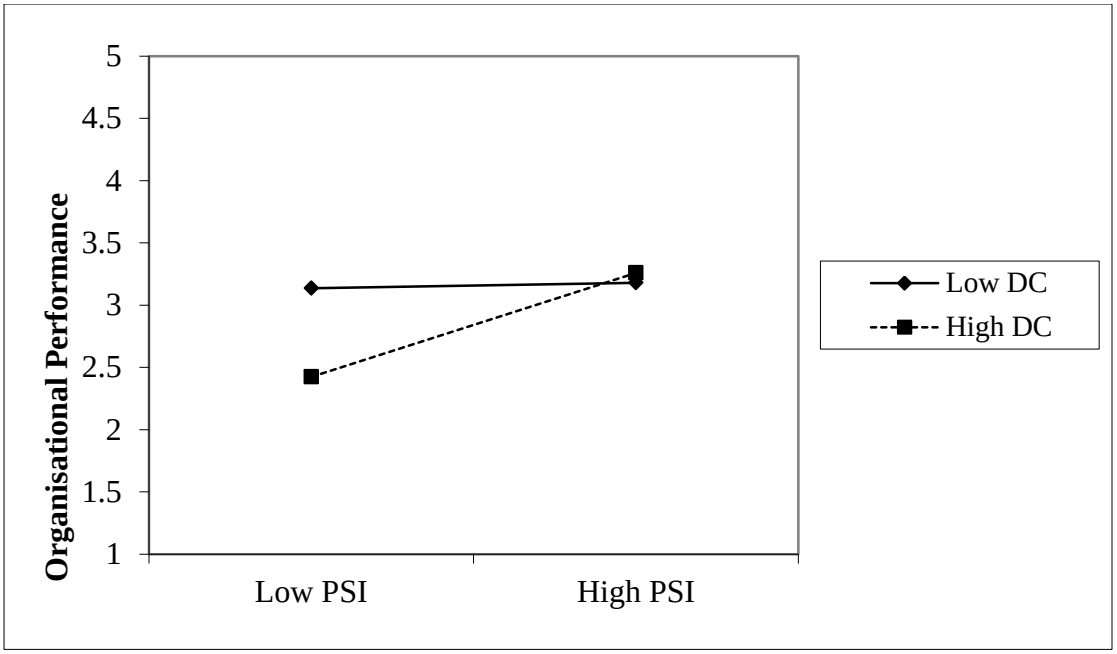

Figure 4.5

Interaction effect of Process Innovation and Dynamic Capabilities on Organisational Performance

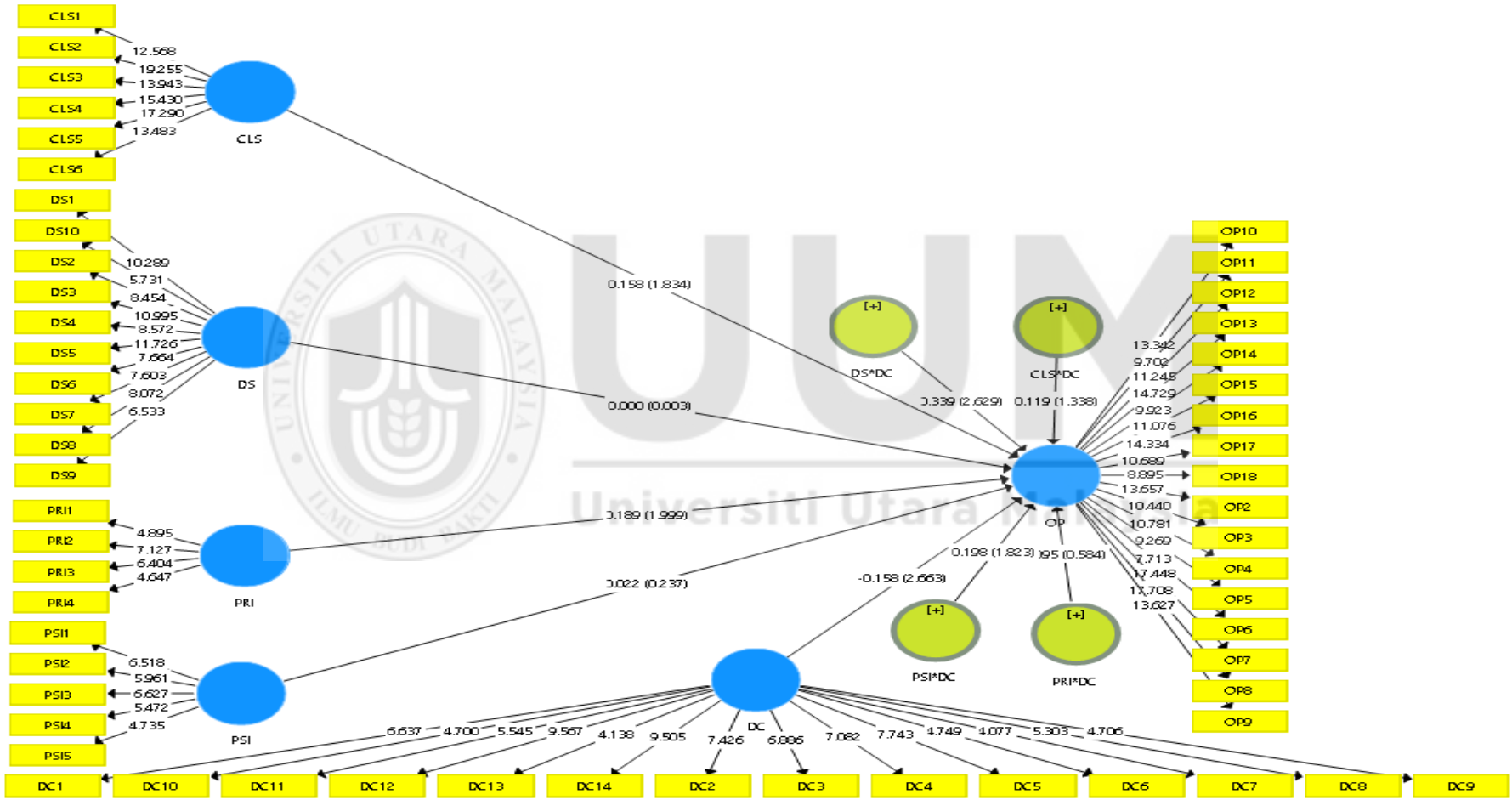

Figure 4.6

Bootstrapping Moderator (Path Coefficient and T-Value)

4.9.1 Determining the Strength of the Moderating Effect

The moderating effect of dynamic capabilities on the relationships between the organisational performance of food manufacturing SMEs in Malaysia and cost-leadership strategy, differentiation strategy, product innovation, and process innovation was calculated using the formula for effect size (f^2) by Cohen (1988), as follows:

$$f^2 = \frac{R^2 \text{I} - R^2 \text{m}}{1 - R^2 \text{i}}$$

where m refers to the primary effect model (without moderator) and I refers to the interaction effect model (with moderator).

Table 4.14
Strength of the Moderating Effect

Interaction	f^2	Effect Size
DS*DC→OP	0.045	Small
PSI*DC→OP	0.028	Small

Note: 0.02 (small), 0.15 (medium), 0.35 (large)
DS = Differentiation Strategy, PSI = Process Innovation, OP = Organisational Performance

The moderating effect size of 0.02, 0.15, and 0.35 represent small, medium, and large effects, respectively (Cohen, 1988). However, Chin et al. (2003) have argued that a small effect size does not essentially mean that the underlying moderating effect is insignificant. They explained that 'even a small interaction effect can meaningful

under extreme moderating conditions, if the resulting beta changes are meaningful, then it is important to take these conditions into account' (Chin et al., 2003, p. 211).

Table 4.14 presents the moderating effect of dynamic capabilities on the relationship between differentiation strategy and organisational performance (f^2 = 0.045), and process innovation and organisational performance (f^2 = 0.028). Based on the results, the moderating effect size was small (Henseler et al., 2007; Wilden et al., 2013).

4.10 Summary of All the Findings

Table 4.15 exhibits the summary of results obtained for the structural relationship in this study. The testing of hypotheses revealed a significant relationship between (H1) cost-leadership strategy and organisational performance, (H2) differentiation strategy and organisational performance, (H3) product innovation and organisational performance, and (H4) process innovation and organisational performance.

Moreover, the hypothesis investigates the moderating effect of dynamic capabilities. The results showed a moderating effect of dynamic capabilities on the relationship between (H6) differentiation strategy and organisational performance and (H8) process innovation and organisational performance. In contrast, the result showed no moderating effect of dynamic capabilities on the relationship between (H5) cost-leadership strategy and organisational performance and (H7) product innovation and organisational performance.

Table 4.15
Hypotheses' Summary

Hypothesis	Description	Result
	Results of Direct Relationship	
H1	There is a positive relationship between cost-leadership strategy and organisational performance of food manufacturing SMEs in Malaysia.	Supported
H2	There is a positive relationship between differentiation strategy and organisational performance of food manufacturing SMEs in Malaysia.	Supported
H3	There is a positive relationship between product innovation and organisational performance of food manufacturing SMEs in Malaysia.	Supported
H4	There is a positive relationship between process innovation and organisational performance of food manufacturing SMEs in Malaysia.	Supported
H5	Dynamic capabilities moderates the relationship between cost-leadership strategy and organisational performance of food manufacturing SMEs in Malaysia.	Not Supported
H6	Dynamic capabilities moderates the relationship between differentiation strategy and organisational performance of food manufacturing SMEs in Malaysia.	Supported
H7	Dynamic capabilities moderates the relationship between product innovation and organisational performance of food manufacturing SMEs in Malaysia.	Not Supported
H8	Dynamic capabilities moderates the relationship between process innovation and organisational performance of food manufacturing SMEs in Malaysia.	Supported

4.11 Chapter Summary

This chapter has presented the current study's findings. The main objective was to investigate the moderating role of dynamic capabilities on the relationships between organisational performance among food manufacturing SMEs in Malaysia and cost-leadership strategy, differentiation strategy, product innovation, and process innovation. For the initial data analysis, SPSS was used for the descriptive analysis of the SMEs. Subsequently, PLS-SEM was used for further analysis, such as reliability and validity of measures. Next, the bootstrapping technique in PLS-SEM was employed to test eight hypotheses. Four direct and four indirect relationships were tested. In general, the results indicated that the measurement model was acceptable based on evidence such as reliability, convergent validity, and discriminant validity. Then, the structural model was assessed to test the direct and indirect relationships. In the next chapter, the discussion of findings, the study's contribution, limitations of the study, and recommendations for future research are provided.

CHAPTER FIVE

DISCUSSION AND CONCLUSION

5.1 Introduction

This chapter provides a summary of the study findings, discusses the tested hypotheses and lists the contributions of the study. Furthermore, the implications of the study, limitations of the study, and recommendations for future work according to the limitations are discussed. Finally, this chapter concludes the study.

5.2 Recap of the Study

Based on the RBV and dynamic capabilities theories, this study intended to investigate the relationships between organisational performance and cost-leadership strategy, differentiation strategy, product innovation, and process innovation. Besides, dynamic capabilities' role as a moderator in the relationship between the dependent and independent variables was also examined; the strength of this relationship was also determined. Questionnaires were distributed to food manufacturing SMEs in Malaysia to investigate the factors that determine organisational performance. One hundred forty-one completed questionnaires were analysed using SPSS and SmartPLS. Regarding the direct relationships between organisational performance and cost-leadership strategy, differentiation strategy, product innovation, and process innovation, the findings indicated that the four proposed hypotheses were supported. The findings from PLS path modelling showed that cost-leadership strategy, differentiation strategy, product innovation, and process innovation were significantly related to organisational performance. Concerning dynamic capabilities as a moderator for the relationships between organisational performance and cost-

leadership strategy, differentiation strategy, product innovation, and process innovation, the findings established empirical support for two hypotheses. Based on the results of the moderating analysis, dynamic capabilities moderated the relationships between differentiation strategy and organisational performance and process innovation and organisational performance. The insignificant results were not further discussed since a conclusion cannot be made due to a lack of evidence concerning the existence or nonexistence of the relationship between the constructs (Lane, 2011; Rainey, 2012). The next subsection discusses the study's findings.

5.3 Discussion

5.3.1 Direct Relationship

Four direct relationships were examined in this study and all four direct relationships indicated a significant relationship.

5.3.1.1 Cost-leadership Strategy and Organisational Performance

The first objective of this study was to examine the relationship between cost-leadership strategy and organisational performance. H1 was based on a positive relationship between cost-leadership strategy and organisational performance. This hypothesis was supported since the PLS-SEM analysis indicated a positive and significant relationship with a t-value of 2.572. Hence, H1 was supported.

This study concluded that cost-leadership strategy influenced organisational performance. Cost-leadership strategy emphasises generating and maintaining low-cost positions relative to competitors, thus, firms that implement cost-leadership strategy can achieve competitive advantages that will consequently improve

organisational performance. This indicates that cost-leadership strategy is not a favourable option for large firms, but SMEs may effectively use cost-leadership strategy if they take advantages at a low cost. This study's result is in line with prior studies (Acquaah & Agyapong, 2015; Dutse & Aliyu, 2018; Gure & Karugu, 2018; Herzallah et al., 2014; Kaya, 2015; Lechner & Gudmundsson, 2014; Mungai & Ogot, 2017; Rua et al., 2018) which reported on the significant relationship between cost-leadership strategy and performance of manufacturing SMEs.

Besides validating H1, this result answers the first research question of the study. Moreover, it provides support for the premise of RBV theory by confirming the significant relationship between cost-leadership strategy as an organisational resource and organisational performance. RBV of the firms states that resources and capabilities that are rare, valuable, and inimitable allow a firm to improve and maintain its performance (Barney, 1991). Cost-leadership strategy in firms with a strong competitive position increases the productivity of their activities and helps them to maintain the profit margins for a long time (Acquaah & Yasai-Ardekani, 2008).

In summary, it can be inferred from the results of this study that to achieve organisational performance, food manufacturing SMEs must embrace cost-leadership strategy. As the competition gets more intensified and demands become sophisticated, only firms that have enforced tight cost control and evaluation systems, met the quantitative cost targets, and closely supervised and controlled their employees would succeed.

5.3.1.2 Differentiation Strategy and Organisational Performance

The next research objective was to examine the relationship between differentiation strategy and organisational performance. H2 introduced the positive relationship between differentiation strategy and organisational performance and this hypothesis was supported. The PLS-SEM results indicated a statistically significant relationship with a t-value of 2.865. In short, the research findings revealed that differentiation strategy had a significant relationship with organisational performance; hence, H2 was supported.

The findings demonstrated that differentiation strategy enhanced the organisational performance of food manufacturing SMEs in Malaysia. This concurs with the findings of other studies (Acquaah & Agyapong, 2015; Agyapong et al., 2016; Danso et al., 2019; Gure & Karugu, 2018; Herzallah et al., 2014; Lechner & Gudmundsson, 2014; Mungai & Ogot, 2017; Parnell et al., 2012). As such, differentiation strategy does contribute towards the organisational performance of food manufacturing SMEs in Malaysia.

Besides, the empirical findings are consistent with the underpinning theory of this study. The RBV theory emphasises the role of intangible resources in creating competitive advantage and being a source of performance (Barney, 1991). Even though the RBV analysis primarily focuses on larger firms, manufacturing SMEs also need to gain vital resources to create competitive advantages that lead to performance.

Thus, it can be concluded that to achieve higher performance, food manufacturing SMEs must focus on offering unique product design, better product performance, improved brand image, and control of the distribution channel. Highlighting a differentiation strategy could attract more consumers and improve organisational performance.

5.3.1.3 Product Innovation and Organisational Performance

This study also aimed to examine the relationship between product innovation and organisational performance. H3 highlighted the positive relationship between product innovation and organisational performance. A positive and significant relationship was determined with a t-value of 2.299. Hence, H3 was supported.

This current study's result is in line with prior studies that investigated product innovation among manufacturing SMEs and found that this variable has a relationship with performance (Expósito & Sanchis-Llopis, 2019; Lussak et al., 2020; Psomas et al., 2018; Saeidi et al., 2018; Shashi et al., 2019; Turulja & Bajgoric, 2019). The findings have revealed that product innovation is not just crucial for larger firms but also important for manufacturing SMEs to enhance organisational performance. Therefore, food manufacturing SMEs will expect a better performance as they: launch their products more consistently than their competitors, get to the first-mover advantage and have new products on the market.

5.3.1.4 Process Innovation and Organisational Performance

The last research objective pertaining to direct relationship was to investigate the relationship between process innovation and organisational performance. H4 proposed a positive relationship between process innovation and organisational performance. This hypothesis was supported, and the PLS-SEM analysis showed a significant result with a t-value of 2.215. As such, the research findings revealed that process innovation had a significant relationship with organisational performance and thus H4 was supported.

This empirical result coincides with the findings of previous studies that argued process innovation positively influence organizational performance (Christy Twaliwi & Michael Isaac, 2017; Doran, McCarthy & O'Connor, 2019; Mamun, 2018; Shashi et al., 2019; Turulja & Bajgoric, 2019; Vladimirov, 2016; Psomas et al., 2018). As the finding validates the hypothesis, it also provides an answer to the respective research questions. In general, the result provides further support for the RBV theory's assertion by confirming the positive relationship of VRIN resources on organisational performance. As a result, organisational performance would grow if food manufacturing SMEs continually evolve their business practices, introduce innovative techniques for problem-solving, and better ways to get work flow-improving results and update their development methods rapidly.

5.3.2 The Moderating Effects of Dynamic Capabilities

Four moderating effects were examined in this study. Nevertheless, only two moderating effects indicated a statistically significant result. The findings revealed a significant moderating effect of dynamic capabilities on the relationships between

organisational performance and differentiation strategy and process innovation. On the other hand, dynamic capabilities failed to demonstrate a moderating effect on the relationships between organisational performance and cost-leadership strategy and product innovation.

Hypothesis 6 was hypothesised based on the research objective to examine the moderating role of dynamic capabilities in the relationship between differentiation strategy and organisational performance. Hence, the relationship between differentiation strategy and organisational performance was proposed to be influenced by the moderating effect of dynamic capabilities. The result indicated that the moderated relationship was statistically significant, and therefore the hypothesis was supported. This finding signifies that when dynamic capabilities are low, there is no effect on the relationship between differentiation strategy and organisational performance. Nonetheless, when dynamic capabilities are high, the relationship between differentiation strategy and organisational performance will be stronger. This finding is supported by several studies which reported that dynamic capabilities influence organisational performance (Han & Li, 2015; Hernandez-Perlines, 2018; Noor & Aljanabi, 2016; Patel et al., 2015; Kump et al., 2016).

The finding further validates the interaction effect between differentiation strategy and organisational performance in the food manufacturing industry via dynamic capabilities. Food manufacturing SMEs' performance will be improved by developing and implementing a differentiation strategy based on their resources and capabilities. As a result, if dynamic capabilities support differentiation strategy as a source of competitive advantage in organisations, it will be difficult for rivals to replicate.

Additionally, as Teece (2007) said, dynamic capabilities must be addressed in order for companies to accomplish their strategic objectives. Thus, dynamic capabilities allow food manufacturing SMEs to increase value-added in tandem with the firm's differentiation strategy.

Next, hypothesis 8 was hypothesised to investigate the moderating role of dynamic capabilities in the relationship between process innovation and organisational performance. Based on the results, hypothesis 8 was concluded as supported with a positive relationship. The finding revealed that when dynamic capabilities are high, the relationship between process innovation and organisational performance is also high. Nonetheless, when dynamic capabilities are low, there is no effect on the relationship between process innovation and organisational performance. The finding indicated that dynamic capabilities strengthen the relationship between process innovation and organisational performance. It is consistent with prior research, which indicates that dynamic capabilities serve as a moderating component for organisational performance (Agostini et al., 2017; Bii & Onyango, 2018; Engelen et al., 2014). This result shows that dynamic capabilities enable food manufacturing SMEs to boost their process innovation, resulting in improved organisational performance. Thus, firms with dynamic capabilities may successfully integrate crucial capabilities and expertise to enhance internal processes and decrease production costs, resulting in better performance (Teece, 2007; Damanpour, 2010).

On the contrary, hypothesis 5 proposed that dynamic capabilities moderate the relationship between cost-leadership strategy and organisational performance. However, no moderation effect was found of dynamic capabilities in the relationship

between cost-leadership strategy and organisational performance. Although this result has been unable to demonstrate the moderating role of dynamic capabilities, it is consistent with the study of Bitencourt et al. (2020). The finding leads to the assumption that food manufacturing SMEs in Malaysia tend to have less active dynamic capabilities that may influence the relationship between cost-leadership strategy and organisational performance. A potential explanation for the lacking of dynamic capabilities among Malaysian food manufacturing SMEs is unexpected results. Dynamic capabilities imply more predictable results but fewer possibilities for implementation, while such capabilities certainly involve expenses and contribute to organisational performance disparity. Hence, this result confirms the contention by prior studies that manufacturing SMEs in developed countries have a stronger moderating influence of dynamic capabilities than manufacturing SMEs in developing countries (Bloom & Van Reenen, 2006; Fainshmidt et al., 2016; Kemper et al., 2011).

Next, hypothesis 7 was hypothesised to examined the moderating effect of dynamic capabilities in the relationship between product innovation and organisational performance. Unfortunately, the result demonstrates no moderation effect of dynamic capabilities on the relationship between product innovation and organisational performance. The study discovered that food manufacturing SMEs overlook the critical significance of dynamic capabilities. It implies that dynamic capabilities are less critical in determining the organisational performance of Malaysian food manufacturing SMEs. According to Teece (2007), dynamic capabilities are high-level competencies associated with management's capacity to detect, source, exploit opportunities, divert competition, and rearrange resources and assets to adapt to

changing surroundings and customer demands. In other words, food manufacturing SMEs possess resources but lack dynamic capabilities; they may generate revenue for a limited period of time, but their competitive advantages will erode with time. The following topic discusses the research contributions and implications.

5.4 Research Contributions and Implications

Several insights concerning the issues of food manufacturing SMEs' organisational performance have been discussed throughout this thesis. To the best of the researcher's knowledge, this study is one of the very few studies conducted in developing countries, particularly involving Malaysian food manufacturing SMEs to investigate the relationships among cost-leadership strategy, differentiation strategy, product innovation, process innovation, dynamic capabilities, and organisational performance of SMEs.

This study also contributes to expanding the current literature related to examining the moderating role of dynamic capabilities in the relationships between SMEs' organisational performance and cost-leadership strategy, differentiation strategy, product innovation, and process innovation. The findings have several important practical, theoretical, and methodological implications. These implications are discussed in the following subsections.

5.4.1 Theoretical Implication

Empirical evidence for the theoretical relationships hypothesised in the research framework has been provided. The moderating role of dynamic capabilities in the relationships between Malaysian food manufacturing SMEs' organisational

performance and cost-leadership strategy, differentiation strategy, product innovation, and process innovation was highlighted. From this study's eight hypotheses, six were supported, while two were not supported.

These data corroborated Porter's assertion that generic tactics contribute significantly to superior performance. Porter (1980, 1985) claimed that generic strategies are mutually incompatible, and hence an organisation pursuing more than one generic strategy runs the risk of becoming "stuck in the middle." Porter emphasised that an organisation may only follow a single generic strategy since organisational capabilities must meet a variety of objectives. Numerous research, for example Acquaah and Agyapong (2015), Liu and Atuahene-Gima (2018), Nandakumar et al. (2011), Panwar et al. (2016), Parnell et al. (2012) and Stoian and Gilman (2017), have operationalized Porter's generic strategies only via the lens of cost leadership and differentiation.

The results also provided additional empirical support for the research framework. Thus, this study contributes to the RBV theory by providing empirical evidence to support the theory's assertion. The RBV theory postulates that a firm's competitive advantage and performance are influenced by its resources (Barney, 1991). In the context of this study, cost-leadership strategy, differentiation strategy, product innovation, and process innovation were regarded as a firm's resources. Within the premises of the RBV theory, this study found evidence that SMEs' organisational performance was explained by aligning resources (i.e., cost-leadership strategy, differentiation strategy, product innovation, and process innovation).

Furthermore, this study lends valuable support to the dynamic capabilities theory by Teece (2007b) and Teece et al. (1997). These researchers have examined the dynamic capabilities that enable a firm to configure and reconfigure its resource stock and deploy and redeploy it to grasp and exploit dynamic opportunities and enhance performance. This study strengthens a firm's dynamic capabilities by acquiring, sharing, and utilising the existing knowledge in the firm's ecosystem. By investigating the moderating effects of dynamic capabilities on the relationships between SMEs' organisational performance and cost-leadership strategy, differentiation strategy, product innovation, and process innovation, the study extends the RBV theory and dynamic capabilities theory.

Despite the importance of SMEs in the economy of any country, most of the studies concerning cost-leadership strategy, differentiation strategy, product innovation, process innovation, and dynamic capabilities were conducted in large firms and developed countries. However, this study has extended the existing literature on cost-leadership strategy, differentiation strategy, product innovation, process innovation, and dynamic capabilities pertaining to the organisational performance of food manufacturing SMEs in Malaysia.

5.4.2 Managerial Implications

Food manufacturing SMEs are one of the significant contributors to employment and economic growth. Government and policymakers such as SME Corp have to realise that their decisions relating to food manufacturing SMEs directly impact their activities. Malaysian policymakers and associated agencies are responsible for enacting policies promoting SME growth. Specifically, business strategy and

innovation-related policies implemented by several agencies, for instance, Ministry of International Trade and Industry (MITI), SME Corporation Malaysia (SMECorp), Malaysia Productivity Corporation (MPC), Halal Development Corporation Berhad (HDC), and others. These agencies can assist owner-managers of SMEs in implementing various strategies and innovations in the food manufacturing sector. Thus, the findings of this study might provide significant information and practical insights into the obstacles faced by SMEs when it comes to implementing strategies and innovation for the benefit of the organisation and stay competitive. Additionally, this study's findings will also benefit the related agencies by enhancing SMEs' capabilities to improve organisational performance.

Apart from that, empirical evidence suggests that organisational strategies are essential resources that are valuable, rare, inimitable, non-substitutable, and can create competitive advantages. Realising the need to emphasise the growth and development of food manufacturing SMEs, the findings of this study would contribute to managerial implications and encourage the food manufacturing SMEs' owner-managers to implement cost-leadership strategy, differentiation strategy, product innovation, process innovation, and dynamic capabilities to create competitiveness and superior performance.

Besides, this study has implications for policymakers as it provides an insight into the competition through which SMEs can support their strategies, innovation, and capabilities using their resources. SMEs' owner-managers need to ensure their firms provide clients with unique products, offer innovative ideas and solutions to clients' problems, and encourage employees to look for novel ways to problem-solving, thus,

promoting dynamic capabilities. Hence, it could assist policymakers in their issuance of regulations that urge market practices to support the maximisation of food manufacturing SMEs' capabilities, and improve the relationship between government agencies and food manufacturing SMEs as the pillar of the country's economic development.

This study has identified that cost-leadership strategy, differentiation strategy, product innovation, and process innovation are critical resources that generate competitive advantage. Therefore, SMEs' owner-managers should be viewed as matching resources, which directly improve organisational performance. The present study supports the argument that a firm's resources bundles are a significant source to sustain competitive advantage. Consequently, a more significant economic outcome is offered, which could, in turn, lead to superior performance.

5.4.3 Methodological Implications

Prior studies on SMEs' performance have mainly used SPSS and AMOS, and to the best of the researcher's knowledge, very few studies have employed SmartPLS-SEM 3.2 (Ringle et al., 2015). Additionally, the measurement scale of the study variables was adapted from previous studies, as discussed in Chapter Two. Therefore, replicating the variables' measurement scales in another context warranted the confirmation of the instruments' reliability and validity. Composite reliability, convergent reliability, and discriminant validity were assessed and found to be satisfactory, i.e. above the threshold. Hence, this study presents a further contribution to the methodology and literature of SMEs' organisational performance by

establishing the validity and reliability of the adapted measures in the Malaysian context.

5.5 Limitation of the study and Recommendations for Future Research

The limitations of this study, specifically in understanding organisational performance, were addressed throughout this study. First, this study focused on only SMEs in the food manufacturing industry and did not include SMEs operating in other manufacturing sectors in Malaysia. Nonetheless, SMEs in Malaysia share similar characteristics, such as ownership type and the number of employees. The results obtained may be slightly different if other manufacturing sectors had been included in this study. Therefore, this study's findings should be cautiously generalised to SMEs operating in other manufacturing sectors in Malaysia. Since this study has targeted food manufacturing SMEs, there is a need to examine the organisational performance of SMEs in other manufacturing sectors, such as the manufacture of wearing apparel, manufacture of fabricated metal product, except machinery and equipment, manufacture of rubber and plastics products, and manufacture of furniture. Thus, the study is limited by neglecting that firm characteristics can be different according to business type or sector. Future studies should consider investigating the organisational performance of SMEs in other manufacturing sectors in the country which may provide more in-depth results.

Second, the current study is also limited by its reliance on a single method of data collection. A questionnaire was the only instrument used to gather data. This study utilised self-administered surveys over interviewer-administered surveys because, as (Spunt, 1999) noted, self-administered surveys are more manageable and economical

to deliver and allow for more rapid analysis of data. As such, the responses may not consistently and accurately measure the study variables. Future studies can combine quantitative and qualitative methods to conduct an in-depth investigation of Malaysian SMEs' organisational performance.

Next, the study adopted the cross-sectional design for the survey in which the opinion of respondents was captured at one specific point in time. Thus, this study's cross-sectional nature is restricted in proving a causal relationship between the variables (Sekaran, Uma, & Bougie, 2012). Since the data were collected at one point in time, this might not permit the data to represent the firms' long-term behaviours. Given these restrictions, a longitudinal study is suggested for future research.

Fourthly, this study's limitation is related to the measures of the constructs used. The variables in this study were measured as uni-dimensional variables. Nevertheless, these variables can give more information if considered as multi-dimensional. Therefore, further investigation of the relationship between these variables and organisational performance using a multi-dimensional scale is a fertile research area.

Finally, this study examined the moderating role of dynamic capabilities in the relationships between the organisational performance of food manufacturing SMEs in Malaysia and cost-leadership strategy, differentiation strategy, product innovation, and process innovation. The independent variables tested in the study were confined to SMEs' organisational performance. Thus, other factors related to a firm's resources can be used to extend the framework proposed in the study.

5.6 Conclusion

This study's primary purpose was to rigorously examine the direct relationships between organisational performance and cost-leadership strategy, differentiation strategy, product innovation, and process innovation. It also investigated the moderating effect of dynamic capabilities on these relationships. This research was performed based on the RBV and dynamic capabilities theories as the basis for examining the relationships and a conceptual framework was drawn.

The research attained empirical support with six supported hypotheses, specifically for four direct relationships and two indirect relationships with dynamic capabilities as the moderator. Cost-leadership, differentiation strategy, product innovation, and process innovation were found to significantly affect organisational performance. On the other hand, dynamic capabilities moderated the relationships between organisational performance and differentiation strategy and organisational performance and process innovation. The findings also signified the importance of dynamic capabilities for the organisational performance of food manufacturing SMEs to be more competitive and resilient.

Furthermore, the study has provided practical, theoretical, and methodological contributions in terms of the relationships among cost-leadership strategy, differentiation strategy, product innovation, process innovation, dynamic capabilities, and organisational performance of food manufacturing SMEs in Malaysia. Based on the limitations of the study, several directions for future research have been outlined. Finally, this study has added valuable implications, practically, theoretically, and methodologically, for SMEs' performance and strategic management literature.

REFERENCES

A.A and Strickland, A. J. T. (2003). *Strategic Management: Concepts and Cases. (12th ed), New York: McGraw-Hill*.

Ab Hamid, M. R., Sami, W., & Mohmad Sidek, M. H. (2017). Discriminant Validity Assessment: Use of Fornell & Larcker criterion versus HTMT Criterion. *Journal of Physics: Conference Series*, *890*, 012163. https://doi.org/10.1088/1742-6596/890/1/012163

Acquaah, M. (2011). Business Strategy And Competitive Advantage In Family Business In Ghana: The Role Of Social Networking Relationships. *Journal of Developmental Entrepreneurship*, *16*(01), 103–126. https://doi.org/10.1142/S1084946711001744

Acquaah, M., & Agyapong, A. (2015). The Relationship between Competitive Strategy and Firm Performance in Micro and Small Businesses in Ghana: The Moderating Role of Managerial and Marketing Capabilities. *Africa Journal of Management*, *1*(2), 172–193. https://doi.org/10.1080/23322373.2015.1025684

Acquaah, M., & Yasai-Ardekani, M. (2008). Does the implementation of a combination competitive strategy yield incremental performance benefits? A new perspective from a transition economy in Sub-Saharan Africa. *Journal of Business Research*, *61*(4), 346–354. https://doi.org/10.1016/j.jbusres.2007.06.021

Acuña-Carvajal, F., Pinto-Tarazona, L., López-Ospina, H., Barros-Castro, R., Quezada, L., & Palacio, K. (2019). An integrated method to plan, structure and validate a business strategy using fuzzy DEMATEL and the balanced scorecard. *Expert Systems with Applications*, *122*, 351–368. https://doi.org/10.1016/j.eswa.2019.01.030

Agostini, L., Nosella, A., & Soranzo, B. (2017). Measuring the impact of relational capital on customer performance in the SME B2B sector. *Business Process Management Journal*, *23*(6), 1144–1166. https://doi.org/10.1108/BPMJ-10-2016-0205

Agyapong, Ahmaed, Osei, H. V., & Akomea, S. Y. (2015). Marketing Capability, Competitive Strategies And Performance Of Micro And Small Family Businesses In Ghana. *Journal of Developmental Entrepreneurship*, *20*(04), 1550026. https://doi.org/10.1142/S1084946715500260

Agyapong, Ahmed, Ellis, F., & Domeher, D. (2016). Competitive strategy and performance of family businesses: moderating effect of managerial and innovative capabilities. *Journal of Small Business & Entrepreneurship*, *28*(6), 449–477. https://doi.org/10.1080/08276331.2016.1217727

Al-Sharafi, M. A., Arshah, R. A., Abu-Shanab, E. A., & Alajmi, Q. (2019). The Effect of Sustained Use of Cloud-Based Business Services on Organizations' Performance: Evidence from SMEs in Malaysia. *2019 5th International Conference on Information Management (ICIM)*, 285–291. https://doi.org/10.1109/INFOMAN.2019.8714699

Alam, S. S., Ghani Md Nor, N., Ali, M. H., Omar, N. A., & Wel, C. A. C. (2018). Relationship between entrepreneur's traits and cloud computing adoption among malay-owned SMEs in Malaysia. *Cuadernos de Gestión*, *18*(2), 115–132. https://doi.org/10.5295/cdg.140515ss

Allen, R. S., & Helms, M. M. (2002). Employee perceptions of the relationship between strategy, rewards and organizational performance. *Journal of Business Strategies*, *19*(2), 115–139.

Allen, R. S., & Helms, M. M. (2006). Linking strategic practices and organizational

performance to Porter's generic strategies. *Business Process Management Journal*, *12*(4), 433–454. https://doi.org/10.1108/14637150610678069

Ansoff, I. (1965). Concept of Strategy. In *Corporate Strategy*.

Mapping of Featured Micro-small-medium Enterprises in Buleleng Regency, Bali, Indonesia, International Journal of Economics and Financial Issues (2017).

Antunes, M. G., Quirós, J. T., & Justino, M. D. R. T. F. (2018). Role of Management Control Systems in Quality, Innovation and Organizational Performance in Portugal SMES Companies. *International Journal of Innovation and Technology Management*, *15*(02), 1850014. https://doi.org/10.1142/S0219877018500141

Arend, R. J. (2013). Ethics-focused dynamic capabilities: a small business perspective. *Small Business Economics*, *41*(1), 1–24. https://doi.org/10.1007/s11187-012-9415-2

Badar Alam Iqbal, & Mohd Nayyer Rahman. (2015). Contribution of ASEAN-6 SMEs to Economic Growth of ASEAN. *Economics World*, *3*(6). https://doi.org/10.17265/2328-7144/2015.1112.002

Baregheh, A., Rowley, J., Sambrook, S., & Davies, D. (2012). Innovation in food sector SMEs. *Journal of Small Business and Enterprise Development*, *19*(2), 300–321. https://doi.org/10.1108/14626001211223919

Barlow, J. (1998). From Craft Production To Mass Customization? Customer-Focused Approaches To House Building. *International Group of Lean Construction*.

Barney, J. (1991a). Firm Resources and Sustained Competitive Advantage. *Journal of Management*, *17*(1), 99–120. https://doi.org/10.1177/014920639101700108

Barney, J. (1991b). Firm Resources and Sustained Competitive Advantage. *Journal of Management*, *17*(1), 99–120. https://doi.org/10.1177/014920639101700108

Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*(6), 1173–1182. https://doi.org/10.1037/0022-3514.51.6.1173

Barreto, I. (2010). Dynamic Capabilities: A Review of Past Research and an Agenda for the Future. *Journal of Management, 36*(1), 256–280. https://doi.org/10.1177/0149206309350776

Barrett, R., & Wynarczyk, P. (2009). Building the science and innovation base: work, skills and employment issues. *New Technology, Work and Employment*, *24*(3), 210–214. https://doi.org/10.1111/j.1468-005X.2009.00229.x

Beleska-Spasova, E. (2014). Determinants And Measures Of Export Performance – Comprehensive Literature Review. *JCEBI*, *1*(1), 63–74.

Belohlav, J. A. (1993). Quality, Strategy, and Competitiveness. *California Management Review*, *35*(3), 55–67. https://doi.org/10.2307/41166743

Benner, M. J., & Tushman, M. (2002). Process Management and Technological Innovation: A Longitudinal Study of the Photography and Paint Industries. *Administrative Science Quarterly*, *47*(4), 676. https://doi.org/10.2307/3094913

Bigliardi, B., & Dormio, A. I. (2009). An empirical investigation of innovation determinants in food machinery enterprises. *European Journal of Innovation Management*, *12*(2), 223–242. https://doi.org/10.1108/14601060910953988

Bii, J., & Onyango, R. (2018). Moderating Effect of Dynamic Capabilities on the Relationship between Entrepreneurial Orientation and Business Performance of Small and Medium Enterprises. *International Journal of Multidisciplinary and Current Research*, *6*(5). https://doi.org/10.14741/ijmcr/v.6.5.18

Bitencourt, C. C., de Oliveira Santini, F., Ladeira, W. J., Santos, A. C., & Teixeira, E.

K. (2020). The extended dynamic capabilities model: A meta-analysis. *European Management Journal*, *38*(1), 108–120. https://doi.org/10.1016/j.emj.2019.04.007

Blackmore, K., & Nesbitt, K. (2013). Verifying the Miles and Snow strategy types in Australian small- and medium-size enterprises. *Australian Journal of Management*, *38*(1), 171–190. https://doi.org/10.1177/0312896212444692

Bloom, N., & Van Reenen, J. (2006). *Measuring and Explaining Management Practices Across Firms and Countries*. https://doi.org/10.3386/w12216

Bullock, A. T., Cameron, G. G., & Miles, I. S. (1982). Segment size in synthetic polymers by the spin-probe method. *Polymer*, *23*(10), 1536–1539. https://doi.org/10.1016/0032-3861(82)90257-9

Buzzell, R. D., Gale, B. T., & Sultan, R. G. M. (1975). Market Share - A Key to Profitibility. *Harvard Business Review*.

Caloghirou, Y., Protogerou, A., Spanos, Y., & Papagiannakis, L. (2004). Industry-Versus Firm-specific Effects on Performance: *European Management Journal*, *22*(2), 231–243. https://doi.org/10.1016/j.emj.2004.01.017

Campbell-Hunt, C. (2000). What have we learned about generic competitive strategy? A meta-analysis. *Strategic Management Journal*, *21*(2), 127–154. https://doi.org/10.1002/(SICI)1097-0266(200002)21:2<127::AID-SMJ75>3.0.CO;2-1

Chen, P.-L., Williams, C., & Agarwal, R. (2012). Growing pains: Pre-entry experience and the challenge of transition to incumbency. *Strategic Management Journal*, *33*(3), 252–276. https://doi.org/10.1002/smj.954

Chien, S., & Tsai, C. (2012). Dynamic capability, knowledge, learning, and firm performance. *Journal of Organizational Change Management*, *25*(3), 434–444. https://doi.org/10.1108/09534811211228148

Chin, W. W. (2010). How to Write Up and Report PLS Analyses. In *Handbook of Partial Least Squares* (pp. 655–690). Springer Berlin Heidelberg. https://doi.org/10.1007/978-3-540-32827-8_29

Chuen, P. W., Mohammad, O., & Yusoff, W. F. W. (2018). The impact of behavioral complexity on exploitative and explorative behavior among owner-managers of smes in Malaysia. *Academy of Strategic Management Journal*.

Chung, Y.-C., Hsu, Y.-W., & Tsai, C.-H. (2010). Research on the Correlation between Implementation Strategies of TQM, Organizational Culture, TQM Activities and Operational Performance in High-Tech Firms. *Information Technology Journal*, *9*(8), 1696–1705. https://doi.org/10.3923/itj.2010.1696.1705

Cohen, J. (2013). Statistical Power Analysis for the Behavioral Sciences. In *Statistical Power Analysis for the Behavioral Sciences*. Routledge. https://doi.org/10.4324/9780203771587

Costa, M. L. R. da, Giani, E. G. de S., & Galdamez, E. V. C. (2019). Visão do Balanced Scorecard nas micro, pequenas e médias empresas. *Sistemas & Gestão*, *14*(1), 131–141. https://doi.org/10.20985/1980-5160.2019.v14n1.1505

Dabhilkar, M., & Bengtsson, L. (2004). Balanced scorecards for strategic and sustainable continuous improvement capability. *Journal of Manufacturing Technology Management*, *15*(4), 350–359. https://doi.org/10.1108/17410380410535053

Dagley, S. (1971). Catabolism of Aromatic Compounds by Micro-Organisms. In *Concepts in Strategic Management and Business Policy* (pp. 1–46). https://doi.org/10.1016/S0065-2911(08)60066-1

Damanpour, F. (1991). Organizational Innovation: A Meta-Analysis Of Effects Of

Determinants And Moderators. *Academy of Management Journal*, *34*(3), 555–590. https://doi.org/10.2307/256406

Damanpour, Fariborz. (1996). Organizational Complexity and Innovation: Developing and Testing Multiple Contingency Models. *Management Science*, *42*(5), 693–716. https://doi.org/10.1287/mnsc.42.5.693

Damanpour, Fariborz, & Aravind, D. (2006). Product and Process Innovations: A Review of Organizational and Environmental Determinants. In *Innovation, Science, and Institutional Change: A Research Handbook*.

Damanpour, Fariborz, & Aravind, D. (2012). Managerial Innovation: Conceptions, Processes and Antecedents. *Management and Organization Review*, *8*(2), 423–454. https://doi.org/10.1111/j.1740-8784.2011.00233.x

Damanpour, Fariborz, & Gopalakrishnan, S. (2001). The Dynamics of the Adoption of Product and Process Innovations in Organizations. *Journal of Management Studies*, *38*(1), 45–65. https://doi.org/10.1111/1467-6486.00227

Danaei, A., & Hosseini, A. (2013). Performance measurement using balanced scorecard: A case study of pipe industry. *Management Science Letters*, 1433–1438. https://doi.org/10.5267/j.msl.2013.04.004

Danneels, E. (2008). Organizational antecedents of second-order competences. *Strategic Management Journal*, *29*(5), 519–543. https://doi.org/10.1002/smj.684

Danso, A., Adomako, S., Amankwah- Amoah, J., Owusu- Agyei, S., & Konadu, R. (2019). Environmental sustainability orientation, competitive strategy and financial performance. *Business Strategy and the Environment*, *28*(5), 885–895. https://doi.org/10.1002/bse.2291

De Felice, F., & Petrillo, A. (2013). Key Success Factors for Organizational Innovation in the Fashion Industry. *International Journal of Engineering*

Business Management, *5*, 27. https://doi.org/10.5772/56882

Dess, G. G., & Davis, P. S. (1984). Porter's (1980) Generic Strategies as Determinants of Strategic Group Membership and Organizational Performance. *Academy of Management Journal*, *27*(3), 467–488. https://doi.org/10.2307/256040

Dess, Gregory G., & Davis, P. S. (1984). Porter's (1980) Generic Strategies as Determinants of Strategic Group Membership and Organizational Performance. *Academy of Management Journal*, *27*(3), 467–488. https://doi.org/10.5465/256040

Dess, Gregory G., & Robinson, R. B. (1984). Measuring organizational performance in the absence of objective measures: The case of the privately-held firm and conglomerate business unit. *Strategic Management Journal*, *5*(3), 265–273. https://doi.org/10.1002/smj.4250050306

Donaldson, L. (2001). The Contingency Theory of Organizations. In *The Contingency Theory of Organizations*. SAGE Publications, Inc. https://doi.org/10.4135/9781452229249

Doran, J., McCarthy, N., & O'Connor, M. (2019). The Importance of Internal Knowledge Generation and External Knowledge Sourcing for SME Innovation and Performance: Evidence From Ireland. *International Journal of Innovation Management*, *23*(07), 1950069. https://doi.org/10.1142/S1363919619500695

DOSM. (2017a). *Economic Census 2016*. Department of Statistics Malaysia.

DOSM. (2017b). Economic Census 2016. In *Department of Statistics Malaysia*.

Drucker, P. F. (1985). Entrepreneurial Strategies. *California Management Review*, *27*(2), 9–25. https://doi.org/10.2307/41165126

Dutse, A. H. G., & Aliyu, M. S. (2018). Cost Leadership, Market Orientation and

Business Performance: An Empirical Investigation. *Journal of Quantitative Methods*, *2*(2), 28–42. https://doi.org/10.29145/2018/jqm/020203

Dyer, J. H., Singh, H., & Hesterly, W. S. (2018). The relational view revisited: A dynamic perspective on value creation and value capture. *Strategic Management Journal*, *39*(12), 3140–3162. https://doi.org/10.1002/smj.2785

Eisenhardt, K. M., & Martin, J. A. (2000a). Dynamic capabilities: what are they? *Strategic Management Journal*, *21*(10–11), 1105–1121. https://doi.org/10.1002/1097-0266(200010/11)21:10/11<1105::AID-SMJ133>3.0.CO;2-E

Eisenhardt, K. M., & Martin, J. A. (2000b). Dynamic capabilities: what are they? *Strategic Management Journal*, *21*(10–11), 1105–1121. https://doi.org/10.1002/1097-0266(200010/11)21:10/11<1105::AID-SMJ133>3.0.CO;2-E

Elias, E. M., Mahidin, N., & Bahaudin, A. Y. (2019). The influence of religiosity leaderships practices towards the SMEs business performance in food and beverages industry. *International Journal of Supply Chain Management*.

Ellonen, R., Blomqvist, K., & Puumalainen, K. (2008). The role of trust in organisational innovativeness. *European Journal of Innovation Management*, *11*(2), 160–181. https://doi.org/10.1108/14601060810869848

Engelen, A., Kube, H., Schmidt, S., & Flatten, T. C. (2014). Entrepreneurial orientation in turbulent environments: The moderating role of absorptive capacity. *Research Policy*, *43*(8), 1353–1369. https://doi.org/10.1016/j.respol.2014.03.002

Ertek, G., Tokdemir, G., Sevinç, M., & Tunç, M. M. (2017). New knowledge in strategic management through visually mining semantic networks. *Information*

Systems Frontiers, *19*(1), 165–185. https://doi.org/10.1007/s10796-015-9591-0

European Commision. (2015). User guide to the SME Definition. In *User guide to the SME Definition*.

Evangelista, R., & Vezzani, A. (2010). The economic impact of technological and organizational innovations. A firm-level analysis. *Research Policy*, *39*(10), 1253–1263. https://doi.org/10.1016/j.respol.2010.08.004

Evered, R., Schendel, D. E., & Hofer, C. W. (1980a). Strategic Management: A New View of Business Policy and Planning. *Administrative Science Quarterly*, *25*(3), 536. https://doi.org/10.2307/2392273

Evered, R., Schendel, D. E., & Hofer, C. W. (1980b). Strategic Management: A New View of Business Policy and Planning. *Administrative Science Quarterly*, *25*(3), 536. https://doi.org/10.2307/2392273

Expósito, A., & Sanchis-Llopis, J. A. (2019). The relationship between types of innovation and SMEs' performance: a multi-dimensional empirical assessment. *Eurasian Business Review*, *9*(2), 115–135. https://doi.org/10.1007/s40821-018-00116-3

Fainshmidt, S., Pezeshkan, A., Lance Frazier, M., Nair, A., & Markowski, E. (2016). Dynamic Capabilities and Organizational Performance: A Meta-Analytic Evaluation and Extension. *Journal of Management Studies*, *53*(8), 1348–1380. https://doi.org/10.1111/joms.12213

Flatten, T. C., Engelen, A., Zahra, S. A., & Brettel, M. (2011). A measure of absorptive capacity: Scale development and validation. *European Management Journal*, *29*(2), 98–116. https://doi.org/10.1016/j.emj.2010.11.002

Fleming, L., Rumelt, R. P., Schendel, D. E., & Teece, D. J. (1996). Fundamental Issues in Strategy: A Research Agenda. *Administrative Science Quarterly*, *41*(1),

196. https://doi.org/10.2307/2393999

Fornell, C., & Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research*, *18*(1), 39. https://doi.org/10.2307/3151312

Forsman, H. (2011). Innovation capacity and innovation development in small enterprises. A comparison between the manufacturing and service sectors. *Research Policy*, *40*(5), 739–750. https://doi.org/10.1016/j.respol.2011.02.003

Frambach, R. T., Prabhu, J., & Verhallen, T. M. M. (2003). The influence of business strategy on new product activity: The role of market orientation. *International Journal of Research in Marketing*, *20*(4), 377–397. https://doi.org/10.1016/j.ijresmar.2003.03.003

Franke, N., & Schreier, M. (2008). Product uniqueness as a driver of customer utility in mass customization. *Marketing Letters*, *19*(2), 93–107. https://doi.org/10.1007/s11002-007-9029-7

Fullerton, R. R., & Wempe, W. F. (2009). Lean manufacturing, non- financial performance measures, and financial performance. *International Journal of Operations & Production Management*, *29*(3), 214–240. https://doi.org/10.1108/01443570910938970

García-Morales, V. J., Lloréns-Montes, F. J., & Verdú-Jover, A. J. (2007). Influence of personal mastery on organizational performance through organizational learning and innovation in large firms and SMEs. *Technovation*, *27*(9), 547–568. https://doi.org/10.1016/j.technovation.2007.02.013

Gawankar, S., Kamble, S. S., & Raut, R. (2015). Performance Measurement using Balance Score Card and its Applications: A Review. *Journal of Supply Chain Management Systems*, *4*(3). https://doi.org/10.21863/jscms/2015.4.3.009

Ghasemi, A., & Zahediasl, S. (2012). Normality Tests for Statistical Analysis: A Guide for Non-Statisticians. *International Journal of Endocrinology and Metabolism*, *10*(2), 486–489. https://doi.org/10.5812/ijem.3505

Giannopoulos, G., Holt, A., Khansalar, E., & Cleanthous, S. (2013). The Use of the Balanced Scorecard in Small Companies. *International Journal of Business and Management*, *8*(14). https://doi.org/10.5539/ijbm.v8n14p1

Gopalakrishna, P., & Subramanian, R. (2001). Revisiting the pure versus hybrid dilemma: Porter's generic strategies in a developing economy. *Journal of Global Marketing*, *15*(2), 61. https://doi.org/10.1300/J042v15n02_04

Greener, S. (2008). Business Research Methods.[e-book] Dr. In *Sue Greener and Ventus Publishing ApS. Available through:< http://www. bookbon. com>[Accessed 9 May 2011]*.

Grunert, J.-H., Khalifa, R., & Gmelin, E. (2004). Computerassistierte Segmentierung und Formanalyse von 2975 mammären Mikroverkalkungen mit Hilfe der 7fachen Vergrößerungspräparateradiographie. *RöFo - Fortschritte Auf Dem Gebiet Der Röntgenstrahlen Und Der Bildgebenden Verfahren*, *176*(12), 1759–1765. https://doi.org/10.1055/s-2004-813651

Gunday, G., Ulusoy, G., Kilic, K., & Alpkan, L. (2011). Effects of innovation types on firm performance. *International Journal of Production Economics*, *133*(2), 662–676. https://doi.org/10.1016/j.ijpe.2011.05.014

Gure, A. K., & Karugu, J. (2018a). Gure & Karugu (2018),. *International Academic Journal of Human Resource and Business Administration*.

Gure, A. K., & Karugu, J. (2018b). Strategic management practices and performance of small and micro enterprises in Nairobi City County, Kenya. *International Academic Journal of Human Resource and Business Administration Academic*

Journal of Human Resource and Business Administration International Academic Journal of Human Resource and Business Administration.

Hage, J. T. (1999). Orgaizational Innovation And Organizational Change. *Annual Review of Sociology*, *25*(1), 597–622. https://doi.org/10.1146/annurev.soc.25.1.597

Hair, Black, Babin, Anderson, & T. (2010). Multivariate Data Analysis: A Global Perspective, New Jersey, USA: Pearson Education Inc. *New Jersey, USA*.

Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2013). A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM). Thousand Oaks. *Sage*.

Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., & Thiele, K. O. (2017). Mirror, mirror on the wall: a comparative evaluation of composite-based structural equation modeling methods. *Journal of the Academy of Marketing Science*, *45*(5), 616–632. https://doi.org/10.1007/s11747-017-0517-x

Hair, J., Wolfinbarger, M., Money, A. H., Samouel, P., & Page, M. J. (2015). Essentials of Business Research Methods. In *Essentials of Business Research Methods*. Routledge. https://doi.org/10.4324/9781315704562

Hambrick, D. C. (1982). Environmental scanning and organizational strategy. *Strategic Management Journal*, *3*(2), 159–174. https://doi.org/10.1002/smj.4250030207

Hamid Hawass, H. (2010). Exploring the determinants of the reconfiguration capability: a dynamic capability perspective. *European Journal of Innovation Management*, *13*(4), 409–438. https://doi.org/10.1108/14601061011086276

Han, Y., & Li, D. (2015). Effects of intellectual capital on innovative performance. *Management Decision*, *53*(1), 40–56. https://doi.org/10.1108/MD-08-2013-0411

Hashim, M. K. (2000). Business strategy and performance in Malasysian SMEs: a

recent survey. *Malaysian Management Review*.

Helfat, C.E., Finkelstein, S., Mitchell, W., Peteraf, M., Singh, H., Teece, D. J., & Winter, S. G. (2007). Dynamic capabilities and organizational process. In *Dynamic Capabilities: Understanding Strategic Change in Organizations*.

Helfat, Constance E., & Martin, J. A. (2015). Dynamic Managerial Capabilities. *Journal of Management*, *41*(5), 1281–1312. https://doi.org/10.1177/0149206314561301

Henseler, J. (2010). On the convergence of the partial least squares path modeling algorithm. *Computational Statistics*, *25*(1), 107–120. https://doi.org/10.1007/s00180-009-0164-x

Henseler, J., Wilson, B., Götz, O., & Hautvast, C. (2007). Investigating the moderating role of fit on sports sponsorship and brand equity. *International Journal of Sports Marketing and Sponsorship*, *8*(4), 34–42. https://doi.org/10.1108/IJSMS-08-04-2007-B005

Hernandez-Perlines, F. (2018). Moderating effect of absorptive capacity on the entrepreneurial orientation of international performance of family businesses. *Journal of Family Business Management*, *8*(1), 58–74. https://doi.org/10.1108/JFBM-10-2017-0035

Hervas-Oliver, J.-L., Sempere-Ripoll, F., & Boronat-Moll, C. (2014). Process innovation strategy in SMEs, organizational innovation and performance: a misleading debate? *Small Business Economics*, *43*(4), 873–886. https://doi.org/10.1007/s11187-014-9567-3

Herzallah, A. M., Gutiérrez-Gutiérrez, L., & Munoz Rosas, J. F. (2014). Total quality management practices, competitive strategies and financial performance: the case of the Palestinian industrial SMEs. *Total Quality Management & Business*

Excellence, *25*(5–6), 635–649. https://doi.org/10.1080/14783363.2013.824714

Hoonsopon, D., & Ruenrom, G. (2012). The impact of organizational capabilities on the development of radical and incremental product innovation and product innovation performance. *Journal of Managerial Issues*, *24*(3), 250–276.

Hoskission, Ireland, & H. (2011). *Strategic management: Competitiveness and globalization. 9th ed. Mason, OH: South-Western Cengage Learning.*

I Nengah Sudja, I. N. S. A. Y. (2018). Innovation Strategy Based on Resource-Based Theory Perspective and its Impact on Small and Medium Business Performance. *International Journal of Contemporary Research and Review*, *9*(11), 21109–21126. https://doi.org/10.15520/ijcrr.v9i11.620

Inauen, M., & Schenker-Wicki, A. (2011). The impact of outside-in open innovation on innovation performance. *European Journal of Innovation Management*, *14*(4), 496–520. https://doi.org/10.1108/14601061111174934

Islam, M., & Tadros, H. (2012). Corporate Strategy, Employees' Attitudes Toward the Balanced Scorecard, and Corporate Performance: A Contingency Approach. In *Advances in Management Accounting* (pp. 149–182). https://doi.org/10.1108/S1474-7871(2012)0000021012

Jantunen, A. (2005). Knowledge- processing capabilities and innovative performance: an empirical study. *European Journal of Innovation Management*, *8*(3), 336–349. https://doi.org/10.1108/14601060510610199

Jay Barney. (1991). Barney , J (1991), Firm Resources and Sustained Competitive. *Journal of Management*.

Jiménez-Jiménez, D., & Sanz-Valle, R. (2011). Innovation, organizational learning, and performance. *Journal of Business Research*, *64*(4), 408–417. https://doi.org/10.1016/j.jbusres.2010.09.010

Jiménez- Jimenez, D., Sanz Valle, R., & Hernandez- Espallardo, M. (2008). Fostering innovation. *European Journal of Innovation Management*, *11*(3), 389–412. https://doi.org/10.1108/14601060810889026

Jokiel, P. L. (2011). Ocean Acidification and Control of Reef Coral Calcification by Boundary Layer Limitation of Proton Flux. *Bulletin of Marine Science*, *87*(3), 639–657. https://doi.org/10.5343/bms.2010.1107

Jusoh, R., & Parnell, J. A. (2008). Competitive strategy and performance measurement in the Malaysian context. *Management Decision*, *46*(1), 5–31. https://doi.org/10.1108/00251740810846716

Kafetzopoulos, D., & Psomas, E. (2015). The impact of innovation capability on the performance of manufacturing companies the Greek case. *Journal of Manufacturing Technology Management*, *26*(1), 104–130. https://doi.org/10.1108/JMTM-12-2012-0117

Kaplan, R. S., & Norton, D. P. (1992). The balanced scorecard--measures that drive performance. *Harvard Business Review*.

Kaplan, Robert S., & Norton, D. P. (1998a). Putting the Balanced Scorecard to Work. In *The Economic Impact of Knowledge* (pp. 315–324). Elsevier. https://doi.org/10.1016/B978-0-7506-7009-8.50023-9

Kaplan, Robert S., & Norton, D. P. (1998b). Putting the Balanced Scorecard to Work. In *The Economic Impact of Knowledge* (pp. 315–324). Elsevier. https://doi.org/10.1016/B978-0-7506-7009-8.50023-9

Karabay, G., & Kurumer, G. (2012). Karabay, Gülseren Kurumer, Gülseren. *Fibres and Textiles in Eastern Europe*.

Karnani, A. (1984). Generic competitive strategies—An analytical approach. *Strategic Management Journal*, *5*(4), 367–380.

https://doi.org/10.1002/smj.4250050406

Kato, M., & Charoenrat, T. (2018). Business continuity management of small and medium sized enterprises: Evidence from Thailand. *International Journal of Disaster Risk Reduction*, *27*, 577–587. https://doi.org/10.1016/j.ijdrr.2017.10.002

Kaya, N. (2015). Corporate Entrepreneurship, Generic Competitive Strategies, and Firm Performance in Small and Medium-sized Enterprises. *Procedia - Social and Behavioral Sciences*, *207*, 662–668. https://doi.org/10.1016/j.sbspro.2015.10.136

Kemper, J., Engélen, A., & Brettel, M. (2011). How Top Management's Social Capital Fosters the Development of Specialized Marketing Capabilities: A Cross-Cultural Comparison. *Journal of International Marketing*, *19*(3), 87–112. https://doi.org/10.1509/jimk.19.3.87

Kenworthy, T. P., & Verbeke, A. (2015). The future of strategic management research: Assessing the quality of theory borrowing. *European Management Journal*, *33*(3), 179–190. https://doi.org/10.1016/j.emj.2015.03.007

Kettunen, J., & Kantola, I. (2005). Management information system based on the balanced scorecard. *Campus-Wide Information Systems*, *22*(5), 263–274. https://doi.org/10.1108/10650740510632181

Khallaf, A., Omran, M. A., & Zakaria, T. (2017). Explaining the inconsistent results of the impact of information technology investments on firm performance. *Journal of Accounting & Organizational Change*, *13*(3), 359–380. https://doi.org/10.1108/JAOC-11-2015-0086

Kharub, M., Mor, R. S., & Sharma, R. (2019). The relationship between cost leadership competitive strategy and firm performance. *Journal of Manufacturing Technology Management*, *30*(6), 920–936. https://doi.org/10.1108/JMTM-06-

2017-0116

Kim, E., Nam, D., & Stimpert, J. (2004). Testing the Applicability of Porter's Generic Strategies in the Digital Age: A Study of Korean Cyber Malls. *Journal of Business Strategies*, *21*(1), 19.

Kimathi, B. M., Mukulu, E., & Odhiambo, R. (2017). Effect of Innovation on the performance of Small and Medium Enterprises in Kenya. *International Journal of Entrepreneurship, 2(1),* 15–28. https://www.ajpojournals.org/journals/index.php/IJE/article/view/381

Kok, R. A. W., & Biemans, W. G. (2009). Creating a market-oriented product innovation process: A contingency approach. *Technovation*, *29*(8), 517–526. https://doi.org/10.1016/j.technovation.2008.12.004

Koo, C. M., Koh, C. E., & Nam, K. (2004). An examination of Porter's competitive strategies in electronic virtual markets: A comparison of two on-line business models. *International Journal of Electronic Commerce*.

Krackhardt, D., & Mintzberg, H. (1985). Power In and Around Organizations. *Administrative Science Quarterly*, *30*(4), 597. https://doi.org/10.2307/2392702

Kump, B., Engelmann, A., Kessler, A., & Schweiger, C. (2016). "Towards a Dynamic Capabilities Scale: Measuring Sensing, Seizing, and Transforming Capacities." *Academy of Management Proceedings*, *2016*(1), 13839. https://doi.org/10.5465/ambpp.2016.13839abstract

Lancaster, G. (2005). Research Methods in Management A concise introduction to research in management and business consultancy. In *Animal Genetics*.

Lechner, C., & Gudmundsson, S. V. (2014). Entrepreneurial orientation, firm strategy and small firm performance. *International Small Business Journal: Researching Entrepreneurship*, *32*(1), 36–60. https://doi.org/10.1177/0266242612455034

Leitner, K.-H., & Güldenberg, S. (2010). Generic strategies and firm performance in SMEs: a longitudinal study of Austrian SMEs. *Small Business Economics*, *35*(2), 169–189. https://doi.org/10.1007/s11187-009-9239-x

Li, D., & Liu, J. (2014). Dynamic capabilities, environmental dynamism, and competitive advantage: Evidence from China. *Journal of Business Research*, *67*(1), 2793–2799. https://doi.org/10.1016/j.jbusres.2012.08.007

Li, S., Ragu-Nathan, B., Ragu-Nathan, T. S., & Subba Rao, S. (2006). The impact of supply chain management practices on competitive advantage and organizational performance. *Omega*, *34*(2), 107–124. https://doi.org/10.1016/j.omega.2004.08.002

Liang, X., & Frösén, J. (2020). Examining the link between marketing controls and firm performance: The mediating effect of market-focused learning capability. *Journal of Business Research*, *109*, 545–556. https://doi.org/10.1016/j.jbusres.2019.01.021

Liao, S. H., Chang, W. J., & Wu, C. C. (2010). Exploring TQM-innovation relationship in continuing education: A system architecture and propositions. *Total Quality Management and Business Excellence*, *21*(11), 1121–1139. https://doi.org/10.1080/14783363.2010.529330

Lim, J. N., Schultmann, F., & Ofori, G. (2010). Tailoring Competitive Advantages Derived from Innovation to the Needs of Construction Firms. *Journal of Construction Engineering and Management*, *136*(5), 568–580. https://doi.org/10.1061/(ASCE)CO.1943-7862.0000151

Liu, W., & Atuahene-Gima, K. (2018). Enhancing product innovation performance in a dysfunctional competitive environment: The roles of competitive strategies and market-based assets. *Industrial Marketing Management*, *73*, 7–20.

https://doi.org/10.1016/j.indmarman.2018.01.006

Lockyer, J., O'Dwyer, B., & McMahon, H. (2016). The Marketplace of Ideas: Exploring Open Innovation in Traditional Food Producing SMEs. *Proceedings Of The 11th European Conference On Innovation And Entrepreneurship*.

Lonbani, M., Sofian, S., & Baroto, M. B. (2015). Linking Balanced Scorecard Measures To Smes' Business Strategy: Addressing the Moderating Role of Financial Resources. *International Journal of Research – Granthaalayah*.

Lorenz, M., Rüßmann, M., Waldner, M., Engel, P., Harnisch, M., Gerbert, P., & Justus, J. (2015). Industry 4.0: The Future of Productivity and Growth in Manufacturing Industries. In *The Boston Consulting Group* (Issue April, pp. 1–15). https://scholar.google.com/scholar_lookup?title=Industry 4.0%3A The Future of Productivity and Growth in Manufacturing Industries&author=P. Gerbert&publication_year=2015%0Ahttps://scholar.google.es/scholar?hl=en&as_sdt=0%2C5&q=Industry+4.0%3A+The+future+o

Luo, Y., & Zhao, H. (2004). Corporate link and competitive strategy in multinational enterprises: a perspective from subsidiaries seeking host market penetration. *Journal of International Management*, *10*(1), 77–105. https://doi.org/10.1016/j.intman.2003.12.006

Lussak, A., Abdurachman, E., Gautama, I., & Setiowati, R. (2020). The influence of financial performance and innovation of services and products on the survival of small businesses in food and beverage in the Jakarta city with mediation of operational improvement. *Management Science Letters*, 463–468. https://doi.org/10.5267/j.msl.2019.8.024

MacDonald, M. (1998). Using the Balanced Scorecard to Align Strategy and Performance in Long Term Care. *Healthcare Management Forum*, *11*(3), 33–38.

https://doi.org/10.1016/S0840-4704(10)60668-0

Makkonen, H., Pohjola, M., Olkkonen, R., & Koponen, A. (2014). Dynamic capabilities and firm performance in a financial crisis. *Journal of Business Research*, *67*(1), 2707–2719. https://doi.org/10.1016/j.jbusres.2013.03.020

Malagueño, R., Lopez-Valeiras, E., & Gomez-Conde, J. (2018). Balanced scorecard in SMEs: effects on innovation and financial performance. *Small Business Economics*, *51*(1), 221–244. https://doi.org/10.1007/s11187-017-9921-3

Maldonado-Guzmán, G., Garza-Reyes, J. A., Pinzón-Castro, S. Y., & Kumar, V. (2019). Innovation capabilities and performance: are they truly linked in SMEs? *International Journal of Innovation Science*, *11*(1), 48–62. https://doi.org/10.1108/IJIS-12-2017-0139

Mamun, A. Al. (2018). Diffusion of innovation among Malaysian manufacturing SMEs. *European Journal of Innovation Management*, *21*(1), 113–141. https://doi.org/10.1108/EJIM-02-2017-0017

Mangus, S. M., & Ruvio, A. (2019). Do opposites attract? Assimilation and differentiation as relationship-building strategies. *Journal of Personal Selling & Sales Management*, *39*(1), 60–80. https://doi.org/10.1080/08853134.2018.1471696

March, J. G. (1991). Exploration and Exploitation in Organizational Learning. *Organization Science*, *2*(1), 71–87. https://doi.org/10.1287/orsc.2.1.71

March, J. G., & Sutton, R. I. (1997). Organizational Performance as a Dependent Variable. *Organization Science*.

Martínez-Costa, M., & Martínez-Lorente, A. R. (2008). Does quality management foster or hinder innovation? An empirical study of Spanish companies. *Total Quality Management & Business Excellence*, *19*(3), 209–221.

https://doi.org/10.1080/14783360701600639

Martinez-Sanchez, A., Perez-Perez, M., & Vicente-Oliva, S. (2019). Absorptive capacity and technology: influences on innovative firms. *Management Research: Journal of the Iberoamerican Academy of Management*, *17*(3), 250–265. https://doi.org/10.1108/MRJIAM-02-2018-0817

Matzler, K., Schwarz, E., Deutinger, N., & Harms, R. (2008). The Relationship between Transformational Leadership, Product Innovation and Performancein SMEs. *Journal of Small Business & Entrepreneurship*, *21*(2), 139–151. https://doi.org/10.1080/08276331.2008.10593418

McCann, J. E. (1991). Patterns of growth, competitive technology, and financial strategies in young ventures. *Journal of Business Venturing*, *6*(3), 189–208. https://doi.org/10.1016/0883-9026(91)90009-3

McMillan, J., & Schumacher, S. (2014). Research in Education: Evidence-Based Inquiry. In *Pearson*.

Michael White, Braczyk, H., Ghobadian, a, & Niebuhr, J. (1988). Small Firms Innovation. *Product Innovation*.

MIDA, M. I. D. A. (2019). *Food industry in Malaysia*. Food Technology and Resource Based Industries Division Malaysian Investment Development Authority.

Miles, R. E., Miles, G., & Snow, C. C. (2006). Collaborative Entrepreneurship: *Organizational Dynamics*, *35*(1), 1–11. https://doi.org/10.1016/j.orgdyn.2005.12.004

Miles, R. E., & Snow, C. C. (1984). Designing strategic human resources systems. *Organizational Dynamics*, *13*(1), 36–52. https://doi.org/10.1016/0090-2616(84)90030-5

Miller, D. (1986). Configurations of strategy and structure: Towards a synthesis. *Strategic Management Journal*, *7*(3), 233–249. https://doi.org/10.1002/smj.4250070305

Miller, D., & Friesen, P. H. (1986). Porter's (1980) Generic Strategies and Performance: An Empirical Examination with American Data: Part I: Testing Porter. *Organization Studies*, *7*(1), 37–55. https://doi.org/10.1177/017084068600700103

Mintzberg, H., & Waters, J. A. (1985). Of strategies, deliberate and emergent. *Strategic Management Journal*, *6*(3), 257–272. https://doi.org/10.1002/smj.4250060306

MITI. (2019). *No Title*. https://www.miti.gov.my/miti/resources/11._Food_Industry_.pdf

Mohammadi, P., Fathi, S., & Kazemi, A. (2019). Differentiation and financial performance: a meta-analysis. *Competitiveness Review: An International Business Journal*, *29*(5), 573–591. https://doi.org/10.1108/CR-10-2018-0067

Mone, M. A., McKinley, W., & Barker, V. L. (1998). Organizational Decline and Innovation: A Contingency Framework. *Academy of Management Review*, *23*(1), 115–132. https://doi.org/10.5465/amr.1998.192965

Morgan, D., & Krejcie, R. (1970). Sample Size Determination Using Krejcie and Morgan Table. In *Kenya Projects Organization (KENPRO)*.

Mungai, E., & Ogot, M. (2017). Generic Strategies and Firm Performance: An Investigation of Informal Sector Micro-Enterprises in Kenya. *International Journal of Business and Management*, *12*(3), 148. https://doi.org/10.5539/ijbm.v12n3p148

Mustapha, N. M., & Sorooshian, S. (2019). SME performance measurement: A

technical review of Malaysia. In *International Journal of Innovative Technology and Exploring Engineering*.

Nandakumar, M. K., Ghobadian, A., & O'Regan, N. (2011). Generic strategies and performance – evidence from manufacturing firms. *International Journal of Productivity and Performance Management*, *60*(3), 222–251. https://doi.org/10.1108/17410401111111970

Nawanir, G., Lim, K. T., Lee, K. L., Okfalisa, Moshood, T. D., & Ahmad, A. N. A. (2020). Less for more: The structural effects of lean manufacturing practices on sustainability of manufacturing SMEs in Malaysia. *International Journal of Supply Chain Management*.

Nielsen, C., & Lund, M. (2018). Building scalable business models. *MIT Sloan Management Review*, *59*(2), 65–69.

Noor, N. A. M., & Aljanabi, A. Q. R. A. (2016). Moderating role of absorptive capacity between entrepreneurial orientation and technological innovation capabilities. *International Review of Management and Marketing*, *6*(4), 704–710.

Nor-Aishah, H., Ahmad, N. H., & Thurasamy, R. (2020). Entrepreneurial Leadership and Sustainable Performance of Manufacturing SMEs in Malaysia: The Contingent Role of Entrepreneurial Bricolage. *Sustainability*, *12*(8), 3100. https://doi.org/10.3390/su12083100

Noruzy, A., Dalfard, V. M., Azhdari, B., Nazari-Shirkouhi, S., & Rezazadeh, A. (2013a). Relations between transformational leadership, organizational learning, knowledge management, organizational innovation, and organizational performance: an empirical investigation of manufacturing firms. *The International Journal of Advanced Manufacturing Technology*, *64*(5–8), 1073–1085. https://doi.org/10.1007/s00170-012-4038-y

Noruzy, A., Dalfard, V. M., Azhdari, B., Nazari-Shirkouhi, S., & Rezazadeh, A. (2013b). Relations between transformational leadership, organizational learning, knowledge management, organizational innovation, and organizational performance: an empirical investigation of manufacturing firms. *The International Journal of Advanced Manufacturing Technology*, *64*(5–8), 1073–1085. https://doi.org/10.1007/s00170-012-4038-y

Ntiamoah, E. B., Li, D., & Sarpong, D. B. (2019). The effect of innovation practices on agribusiness performance: A structural equation modelling (SEM) approach. *African Journal of Science, Technology, Innovation and Development*, *11*(6), 671–681. https://doi.org/10.1080/20421338.2019.1573958

Nunnally, J. C. (1979). Psychometric Theory: Secon d Edition. *Applied Psychological Measurement*.

O'Connell, V., & O'Sullivan, D. (2014). The influence of lead indicator strength on the use of nonfinancial measures in performance management: Evidence from CEO compensation schemes. *Strategic Management Journal*, *35*(6), 826–844. https://doi.org/10.1002/smj.2124

O'Connell, V., & O'Sullivan, D. (2016). Are nonfinancial metrics good leading indicators of future financial performance? *MIT Sloan Management Review*.

O'Farrell, P. N., Kitchens, D. M., & Moffat, L. A. R. (1993). The Competitive Advantage of Business Service Firms: A Matched Pairs Analysis of the Relationship Between Generic Strategy and Performance. *The Service Industries Journal*, *13*(1), 40–64. https://doi.org/10.1080/02642069300000003

OECD, & Eurostat. (2018). Oslo Manual 2018. In *Handbook of Innovation Indicators and Measurement* (Issue October). http://oe.cd/inno-stats.

Olvera-Lobo, M. D., & Castillo-Rodríguez, C. (2018). Dissemination of Spanish SME

information through web 2.0 tools. *Journal of Transnational Management*, *23*(4), 178–197. https://doi.org/10.1080/15475778.2018.1509422

Omsa, S. (2017). Five Competitive Forces Model and the Implementation of Porter's Generic Strategies to Gain Firm Performances. *Science Journal of Business and Management*, *5*(1), 9. https://doi.org/10.11648/j.sjbm.20170501.12

Overstreet, R. E., Hanna, J. B., Byrd, T. A., Cegielski, C. G., & Hazen, B. T. (2013). Leadership style and organizational innovativeness drive motor carriers toward sustained performance. *The International Journal of Logistics Management*, *24*(2), 247–270. https://doi.org/10.1108/IJLM-12-2012-0141

Panwar, R., Nybakk, E., Hansen, E., & Pinkse, J. (2016). The effect of small firms' competitive strategies on their community and environmental engagement. *Journal of Cleaner Production*, *129*, 578–585. https://doi.org/10.1016/j.jclepro.2016.03.141

Parashar, M., & Singh, S. K. (2005). (2005). *Innovation capability. IIMB Management Review, 17(4), 115-123.*

Parnell, J. A. (2015). Strategic political emphasis, strategic capabilities and uncertainty. *Journal of Strategy and Management*, *8*(1), 41–63. https://doi.org/10.1108/JSMA-05-2014-0033

Parnell, J. A., Koseoglu, M. A., Long, Z., & Spillan, J. E. (2012). Competitive Strategy, Uncertainty, and Performance: An Exploratory Assessment of China and Turkey. *Journal of Transnational Management*, *17*(2), 91–117. https://doi.org/10.1080/15475778.2012.676957

Parnell, J. A., Lester, D., Long, Z., & Koseoglu, M. A. (2011). Uncertainty, Strategy And Performance In SMES: Evidence From China, Turkey, And The United States. *Academy of Management Proceedings*, *2011*(1), 1–6.

https://doi.org/10.5465/ambpp.2011.65869190

Parnell, J. A., Long, Z., & Lester, D. (2015). Competitive strategy, capabilities and uncertainty in small and medium sized enterprises (SMEs) in China and the United States. *Management Decision*, *53*(2), 402–431. https://doi.org/10.1108/MD-04-2014-0222

Parnell, J. A., Spillan, J. E., & Mensah, E. C. (2014). Competitive strategy and performance in Southern Ghana. *International Journal of Management and Enterprise Development*, *13*(2), 109. https://doi.org/10.1504/IJMED.2014.062546

Patel, P. C., Kohtamäki, M., Parida, V., & Wincent, J. (2015). Entrepreneurial orientation-as-experimentation and firm performance: The enabling role of absorptive capacity. *Strategic Management Journal*, *36*(11), 1739–1749. https://doi.org/10.1002/smj.2310

Pavitt, K. (1998). Technologies, products and organization in the innovating firm: What Adam Smith tells us and Joseph Schumpeter doesn't. *Industrial and Corporate Change*, *7*(3), 433–452. https://doi.org/10.1093/icc/7.3.433

Pekkola, S., Saunila, M., Ukko, J., & Rantala, T. (2016). The role of performance measurement in developing industrial services. *Journal of Quality in Maintenance Engineering*, *22*(3), 264–276. https://doi.org/10.1108/JQME-01-2015-0004

Piening, E. P. (2013). Dynamic Capabilities in Public Organizations. *Public Management Review*, *15*(2), 209–245. https://doi.org/10.1080/14719037.2012.708358

Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and

recommended remedies. *Journal of Applied Psychology*, *88*(5), 879–903. https://doi.org/10.1037/0021-9010.88.5.879

Porter, M. E. (1985). Technology And Competitive Advantage. *Journal of Business Strategy*, *5*(3), 60–78. https://doi.org/10.1108/eb039075

Porter, M. E. (1997a). Competitive Strategy. *Measuring Business Excellence*, *1*(2), 12–17. https://doi.org/10.1108/eb025476

Porter, M. E. (1997b). Competitive Strategy. *Measuring Business Excellence*, *1*(2), 12–17. https://doi.org/10.1108/eb025476

Powers, T. L., & Hahn, W. (2004). Critical competitive methods, generic strategies, and firm performance. *International Journal of Bank Marketing*, *22*(1), 43–64. https://doi.org/10.1108/02652320410514924

Psomas, E., Kafetzopoulos, D., & Gotzamani, K. (2018). Determinants of company innovation and market performance. *The TQM Journal*, *30*(1), 54–73. https://doi.org/10.1108/TQM-07-2017-0074

Rajapathirana, R. P. J., & Hui, Y. (2018). Relationship between innovation capability, innovation type, and firm performance. *Journal of Innovation & Knowledge*, *3*(1), 44–55. https://doi.org/10.1016/j.jik.2017.06.002

Ramanujam, V., Venkatraman, N., & Camillus, J. C. (1986). Multi-Objective Assessment of Effectiveness of Strategic Planning: A Discriminant Analysis Approach. *Academy of Management Journal*, *29*(2), 347–372. https://doi.org/10.5465/256192

Ramayah, T., Cheah, J., Chuah, F., Ting, H., & Memon, M. . (2018). Partial least squares structural equation modeling (PLS-SEM) using SmartPLS 3.0: An updated guide and practical guide to statistical analysis. In *Practical Assessment, Research and Evaluation*.

Rammer, C., Czarnitzki, D., & Spielkamp, A. (2009). Innovation success of non-R&D-performers: substituting technology by management in SMEs. *Small Business Economics*, *33*(1), 35–58. https://doi.org/10.1007/s11187-009-9185-7

Reichstein, T., & Salter, A. (2006). Investigating the sources of process innovation among UK manufacturing firms. *Industrial and Corporate Change*, *15*(4), 653–682. https://doi.org/10.1093/icc/dtl014

Rhee, J., Park, T., & Lee, D. H. (2010). Drivers of innovativeness and performance for innovative SMEs in South Korea: Mediation of learning orientation. *Technovation*, *30*(1), 65–75. https://doi.org/10.1016/j.technovation.2009.04.008

Richard, P. J., Devinney, T. M., Yip, G. S., & Johnson, G. (2008). Measuring Organizational Performance as a Dependent Variable: Towards Methodological Best Practice. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.814285

Richard, P. J., Devinney, T. M., Yip, G. S., & Johnson, G. (2009). Measuring Organizational Performance: Towards Methodological Best Practice. *Journal of Management*, *35*(3), 718–804. https://doi.org/10.1177/0149206308330560

Ringle, C. M., Wende, S., & Becker, J. M. (2015). Smart PLS 3. In *SmartPLS GmbH, http://www.smartpls.com*.

Rosli, M. M., & Sidek, S. (2013). The Impact of Innovation on the Performance of Small and Medium Manufacturing Enterprises: Evidence from Malaysia. *Journal of Innovation Management in Small & Medium Enterprise*, 1–16. https://doi.org/10.5171/2013.885666

Rouvinen, P. (2002). Characteristics of product and process innovators: some evidence from the Finnish innovation survey. *Applied Economics Letters*, *9*(9), 575–580. https://doi.org/10.1080/13504850110108102

Rua, O., França, A., & Fernández Ortiz, R. (2018). Key drivers of SMEs export

performance: the mediating effect of competitive advantage. *Journal of Knowledge Management*, *22*(2), 257–279. https://doi.org/10.1108/JKM-07-2017-0267

Sadikoglu, E., & Zehir, C. (2010). Investigating the effects of innovation and employee performance on the relationship between total quality management practices and firm performance: An empirical study of Turkish firms. *International Journal of Production Economics*, *127*(1), 13–26. https://doi.org/10.1016/j.ijpe.2010.02.013

Saeidi, S. P., Saeidi, P., Othman, M. S. H., & Saeidi, S. P. (2018). The moderating role of environmental management accounting between environmental innovation and firm financial performance. *International Journal of Business Performance Management*, *19*(3), 326. https://doi.org/10.1504/IJBPM.2018.10011849

Salkind, N. J. (1997). Exploring research (ed.). Upper Saddle River, NJ: Prentice Hall. *Upper Saddle River, NJ: Prentice Hall.*

Sartor, M. (2019). 4. The Balanced Scorecard. In *Quality Management: Tools, Methods, and Standards* (pp. 55–76). Emerald Publishing Limited. https://doi.org/10.1108/978-1-78769-801-720191004

Schachter, H. L. (2010). Objective and Subjective Performance Measures. *Administration & Society*, *42*(5), 550–567. https://doi.org/10.1177/0095399710378080

Sekaran. (2003). Research Methods for Business; Skills Building Approach, 4th edition, John Wiley and sons, New York. *Journal of MultiDisciplinary Evaluation*.

Sekaran, U., & Bougie, R. (2016). Reserach Methods for Bussiness A Skill-Bulding

Approach. *Printer Trento Srl*.

Sethi, R., & Sethi, A. (2009). Can quality-oriented firms develop innovative new products? *Journal of Product Innovation Management, 26*(2), 206–221. https://doi.org/10.1111/j.1540-5885.2009.00346.x

Seyedhosseini, S. M., Taleghani, A. E., Bakhsha, A., & Partovi, S. (2011). Extracting leanness criteria by employing the concept of Balanced Scorecard. *Expert Systems with Applications*, *38*(8), 10454–10461. https://doi.org/10.1016/j.eswa.2011.02.095

Shashi, Centobelli, P., Cerchione, R., & Singh, R. (2019). The impact of leanness and innovativeness on environmental and financial performance: Insights from Indian SMEs. *International Journal of Production Economics*, *212*, 111–124. https://doi.org/10.1016/j.ijpe.2019.02.011

Simonen, J., & McCann, P. (2008). Firm innovation: The influence of R&D cooperation and the geography of human capital inputs. *Journal of Urban Economics*, *64*(1), 146–154. https://doi.org/10.1016/j.jue.2007.10.002

Singh, A. J., & Schmidgall, R. S. (2002). Analysis of financial ratios commonly used by US lodging financial executives. *Journal of Retail & Leisure Property*, *2*(3), 201–213. https://doi.org/10.1057/palgrave.rlp.5090210

Sirmon, D. G., Hitt, M. A., Ireland, R. D., & Gilbert, B. A. (2011). Resource orchestration to create competitive advantage: Breadth, depth, and life cycle effects. In *Journal of Management* (Vol. 37, Issue 5, pp. 1390–1412). https://doi.org/10.1177/0149206310385695

SME Corp. Malaysia. (2017). Chapter 5 SME and Entrepreneurship Development Programmes in 2016. *SME Annual Report 2016/2017*.

SME Corp. Malaysia. (2020). *Guideline for SME Definition*.

https://www.smecorp.gov.my/images/pdf/2020/Guideline-SMEDefinition_updated.pdf

Spunt. (1999). *Guide to customer surveys: Sample questionnaires and detailed guidelines for creating effective surveys. Customer Service Group.*

Stoian, C., & Gilman, M. (2017). Corporate Social Responsibility That "Pays": A Strategic Approach to CSR for SMEs. *Journal of Small Business Management*, *55*(1), 5–31. https://doi.org/10.1111/jsbm.12224

Sumer, K., & Bayraktar, C. A. (2012). Business Strategies and Gaps in Porter's Typology: A Literature Review. *Journal of Management Research*, *4*(3). https://doi.org/10.5296/jmr.v4i3.1721

Suprapto, B., Wahab, H. A., & Wibowo, A. J. (2009). The Implementation of Balance Score Card for Performance Measurement in Small and Medium Enterprises : Evidence from Malaysian Health Care Services. *Technology Management*.

Teece, D. J. (2007a). Explicating dynamic capabilities: the nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal*, *28*(13), 1319–1350. https://doi.org/10.1002/smj.640

Teece, D. J. (2007b). Explicating dynamic capabilities: the nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal*, *28*(13), 1319–1350. https://doi.org/10.1002/smj.640

Teece, D. J. (2014). A dynamic capabilities-based entrepreneurial theory of the multinational enterprise. *Journal of International Business Studies*, *45*(1), 8–37. https://doi.org/10.1057/jibs.2013.54

Teece, D. J. (2018). Business models and dynamic capabilities. *Long Range Planning*, *51*(1), 40–49. https://doi.org/10.1016/j.lrp.2017.06.007

Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic

management. *Strategic Management Journal*, *18*(7), 509–533. https://doi.org/10.1002/(SICI)1097-0266(199708)18:7<509::AID-SMJ882>3.0.CO;2-Z

Teece, D., & Pisano, G. (1994). The Dynamic Capabilities of Firms: an Introduction. *Industrial and Corporate Change*, *3*(3), 537–556. https://doi.org/10.1093/icc/3.3.537-a

Toledo-Pereyra, L. H. (2012). Research Design. *Journal of Investigative Surgery*, *25*(5), 279–280. https://doi.org/10.3109/08941939.2012.723954

Tran, T. (2008). A conceptual model of learning culture and innovation schema. *Competitiveness Review*, *18*(3), 287–299. https://doi.org/10.1108/10595420810906046

Treacy, M., & Wiersema, F. (1993). Customer intimacy and other value disciplines. *Harvard Business Review*.

Turulja, L., & Bajgoric, N. (2019). Innovation, firms' performance and environmental turbulence: is there a moderator or mediator? *European Journal of Innovation Management*, *22*(1), 213–232. https://doi.org/10.1108/EJIM-03-2018-0064

Ueasangkomsate, P., & Jangkot, A. (2017). Enhancing the innovation of small and medium enterprises in food manufacturing through Triple Helix Agents. *Kasetsart Journal of Social Sciences*. https://doi.org/10.1016/j.kjss.2017.12.007

Ukko, J., Nasiri, M., Saunila, M., & Rantala, T. (2019). Sustainability strategy as a moderator in the relationship between digital business strategy and financial performance. *Journal of Cleaner Production*, *236*, 117626. https://doi.org/10.1016/j.jclepro.2019.117626

ul Hassan, M., Shaukat, S., Nawaz, M., & Naz, S. (2013). Effects of innovation types on firm performance: An empirical study on Pakistan's manufacturing sector.

Pakistan Journal of Commerce and Social Sciences (PJCSS), *7*(2), 243–262.

Utterback, J. M., & Abernathy, W. J. (1975). A dynamic model of process and product innovation. *Omega*, *3*(6), 639–656. https://doi.org/10.1016/0305-0483(75)90068-7

Valencia, J. C. N., Valle, R. S., & Jiménez, D. J. (2010). Organizational culture as determinant of product innovation. *European Journal of Innovation Management*, *13*(4), 466–480. https://doi.org/10.1108/14601061011086294

Valmohammadi, C., & Ahmadi, M. (2015). The impact of knowledge management practices on organizational performance. *Journal of Enterprise Information Management*, *28*(1), 131–159. https://doi.org/10.1108/JEIM-09-2013-0066

Venkatraman, N., & Ramanujam, V. (1986). Measurement of Business Performance in Strategy Research: A Comparison of Approaches. *Academy of Management Review*, *11*(4), 801–814. https://doi.org/10.5465/amr.1986.4283976

Vinet, L., & Zhedanov, A. (2011). A 'missing' family of classical orthogonal polynomials. *Journal of Physics A: Mathematical and Theoretical*, *44*(8), 085201. https://doi.org/10.1088/1751-8113/44/8/085201

Visnjic, I., Wiengarten, F., & Neely, A. (2016). Only the Brave: Product Innovation, Service Business Model Innovation, and Their Impact on Performance. *Journal of Product Innovation Management*, *33*(1), 36–52. https://doi.org/10.1111/jpim.12254

Vladimirov, Z. (2016). SME Innovations and Performance: The Mediating Role of Product Innovation. *International Review of Entrepreneurship*. http://www.senatehall.com/entrepreneurship

Vu Thi, K. A., Vu, T. D., & Hoang, K. Van. (2018). Using the Balanced Scorecard to Measure the Performance of Small and Medium- Sized Garment Enterprises in

Vietnam. *Accounting and Finance Research*, *7*(3), 251. https://doi.org/10.5430/afr.v7n3p251

Wang, D. S. (2019). Association between technological innovation and firm performance in small and medium-sized enterprises: The moderating effect of environmental factors. *International Journal of Innovation Science*, *11*(2), 227–240. https://doi.org/10.1108/IJIS-04-2018-0049

White, R. E. (1986). Generic business strategies, organizational context and performance: An empirical investigation. *Strategic Management Journal*, *7*(3), 217–231. https://doi.org/10.1002/smj.4250070304

Widjaja, B. T., Sumintapura, I. W., & Yani, A. (2020). Exploring the triangular relationship among information and communication technology, business innovation and organizational performance. *Management Science Letters*, 163–174. https://doi.org/10.5267/j.msl.2019.8.006

Wilden, R., Gudergan, S. P., Nielsen, B. B., & Lings, I. (2013). Dynamic Capabilities and Performance: Strategy, Structure and Environment. *Long Range Planning*, *46*(1–2), 72–96. https://doi.org/10.1016/j.lrp.2012.12.001

Williamson, H. F., & Chandler, A. D. (1964). Strategy and Structure: Chapters in the History of the Industrial Enterprise. *Technology and Culture*, *5*(1), 107. https://doi.org/10.2307/3101138

Winter, S. G. (2003). Understanding dynamic capabilities. *Strategic Management Journal*, *24*(10), 991–995. https://doi.org/10.1002/smj.318

Wirtz, H. (2011). Innovation Networks in Logistics-Management and Competitive Advantages. *International Journal of Innovation Science*, *3*(4), 177–192. https://doi.org/10.1260/1757-2223.3.4.177

Wong, J.-M. (2011). A Relational View of Resources-based Theory: The case of

Internationalization of Li & Fung Group. *The Journal of Human Resource and Adult Learning*, *7*(2), 34–39. http://search.proquest.com.ez.library.latrobe.edu.au/docview/1016739832?rfr_id=info%3Axri%2Fsid%3Aprimo

Woodside, A. G., Sullivan, D. P., & Trappey, R. J. (1999). Assessing Relationships among Strategic Types, Distinctive Marketing Competencies, and Organizational Performance. *Journal of Business Research*, *45*(2), 135–146. https://doi.org/10.1016/S0148-2963(97)00232-4

World Bank. (2018). *Food Products Exports by country & region 2018 | WITS Data*. Food Products Exports by Country & Region 2018 | WITS Data. https://wits.worldbank.org/CountryProfile/en/Country/MYS/Year/2018/TradeFlow/Export/Partner/all/Product/16-24_FoodProd

Wright, P., Kroll, M., Tu, H., & Helms, M. (1991). Generic Strategies and Business Performance: an Empirical Study of the Screw Machine Products Industry. *British Journal of Management*, *2*(1), 57–65. https://doi.org/10.1111/j.1467-8551.1991.tb00016.x

Yam, Guan, Pun, & T. (2004). *An audit of technological innovation capabilities in Chinese firms: some empirical findings in Beijing, China. Research policy, 33(8), 1123-1140.*

Yanney, J. P. (2014). Business Strategy and Leadership Style: Impact on Organizational Performance in the Manufacturing Sector of Ghana. *American Journal of Industrial and Business Management*, *04*(12), 767–775. https://doi.org/10.4236/ajibm.2014.412083

Yuan, L., Zhongfeng, S., & Yi, L. (2010). Can strategic flexibility help firms profit from product innovation? *Technovation*, *30*(5–6), 300–309.

https://doi.org/10.1016/j.technovation.2009.07.007

Zaborek, P., & Mazur, J. (2019). Enabling value co-creation with consumers as a driver of business performance: A dual perspective of Polish manufacturing and service SMEs. *Journal of Business Research*, *104*, 541–551. https://doi.org/10.1016/j.jbusres.2018.12.067

Zahra, S. A., & Covin, J. G. (1993). Business strategy, technology policy and firm performance. *Strategic Management Journal*, *14*(6), 451–478. https://doi.org/10.1002/smj.4250140605

Zahra, S. A., Sapienza, H. J., & Davidsson, P. (2006). Entrepreneurship and Dynamic Capabilities: A Review, Model and Research Agenda*. *Journal of Management Studies*, *43*(4), 917–955. https://doi.org/10.1111/j.1467-6486.2006.00616.x

Zamani, S., Parnell, J. A., Labbaf, H., & O'Regan, N. (2013). Strategic Change and Decision Making in an Emerging Nation: An Exploratory Assessment of Iranian Manufacturing Firms. *Strategic Change*, *22*(5–6), 355–370. https://doi.org/10.1002/jsc.1945

Zhan, W., & Chen, R. (2013). Dynamic capability and IJV performance: The effect of exploitation and exploration capabilities. *Asia Pacific Journal of Management*, *30*(2), 601–632. https://doi.org/10.1007/s10490-010-9235-3

Zollo, M., & Winter, S. G. (2002). Deliberate Learning and the Evolution of Dynamic Capabilities. *Organization Science*, *13*(3), 339–351. https://doi.org/10.1287/orsc.13.3.339.2780

APPENDICES

APPENDIX A

Questionnaires

Survey Questionnaire

Dear respected owner / manager,

Researcher is currently doing research on "The organisational performance of food manufacturing in Malaysia". This study is undertaken to learn about factors that could enhance the organisational performance of food manufacturing. Your opinions will be highly valuable for us to evaluate the organisational performance of this sector. Once you complete it, please return it with the envelope attached (postage paid). We assure you that your responses are completely confidential and will only be used for the purpose of academic research. If you have any questions, please contact me at 011-37523616 / 04-9287422. Thank you for your time and cooperation. We wish you every success in your business.

Sincerely,
Mohd Salahudin Shamsudin
School of Business Management
Universiti Utara Malaysia
E-mail: salahudin@uum.edu.my
Fax: 04-9287422

SECTION A

Please indicate your level of agreement with the following statements about your organisation.				
Strongly Disagree	Disagree	Neither Agree	Agree	Strongly Agree
1	2	3	4	5

Cost-leadership Strategy

1.	Our company is efficient in securing raw materials	1	2	3	4	5
2.	Our company is efficient in securing components	1	2	3	4	5
3.	Our company is finding ways to reduce costs	1	2	3	4	5
4.	Our company has a high level of operating efficiency	1	2	3	4	5
5.	Our company has a high level of production capacity utilisation	1	2	3	4	5
6.	Our company emphasises price competition	1	2	3	4	5

Differentiation Strategy

1	Our company emphasises on using new methods to create superior products	1	2	3	4	5
2	Our company emphasises on using new technologies to create superior products	1	2	3	4	5
3	Our company emphasises on new product development	1	2	3	4	5
4	Our company often introduces new products to the market	1	2	3	4	5
5	Our company offers a variety of new products to the market	1	2	3	4	5
6	Our company intensively carries out advertising	1	2	3	4	5
7	Our company intensively carries out marketing	1	2	3	4	5
8	Our company emphasises on developing a sales force	1	2	3	4	5
9	Our company emphasises on utilizing sales force	1	2	3	4	5
10	Our company emphasises on building a strong brand identification	1	2	3	4	5

SECTION B

Please indicate your level of agreement with the following statements about your organisation.

Strongly Disagree	Disagree	Neither Agree	Agree	Strongly Agree
1	2	3	4	5

Product Innovation

1	Our level of product newness (novelty) is increased	1	2	3	4	5
2	Our company's products are incorporated with the latest technological innovations	1	2	3	4	5
3	The frequency of developing new products is high	1	2	3	4	5
4	The number of our introduced to the market is high	1	2	3	4	5

Process Innovation

1	The competitiveness of our company from the technology point of view is high	1	2	3	4	5
2	The latest technological innovations are frequently adopted in our processes	1	2	3	4	5
3	The technology used in our processes is characterised by novelty	1	2	3	4	5
4	The rate of changes in the processes is high	1	2	3	4	5
5	The rate of changes in the techniques is high	1	2	3	4	5

SECTION C
Dynamic Capabilities

Please indicate your level of agreement with the following statements about your organisation.

Strongly Disagree	Disagree	Neither Agree	Agree	Strongly Agree
1	2	3	4	5

1	Our company knows the best practices in the market	1	2	3	4	5
2	Our company is up to date on the current market situation	1	2	3	4	5
3	Our company systematically searches for	1	2	3	4	5

	information on the current market situation					
4	As a company, we know how to access new information	1	2	3	4	5
5	Our company always has an eye on our competitors' activities	1	2	3	4	5
6	Our company quickly adapts to new knowledge from the outside	1	2	3	4	5
7	We recognise what new information can be utilised in our company	1	2	3	4	5
8	Our company is capable of turning new technological knowledge into process and product innovation	1	2	3	4	5
	Our company believes current information leads to the development of new products	1	2	3	4	5
10	With clear responsibilities, we successfully implement plans for changes in our company	1	2	3	4	5
11	Even when unforeseen interruptions occur, change projects are consistently seen in our company	1	2	3	4	5
12	Decisions on planned changes are consistently pursued in our company	1	2	3	4	5
13	In the past, our company had demonstrated our strengths in implementing changes	1	2	3	4	5
14	In our company, change projects can be put into practice alongside the daily business	1	2	3	4	5

SECTION D
Organisational Performance

Please indicate your perception of the performance of your organisation in the past three years.

Decreased Significantly	Decreased	Unchanged	Increased	Increased Significantly
1	2	3	4	5

1	Revenue growth rate	1	2	3	4	5
2	Profitability ratio	1	2	3	4	5
3	Return on investment (ROI)	1	2	3	4	5
4	Return on assets (ROA)	1	2	3	4	5
5	The rate of turnover of new customers	1	2	3	4	5
6	The number of complaints from	1	2	3	4	5

	customers					
7	Number of customers	1	2	3	4	5
8	Time to settle a complaint	1	2	3	4	5
9	Sales rate of new products	1	2	3	4	5
10	Total sales collection	1	2	3	4	5
11	Revenue ratio of a new market	1	2	3	4	5
12	Total revenue	1	2	3	4	5
13	New product ratio/total product	1	2	3	4	5
14	The proportion of employees with postgraduate qualifications	1	2	3	4	5
15	The percentage of employees with a college degree	1	2	3	4	5
16	The rate of employees with a high skill level	1	2	3	4	5
17	Rate of investment costs for information equipment	1	2	3	4	5
18	Rate of training costs	1	2	3	4	5

SECTION E
Demographic Information

The following questions ask for information concerning yourself and your organisation's background.
Please tick (/) in the appropriate box.

1. Gender ( ) Male ( ) Female

2. Age ( ) Below 30 ( ) 31- 40 ( ) 41-50 ( ) 51-60
( ) 61 and above

3. Race ( ) Malay ( ) Chinese ( ) Indian ( )
Others, please specify: _____

4. Highest education level.
( ) PhD ( ) Master ( ) Degree ( ) Diploma
( ) Secondary school ( ) Primary School
( ) Other, please specify: _____

5. Your position at this firm?
( ) Business owner
( ) Business Partner
( ) Manager
( ) Other, please specify:_____

6. If you are the business owner or business partner, how long has your firm been established?

( ) Less than 5 years
( ) 5 - 10 years
( ) 11 - 15 years
( ) 16 - 20 years
( ) More than 20 years

7. If you are manager or other, how many years have you been working with the firm?
( ) Less than 5 years
( ) 5 - 10 years
( ) 11 - 15 years
( ) 16 - 20 years
( ) More than 20 years

8. Your firm is located in the state of _____.

8. How many employees does your firm hire?
( ) From 5 to less than 75 persons
( ) From 75 to less than 200 persons

9. Please select the type of your market.
( ) Local
( ) International
( ) Local and International

10. Please select the type of food segments which most closely represents your organization.

( ) Production, Processing and Preserving of Meat and Seafood Products oil

( ) Production, Processing and Preserving of Fruits and Vegetables

( ) Vegetable and Animal Oil, Coating Fats, Shortening, Butter and all Dairy Products

( ) Snacks, Biscuits, Bread, Preserved, Frozen and Canned Food

( ) Grain, Noodles and Other Products Containing Starch

( ) Sugar, Cocoa and Chocolate Confectionary and Bakery Products

( ) Spices, Seasonings, Flavourings, Condiments and Sauces

( ) Health Supplements, Nutritional and Related Food

( ) Animal Feed

( ) Other Foods not Elsewhere Classified

APPENDIX B

Total Variance Explained

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	19.576	34.344	34.344	18.970	33.280	33.280
2	5.177	9.083	43.427			
3	4.133	7.250	50.677			
4	3.929	6.893	57.570			
5	2.660	4.666	62.236			
6	1.727	3.030	65.266			
7	1.457	2.556	67.823			
8	1.216	2.133	69.956			
9	1.137	1.995	71.950			
10	1.015	1.781	73.731			
11	.987	1.731	75.462			
12	.905	1.588	77.049			
13	.813	1.427	78.476			
14	.751	1.318	79.794			
15	.696	1.222	81.015			
16	.688	1.206	82.222			
17	.647	1.136	83.357			
18	.631	1.107	84.464			
19	.571	1.001	85.465			
20	.520	.913	86.378			
21	.474	.831	87.209			
22	.464	.815	88.023			
23	.437	.767	88.790			
24	.429	.752	89.542			
25	.385	.676	90.218			
26	.375	.659	90.877			
27	.350	.614	91.491			
28	.340	.597	92.088			
29	.316	.555	92.643			
30	.299	.525	93.168			
31	.287	.504	93.672			
32	.274	.480	94.152			
33	.271	.475	94.626			
34	.255	.447	95.074			
35	.227	.398	95.471			
36	.217	.381	95.852			

37	.202	.355	96.207			
38	.190	.334	96.540			
39	.178	.312	96.853			
40	.167	.294	97.146			
41	.157	.276	97.422			
42	.152	.266	97.688			
43	.142	.249	97.937			
44	.136	.239	98.176			
45	.129	.227	98.403			
46	.119	.208	98.611			
47	.110	.194	98.804			
48	.101	.178	98.982			
49	.096	.168	99.150			
50	.084	.147	99.297			
51	.078	.137	99.434			
52	.068	.120	99.554			
53	.062	.109	99.664			
54	.056	.099	99.762			
55	.050	.087	99.849			
56	.044	.078	99.927			
57	.042	.073	100.000			

Extraction Method: Principal Axis Factoring.

APPENDIX C

Results (PLS Algorithm)

Path Coefficient

	CLS	DC	DS	OP	PRI	PSI
CLS				0.202		
DC				-0.086		
DS				0.324		
OP						
PRI				0.238		
PSI				0.214		

Total Effects

	CLS	DC	DS	OP	PRI	PSI
CLS				0.202		
DC				-0.086		
DS				0.324		
OP						
PRI				0.238		
PSI				0.214		

Outer Loadings

	CLS	DC	DS	OP	PRI	PSI
CLS1	**0.817**					
CLS2	**0.865**					
CLS3	**0.820**					
CLS4	**0.869**					
CLS5	**0.846**					
CLS6	**0.857**					
DC1		**0.757**				
DC10		**0.317**				
DC11		**0.710**				
DC12		**0.829**				
DC13		**0.608**				
DC14		**0.770**				
DC2		**0.811**				
DC3		**0.790**				
DC4		**0.765**				
DC5		**0.829**				

DC6		**0.603**				
DC7		**0.601**				
DC8		**0.677**				
DC9		**0.668**				
DS1			**0.763**			
DS10			**0.744**			
DS2			**0.816**			
DS3			**0.765**			
DS4			**0.698**			
DS5			**0.763**			
DS6			**0.766**			
DS7			**0.741**			
DS8			**0.811**			
DS9			**0.770**			
OP10				**0.716**		
OP11				**0.672**		
OP12				**0.704**		
OP13				**0.741**		
OP14				**0.643**		
OP15				**0.663**		
OP16				**0.719**		
OP17				**0.694**		
OP18				**0.656**		
OP2				**0.769**		
OP3				**0.730**		
OP4				**0.736**		
OP5				**0.705**		
OP6				**0.696**		
OP7				**0.782**		
OP8				**0.762**		
OP9				**0.690**		
PRI1					**0.810**	
PRI2					**0.899**	
PRI3					**0.829**	
PRI4					**0.781**	
PSI1						**0.813**
PSI2						**0.843**
PSI3						**0.864**
PSI4						**0.802**
PSI5						**0.853**

Outer Weights

	CLS	**DC**	**DS**	**OP**	**PRI**	**PSI**

CLS1	0.191					
CLS2	0.215					
CLS3	0.183					
CLS4	0.192					
CLS5	0.223					
CLS6	0.178					
DC1		0.102				
DC10		-0.089				
DC11		0.067				
DC12		0.177				
DC13		0.016				
DC14		0.164				
DC2		0.141				
DC3		0.198				
DC4		0.080				
DC5		0.131				
DC6		0.141				
DC7		-0.014				
DC8		0.115				
DC9		0.038				
DS1			0.145			
DS10			0.092			
DS2			0.124			
DS3			0.158			
DS4			0.129			
DS5			0.146			
DS6			0.160			
DS7			0.136			
DS8			0.114			
DS9			0.104			
OP10				0.082		
OP11				0.070		
OP12				0.089		
OP13				0.094		
OP14				0.092		
OP15				0.086		
OP16				0.085		
OP17				0.071		
OP18				0.071		
OP2				0.095		
OP3				0.089		
OP4				0.084		
OP5				0.075		
OP6				0.087		

OP7				0.078		
OP8				0.088		
OP9				0.070		
PRI1					0.300	
PRI2					0.446	
PRI3					0.275	
PRI4					0.163	
PSI1						0.235
PSI2						0.233
PSI3						0.214
PSI4						0.188
PSI5						0.324

Latent Variable Correlations

	CLS	**DC**	**DS**	**OP**	**PRI**	**PSI**
CLS	1.000	-0.208	0.060	0.313	0.215	0.104
DC	-0.208	1.000	-0.295	-0.262	0.024	-0.203
DS	0.060	-0.295	1.000	0.405	-0.011	0.214
OP	0.313	-0.262	0.405	1.000	0.268	0.313
PRI	0.215	0.024	-0.011	0.268	1.000	-0.037
PSI	0.104	-0.203	0.214	0.313	-0.037	1.000

Latent Variable Covariances

CLS	1.000	-0.208	0.060	0.313	0.215	0.104
DC	-0.208	1.000	-0.295	-0.262	0.024	-0.203
DS	0.060	-0.295	1.000	0.405	-0.011	0.214
OP	0.313	-0.262	0.405	1.000	0.268	0.313
PRI	0.215	0.024	-0.011	0.268	1.000	-0.037
PSI	0.104	-0.203	0.214	0.313	-0.037	1.000

Quality Criteria

R Square

	R Square	**R Square Adjusted**
OP	0.348	0.324

f Square

	CLS	**DC**	**DS**	**OP**	**PRI**	**PSI**
CLS				0.057		

DC				**0.010**		
DS				0.143		
OP						
PRI				0.082		
PSI				0.065		

Construct Reliability and Validity

	Cronbach's Alpha	**rho_A**	**Composite Reliability**	**Average Variance Extracted (AVE)**
CLS	**0.921**	**0.924**	**0.938**	**0.716**
DC	**0.936**	**0.910**	**0.931**	**0.501**
DS	**0.921**	**0.925**	**0.933**	**0.584**
OP	**0.939**	**0.940**	**0.946**	**0.506**
PRI	**0.856**	**0.941**	**0.899**	**0.690**
PSI	**0.893**	**0.918**	**0.920**	**0.698**

Discriminant Validity

Fornell-Larcker Criterion

	CLS	**DC**	**DS**	**OP**	**PRI**	**PSI**
CLS	0.846					
DC	-0.208	0.708				
DS	0.060	-0.295	0.764			
OP	0.313	-0.262	0.405	0.711		
PRI	0.215	0.024	-0.011	0.268	0.831	
PSI	0.104	-0.203	0.214	0.313	-0.037	0.835

Cross Loadings

	CLS	**DC**	**DS**	**OP**	**PRI**	**PSI**
CLS1	0.817	-0.148	0.015	0.255	0.282	0.076
CLS2	0.865	-0.271	0.080	0.287	0.200	0.174
CLS3	0.820	-0.201	0.114	0.244	0.102	0.069
CLS4	0.869	-0.124	0.033	0.256	0.172	0.065
CLS5	0.846	-0.114	0.033	0.298	0.184	0.058
CLS6	0.857	-0.202	0.028	0.237	0.141	0.078
DC1	-0.149	0.757	-0.113	-0.135	0.043	-0.145
DC10	0.255	0.317	0.016	0.118	0.047	0.153
DC11	-0.015	0.710	-0.108	-0.088	0.036	-0.051
DC12	-0.128	0.829	-0.243	-0.234	0.037	-0.199

DC13	-0.010	0.608	-0.017	-0.020	0.052	-0.053
DC14	-0.176	0.770	-0.253	-0.216	-0.035	-0.212
DC2	-0.142	0.811	-0.243	-0.186	0.016	-0.186
DC3	-0.163	0.790	-0.346	-0.260	0.086	-0.211
DC4	-0.139	0.765	-0.175	-0.106	-0.003	-0.126
DC5	-0.085	0.829	-0.305	-0.173	0.064	-0.193
DC6	-0.211	0.603	-0.127	-0.186	-0.070	-0.017
DC7	0.045	0.601	-0.019	0.018	0.060	0.092
DC8	-0.106	0.677	-0.106	-0.151	0.005	0.052
DC9	-0.008	0.668	-0.087	-0.051	0.049	0.011
DS1	0.124	-0.324	0.763	0.334	0.048	0.235
DS10	0.037	-0.279	0.744	0.212	-0.142	0.138
DS2	-0.050	-0.204	0.816	0.286	-0.025	0.204
DS3	0.054	-0.179	0.765	0.364	0.061	0.238
DS4	0.061	-0.106	0.698	0.297	0.057	0.080
DS5	0.041	-0.228	0.763	0.336	0.004	0.146
DS6	0.009	-0.204	0.766	0.367	-0.039	0.135
DS7	0.033	-0.230	0.741	0.313	-0.067	0.190
DS8	0.062	-0.300	0.811	0.262	-0.010	0.102
DS9	0.087	-0.223	0.770	0.240	-0.027	0.127
OP10	0.326	-0.133	0.224	0.716	0.259	0.150
OP11	0.221	-0.117	0.233	0.672	0.135	0.208
OP12	0.191	-0.217	0.303	0.704	0.247	0.233
OP13	0.258	-0.219	0.395	0.741	0.113	0.249
OP14	0.241	-0.261	0.347	0.643	0.103	0.310
OP15	0.177	-0.222	0.399	0.663	0.112	0.206
OP16	0.265	-0.221	0.335	0.719	0.103	0.221
OP17	0.129	-0.032	0.224	0.694	0.228	0.254
OP18	0.168	-0.218	0.300	0.656	0.122	0.143
OP2	0.352	-0.231	0.245	0.769	0.280	0.203
OP3	0.213	-0.228	0.280	0.730	0.307	0.171
OP4	0.281	-0.198	0.256	0.736	0.214	0.188
OP5	0.198	-0.125	0.236	0.705	0.177	0.248
OP6	0.147	-0.218	0.323	0.696	0.221	0.246
OP7	0.166	-0.212	0.201	0.782	0.218	0.296
OP8	0.331	-0.186	0.290	0.762	0.150	0.223
OP9	0.041	-0.046	0.257	0.690	0.256	0.233
PRI1	0.195	0.034	-0.069	0.205	0.810	-0.078
PRI2	0.192	-0.073	0.089	0.306	0.899	-0.009
PRI3	0.141	0.069	-0.066	0.188	0.829	0.037
PRI4	0.193	0.164	-0.072	0.112	0.781	-0.122
PSI1	0.011	-0.162	0.165	0.249	0.002	0.813
PSI2	0.124	-0.253	0.196	0.246	-0.043	0.843
PSI3	0.048	-0.259	0.181	0.227	-0.035	0.864

PSI4	0.113	-0.151	0.147	0.199	-0.065	0.802
PSI5	0.126	-0.070	0.196	0.343	-0.024	0.853

Heterotrait-Monotrait Ratio (HTMT)

	CLS	**DC**	**DS**	**OP**	**PRI**	**PSI**
CLS						
DC	**0.183**					
DS	**0.087**	**0.235**				
OP	**0.328**	**0.213**	**0.419**			
PRI	**0.241**	**0.121**	**0.125**	**0.274**		
PSI	**0.118**	**0.199**	**0.228**	**0.330**	**0.100**	

Collinearity Statistics (VIF)

Outer VIF Values

	VIF
CLS1	**2.211**
CLS2	**2.736**
CLS3	**2.273**
CLS4	**2.954**
CLS5	**2.430**
CLS6	**2.807**
DC1	**2.788**
DC10	**2.617**
DC11	4.254
DC12	3.046
DC13	4.147
DC14	**2.350**
DC2	3.607
DC3	3.307
DC4	3.567
DC5	4.588
DC6	**2.311**
DC7	4.928
DC8	3.231
DC9	3.981
DS1	**2.201**
DS10	**2.472**
DS2	**2.853**
DS3	**2.184**
DS4	**1.879**
DS5	**2.259**

DS6	**2.138**
DS7	**2.349**
DS8	**2.827**
DS9	**2.797**
OP10	**2.392**
OP11	**1.871**
OP12	**1.912**
OP13	**2.319**
OP14	**1.902**
OP15	**2.059**
OP16	**2.360**
OP17	**2.349**
OP18	**1.848**
OP2	**2.591**
OP3	**2.478**
OP4	**2.821**
OP5	**2.326**
OP6	**2.133**
OP7	**2.962**
OP8	**2.361**
OP9	**2.099**
PRI1	**1.778**
PRI2	**2.187**
PRI3	**2.050**
PRI4	**2.041**
PSI1	**2.103**
PSI2	**2.795**
PSI3	**2.834**
PSI4	**2.400**
PSI5	**2.114**

Inner VIF Values

	CLS	**DC**	**DS**	**OP**	**PRI**	**PSI**
CLS				**1.107**		
DC				**1.166**		
DS				**1.126**		
OP						
PRI				**1.056**		
PSI				**1.079**		

Results (Bootstrapping)

Path Coefficient

Mean, STDEV, T-Values, P-Values

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
CLS -> OP	0.202	0.192	0.088	2.305	**0.011**
DC -> OP	-0.086	-0.108	0.069	1.252	**0.106**
DS -> OP	0.324	0.310	0.114	2.840	**0.002**
PRI -> OP	0.238	0.256	0.098	2.425	**0.008**
PSI -> OP	0.214	0.213	0.102	2.095	**0.018**

Confidence Intervals

	Original Sample (O)	Sample Mean (M)	5.0%	95.0%
CLS -> OP	0.202	0.192	0.062	0.326
DC -> OP	-0.086	-0.108	-0.223	-0.006
DS -> OP	0.324	0.310	0.118	0.474
PRI -> OP	0.238	0.256	0.097	0.406
PSI -> OP	0.214	0.213	0.061	0.366

Confidence Intervals Bias Corrected

	Original Sample (O)	Sample Mean (M)	Bias	5.0%	95.0%
CLS -> OP	0.202	0.192	-0.010	0.088	0.355
DC -> OP	-0.086	-0.108	-0.022	-0.170	0.066
DS -> OP	0.324	0.310	-0.015	0.139	0.500
PRI -> OP	0.238	0.256	0.018	0.021	0.382
PSI -> OP	0.214	0.213	-0.001	0.053	0.363

Results (Moderating Effects)

Path Coefficients

Mean, STDEV, T-Values, P-Values

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
CLS -> OP	0.136	0.096	0.090	1.514	**0.065**

CLS*DC -> OP	0.108	0.108	0.092	1.176	**0.120**
DC -> OP	-0.163	-0.174	0.070	2.332	**0.010**
DS -> OP	-0.013	-0.065	0.130	0.099	**0.460**
DS*DC -> OP	0.352	0.414	0.136	2.593	**0.005**
PRI -> OP	0.197	0.160	0.092	2.143	**0.016**
PRI*DC -> OP	0.099	0.056	0.182	0.543	**0.294**
PSI -> OP	0.006	0.001	0.095	0.063	**0.475**
PSI*DC -> OP	0.203	0.195	0.114	1.780	**0.038**

Confidence Intervals

	Original Sample (O)	**Sample Mean (M)**	**5.0%**	**95.0%**
CLS -> OP	0.136	0.096	-0.078	0.221
CLS*DC -> OP	0.108	0.108	-0.054	0.229
DC -> OP	-0.163	-0.174	-0.275	-0.066
DS -> OP	-0.013	-0.065	-0.286	0.133
DS*DC -> OP	0.352	0.414	0.219	0.622
PRI -> OP	0.197	0.160	-0.006	0.301
PRI*DC -> OP	0.099	0.056	-0.302	0.281
PSI -> OP	0.006	0.001	-0.151	0.145
PSI*DC -> OP	0.203	0.195	0.043	0.352

Confidence Intervals Bias Corrected

	Original Sample (O)	**Sample Mean (M)**	**Bias**	**5.0%**	**95.0%**
CLS -> OP	0.136	0.096	-0.040	0.044	0.307
CLS*DC -> OP	0.108	0.108	0.000	-0.170	0.196
DC -> OP	-0.163	-0.174	-0.010	-0.260	-0.050
DS -> OP	-0.013	-0.065	-0.052	-0.201	0.203
DS*DC -> OP	0.352	0.414	0.062	-0.354	0.491
PRI -> OP	0.197	0.160	-0.037	0.100	0.361
PRI*DC -> OP	0.099	0.056	-0.043	-0.338	0.246
PSI -> OP	0.006	0.001	-0.005	-0.151	0.142
PSI*DC -> OP	0.203	0.195	-0.007	0.049	0.362

APPENDIX D

Dr. THAVAMARAN KANESAN
Chief Editor,
Company: Proofreading by A UK PhD (ProofreadingByPhD.com)
Registration: NS0163592-K
Email: drThava@proofreadingbyphd.com
Mobile: +60176712515

PROFESSIONAL PROOFREADING CERTIFICATE

This document certifies that the material detailed below underwent a thorough proofreading process, and was subsequently improved in terms of English language, grammar, punctuation, spelling, overall styling and quality-of-expression.

Title:
Business Strategy, Innovation, Dynamic Capabilities And Organisational Performance of Food Manufacturing SMEs in Malaysia

Author:
Mohd Salahudin bin Shamsudin

Affiliaiton:
Universiti Utara Malaysia

Date Issued: 11th of March 2021

Yours truly,

Dr. Thavamaran Kanesan, BEng (Hons), PhD (UK), MIEEE
Chief Editor
PROOFREADING BY A UK PhD (NS0163592-K)
https://www.facebook.com/proofreadingbyPhD/
Proofreadingbyphd@gmail.com
0176712515

- 12,000 Documents Proofread/Edited/Structured/Paraphrased
- 8,100+ Articles Accepted in SSCI/SCI/HSCI/Scopus/ERA
- 4,000+ Theses Passed Viva
- 500+ Grant Documents Approved
- 500+ CV and Research Statements Completed

Remaining documents are all under review