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**THE MODERATING ROLE OF DYNAMIC CAPABILITY
BETWEEN STRATEGIC ORIENTATIONS AND FIRM
PERFORMANCE IN MALAYSIA AGRO BASED SME**

CHOW YEONG KANG



UUM
Universiti Utara Malaysia

DOCTOR OF BUSINESS ADMINISTRATION

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**THE MODERATING ROLE OF DYNAMIC CAPABILITY BETWEEN
STRATEGIC ORIENTATIONS AND FIRM PERFORMANCE
IN MALAYSIA AGRO BASED SME**

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Thesis submitted to
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ABSTRAK

Tujuan kajian ini adalah untuk menilai orientasi strategic dan prestasi firma berasaskan pertanian dalam Perusahaan Kecil dan Sederhana (PKS). Kajian ini memberi tumpuan kepada PKS kerana kepentingan PKS sebagai penyumbang kepada Keluaran Dalam negara Kasar (KDNK) bagi ekonomi Malaysia dan peratusan tinggi guna tenaga dalam pasaran buruh. PKS asas tani menghadapi cabaran besar seperti populasi golongan tua yang tinggi; kekurangan aktiviti inovasi, pengetahuan sains, dan penggunaan teknologi serta kekurangan strategi berorientasikan pasaran meskipun menghadapi persaingan yang besar daripada Negara serantau. Kajian ini bertujuan untuk mengisi jurang teori dan kefahaman dengan mengkaji peranan penyederhana keupayaan dinamik (DC) dan hubungan antara orientasi keusahawanan (EO), orientasi pembelajaran (LO) dan orientasi pasaran (MO), sebagai pembolehubah bebas dan prestasi firma PKS asas tani, sebagai pembolehubah bersandar. Berlandaskan Pandangan Berasaskan Sumber (RBV), hipotesis kajian ini mempunyai hubungan positif di antara orientasi strategik dan prestasi firma. Metodologi kajian ini melibatkan analisis deskriptif, multivariate dan analisis regresi berhierarki daripada populasi dalam kalangan PKS asas tani. Hasil kajian empirical melalui analisis kuantitatif keratan rentas terhadap 396 PKS asas tani di Malaysia menunjukkan bahawa EO dan MO mempunyai hubungan positif dengan prestasi firma, kecuali LO. Keupayaan dinamik mempunyai kesan penyederhana ke atas EO; dan MO secara individu, kecuali LO. Tambahan pula keupayaan dinamik mempunyai kesan penyederhana separa ke atas orientasi strategik, sebagai ikatan sumber tidak ketara terhadap prestasi firma. Kajian ini mendalami pengetahuan teori masa kini terhadap keupayaan dinamik, dengan memahami peranan penyederhana yang mempengaruhi orientasi strategik untuk meningkatkan prestasi firma. Selain itu, dapatan kajian turut member implikasi pengurusan iaitu bagaimana keupayaan dinamik memainkan peranan strategik, meliputi penerokaan dan eksploitasi melalui inovasi yang dapat meningkatkan prestasi firma PKS asas tani. Akhir sekali, kajian ini mengenalpasti beberapa batasan dan cadangan untuk penyelidikan lanjut

Kata kunci: Orientasi keusahawanan, orientasi pembelajaran dan orientasi pasaran, keupayaan dinamik, Perusahaan Kecil dan Sederhana Asas tani.

ABSTRACT

The purpose of this research was to assess the strategic orientations and firm performance in agro- based small and medium enterprises (SMEs). The research focused on SMEs because of their importance in GDP contribution to the Malaysian economy and the high percentage of employment in the labor market. Agro -based SMEs are facing challenges such as the largely aging population; lack of innovation activities, scientific knowledge and application technology as well as less market driven strategies although faced with a large degree of competition from regional countries. The present study aimed to fill the gap between theory and understanding, by investigating the moderating role of dynamic capability (DC) between the relationship of entrepreneurial (EO), learning (LO) and market orientations (MO), as independent variables and agro- based SME firm performance, as the dependent variable. Building on the resourced- based view (RBV), this study theoretically hypothesised a positive relationship between strategic orientations and firm performance. The research methodology included a descriptive analysis, and multivariate and hierarchical regression analysis of the population in the agro- based SMEs. The empirical findings from the cross-sectional quantitative survey of 396 agro- based SME firms in Malaysia revealed that EO and MO were positively related to firm performance, except LO. Dynamic capability had a moderating effect on EO; and MO individually, except LO. Furthermore, dynamic capability had a partial moderating effect on strategic orientations, as a bundle of firm intangible resources on firm performance. This study extends the present theoretical knowledge of dynamic capability, by understanding its moderating role, which influences strategic orientations leading to firm performance. Besides this, the findings of this study provide managerial implications on how dynamic capability playing a strategic role, in outward exploration and inward exploitation through innovation, could improve agro- based SME firm performance. Finally this study identifies a few limitations and recommends further research opportunities

Keywords: Entrepreneurial Orientation, Learning Orientation, Market Orientation, Dynamic Capability and agro- based SME.

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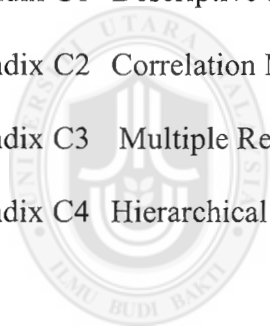
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LIST OF ABBREVIATIONS

ABBREVIATION	DESCRIPTION
AFTA	ASEAN Free Trade Area (AFTA)
CEPT	Common Effective Preferential Tariff
COMP	Competitor Orientation
COST	Cost Orientation
CPI	Consumer Price Index
CUST	Customer Orientation
DC	Dynamic Capability
DOA	Department of Agriculture
DOF	Department of Fisheries
DOS	Department of Statistic
DVS	Department of Veterinary Services
EO	Entrepreneurial Orientation
ETP	Economic Transformation Program
FAMA	Federal Agricultural Marketing Authority
FDA	Fisheries Development Authority
FDI	Foreign Direct Investment
FOA	Farmers Organization Authority
GDP	Gross Domestic Product
HACCP	Hazard Analysis Critical Control Program
KBV	Knowledge Based View
KM	Knowledge Management
LO	Learning Orientation
MADA	MUDA Agriculture Development Authority
MAFAS	Malaysian Fumigation Accreditation Scheme
MAHTAS	Malaysian Heat Treatment Accreditation Scheme
MAQIS	Malaysian Quarantine and Inspection Services
MARDI	Malaysia Agricultural Research & Development Institute
MO	Market Orientation
MOA	Ministry of Agriculture and Agro Based Industry
MPC	Malaysia Productivity Corporation
MPCA	Malaysian Phytosanitary Certification Assurance Scheme
NAP3	Third National Agricultural Policy
NDP	New Development Policy
OPP3	Third Outline Perspective Plan
R&D	Research and Development
RBV	Resource Based View
ROA	Return of Asset
ROS	Return of Sales
SALM (GAP)	Skim Amalan Ladang Malaysia
SME	Small Medium Enterprise
SOM	Skim Organic Malaysia
SPBT	Plant Material Verification Scheme
WTO	World Trade Organization

CHAPTER ONE

INTRODUCTION

1.1 Background of Study

Importance of Agriculture

Agricultural economists have long been investigated and convinced the agricultural sector contribution to the overall economic growth. It has been empirically supported that this sector is strategically important for agriculture-dependent emerging economies, such as Southeast Asia, supplemented by their rich natural resources and cheap production cost (Rahman, 1998). In the past, agriculture has been associated with production of basic food crops. Today, many have acknowledged that the agriculture sectors are strategically important and the roles of agriculture sectors will always relevant to both developed and developing countries globally (Dethier & Effenberger, 2011).

At present day, automated processing; farm yields distribution & harvest delivery; product branding, marketing, and pricing strategies all are considered as value chain of current agriculture economic. Hence, agriculture is beyond basic farming or downstream cultivating crops, indeed agriculture plays a critical role in social economic and it is the backbone of economic system of a country, such as Thailand; Vietnam; Indonesia as well as Malaysia. Agriculture sector is essential to human survival and eco-system sustainability (Murad et al., 2008). These sectors improve living standards, by providing work opportunities; raw material for various industries, including bio-pharmaceutical sectors, food security, important to socio-economic development of many agriculture-dependent developing countries (Wahab, 2011).

In short the importance of agricultural sector can be summarized as below:

- I. Main Source of Livelihood** approximately 70% of the people directly rely on agriculture as a mean of living. The world's population is growing fast and expected to reach 9 billion people within 40 years. However, most people in developed countries do not engage in agriculture.
- II. Marketable Surplus** As a result of the growth of agricultural sector, its increased production will contribute to marketable surplus and foreign market trading.
- III. Contribution to National revenue** agriculture is the main source of national income for most developing countries.
- IV. International Trade & Foreign Exchange** agricultural products like sugar, rubber, rice, palm oil, tobacco, coffee etc. constitute the major export trading items of developing countries. It accounts for approximately 18% of the entire value of exports of a country. These exporting commodities help to reduce countries of unfavorable foreign currency balance. The earned foreign currencies are used to import other essential machinery, advanced technologies and crucial infrastructures, which are needed the country's economic development.

Despite the theoretical and empirical importance of this sector to socio-economic development, there is limited research investigating these issues. Furthermore, the important of agriculture productivity to socio-economic development has not been well understood (Headey, 2010) and some have neglected this important sector. Specifically, in Malaysia, agriculture is a critical sector nowadays because its percentage of output to GDP is deteriorating over time despite the increasing of development budget allocated for this sector. Moreover, the

government's policy to increase the participation of private sector under the New Economic Model (NEM) is still limited. Agriculture sector is one of the NEM's National Key Economic Areas (NKEA). The agriculture NKEA will focus on selected eight sub-sectors which have high-growth potential, namely food processing, cash crops & bio products (seaweed farming, swiftlet nests, herbal products) and aquaculture products etc. These sub-sectors account for 82% of agriculture's contribution to Malaysian GNI in 2009 (Pemandu, 2010). These targeted agriculture sectors will be transformed into agribusiness by 2020 through inclusive demand-driven approach focusing on market needs, economies of scale and value chain integration (Pemandu, 2010). Specifically, the agriculture's NKEA targeted to raise total GNI contribution to reach RM49 billion by 2020 and expected to create additional 75,000 jobs mostly in rural areas (Pemandu, 2010).

Based on the above important facts and figures, with agro based SMEs as the target of study, adopting Resource Based View as underpinning theory: —

- I. The present study attempts to examine the relationship between organizational resources and firm performance. A firm's resources consist of all assets both tangible and intangible, human and nonhuman that are possessed or controlled by the firm and that permit it to devise and apply value-enhancing strategies (Barney, 1991).
- II. Strategic management perspective, to determine the role of dynamic capabilities of agro base SME's industries. Dynamic capabilities is concerned with how the management of firm creates mechanisms that best fit in market and creates processes that match with changing environment (Grant, 1996; Pisano, 1994; Eisenhardt & Martin, 2000). In the next sections, the current

challenges in agricultural sector, which is spurred by Third National Agriculture Policy (NAP3) will be briefly discussed.

1.2 National Agricultural Policy

National Agricultural Policy, (NAP3) is formulated to establish the policy framework for the future growth of the agricultural sector into the next millennium. Overriding the objective of NAP3 is the maximization of income through optimal utilization of resources in the sector. This policy has underlined six specific objectives to be achieved. These are to enhance food security, to increase productivity and competitiveness of the sector, to deepen linkages with other sectors, to create new sources of growth for the sector, and to conserve and utilize natural resources on a sustainable basis.

In 21st globalization century, a knowledge era and competitive market economy, Malaysia needs to supplement the investment led economy with innovation driven with growth in core and new sectors, managing technology, market access, and risk-based capital. Innovation-led growth is driven by two conceptual models: In a technology driven innovation model, for instance scientists are funded for R&D, and technology will be developed organically thus eventually commercializing their ideas for the global market. In a market-driven innovation model, the market is determined beforehand by knowledge entrepreneurs who will acquire the best science and technology. This will provide rapid commercialization to meet the needs of the market.

1.3 Problem Statement

Resources Based Dependency: Malaysia has experienced steady growth with average, gross domestic product (GDP) growth of 6% in the last decades. Basically Malaysia economic growth has been largely dependent on national resources eg. natural rubber, palm oil, petroleum oil and natural gas etc. Obviously Malaysia success factor has been mainly driven by traditional drivers of growth, such as low cost land, cheap raw materials and labour intensive. However, these traditional factors of in an investment-led economy being challenged by other cheaper investment economies, thus foreign direct investment (FDI) is slowly diverted to other Asian countries. Empirical finding revealed that despite the increase in global demand for agricultural products, production growth has been declining (Shamsudin, 2010). There are still many critical issues in agriculture sector, for instance low production growth rate declining, underinvestment in agriculture, higher energy cost (Shamsudin, 2010), food crisis issues (Fuglie, 2008), and sustainable development issues (Murad et al., 2008; Headey et al., 2010).

Malaysia has inherited many advantages, such as good climate and strategic geographical position, which could be capitalized and competitive for the growing global demand for food products. However, the performance of our agro-food sector still lags behind neighboring countries. Our agro sectors productivity still significantly lower than competitors. While countries such as Thailand are able to be net agro food exporters, Malaysia's agriculture trade deficit has continuously increased since decades. The trade deficit in some selected sectors have increased from RM4.3 billion in 2004 to RM8.5 billion in 2008. Poor productivity has resulted in low incomes for farmers, with average paddy farmers earning RM1, 400 per

month. On the other hand, rural areas accounting for 35% of Malaysia's population and agriculture accounting for 43.7% of rural employment, thus improving agriculture productivity is also critical to close the rural-urban income gap. However If the current situation remains, Malaysia will not only fail to capture market opportunities, but the import trade deficit will continue to rise, in a market environment where food prices are rising due to land and resource scarcity(Third National Agricultural Policy, 2010).

1.3.1 Practical Challenges

I. Lack of Technology Application, in a recent empirical study, Azizah et al. (2011) revealed that usage of web-based marketing among the SMEs in Malaysia is still low. The most used web-based marketing application is email. More than half of the SMEs indicated that they were not aware of the benefits of web-based marketing. In Census Report 2011, revealed that agro based SME industries in Malaysia are continual facing challenges arisen from internal and external, for instance aging farmer community, lack of market and customer centricity, lack scientific and technological application and focus on low-value products etc. Among action plans needed to develop the aquaculture sector are systematic food production system, environmental impact consideration and low cost (Mohd Fariduddin, 2010).

II. Lack of Strategic Factors, in a recent study, by using 307 SME, revealed that market orientation, entrepreneurial innovativeness, organizational learning are first-order indicators of positional advantage and, these organizational orientations were positively related to firm performance (Eric & Hamish, 2012).

III. Lack of Market Driven Factor, in an academic study, Sany et al. (2014) suggested that market orientation has a significant relationship with organizational performance. Hence SMEs need to focus on activities that related to market orientation as they would benefit their firm performance. The results are consistent with several previous studies, which indicated the positive impact of market orientation dimensions on firm performance (Mokhtar & Yusoff, 2009).

1.3.2 Theoretical Issues

Noticeably that most quantitative and qualitative studies on dynamic capabilities tend to investigate their role and impact in obviously “dynamic industries” such as semiconductors or biotechnology, in large, developed countries. However, it would be important to test and confirm the applicability of the dynamic capabilities concept in more traditional industries or in developing countries. Emerging markets could exhibit different constraints and characteristics (Smith, 2001).

Inadequate studies on integrated model in Malaysia agro based SMEs performance. Rauch et al. (2009) found that the existing research does not provide enough inputs into developing a common global understanding of strategic orientation (SO) outcomes. Vanesa, Francisco and Juan Carlos (2014) argued that a well integrated framework to develop dynamic capability model through empirical research are still needed. Based on systematic empirical papers review, the synthesizing analysis identified three areas of dynamic capability, which are process, antecedents, and consequences. However, an integrated mechanism, by which how dynamic capability lead to performance outcome is unresolved issue and further empirical researches are essential (Eriksson, 2014). According to another meta-

analysis conducted by Andreas (2013), SO-firm performance relationship was found robust. Results suggest that additional moderators should be assessed in the future researches. Another meta-analysis conducted by Philip and Anna (2014), the conceptual relationship of dynamic capability was identified, but further research is needed to extend the operationalization of the existing conceptual frameworks

Limited studies on dynamic capability, in Malaysia Agro based SMEs despite previous studies, Wang and Ahmed (2007) have discovered a wide range of firm-or industry-specific processes pertinent to dynamic capabilities, findings remain disconnected. Analysis of the literature of the concept of dynamic capabilities generate four presumption for validating the creation of a new paradigm of the theory of strategic management, In other words there is still no established measure for dynamic capabilities (Krzakiewicz,2014). In the field of strategic management many scholars remain skeptic about the nature and role of the dynamic capabilities concept (Winter, 2003).

Uncertain Moderating Effect, on strategic orientations–performance. In regional study, Awang et al. (2010) ascertained that the relationship of firm performance and entrepreneurial orientation has been justified and fit in agro based SMEs in Malaysia, nonetheless the future research should explore the firm’s management capabilities. In another study, Aimilia, Spyros and Yannis (2011) ascertained that strategic orientations- dynamic capabilities–firm performance relationship has not been previously subject to large-scale empirical testing. Empirical findings would be significant to explain SME firm performance, in traditional sector, which technological and financial resources are less. Sadaqat Ali et al. (2012) attested that further research should investigate if there moderating

conditions of the dynamic capabilities relationship. The conditions could be environmental factors, economic development factor and industry characteristics.

In a study, Habaradas (2008) found that Malaysian government has prepared SME developing programs for many years, which are aimed to improve productivity and product quality, to encourage innovation and technological upgrading among local firms. Despite the existence of numerous Government assistance programs, SMEs still encountered various problems in their operations. On the other hand, Government Support Programs are seen as insufficient and not delivered enough to develop local SMEs. In reality many governmental programs have been established for SME development, including financial incentives; technological assistance; scientific research grant, knowledge transfer and experience sharing through training provided by various Government agencies.

Incomprehensively, what underlying problems are faced by agro based SME agro-entrepreneurs, in achieving firm performance and productivity? Next question is how could these abundant resources natural endowed and government prepared alike be beneficially explored, innovatively exploited and effectively reconfigured into unique, rare and valuable, distinct competencies of the SME firms? Subsequently these resources are transformed into fruitful firm outcome performance in the sense of productivity and profitability. Therefore, taking from theoretical perspective, it could be very interesting to further study the underlying cause of low performance among Malaysia agro based SMEs, a traditional and natural dependent sector, through resources based view and strategic management and taking into

account organizational dynamism. In this context, the current empirical research and its results could be helpful to fill and bridge knowledge gap between academic and industrial perspective.

1.4 Research Questions

According to Avermaete, et al., (2004) innovation is essential for small firms, however the relationship between strategic orientations and firm performance in SMEs is hardly investigated. Therefore this research is set to understand the relationship between strategic orientations and agro firm performance in Malaysia, two explanatory research questions are raised in this thesis:

- 1: What is the relationship between strategic orientations and Agro based SME performance in Malaysia?
- 2: Does dynamic capability influence strategic orientations toward agro based SME performance in Malaysia?

1.5 Research Objectives

The advent of knowledge based economy, the new generation of entrepreneurs, who are not only skillful in their field but ought to be knowledgeable to cope with the fast pace of changes in the competitive environment. Dynamic environment, at any given time, any business entity or activity operates in a state of dynamic equilibrium, which meant a set of constant external and internal changing forces are acting on it and hold in balance in order to achieve a steady and sustaining growth. Abarahamson (2000) said “dynamic stability” is the only survival skills for any company in today highly competitive business world, thus entrepreneurship is thought suitable to battle in this relentless environment, because of their very nature on risk taking; proactive; aggressive; explorative and exploitative to leading a productive innovation and radical changes.

The goal of this research is to study dynamic moderating factors on the relationships between strategic orientations and the agro venture performance. Results of this research could increase the understanding of what organizational factors and how the dynamic moderating effect on strategic orientations and firm performance. Specifically the research objectives are set forth as below:

1. To identify the entrepreneurial orientation factor that determines agro based SME firm performance in Malaysia.
2. To identify the learning orientation factor that determines agro based SME firm performance in Malaysia
3. To identify the market orientation factor that determines agro based SME firm performance in Malaysia

4. To determine the moderating effects of dynamic capability on the relationship between entrepreneurial orientation and agro based SME firm performance in Malaysia
5. To determine the moderating effects of dynamic capability on the relationship between learning orientation and agro based SME firm performance in Malaysia
6. To determine the moderating effects of dynamic capability on the relationship between market orientation and agro based SME firm performance in Malaysia
7. To determine the moderating effects of dynamic capability on the relationship between strategic orientations and agro based SME firm performance in Malaysia

1.6 Significance of Study

In response to the Prime Minister calls, study of agro entrepreneurship is considered a significant and relevant topic in today Malaysia development stage, because it in line with governmental initiatives and directives for creating more agro entrepreneurial activities and SMEs.

“Malaysian Government will go all-out to prevent a food security crisis, which is one of the main global threats”, He said “RM3.38bil had been set aside to boost the agricultural sector, listing seven ways by which new life could be injected to ensure that it remained fresh and dynamic.”

Datuk Seri, Najib Tun Razak (2011)

Most importantly, the success of agro based SME industries would account for greater job employment; increase citizen income and community wealth, championed by NAP3 initiatives.

1.6.1 Theoretical Motivation

The dynamic capabilities concept was formed and has been developed by integration of evolutionary theory and knowledge management concepts. Particularly the strategic orientations-dynamic capabilities–firm performance is an integrated model has not been previously subject to large-scale empirical testing. The present research attempts to study a theoretical concept of RBV and dynamic capability. The results of empirical study could be helpful to clarify the nature of dynamic capabilities and theoretical & practical gap.

1. This study is to understand and empirically measure three strategic orientations, namely EO; LO & MO, as organizational resources underpin the RBV concept. It also made attempt to define sub-dimensional construct of dynamic capabilities, which include explorative and exploitative capabilities as its latent variables. It is anticipated that results of this empirical study, may reveal that dynamic capabilities are not vague concept and fuzzy abstractions that cannot be measured, indeed DC has specific processes which can be theoretically conceptualized and empirically measured. More importantly the theoretical model, as an integrated framework, between EO; LO and MO, is researchable by providing empirical evidence of their link, between RBV, knowledge based view and strategic management perspective. This study is helpful to clarify the nature of dynamic capabilities thus make contribution to the dynamic capabilities literature.
2. Using a quantitative survey, the study attempts to empirically validate the influence of dynamic capabilities on performance outcomes. By explaining the indirect link between strategic orientations and firm performance, it will

reveal that strategic orientations could contribute to firm performance by combining their synergic effects through dynamic capabilities. It is also important to note that the identification of dynamic capabilities as internal moderator, the result may be helpful to clear doubts among academicians arguing over its terminology and tautology issues arising firm performance.

Therefore, this research bears on the above mentioned significance and motivation for conducting the study on agro based industries, specifically in response to the Malaysian Prime Minister calls and his Economic Transformation Program, (ETP).

1.6.2 Practical Motivation

The essence of NAP3 is to maximize Malaysian income through optimal utilization of various resources in the agriculture sector. However the growth of the agricultural sector and its competitiveness requires that the agro-entrepreneurs address its profound issues of optimal utilization of the existing resources. Meanwhile constraint of resources and rapid changes in the global trading market necessitate the development of a sustainable agricultural sector and a dynamic global competitiveness. Therefore in the agriculture context, these challenges require new strategic approaches to increase its economic contribution through competitiveness.

Economy, the agro based industries are important sector in Malaysia, contributing social economic and it is the foundation of a country's economy. Government takes a serious view on this phenomenon where a total of RM3.8 billion is allocated for the agriculture sector in 2012 budget. Although the services sector is

now taking over the manufacturing sector as a contributor to economic growth, agriculture is still important because it can increase the income of farmers, fishermen, agro-based industries and ensure the nation's food supply remain sufficient. In Economic Census 2011 for the agriculture sector, overall performance of the agriculture sector, a total of 8,829 establishments were involved in the agriculture sector annual grow rate is about 11.1%. The value of gross output is increase from 21.7 to 53.5 billion from 2005 to 2010, which amounted to 19.8% annual grow rate. The value added by agricultural sectors also achieved significant increase, the value added in 2005 and 2010 is 10.2 and 31.1 billion respectively, which is equivalent to 25.1% annual grow rate. Generally agriculture sectors contribute to GDP range between 7.9% to 7.3% in year of 2006 and 2010 respectively.

Employment, in Economic Census 2011 for the agriculture sector, the total number of employment recorded for the crops sub-sector was 335,096 persons of which 80.5 per cent were males and the rest (19.5%) were females. The majority were full time employees 328,133 persons, followed by working proprietors, active partners and unpaid family workers of 3,848 and part time workers at 3,115 persons. A total of RM3,8573 million were paid to 331,248 employees. Total salaries & wages paid amounted to RM3,857.3 million of which 99.5 per cent were allocated to full-time employees, while 0.5 per cent for part-time workers. However, this sector is still experiencing many problems to face up current challenges, which are included lack of application scientific knowledge and technological application, lack of young generation involved in agricultural sectors and lack of market and customer orientated strategies

Market is fast changing, competition is arising from regional markets and challenges are inevitable whether in munificent market or hostile environment, therefore this timely study bear on motivation to translate the theoretical concepts into more practitioner knowledge, subsequently transform the practical knowledge into managerial capabilities and strategic actions. Hence this research is aimed in contributing to the agro based SME firm's performance as below:

1. From less productive to be more productive through implementation of innovativeness in firm activities by exploiting scientific knowledge and technological application
2. From less profiting to be more profitable through modern business model such as e-commerce or online marketing, by application market and customer oriented business strategy
3. From less competitive to be more competitive through contemporary business model, by adopting strategic management, such international certification, recognition HALAL; ISO; HACCP; SOM etc

Therefore, the significance of current study could be recognized from both theoretical and practical aspects, adopting RBV as underpinning theory, First, the present study attempts to examine the relationship between strategic orientations and firm performance. A firm's resources consist of all assets both tangible and intangible, human and nonhuman that are possessed or controlled by the firm and that permit it to devise and apply value-enhancing strategies (Barney, 1991; Wernerfelt, 1984). Second, from strategic management perspective, to determine the moderating roles of dynamic capability, in agro based SME. Dynamic approach is concerned with how the management of firm creates mechanisms that best fit in market and creates processes that match with changing environment (Grant, 1996; Pisano, 1994; Eisenhardt & Martin, 2000). Apparently it is Malaysian government

interest and researcher's motivation to understand and study its underlying root causes among ago based SMEs and find profound solution to overcome non-performance issues in the context of Malaysia.

1.7 Scope of Research

1.7.1 Research Design

This research design and scope is inductive and quantitative in nature, to study the moderating effect of dynamic capability on the relationship between strategic orientations and firm performance. The research attempt to investigate the shortcoming of existing theoretical understanding, which is inherent in the level of industries or individual, Furthermore this study would contribute to the existing entrepreneurship literature and allows for broader knowledge assimilation and utilization, leading to better practical application on firm performance.

The approach of this research focuses on confirmation and justification, following a deductive and deterministic model of inquiry. It involved hypothesis testing and representative sampling, adequate sample sizes, and appropriate statistical treatments. It is important to use a broad range of techniques in entrepreneurship study since it seems to be constant with the plurality of the entrepreneurship area (Smith, Gannon, & Sapienza, 1989). Results from the literature reviewed by Gaylen and Douglas (2001) indicated trends towards more multivariate statistics and some increase in the emphasis on reliability and validity over the past decade. Therefore, specifically, the statistical techniques used in this research are involved exploratory factor analysis, by using principle factor analysis, correlational test; multivariate regression, hierarchical regression for the present study.

1.7.2 Samples and Populations

According to the SME Corp portal information Malaysia, it is estimated the population of agro based firms are 6708 firms spanning in various agro based sectors, such as fisheries, livestock, Crop, forestry and lodging in Malaysia. According to the SME profile, 2013 firms categorized in small (1941 unit) and medium (992 units) companies are 2933 in Malaysia. These agro based industries are geographically located in peninsular (Southern; Northern; Eastern and Western coast). From the sample size calculation, Krejcie and Morgan (1970), 533 agro based SMEs industries Malaysia (data for year 2013) are selected out of 2933 firms, by using the random sampling method, in which SME list are entered in SPSS software for random selection.

1.7.3 Unit of Analysis

The unit of analysis for this study is at the firm or organization level, whereby the owner or manager is identified as the key respondent to represent their business to answer the questionnaires. All variables have been considered at the organizational level.

1.8 Research Hypothesis

Hypothesis 1: There is positive relationship between entrepreneurial orientation and firm performance

Hypothesis 2: There is positive relation between learning orientation and firm performance

Hypothesis 3: There is positive relation between market orientation and firm performance.

Hypothesis 4: There is a moderating effect of dynamic capability on the relationship between entrepreneurial orientation and firm performance

Hypothesis 5: There is a moderating effect of dynamic capability on the relationship between learning orientation and firm performance

Hypothesis 6: There is a moderating effect of dynamic capability on the relationship between market orientation and firm performance

Hypothesis 7: There is a moderating effect of dynamic capability on the relationship between strategic orientations (EO; LO and MO) and firm performance

As abovementioned, the combination of organizational orientations, namely EO, LO and MO, moderated by entrepreneurial dynamic capabilities, will lead to firm performance in a changing market, Therefore we propose a conceptual framework for empirical test their relations between five variables. Refer to Chapter 3, Figure 3.1 conceptual research framework.

1.9 Definition of Key Research Variables

Strategic orientation, (SO), is defined as the strategic directions developed; deployed and implemented by a firm to create proper organizational behaviors to achieve the desired business performance (Narver & Slater, 1990; Gatignon & Xuereb, 1997; Menguc & Auh, 2005). Literature review shown that strategic orientation, for instance a market orientated firm has often developed organization-wide generation, dissemination, and use of market intelligence, focus on customers satisfaction and gain competitive advantage over competitor, all these organizational elements are considered strategic (behavior) orientation (Kohli & Jaworski, 1990; Sinkula, 1994). Previous researches in strategic orientation are conducted in a holistic approach or an individual approach. Within holistic approach, the strategic orientation is an integrative concept consisting of its multiple dimensions, which covers entrepreneurial orientation, marketing orientation and learning orientation (Bing & Zheng, 2011).

Entrepreneurial Orientation, (EO) is conceptualized as an organizational practice, process and managerial decision making by entrepreneur, which eventually leads to new venture and sustain entrepreneurial opportunities discovery and exploitation (Lumpkin & Dess, 2001). In another study three-component approach had been adopted by McDougall and Oviatt (2000) in defining the international entrepreneurship they conceptualized as a combination of innovative, proactive and risk-seeking behavior that crosses national borders.

Learning orientation, (LO): is defined as the discovery new information and insight or development of new knowledge, from which might create influential effect on

organizational behavior (Slater & Narver, 1995; Hult et al., 1999). A learning organization is a firm has skill in creating, acquiring, and transferring knowledge, and at modifying its behavior to reflect new knowledge and insights (Garvin, 1993)

Market orientation, (MO) can be considered as one of business or marketing strategies, hence market orientation consist of three latent dimensions, which are competitor, customer and cost orientation. These latent elements are considered important strategic marketing orientations (Gatignon & Xuereb, 1997, Narver & Slater, 1990). Day and Wensley (1988) claimed that the differential performance between competing firms could be explained from the aspect of market orientations. From the meta analysis, it was revealed that customer orientation and competitor orientation, were two most often studied market orientations (Gatignon & Xuereb, 1997; Menguc & Auh, 2005; Narver & Slater, 1990).

Dynamic capability occurs when management successfully adjusts the strategic combination of resources to the unique characteristics of the marketplace (Grant, 1996; Pisano, 1994). According to Eisenhardt and Martin (2000) attested that both exploration and exploitation capabilities are considered dynamic capabilities, given that the role of dynamic capabilities is to reconfigure and transform the existing resources into new functional competencies which can better match the market environment

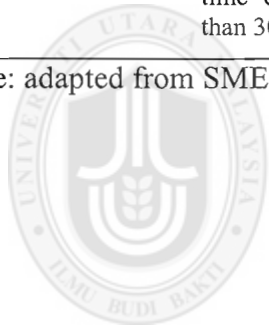
Small Medium Enterprise (SME): Given that there have been many developments in the economy since 2005 such as price inflation, structural changes and change in business trends, a review of the definition was undertaken in 2013 and a new SME definition was endorsed at the 14th NSDC Meeting in July 2013.

Table 1.1

Definition of SME

Category	Small	Medium
Manufacturing	Sales turnover from RM300,000 to less than RM15 million OR full-time employees from 5 to less than 75	Sales turnover from RM15 million to not exceeding RM50 million OR full-time employees from 75 to not exceeding 200
Services & Other Sectors	Sales turnover from RM300,000 to less than RM3 million OR full-time employees from 5 to less than 30	Sales turnover from RM3 million to not exceeding RM20 million OR full-time employees from 30 to not exceeding 75

Source: adapted from SME Corp.



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1.10 Organization of Thesis

This dissertation is designed and began with the first chapter by setting the background of study, problem statement, research questions, research scope, and significance of study. Second chapter includes a literature review on classical underpinning theories of firm competitiveness, which include resource based view, (RBV), knowledge based view (KBV) and strategic view, development of research hypothesis, development of theoretical framework. Alongside with literature review, a pragmatic discussion on what emerging challenges, opportunities faced by and performance issue in agro base SME industries.

Third chapter includes research methodology, including research design; population and sampling frame; research instrument and procedure of data collection; measurement of variables and data analysis and pilot study. Fourth chapter, is to explain research finding in descriptive statistic, various reliability and validity tests, hypothesis testing and relate inferential statistic tests with the theoretical framework. Finally, in Fifth chapter, make interpretation from statistical results; make detail theoretical discussion and draw academic conclusion on the findings, finally make theoretical contribution, managerial implication; research limitation and future research recommendation.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter is an overview of the literature review of the thesis. It is helpful to outline the related areas of the current studies as the study looked into two perspectives that are resources based view, knowledge based view and strategic management in turn it leads to the area of study on sustainable competitive advantage, strategic marketing, dynamic capabilities and firm performance as an integral concept. Relevant literature based on the theoretical background provided in the conceptual framework of this study is also reviewed. This chapter is relevant to the current study because it deals with the operational definition of the variables and much of the review is based on the previous studies and literature on international and Malaysian SMEs, organizational resources such as entrepreneurial orientation, learning orientation and market orientation and dynamism perspective built on the interdependent between independent and dependent variables.

The purpose of critical review is to identify individual studies or articles with as much as and as detail as each merits according to its comparative theoretical importance and practical significance in the body of scholarly literatures. Basically four flow steps were applied in the critical literature review process:

1. Literature search—finding materials relevant to the subject being explored
2. Articles evaluation—determining which literature makes a significant contribution to the understanding of the topic
3. Analysis and interpretation—discussing the findings and conclusions of pertinent literature, empirical journal or scholarly papers etc. See in Appendix A1 Critical Literature Review

4. Problem formulation—which topic or field is being examined and what are its academic concern, theoretical gap or practical issues? See in Figure 2.1, illustration of process flow for critical literature review

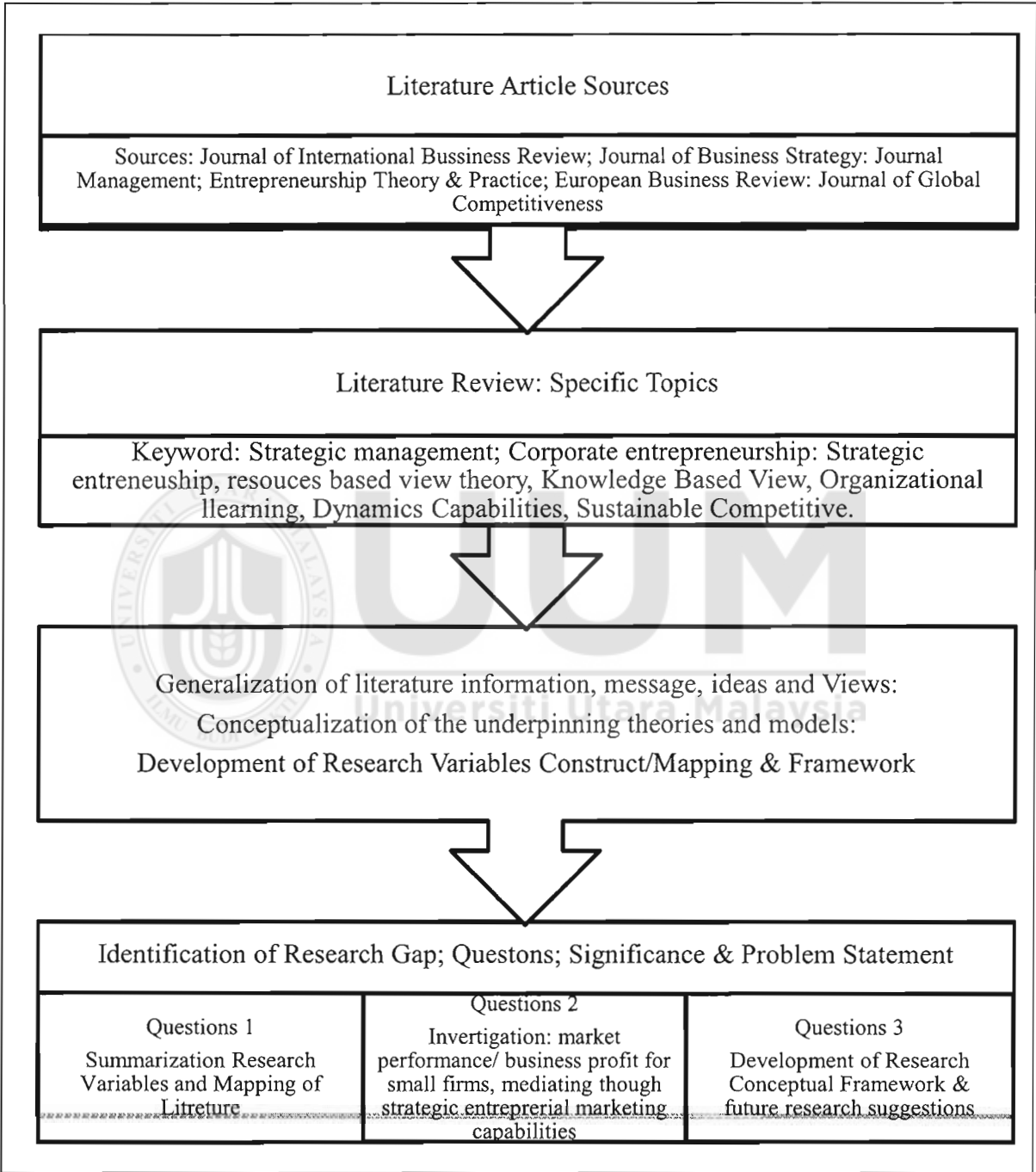


Figure 2.1
Process Flow of Critical Literature Review

Results from the literature review would be used to synthesize the arguments of others and conceptualize the ideas. Subsequently the outputs of critical literature review were organized according to the following criteria

- I. Division of works under review into categories (e.g. those in support of a particular position, those against, and those offering alternative theses entirely). Sources of articles; academic disciplines; topics of study; types of literature (peer reviews; theoretical articles, empirical studies, case study). Explanation of how each work is similar to and how it varies from the others. Other denominators such as year of article; qualitative versus quantitative approaches, conclusions of authors, specific purpose or objective, positive or negative relationship etc
- II. Conclusions as to which pieces are best considered in their argument, are most convincing of their opinions, and make the greatest contribution to the understanding and development of their area of research. The details of critical review can be referred to Appendix A1.

2.2 Outcome of Literature Review

2.2.1 Recent Empirical Studies

The outcome of the critical review is to point out major methodological flaws or gaps in research, summarize major contributions of significant studies and articles to the body of knowledge, inconsistencies in practical aspect and contradictory to underlying theory. The literature review concludes by providing some insight into the relationship between the central topic of the literatures and discovering the relevant of topics or a cross disciplines topics or a scientific or statistical methodology, or a new area of study pertinent to future study. Subsequently, the output of critical review are categorized into its relevant variables or related topic in relating to its year of literature authors or reference scholars. This critical review would provide an overall understanding of the research variables and their casual relationship between independent (predictor) variables and dependent variables, such as influencing factors, evidence of positive or negative relationship substantiated by previous research or recent empirical studies. See in Table 2.1 Relevant variables and literatures.

In summary few classical theories were reviewed and considered, for instance, resources based view (RBV); knowledge based view (KBV), strategic management etc. Under the competitive and sustainable advantages topics, the strategic orientation, such as entrepreneurial orientation, learning orientation and market orientation and dynamic capability were taken into consideration.

Table 2.1

Relevant Variables and Literatures

<i>Relevant Variables / Related Topics</i>	<i>Literature/ References</i>
Problems that affect performance of SMEs as Identified by Past Literature: Economic crisis and conditions, firm competitiveness, lack of finances or financial assistance from government and other external sources, low productivity, regional regulatory barrier, lack of managerial capabilities, lack of monetary capital, lack of human capital (skill / competency); lack of knowledge management, inability to embrace new technology, improper entrepreneurial work conditions, and lack of innovation in products and process , lack of marketing strategies, market access etc	<ul style="list-style-type: none"> Saleh and Ndubisi (2006), Samad (2007); Abu Bakar, Mad and Abdul (2006); Aris (2006); Harvie (2004); Wafa, Noordin and Kim-Man. (2005); Ritchie and Brindley (2000); Decker, Schiefer and Bulander (2006); Foon (2006); Leitao and Franco (2008); Werner and Moog (2009); Amtonilo, Mazzanti and Pini (2009); Muhammad, Char, Yasoa and Hassan (2010); Alam (2010); Ullah et al. (2011); Malik et al., (2011); Jaffari et al., (2011)
Influence of EO on Innovation; Influence of EO on Performance	<ul style="list-style-type: none"> Einar Lier Madsen; Elspeth McFadzean, Andrew O'Loughlin and Elizabeth Shaw, 2005; Ari Jantunen, Kaisu Puumalainen, Sami Saarenketo, Kalevi Kyla" Heiko, 2005;Amonrat Thoumrungroje, 2005; Fredric Kropp, Noel J. Lindsay, Aviv Shoham, 2006; H.J.C. van Zyl and B. Mathur-Helm, 2007; Li-Ling Hsu & Tzu-Chuan Chou, 2008; Akin Kocak, Temi Abimbola, 2009; Pilar Carbonell, Ana I. Rodri'guez Escudero, 2010; Lida P. Kyrgidou & Mathew Hughes, 2010
Influence of LO on Innovation; Influence of LO on Performance; Influence of Organizational Learning Capability on Performance	<ul style="list-style-type: none"> Chun wei chooi and Ray Johnstone, 2004; Odd Jarl Borch and Einar Lier Madsen; Halawi L, Aronson J and McCarthy R , 2005; Fredric Kropp, Noel J. Lindsay, Aviv Shoham, 2006; Akin Kocak, Temi Abimbola, 2009; Joseph Johnson, Eden Yin, and Hueiting Tsai, 2009; Sami Saarenketo, Kaisu Puumalainen, Olli Kuivalainen and Kalevi Kyla"heiko, 2009 Odd Jarl Borch and Einar Lier Madsen;

Table 2.1 (continued)

<i>Relevant Variables / Related Topics</i>	<i>Literature/ References</i>
Influence of MO on Innovation; Influence of MO on Performance	<ul style="list-style-type: none"> • Monica L Perry and Alan T. Shoa, 2001; • H.J.C. van Zyl and B. Mathur-Helm, 2007; Li-Ling Hsu & Tzu-Chuan Chou, 2008; • Hans Eibe Sørensen 2009; Scott J. Grawe, Haozhe Chen, Patricia J. Daugherty, 2009; Akin Kocak, Temi Abimbola, 2009; Michele O'Dwyer, Audrey Gilmore and David Carson, 2009; Lee Tan Luck, 2009;
Influence of Dynamic Capability on Innovation; Influence of Dynamic Capability on Performance	<ul style="list-style-type: none"> • Anders Drejer, 2002; Hamid Etemad, 2004; Ari Jantunen, Kaisu Puumalainen, Sami Saarenketo, Kalevi Kyla Heiko, 2005; Gillian Sullivan Mort & Jay Weerawardena, 2006; Odd Jarl Borch and Einar Lier Madsen; Goksel Yalcinkaya, Roger J. Calantone, and David A. Griffith, 2007; Li-Ling Hsu & Tzu-Chuan Chou, 2008; Paul Knott, 2009; Thomas Hutzschenreuter and Sascha Israel, 2009; Mika Westerlund and Risto Rajala, 2010; Lida P. Kyrgidou & Mathew Hughes, 2010; Vânia Maria Jorge Nassif, Alexandre Nabil Ghobril & Newton Siqueira da Silva, 2010;
Relationship between Innovation and Firm Performance	<ul style="list-style-type: none"> • Hyvarinen (1990), McAdam, Armstrong, and Kelly, (1998), Avermaete et al. (2004), Freel (2005), Yap, Chai, and Lemaire (2005), Edwards, Delbridge and Munday (2005), Allocca and Kessler (2006), Branzei and Vertinsky (2006), de Jong and Vermuelen (2006), Wolf and Pett (2006), Oke et al. (2007), Dibrell, Davis and Craig (2008), Clark (2010), Ar and Baki (2011)
Negative Relationship with firm performance	<ul style="list-style-type: none"> • Hage & Aiken, 1967; Armour & Teece, 1978; Kimberly & Evanisko, 1981; Rogers, 1995; Darroch, 2005

Table 2.1 (continued)

<i>Relevant Variables / Related Topics</i>	<i>Literature/ References</i>
Positive Relationship with firm performance	<ul style="list-style-type: none"> Damanpour, 1991; Damanpour, Szabat & Evan, 1989; Caves & Ghemawat, 1992; Wheelwright & Clark, 1992; Brown & Eisenhard, 1995; Bierly & Chakrabarti, 1996; Hansen, Nohria, & Tierney, 1999; Roberts, 1999; Schulz & Jobe, 2001; Anders Drejer, 2002; Garcia-Morales, Llorens-Montes & Verdu-Jover, 2008, Michele O'Dwyer, Audrey Gilmore and David Carson, 2009; Garcia-Morales, Jimenez-Barrionuevo, Gutierrez-Gutierrez, 2011

The detail of the literature review was tabulated and can be inferred from in Appendix A1

2.2.2 Summary of Research Gaps

I Few Studies on Integrated Model in Malaysia Agro based SMEs

Results revealed that all EO dimensions explained the three regions, except competitiveness and autonomy in the Malays SME business venture (Awang et al., 2009). However future research might study entrepreneurial innovativeness and pro-activeness at firm level in different industries. Both EO and DC explained performance significantly, but the research finding partially support Hitt et al. (2001) who found all DC dimensions related to performance positively, entrepreneurial management and ROS related negatively. Studies shown that the respondents' entrepreneurial intentions are positively correlated to their personality traits (innovativeness and pro-activeness), and social learning (knowledge and experience), (Tateh, Latip, & Awang, 2012).

In recent local agro-entrepreneurial studies, the results shown that in order for agro business members to be successful they have to depend on their creativity and innovativeness (Zainalabidin et al., 2011). A study by Awang et al. (2010) shown

that results of factors analysis on EO shown that the latent constructs of EO were dependent on geographical. Two distinct dimensions were found significant explaining loaded items. As part of EO dimensions, both innovativeness and proactiveness were found regional dependence. Referring to mean value, proactive orientation was high in three regional areas. In short, EO in Malaysian SMEs partially resemble those small and medium enterprises (SMEs) in other part of the world, measures theorized in (Covin & Slevin, 1989; Lumpkin & Dess, 1996) are consistent to a certain extent.

Rauch et al. (2009) found that the existing research does not provide enough inputs into developing a common global understanding of strategic orientation (SO) outcomes. Vanesa, Francisco and Juan Carlos (2014) argued that a well integrated framework to develop dynamic capability model through empirical research are still needed. Based on systematic empirical papers review, the synthesizing analysis identified three areas of dynamic capability, which are process, antecedents, and consequences. However, an integrated mechanism, by which how dynamic capability lead to performance outcome is unresolved issue and further empirical researches are essential (Eriksson, 2014). According to another meta-analysis conducted by Andreas (2013), SO-firm performance relationship was found robust. Results suggest that additional moderators should be assessed in the future researches. Another meta-analysis conducted by Philip and Anna (2014), the conceptual relationship of dynamic capability was identified, but further research is needed to extend the operationalization of the existing conceptual frameworks. Adding to this, many existing research articles constitute a long what-to-do list, testing what aspects of EO influence the performance or what factors moderate this relationship, without giving much insight into how it is done. This suggestion is an echo of the call made recently

by (Miller, 1983) EO had been widely studied in different perspectives and various fields, in contrast he suggested that future investigations of EO should be selective variables by using empirical examination of specific examples of entrepreneurial activity in specific industries and incorporating other variables to form an integrated research framework. These calls to a large extent remain unanswered. Therefore, in establishing EO as pertinent theory for entrepreneurship development in Malaysia, study should extend to multiple level of analysis and diversified sectors ranging from firms, industries to intercontinental studies (Tateh, Latip, & Awang, 2012).

II Limited Studies on the Dynamic capabilities in SMEs

Despite its widespread acceptance of strategic management schools of thought, still a number of scholars have been skeptic about the definition of dynamic capabilities, the possibility of its practical application (Winter, 2003) or indeed the very scientific researchable status of the dynamic concept. Varied view of the dynamic capabilities framework is often a consequence of its un-matured theoretical underpinnings and insufficient operationalization. The problem is complex because dynamic capabilities are a highly non-trivial phenomenon and as such require for their analysis an innovative synthesis of various theories of the firm (evolutionary, transactional, resource-based), organisational learning, entrepreneurship and leadership. (Krazkiewicz, 2014). Despite the concept of dynamic capabilities expressed in the literature and it being treated as “the most forward-thinking school of strategic management”, many researchers are skeptical about the essence of the concept of “dynamic capabilities”, its applicability (Winter, 2003) and scientific status. For instance, H. Mintzberg treats the concept of dynamic capabilities as a constituent of

the school of learning, whereas the concept of “competence based competition” attaches secondary importance to a company’s capabilities.

In the field of strategic management many scholars remain skeptic about the nature and role of the dynamic capabilities concept (Winter, 2003) and that there is still no established measure for either dynamic capabilities. Although previous studies (Wang & Ahmed, 2007) have discovered a wide range of firm- or industry-specific processes pertinent to dynamic capabilities, findings remain disconnected Prieto, Revilla and Rodriguez-Prado (2009) state that it is necessary to create and validate a multi-dimensional construct of dynamic capabilities. There were scholarly criticisms found in the literature on dynamic capabilities. For example the criticism on the terminology (Zahra et al., 2006; Helfat et al., 2007), and many different research methods resulting in many different meanings, besides the difficulty of distinguishing between the various concepts of capabilities, such as the difference being dynamic and operational capabilities (Helfat et al., 2007). Overall, it is suggested more quantitative studies could be helpful to develop multidimensional metrics for measuring DCs. Thus, there are many possibilities for future studies on DCs, both qualitative and quantitative methods.

According to Hitt et al. (2001) dynamic capability is a characteristic of strategic leadership, can effective capitalizing of resources and mobilizing organizational orientation in a firms to successfully implement activities. Most of the studies in strategic leaderships are emphasized on large firms and corporate level, which full of resources, less study were found to explore core competencies in smaller firm, in particularly the SME’s play a greater role in Malaysia GDP, thus this study is aimed to study the dynamic leadership in agro based SMEs.

Therefore, finding shown that SME firm strategic level should be further studied (Awang et al., 2009). Firm's orientation and strategic capabilities were studied by scholars in North America, and Europe. However, studies of these topics in Malaysian SMEs, especially in agro based industries are at infancy stage (Awang et al., 2010). Furthermore entrepreneurship and resource studies in agro-based are called for due to agro-based sectors in Malaysia are becoming prominent with facilitating government policies in developing the industry Malaysia.

III Uncertain Moderating Effect on Strategic Orientation- Performance

Previous studies supported that EO and DC found to be highly correlated and significantly explained ROS. The study supported the resource-based view (RBV) whereby EO and DC were strategic internal resources of the firm pertinent in enhancing performance. EO dimension have been justified and fit in agro based entrepreneurs in Malaysia, nonetheless the future research should explore the firm's management capabilities (Awang et al., 2010). In the past studies, many variables have been considered as moderators, for instance Wong and Ang (2004) studied the moderating effect of strategies between EO and performance, which was recommended by (Awang et al., 2010). Lumpkin and Dess, (2001) considered industry life cycle stage as an effective such moderator. Market turbulence was also used as moderator between MO and firm performance in some studies, other studies found that market turbulence has not significant moderating effects (Arif Hartono, 2015). According to a recent meta-analysis study by Kirca, Jayachandran and Bearden (2005) acknowledged that market turbulence has a very limited conformity effect as a moderator on firm performance. Rauch et al. (2009) found the firm size

could be an important moderator. In that meta-analysis, Rauch et al. (2009) observed various number of studies which considered the size of business or the firm's size as a moderator variable and inferred that the level of impact of environmental factors varied according to size of the firms. The empirical results suggested that dynamic capabilities give impact on SME performance is an indirect influence through innovation and learning capabilities. In this context, dynamic capabilities seem to support and enhance the exploration of new marketing and the exploitation of technological capabilities, which in turn lead to competitive performance in terms of market share and profitability. Aimilia et al. (2011) in our knowledge, the assumed strategic orientations- dynamic capabilities-firm performance relationship has not been subjected to large-scale empirical testing.

Therefore, future studies should take into consideration of additional independent/moderator variables such as strategic leadership among agro-based entrepreneurs and how it relates to firm performance. Sample frame should be extended to cover the whole of Malaysia and neighboring countries such as Thailand and Indonesia (Awang et al., 2010). As stated by Lumpkin and Dess (1996) studies involved in finding a direct relationship between variables like Entrepreneurial orientation and firm performance will not provide wholesome understanding and therefore, either a mediator or a moderator variable or both have to be introduced. Based on this suggestion, one moderator is introduced in this research, namely the dynamic capabilities between organizational orientations and firm performance. The present study could provide some evidence and may contribute in bridging theoretical and practical gap.

2.2.3 Conceptualization of Research Variables

Charles and Kim (1978) pointed that research should begin with a “problem” or topic. Thinking about the problem results in identifying concepts that capture the phenomenon is being studied. Conceptualization is the process whereby these concepts are given theoretical meaning. The process typically involves defining the concepts abstractly in theoretical terms. As the result of the literature review, a conceptual variables framework was derived from the research variables into antecedent, independent and dependent variables, which would give rise to the proposed theoretical research framework in Section 2.8. Subsequently, in the next few sections the concepts of research will be explained in more details by defining of variables; developing of hypotheses and operationalizing of research measurements.

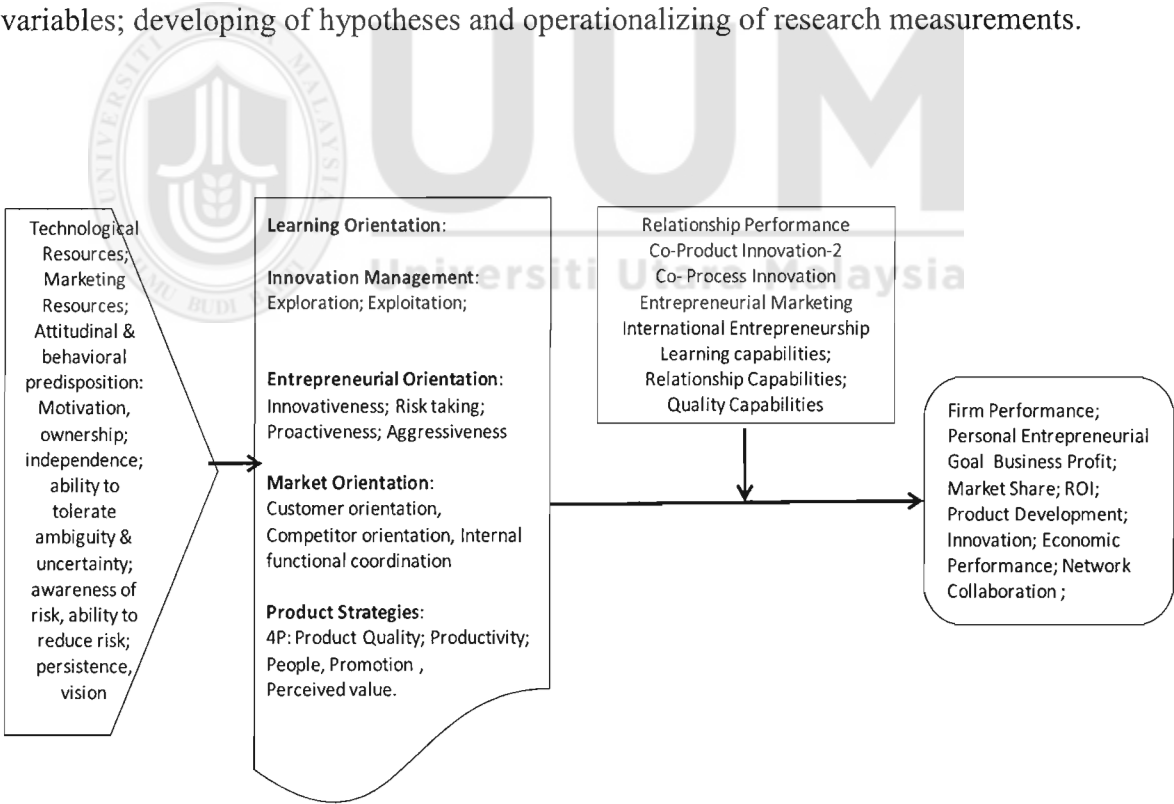


Figure 2.2
Conceptualization of Overall Research Variables

Finally, this current research involved empirical study the variables to testify the hypothesis (descriptive, relational) through a proposed research framework and supported by underpinning theory. See in Figure 2.2 Conceptualization of Overall Research Variables.

2.3 Theoretical Review: Resource Based View

In the resource-based view, the firm seeks unique, costly-to-copy inputs to generate above-normal returns. This model assumes that, first, firms within an industry may be heterogeneous with respect to different bundles of productive or strategic resources they possess; second, these resources may not be perfectly mobile across firms owing to either costly to copy or inelastic in supply, and thus heterogeneous can be long lasting (Penrose, 1959; Barney, 1991).

According to the resource-based view (RBV) a firm might gain sustained competitive advantage, if the firms possess unique or distinctive resources (Barney, 1991). A firm's resources consist of all assets both tangible and intangible, human and nonhuman that are possessed or controlled by the firm and that permit it to devise and apply value-enhancing strategies (Barney, 1991; Wernerfelt, 1984). Unique resources and capabilities are included distinctive competences, core competences, invisible assets, core capabilities, internal capabilities, embedded knowledge, corporate culture, and unique combinations of business experience. Resources and capabilities that are valuable, uncommon, poorly imitable and non-substitutable comprise the firm's unique or core competencies (Prahalad & Hamel, 1990) and therefore present a lasting competitive advantage. Intangible resources are more likely than tangible resources to generate competitive advantage. Specifically,

intangible firm-specific resources such as knowledge permit firms to add up value to incoming factors of production (Hitt et al., 2001). All these represent what are heterogeneity of resources and idiosyncrasy of intangible knowledge of competency. Another category of intangible resource is competency that represents what a firm doing (Hitt et al., 2001).

2.3.1 Sustainable Competitive Advantage

Competitive advantage is normally defined as the ability to earn returns on investment consistently above the average for the industry (Porter, 1985). Barney (1991) indicates that a firm is said to have a competitive advantage when it implements a value creating strategy not simultaneously being implemented by any current or potential competitors. Sustained competitive advantage is recognized as the level of exceptional performance that a firm attains when it devises and implements a value-enhancing strategy that is not concurrently being followed by any existing or possible competitors and when these firms are either incapable or reluctant to reproduce the benefits of this strategy (Barney, 1991).

Competitive advantage is developed over time and cannot easily be imitated. Barney (1991) regards resources as those controlled by a firm that allow the firm to formulate and implement strategies that expand its efficiency and effectiveness. He developed the value, rareness, imperfect limitability (VRIO) framework for assessing what kinds of resources would present sustainable competitive advantage. These were value creation for the customers, rarity compared to the competition, inimitability, and organization. Furthermore Coyne (1986) and Hall (1992) identified several capability differentials as the sources of sustainable competitive advantages.

They are functional differentials (e.g., knowhow), cultural differentials (e.g. perception of high quality, ability to learn), positional differentials (e.g., reputation, location) and regulatory differentials (e.g., patents, contracts).

As Barney (1991) pointed out, a firm resource must have the following four attributes to be a sustainable competitive advantage: (1) it must be valuable, in the sense that it exploits opportunities or neutralizes threats in a firm’s environment, (2) it must be rare among a firm’s current and potential competition, (3) it must be imperfectly imitable, no matter owing to the unique historical condition, causal ambiguity or social complexity, (4) there cannot be strategically equivalent substitutes for this resource

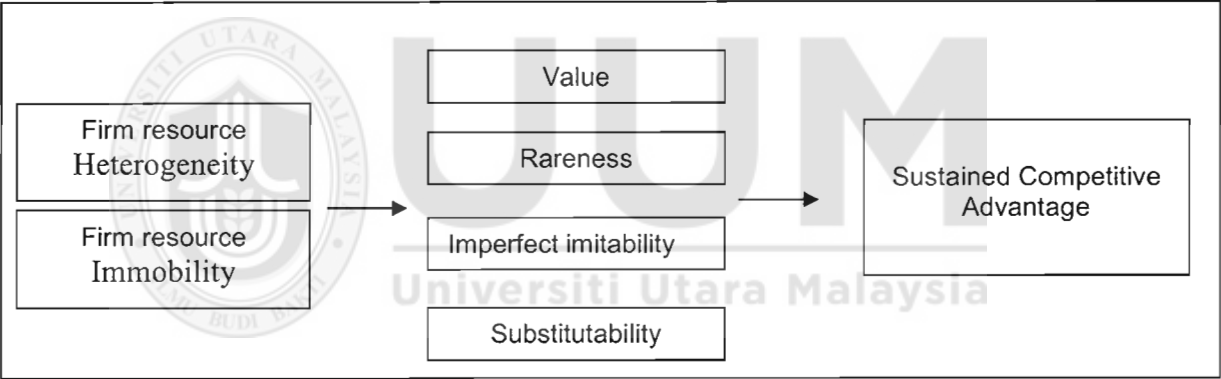


Figure 2.3
Attributes to be a sustainable competitive advantage
Source: Adapted from Barney (1991)

2.3.2 Core Competency

In a moving environment, the strategy that just accumulates valuable assets is often not enough to support a significant competitive advantage. Winners in the modern marketplace need to demonstrate timely responsiveness and flexible product innovation, coupled with the management capability to efficiently redeploy internal and external competencies. Teece, Pisano and Shuen (1997) reproduced the evolution concept proposed by Winter & Nelson (1982) and referred this ability as “core competency”— the firm’s ability to integrate, build and reconfigure internal and external competence to address rapidly changing environment. The new competitive advantage of firms lies with its organizational and managerial processes, shaped by its specific asset position, and the path available to it (Figure 2.4). The key point of this approach, also the most significant difference from resource-based view, is that entrepreneurial activity cannot lead to immediate replication of unique organizational skills through simply entering a market and piecing the parts together overnight. Furthermore, the behavior and performance of particular firms may be hard to replicate, even if its coherence and rationality are observable.

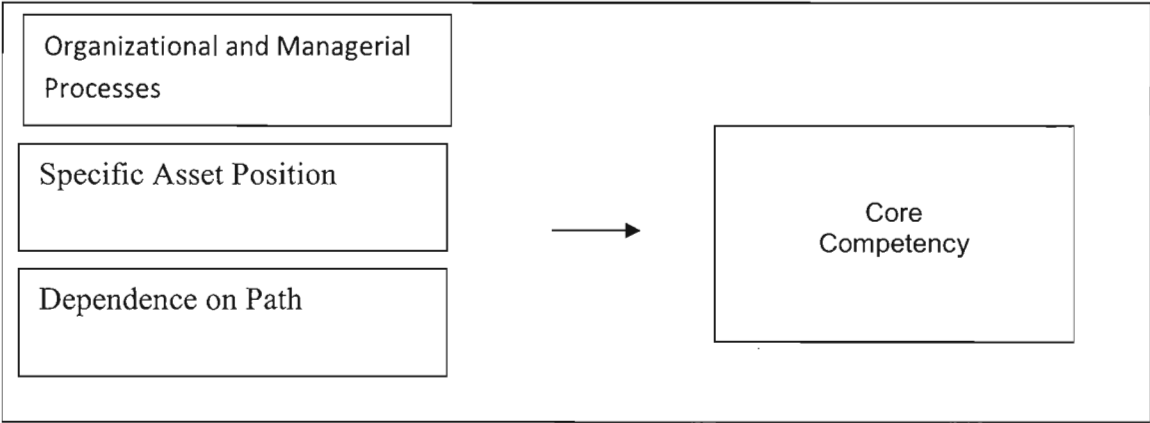


Figure 2.4
Core Competency Paradigm,
Source: Adapted from (Teece, Pisano & Shuen, 1997)

In summary Malaysia has experienced robust economic growth since independence with average GDP growth of 6%, which relied on natural resources such as natural rubber, palm oil and pepper. Malaysia social economic development has been mainly driven by traditional drivers of growth, which include cheaper land, raw materials and cost-competitive labor. Sustainable competitiveness in this rapid changes global market and foreign investment environment has necessitated the development of a sustainable agricultural sector, by focusing on application of technological and science knowledge as an innovative input into agricultural processes and activities, which could eventually increase their manufacturing productivity and value added lead to the enhancement of its global competitiveness.

2.4 Knowledge Based View

According to Malaysia Productivity Corporation, (MPC), knowledge management is defined as an integrated approach of creating, sharing, and applying knowledge to excel organizational productivity, profitability and growth. According to its view, the knowledge is a dynamic process enables learning and innovation at all levels and areas in the organization, which include new products, services, processes, markets, technologies, and business models, building individual, team and organizational capability leading to organizational capacity.

Knowledge is categorized into two different perspectives, explicit knowledge is documented, translated, codified and inscribed in objects such as books and blue prints, whereas tacit knowledge is abstract, cognitive, experiential, deductive and intuitive (Ratten & Suseno, 2006). Research suggested that majority of the applicable or practical knowledge which exists in organization is largely of a tacit nature

(Ratten & Suseno, 2006). Tacit knowledge could lead to a sustainable competitive advantage because it is not easily transferable or reproducible (Weber & Weber, 2007). Because of its very nature, it is very difficult for the organization to recognize it and use it to its fullest potential. In contrast, explicit knowledge is easier to transmit, easily developed; deployed and disseminated, hence it is like a commodity and may not always create a source of competitive advantage (Magnier & Senoo, 2008).

According to Karkoulian, Halawi and McCarthy (2008) knowledge management is an approach to build the learning organization in which firm members will acquire, share, create knowledge or implement it in their decision-making activities. Hoffman et al. (2005) suggested that knowledge management involves four main processes:

1. Knowledge generation which includes all activities that discover new knowledge,
2. Knowledge capture which involves continuous sensing, searching, reorganizing, and integrating of it after knowledge is generated,
3. Knowledge codification is the process of documentation knowledge through it knowledge can readily be accessible and transferrable,
4. Knowledge transfer involves disseminating knowledge from one person or group to another person or group, and the absorption of that knowledge.

In summary, for the past decades Malaysia had experienced a substantial economic development, building on its rich resource-based economy, by using it land labor as economic capital and competitiveness. Therefore Malaysia needs to shift the resources based economy and production based economy to sustainable economic where knowledge and “know-how” become the main drivers for economic growth. See in Figure 2.5 National Innovative Model.

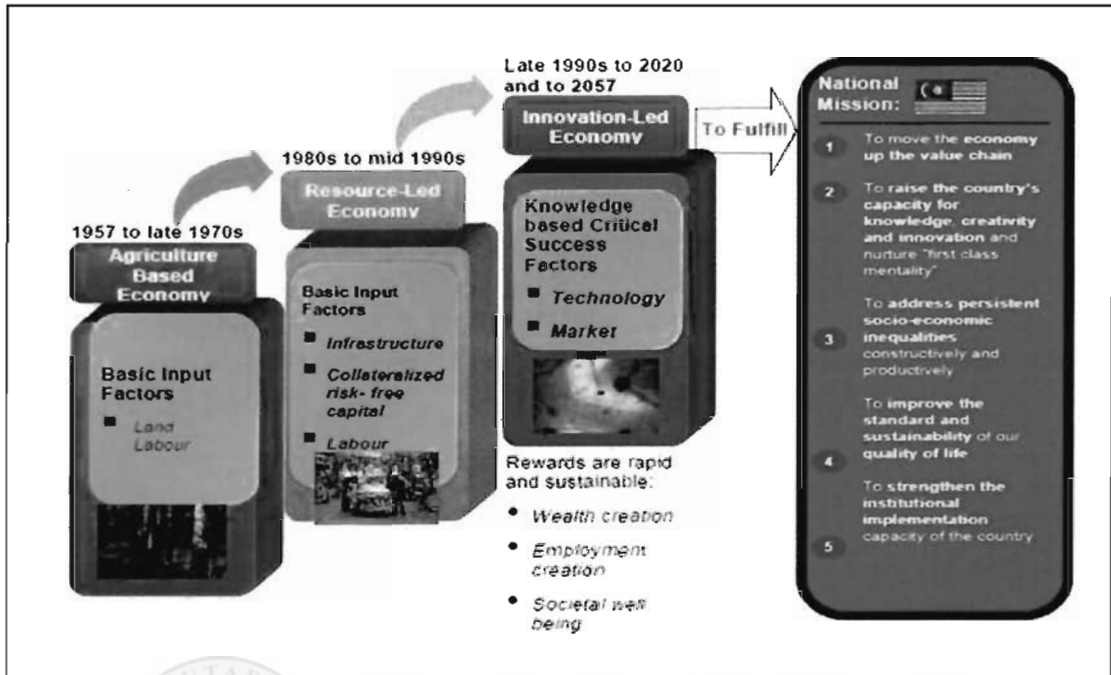


Figure 2.5
National Innovation Model,
 Source: adapted from National Innovation Council

2.4.1 Learning Orientation Creates Intellectual Capital

Learning orientation, (LO) is defined as the discovery new information and insight or development of new knowledge, from which might create influential effect on organizational behavior (Slater & Narver 1995; Hult et al. 1999). A learning organization is a firm has skills in creating, acquiring, and transferring knowledge, and at modifying its behavior to reflect new knowledge and insights" (Garvin, 1993). In a learning organization, an individual learning is encouraged and enhanced through cross departmental sharing to different organizational units (Bremar & Dalgic, 1998).

This cross boundaries learning and sharing would provide numerous benefits. **First**, a LO can play a strategic role in renewal the firm's business or market

competitiveness strategies (Lumpkin & Lichtenstein, 2005). **Second**, LO serves as a strategic competitiveness buffer between firms and their environments (Day, 1994), which is especially important for the entrepreneurs. **Third**, learning is forward-looking; it minimize the major environmental impact (munificence or hostility), particularly in a fast changing and competitive market (Day, 1994). **Fourth**, LO can help to maintain rapport and relation with stakeholders, including customers, suppliers, and lawmakers building their networking ability to manage anticipate environmental changes. **Finally**, learning orientation can be helpful in recognizing new market opportunity (Lumpkin & Lichtenstein, 2005).

Learning orientation is a dynamic process of creation, acquisition; distribution; application and integration of knowledge aims at the development of capabilities (intangible resources), which would contribute to better organizational performance through of individual and collective learning (Lopez, Peon & Ordas, 2005). For instance an individual learning may be relatively easy to be imitated however, a continuous and collective organizational learning, which has greater cumulative effects and are much difficult to be imitated by its competitors (DeNisi et al., 2003). Organizational learning may constitute an individual; idiosyncratic, intrinsic and complex process through a collective collaboration and interaction in exchanging information knowledge and message. The knowledge generated and created in this mutual interaction is translated into new models of activities, organizational procedures and principles logic in the firm (Teece, Pisano & Shuen, 1997). This implies that when a firm acquires individual level knowledge resources through new recruitment, on job training or other shared learning activities, it must find a way to leverage these resources to the team level and eventually translated into the organizational level (DeNisi, 2000). Otherwise, the effects of these knowledge-

based resources on competitiveness are limited. Furthermore the firm should develop systems to codify the tacit knowledge into tangible procedures and processes (organizational capital). Hence organization should put effort in establishing the knowledge management system (John, 2009). In that study the John (2009) argued that organizational learning is underlying dynamism to build up the organizational capitals, including human and social capitals, leading to firm level sustainable competitiveness.

Spender (1996) suggested that an organization's knowledge and its ability to generate new knowledge is the key to achieve competitive advantage. Similar to the resource-based view of the firm, he also argued that this competitive advantage only arises from the use of scarce, intangible, firm-specific knowledge. Knowledge learning is a key approach to solving current problems such as competitiveness and the need to innovate, which is faced by businesses today. Productive learning exploits, explores, and restructures an organization's values and criteria, enhances organization capability and improves an organization's performance. This is the type of learning that organizations should promote (Argyris & Schon, 1996). Learning is identified as a quantifiable improvement in activities, increased available knowledge for decision-making or sustainable competitive advantage (Argyris & Schon, 1996).

RBV literature indicates that competitive advantages can be created and sustained via knowledge use. Therefore, we believe that the RBV together with knowledge based view (KBV) are appropriate underpinning theories to explain whether resources and knowledge to formally and empirically explain the nature of the relationship between knowledge learning and competitive advantage. We postulate the following hypothetical relationship between new knowledge learning acquisition and application and the firms' competitive edge leading to firm

performance. The hypothetical relationship is depicted in Figure 3.1 the research framework.

2.4.2 Learning Orientation Creates Sustainable Competitiveness

Penrose (1959) firm competence or capability is arguably more important in establishing a firm's competitive performance than the tangible resources, in which firm possessed. Competence is usually distinctive to each firm and not separable from the firm, for instance innovation capability, it is idiosyncratic firm-level competence, as it evolves with the firm's development (Dierickx & Cool, 1989; Prahalad & Hamel, 1990) further proposed the notion of core competencies relating to the internal capabilities of organizations. They listed three tests to be applied to identify a core competence: (1) it should provide potential access to a wide variety of markets, by leveraging its potential; (2) it should be relevant to the customer's key buying criteria; and (3) it should be difficult for competitors to imitate. They emphasized the application of 'invisible' assets, innovation, leadership and competencies, or knowledge as the basis for competitive viability.

Coyne (1986) postulated that the sources of sustainable competitive advantage include four types of capability gaps/ differentials: (1) the functional/business system gap, (2) the positional gap, (3) the cultural or organizational quality gap, and (4) the regulatory or legal gap. Process differential is the gap between an organization and its competitors based on the efficiency of their business processes or supply chains. Cultural differential incorporates the habits, attitudes, beliefs and values with permeate the individuals and groups, that compromise the organization into a working unit. Positional differential exists because of past actions, which may have created a certain reputation with customers

or a certain advantageous location of facilities. Regulatory differential occurs due to the existence of intellectual assets.

Third Outline Perspective Plan (OPP3) stated Malaysia economic development shall place emphasis on addressing environmental and natural resource challenges in an integrated approach. The challenges include providing access to clean water, supplying adequate food without excessive use of chemicals, using more organic fertilizers, generating innovative clean energy services without environmental pollution, developing healthy urban environments, and conserving critical natural habitats and resources. All these challenges are imperative to ensure that sustainability of natural resources in agriculture sectors. Malaysian government agencies have been accumulating institutional experiences and resources. All these institutional knowledge can be transferred across industries and sectors. Application of these institutional resources will reinforce the development in agro based SME industries.

In summary a highly skilled workforce with strong technical competence and commitment to excellence must be developed and this is determined by the quality of knowledge capital in its manpower. In this new age generation, capability in acquiring new knowledge and capacity in utilizing technologies are critical important to face the challenges of globalization, therefore it is imperative for Malaysians agro-entrepreneurs to continually acquire and possess a range of essential skills, including innovative; technical, managerial and communication abilities.

2.5 Strategic Management Perspective

2.5.1 Dynamics Capabilities (DC)

Classical resource-based view (RBV) of the firm explains why firms could succeed in the present context. RBV focus on static processes that exploits current competency lead to performance, but its postulation lack of explorative view of new opportunities. Knowing that continual exploiting on existing assets would not create long-term competitive advantage (Williamson, 1981). In a dynamic changing global market only firms are able to continually create strategic assets in the better and faster pace than their rivals will earn superior returns in the long run.

The dynamic capabilities concept has evolved as a dynamic version of the resource-based view that suits rapidly evolving environments. Teece et al. (1997) had defined dynamic capability as a firm's ability to integrate, create and reconfigure competence. This falls within Barney's (1991) definition of resources, which includes the ability to conceive of and choose as well as implement strategies. Firms that actively manage conditions so that their attributes give rise to resources or competence will in effect enhance their dynamic capability to manage competence (Knott, 2009). Dynamic approach is concerned with how the management of the firm creates mechanisms that best fit in market and creates processes that match with changing environment (Grant, 1996; Pisano, 1994; Eisenhardt & Martin, 2000). The DC concept is concerned with preparing the firm for the ready exploitation of new opportunities in future markets. More precisely it is a focus on dynamism that facilitate the creation of new distinctive and difficult to imitate advantages. This includes creating the new products and the improvements of present competence of the firm to meet the future challenges.

Within the dynamic perspective, the focus is on the capacity of the firm to renew competence and physical resources at a continual pace and achieve congruence with the changing business environment (Collis, 1994; Winter, 2003). In an earlier study, Teece et al. (1997) also posited that dynamic mechanism in a firm would help to build, integrate, and reconfigure internal and external resources to address rapidly changing environments. He argued dynamics capabilities could realign business concepts, in which resources are reconfigured, recombined, or split are important strategic features. Eisenhardt and Martin (2000) argued that for SMEs to achieve strategic entrepreneurship, they have to harness the firm's tangible resources and intangible capabilities at both existent and emergent states. Learning capability is one important aspect of dynamic capabilities that plays a vital role in creating sustained competitive advantage. Because it serves as a continual sources for the business renewal and the basic operational excellence for effective implementation of the strategy in action..

Winter (2003) dynamic capabilities is considered as high-level skills which related to management's ability of sensing, sourcing and then seizing opportunities, deflect rivalry and reconfigure resources and assets to match changing environment, meet the customer needs and to sustain long-run value for investors, refer to Figure 2.6, depicts the foundations of dynamic capabilities and business performance. Teece (2007) posited that dynamic capability involves collecting market (customer and competitor) intelligence and technological information from both inside and outside the firm, then making sense of it, and figuring out implications for action. Marketing resources comprise the information related to the marketing operations of the agro entrepreneur, such as marketing distribution, sales, prices, packing and market network development. Technological resources consist of sourcing, technological

product aspects, and legal resources (e.g. knowledge of utilizing innovations to agro based products).

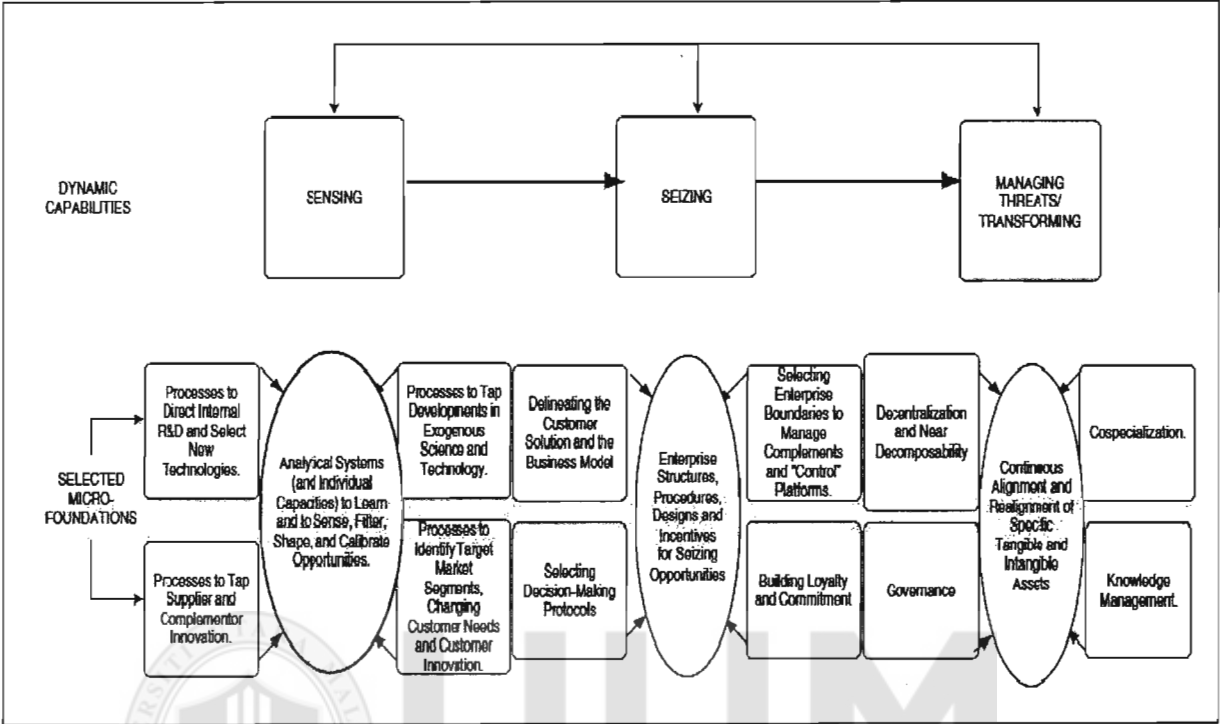


Figure 2.6
Foundations of dynamic capabilities and business performance
 Source: Adapted from Teece (2007)

Benner and Tushman (2003) argue that resources are the foundation of both exploitative and exploratory activities. To survive and sustain in the rapid changing market, critical needs to be focused on firm’s capability to continue renew its resources and team skills and managerial capabilities to create radically new competence (Teece et al., 1997). Exploration and exploitation capabilities are the leveraging point that exists in a competitive marketplace, and they require a constant surveillance of the capability to accomplish change quickly (Ozsomer & Gencturk, 2003).

2.5.2 Exploration Capability: Discovering New Opportunities

The global economy is becoming more market-based, competitiveness is fierce reality, meanwhile many regional emerging markets, such as China, Indonesia, Vietnam and Myanmar, are booming with full opportunities. Hence to be sustainable and competitive in this market liberation trend, it is necessary for firms to be more dynamic in nature at the organizational level in order to adapt to the transitioning and changing environment, while maintaining competitiveness in both local and global markets. During market transition firm must possess certain tangible resources to form the foundation of operation, but they also need certain new capabilities to create new resources and take advantage of new market opportunities, by streamlining operations, strategic repositioning, and innovate new products, these all dynamism are necessary measures leading to the firm to higher performance.

Exploration refers to firms' capturing of resources through discovery activities, which include search, sense, seek and experimentation (Goksel, Calantone, & Griffith, 2007). Exploration is the search for new knowledge, the use of unfamiliar technologies, and the creation of products with potential market (Levinthal & March, 1993). New knowledge can be discovered through networks of relationship both inside (inter department or unit) and outside (customer or suppliers) of organization. Rothaermel and Deeds (2004) indicated that exploration is related to strategic path breaking and seeking opportunity in emerging markets and discovering new technologies. In addition, Mohr and Sengupta (2002) suggested that exploration is a major role in creating new knowledge then provides innovative new products. Explorative learning is one of the key mechanisms to generate new knowledge and is often found in the form of collaborative relationships. Learning capability refers to a

firm's ability to learn and develop new knowledge continuously (Zander & Kogut, 1995). This learning capability is important for firms to attain sustainable competitive advantages and enhance long term firm growths.

In competitive markets, it is difficult for an agro entrepreneur to build a sustainable competitive advantage. Therefore development of exploration learning capabilities in a firm is important, because it would influence the degree of information discovery, market intelligence, market access, and firm performance.

2.5.3 Exploitation Capability: Enhancing Firm Performance

The development of entrepreneur's exploitation capabilities influences the degree of product innovation and market performance. Product innovation is theorized as a manner of building and maintaining sustainable advantages (Garcia, Calantone, & Levine, 2003). The degree of product innovation refers to the extent of firm new product offerings, ranging from line extensions to new-to-the-world products and market performance refers to the firm assessment of overall performance gains (Kohli & Jaworski, 1993). Exploitation gives firm a chance to leverage their existing resources, thus ensuring their immediate survival (Sitkin et al., 1994) through the commercialization of knowledge, which in turn opens up avenues for product innovation (Rothaermel & Deeds, 2004). Exploitation activities are essential for entrepreneur because they provide a relatively low-risk way to extend the entrepreneur operations (March, 1991). Development of exploitation capabilities, entrepreneur can increase its degree of product introductions, introducing new products and services into the market, overcoming prior venture limitations, and enhancing both value delivery to current customers and value added services to new customers (Goksel, Calantone, & Griffith, 2007).

Building on a dynamic capability perspective posited by (Goksel, Calantone, & Griffith, 2007), strategic (dynamic in nature) entrepreneurship acting as a transforming (moderating) mechanism that assists organization to adapt to changes in the transitioning environment. Relying on generic resource capital would not necessarily lead a firm to a sustainable competitive position. Hence it is important that the firms to transform these generic financial, physical, human and intellectual resources into those difficult-to-replicate competence and distinct capitals. The positive relationship between strategic entrepreneurship and firm performance, particularly in a dynamic and hostile environment, is also supported in the literature (Zahra & Covin, 1995).

Literature reviews indicated that market orientation may be related to exploration capabilities and entrepreneurial orientation may be related to exploitation capabilities in some cases, these two strategic orientations are fundamentally driven by continual learning orientation in nature. Therefore, from strategic management standpoint, we conceptualize on resources based view and knowledge based view and under a dynamic capabilities perspective. More specifically, the model postulate that three types of agro strategic orientation—EO, LO and MO—are moderated through exploration and exploitation capabilities, leading firm performance

2.6 Agro based SME in Malaysia

2.6.1 Emerging Challenges and Opportunities

I. The Rise of Bill of Import: Malaysian food import bill is continuously increasing. Total food imports has increased from RM3.5 billion in 1985 to RM7.7 billion in 1995 and RM 10.0 billion in 1997. The falling ringgit exchange rates, especially against the US dollar have resulted in higher import bills which in turn hit SMEs' profit margin and cash flow of SME in Malaysia (GSME New, July 2015)

II. Lack of Technological Applications

Report from Economic Census 2011, conducted by Department of Statistic, number of establishment using method of technology, data shown that majority of firm involved in agro based industries use manual method instead of machinery method in production. See in table 2.2 number of Establishment using method of technology.

Table 2.2
Number of Establishment using method of technology by State

State	Number of Establishment	Number of establishments by method of technology		
		Manual	Machinery	Manual & Machinery
Total	6348	2590	137	3621
Johor	962	388	10	564
Kedah	519	234	14	271
Kelantan	216	81	1	134
Melaka	230	104	4	122
N. Sembilan	423	200	9	214
Pahang	701	176	7	518
Perak	720	307	11	402
Perlis	47	18	10	19
Pulau Pinang	168	81	31	56
Sabah	1148	512	14	622
Sarawak	335	79	2	254
Selangor	678	341	21	316
Terengganu	194	67	2	125
Wilayah Persekutuan	7	2	1	4

Sources: adapted from Economic Census (2011)

III. Shortage of Skill Workers in Agriculture

Shortage of labor has been leading to high employment of immigrant workers in agriculture sectors. Because of this shortage, it was estimated that about 300,000 hectares of rubber holdings are untapped and 30,000 hectares of oil palm are not fully harvested. Report from Department of Statistic, Malaysian (DOS), shown the skilled and professional employee hired in agriculture was low. See in Table 2.3 Categories of Worker in Agriculture Sectors.

Table 2.3
Categories of Worker in Agriculture Sectors

Category of Workers	Total Number of persons engaged during December or the last pay period		
	Total	Male	Female
Total	390,708	318583	72125
Total working proprietors and unpaid family workers	5939	5131	808
Working proprietors & active business partners	4424	4086	338
Unpaid family workers (all members of family & friends not receiving regular wages)	1515	1045	470
Total paid employees (full time)	380,621	309,907	70,714
Managerial, professional & executives	12,535	11,116	1419
Technicians & associate professional (eg. Supervisor, foreman, taikong, technician)	17,846	16,762	1084
Clerical occupation (eg. clerks, receptionist)	14,742	4489	10,253
Elementary occupation (eg. drivers, security guards)	19,891	18,428	1463
Agriculture labour workers directly employed (eg. Field workers, livestock farmers, crew, log feller, carrier)	275,734	223,098	52,636
Worker employed through labour contractors	39,873	36,014	3859
Total paid employees (part time)	4148	3545	603

Sources: adapted from Economic Census (2011)

Undoubtedly the level of skill among workers is one of the critical aspects in contributing to the labor productivity in turn the productivity might directly lead to economic performance. Hence, there is necessary to increase labor skill and land productivity, particularly in agriculture sector, which is heavily dependent on foreign workers.

IV. ASEAN Free Trade Competitive

The implementation of the agreements under the World Trade Organization (WTO) and the Common Effective Preferential Tariff (CEPT) Scheme of the ASEAN Free Trade Area (AFTA) has created greater competition for Malaysian agriculture. Main export commodities such as rubber and palm oil face increasing competition from emerging lower cost producers and continue to face discriminatory tariff and non-tariff barriers.

Table 2.4
Comparisons of Tariff Lines under AFTA

Country	Number of Tariff Lines				Percentage			
	0%	0%	Other (GE-Sch H)	Total	0%	0%	Other (GE-Sch H)	Total
Brunei D.	8,223	-	77	8,300	99.07	-	0.93	100
Indonesia (AHTN 2007)	8,625	16	96	8,737	98.72	0.18	1.10	100
Malaysia	12,173	66	96	12,335	98.69	0.54	0.78	100
Philippines	8,857	95	28	8,980	98.63	1.06	0.31	100
Singapore	8,300	-	-	8,300	100.00	-	-	100
Thailand (AHTN 2007)	8,287	13	-	8,300	99.84	0.16	-	100
ASEAN-6	54,465	190	297	54,952	99.11	0.35	0.54	100
Cambodia	821	7,479	-	8,300	9.89	90.11	-	100
Lao PDR	5,890	2,324	86	8,300	70.96	28.00	1.04	100
Myanmar	5,029	3,212	59	8,300	60.59	38.70	0.71	100
Vietnam	4,618	3,492	190	8,300	55.64	42.07	2.29	100
CLMV	16,358	16,507	335	33,200	49.27	49.72	1.01	100
Total ASEAN	70,823	16,697	632	88,152	18.94	18.94	0.72	100

Source: adapted from ASEAN Secretariat (2011)

2.6.2 Performance Issues of Agro based SME

I Increase Productivity

Apparently, shortage of skilled workers in agriculture was one of the factor lead low productivity in agriculture. It was shown that in the recent productivity report, See in Table 2.5. The productivity level and growth in various economic sectors, a comparison between the manufacturing and agriculture sectors, it is clearly shown that agriculture has also not matched up with manufacturing sectors. According to Malaysia Productivity Corporation, (MPC), currently, the labor productivity is 1.82%, in agriculture, if it is compared to manufacturing, (9.42%), in the productivity level and growth report 2010.

Table 2.5
Productivity Level and Growth

Economics Activities	Level (RM)	Growth (%)
Agriculture	27,680	1.82
Mining	948,181	0.13
Manufacturing	54,392	9.42
Construction	23,898	4.64
Services	50,967	4.74
Utilities	163,423	5.55
Wholesale and Retail	42,209	5.18
Accommodation and Restaurant	16,868	3.81
Transport and Storage	41,887	5.73
Communications	130,459	6.63
Finance and Insurance	95,436	4.25
Real Estate and Business Services	203,718	5.89
Other Services	26,112	1.67
Malaysia	51,591	5.78

Source: adapted from Productivity Report (2011)

II Improve Uneconomic Land

Smallholder sector continues to experience problems of low productivity and uneconomic size of holdings. Underutilizing technology in agriculture sectors are due to lack of capital, investment in R&D may uncertain and slow in return. Labor shortages and low commodity prices have further led to substantial idle agricultural

land and abandoned holdings. It is estimated that there are about 400,000 hectares of idle agricultural land. See in Figure 2.7

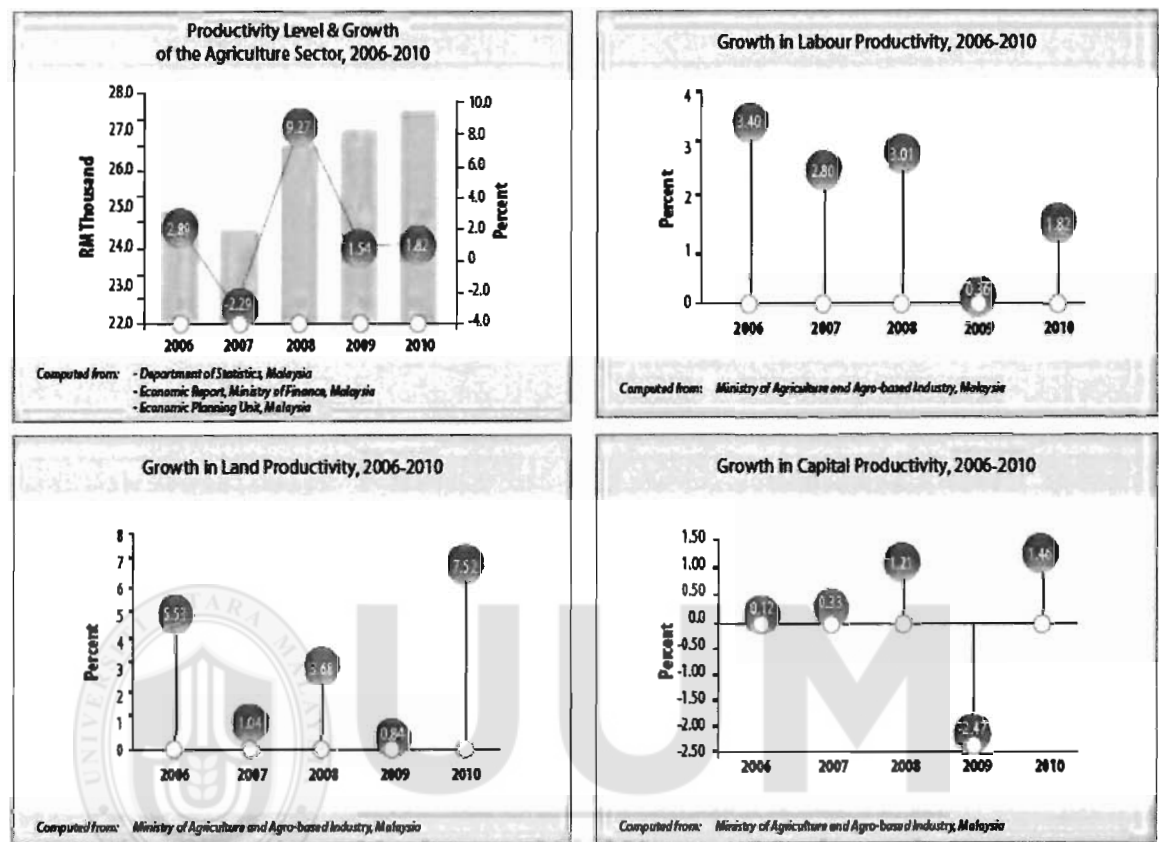


Figure 2.7
Productivity Performance of Agriculture Sectors
Source: adapted from Productivity Report (2011)

III Add Value Products

The development of high value-added resource-based products is still limited and exports mainly consist of primary and intermediate products. Seventy percent of the total raw materials used in the food processing industries are imported. Lack of domestic production coupled with inconsistent supply resulted in many small land medium scale agro-based firms operating below capacity. There is a need to further strengthen inter and intra-sectoral linkages especially with support and downstream industries.

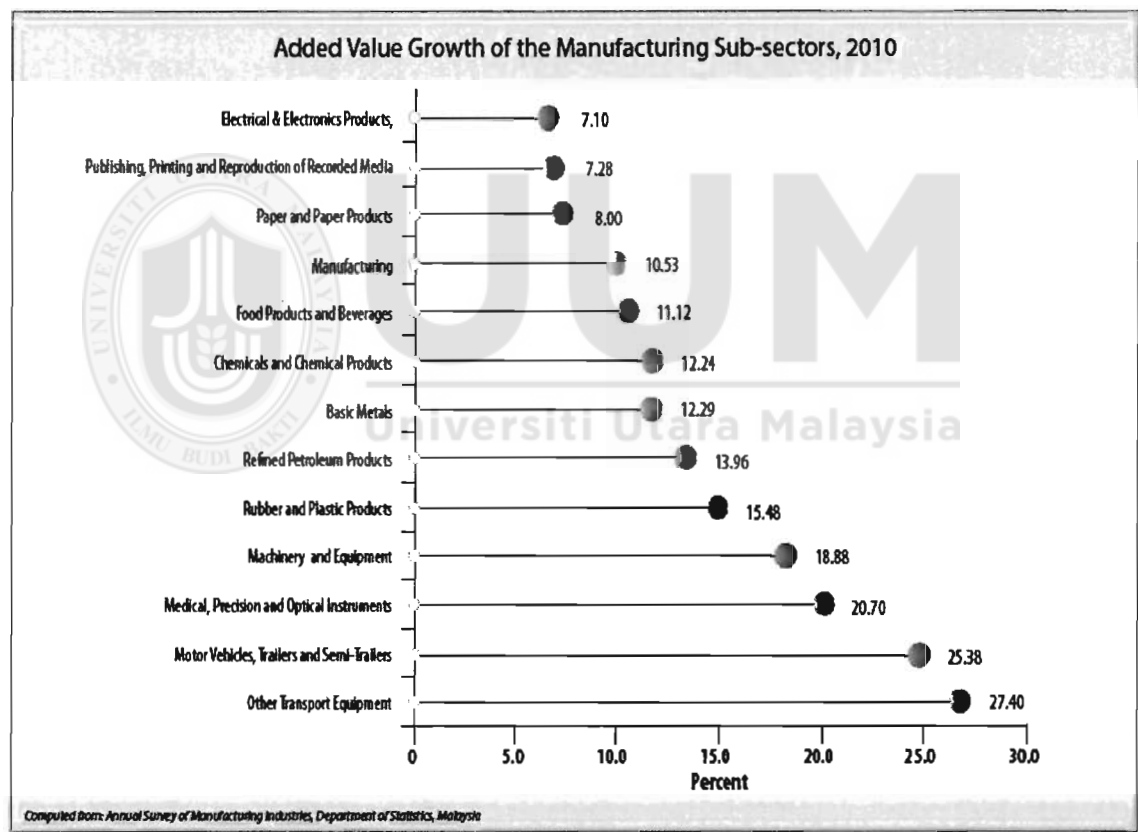


Figure 2.8
Added Value Growth in Manufacturing Sub sectors
Source adapted from Productivity Report (2011)

IV. Increase Market Competitiveness

Public concerns for the environment protection both at domestic and global levels require more innovative and efficient agricultural and forestry practices for the sustainable development of the sector. While searching new fields, utilizing science and technology for maximizing productivity in agricultural output, agro entrepreneurs are required to preserve environment and biodiversity, making sure it fertility and sustainability.

Therefore, the growth of the agricultural sector requires that the agro entrepreneur address the challenge of efficient and optimal utilization of existing resources in order to further improve its competitiveness. Rapid changes in the global trading and investment environment necessitate the development of a resilient agricultural sector and the enhancement of its global competitiveness. In addition, the concern over the availability and stability of food supply requires that agro entrepreneur to strengthen their competitive capabilities in food production. These challenges require new strategic approaches and capabilities to enhance the economic contribution and growth of the agricultural sector. The past 50 years Malaysia had experienced a substantial economic transformation, moving from a resource-based economy (Land and Labor) to a production and services-oriented economy where Infrastructure, Labor and Capital (collateral base) are the key elements.

Today there is a necessity to shift the resources based economy to sustainable economic, in which application of science and technology to add value to products and productivity, and access to latest information system such as internet and ecommerce, to create greater market access and share in this global market. The resources based factors is not competitive and sustainable in the innovation based

In Malaysia, small and medium enterprise, (SME) continues struggle with the managerial challenges on how to simultaneously adapt to market-oriented changes in present and implement firm innovation in nearest future. To facilitate agro based entrepreneurial activities and enhance these SME firms, many countries provide their local business support, including technical assistance, managerial advisory and monetary incentive. Under 10th Malaysia Plan, there has been an increasing focus on SME firms they may contribute in reducing unemployment, facilitating innovation in agro based industries and achieving economic development. Knowing that government funding spent in this area and technological support in this sectors, have been attacked for failure not creating additional value and no significant improvement in agro based industries, especially Malaysian is encouraged to embrace technology- and market-innovation driven model, under the third national agriculture plan (NAP3) and national innovation model. Hence there is a need for further studies in this field, how government economic transformation program objectives could be actualized by focusing on the linkage between resources and entrepreneurial dynamic capability.

In this regard, resource based view (RBV) perspective is particular interested as classical underpinning theory because it emphasizes the role that intangible resources may play in creating sustainable competitive advantage. Smaller firms may gain competitive advantage through innovation and ideas of creativity can be sought both from external and internal resources or recombination of them in supplementing and sustaining their competitive positioning in the market (Borch, Huse & Senneseth, 1999). Amid of globalization trend, competitive markets arise from regional areas, firms have to create new strategic assets and resources at a faster pace to avoid inferior competition but gain superior returns. Entrepreneurship is concerned about

identifying and exploiting new opportunities in the environment (Shane & Venkataraman, 2001). Strategic management is concerned the entrepreneurial action directed towards creating sustainable competitive advantage (Hitt et al., 2001). Integrating two perspectives, it result strategic entrepreneurship, which it is concerned as the integration of entrepreneurial, (opportunity-seeking) and strategic (advantage-seeking) actions leading to new, valuable and unique business concepts.

In this research, a conceptual framework is proposed to empirically test, the relationship between strategic orientations and firm performance. In additional to the direct relationship, the moderating effect imparted by dynamic capability, as an indirect relationship, is also tested in this current research. In the next section, focus is placed on discussion of research variables leading to the development of research hypotheses and development of theoretical framework. Immediately thereafter is followed by research methodology, which including sample population, sampling procedure and data collection, descriptive statistic and construct validity analysis, and operationalized variables and their measurement. Finally, conclusion, managerial implications, study limitations, and future research opportunities are then discussed in the last chapter.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The purpose of this chapter is to present the methodology used to test the hypotheses. This chapter includes the development of theoretical framework, development hypothesis, research design approach, population and sampling techniques, selection and administration of questionnaires, organizing and analyzing the data and also the results of pilot test.

3.2 Development of Theoretical Framework

The resource-based view (RBV) has underpinned the theoretical framework for the current research. Resources have generally been defined as the fixed assets, firm routines, information, knowledge, competence and organizational orientation, which enable the firm to develop and implement strategies to improve efficiency and effectiveness (Barney, 1991). RBV suggests that efficient developing of a firm's tangible and intangible resources may lead to sustained competitive advantage (Barney, 1991). Variables of this research might be used in previous studies (Closs & Xu, 2000; Autry et al., 2005). For this study the EO, LO and MO are conceptualized in the current research framework to determine positive relationships between strategic orientations, dynamic capabilities, and firm performance

3.2.1 Firm Performance as Dependent Variable

In previous studies, Hill et al. (2001) had made attempt to differentiate the firm's operational and financial performance measures, in the research of entrepreneurial

businesses. According to their studies, the operational performance measures include market share and relative quality whereas the financial performance measures include return on assets (ROA), return on investments (ROI), and turnover (TO), profitability and income. Covin and Slevin (1989) found that subjective measures of performance are better than objective measures of performance in assessing the small and micro enterprise performance. Hill et al. (2001) made a further distinction between the objective (quantitative) and the subjective (qualitative) measures of performance data. Non financial performance, for instance firm productivity; innovation initiatives and implementation

Covin and Slevin (1989) ascertained that financial criteria as performance measures would not adequately cover the varied goals of owner-managers in small businesses. In this regard, we conceptualize the firm performance, as firm productivity and financial performance resulted from their innovation in agro based firms, as SME industries. For this study, the perception on the firm performance in the last three years in comparing and relative to their competitors or customers as measures subjective firm performance. Therefore firm non financial performance is defined as increase of productivity output; and innovative initiatives or implementation, while financial performance is defined as increase of asset; sales; market share; revenue and firm profit

3.2.2 Strategic Orientations as Independent Variables

Strategic orientation is defined as the strategic directions developed; deployed and implemented by a firm to create proper organizational behaviors to achieve the desired business performance (Narver & Slater, 1990; Gatignon & Xuereb, 1997; Menguc & Auh, 2005). Literature review shown that strategic orientation, for

Entrepreneurial orientation, (EO) had been found to lead improved performance (Zahra & Covin, 1995; Wiklund & Shepherd, 2005), although the empirical results are mixed. Lee and Tsang (2001) found some empirical evidences that support positive relationship between entrepreneurial orientation and new venture performance. Wiklund and Shepherd (2005) suggested that an entrepreneurial orientation could enhance the relationship between a firm's knowledge-based resources and performance. Awang (2009) found that entrepreneurial orientation has significant relation to regional agro based entrepreneurial venture growth.

Learning Orientation, (LO) effort is considered an activity aimed at exploring of new knowledge and exploiting on present knowledge leading to improvement of existing skills and processes. Learning orientation can be regarded as a firm knowledge generation mechanism and it would facilitate the development of firm dynamism. Literatures in marketing suggests that a firm's learning orientation is pictured as the engine behind its market orientation and is profoundly regarded as driver to enabling firms performance (Narver & Slater, 1990; Paladino, 2008). The outcome of learning could enhance firm for adapting to changes in the business environment or proactive decision making that result in competitive advantages (Sinkula et al., 1997; Calantone et al., 2002). In this vein, a firm learns to acquire and develop the new and relevant knowledge and skills that will help it to keep up with and stay ahead of its competitors.

Market orientation, (MO) is often considered as business strategies and contributed to firm performance (Hunt & Lambe, 2000). MO consists of latent dimensions, which include competitor and customer orientation, are considered

important strategic orientations (Gatignon & Xuereb, 1997; Zhou et al., 2005). Market orientation was considered as an important marketing's explanation to differential performance between firms (Narver & Slater, 1990; Day & Wensley, 1988). Previous meta-analyses of empirical research on market orientation support the positive effects of a firm's market orientation on its performance (Langerak, 2003; Kirca, Jayachandran & Bearden, 2005). In an empirical study the relationship between market orientation and business performance has been evidently established, in which Pelham(2000) used 235 small firms from eight different industries in the United States, it was found that a significant positive relation between market orientation and sales efficiency, growth to market share ratio and profitability.

Strategic market orientations are generally agreed to be helpful in enhancing market-sourcing and sensing capabilities the lead to improvement of market responsiveness, this particularly significant in a hostile and unpredictable environment (Day, 1994; Kohli & Jaworski, 1993). Market intelligence or information is one of important element of strategic orientation. Firms adopt competitor and customer orientation would pursue firm's competitive advantage over its rival by placing the highest priority on the creation and maintenance of customer value (Olson, Slater & Hult, 2005). The purpose of a customer orientation is to provide guiding principle on intelligence pertaining to current and future customer preference for implementing value added service. A customer orientation provides sufficient understanding of a firm's target buyers, so that the firm can continuously create superior value for them (Narver & Slater, 1990). Meanwhile competitor orientation is to provide an insightful intelligence pertaining to present and potential competitors concern for executing responsive actions and marketing strategies. Whereas cost oriented firms are actively involved in the development of product and

service offerings, by reducing cost, from which can benefit and competitive for new business, Because of cost oriented firms able to offer attractive pricing or additional features for potential customers. Employees within cost-oriented firms seek opportunities to eliminate waste and no value added processes or redundant work activities in firm.

The relationship between strategic orientation and firm performance is influenced by many third-party variables. Different effects of third variables may lead to different performance levels. Literature review revealed that the indirect effect, such as the context of large established companies (Jantunen et al., 2005), industry cluster context, environment hostility (Zahra & Garvis, 2000). The empirical results of their relationships are however not entirely consistent. Therefore, future researches on the complex relations should be studied in specific third party variable effect (Wiklund & Shephend, 2005). This research is proposed to study indirect effect, moderating effect of dynamic capability, which attempt to empirically find out causes of inconsistency.

3.2.3 Dynamic Capabilities as Moderator

A positive EO-performance relationship might contingent upon environmental and organizational factors, such as munificence, environment dynamism, industrial complexity and organizational characteristics (Lumpkin & Dess, 2001). It also includes organizational contexts such as size, age, structure; leadership and strategy-making processes (Kropp & Zolin, 2005). Previous empirical findings, Aimilia, Yannis and Spyros (2011) found that dynamic capabilities impinge on operational capabilities which in turn have a significant effect on performance, however direct effects on performance are found to be insignificant. Awang (2010) substantiated

that entrepreneurial orientation and dynamic capability were strategic internal resources of the firm pertinent in enhancing firm performance. In another study, Wang and Hsu (2010) found that the dynamic capability has a positive impact on production performance and governance role could positively moderate relationship between dynamic capabilities and performance. Studies revealed that dynamic capabilities, shown a moderating effect, is a required condition to capture the paybacks of knowledge management on exports (Villar, Alegre & Plabarber, 2014). Another study, by using a survey approach of Taiwanese firms, the study showed that dynamic capability fully moderate the effects of coproduction practice on service innovation and market and customer orientation have a significant influence on coproduction practices (Chen et al., 2015). There are many possibilities for future studies on DCs, both qualitative and quantitative (Tondolo & Bitencourt, 2014)

(Leonidou et al., 2002) revealed that there were previous empirical researches with different variables have been identified as determinants on firm performance. Despite much previous studies on external factors, which exerted moderating effects on the firm performance, however not much consideration is given to the moderating roles of dynamic capabilities on a firm's performance. In studies of European industries, Naldi, Wikström and Von Rimscha (2014) found that both dynamic (sensing and seizing) capabilities have a positive effect on firms' innovative performance. They suggested study can be extended to other immature industries and evolving markets. Therefore, from the theoretical aspect, it would be rational to explore the gap of understanding between strategic orientations and firm performance through a moderating role of dynamic capabilities. Building on previous research and literature reviews, it provides a foundation for developing the conceptual model shown in Figure 2.10. In this study, the conceptual model

illustrates relationships among constructs of entrepreneurial, learning and market orientations as predictor in relation to the firm performance, as criterion variables. Therefore, there is a necessity to study. Firstly, how strategic orientations, consisting EO, LO and MO, as intangible resources, lead to firm performance. Secondly, how dynamic capabilities moderate strategic orientations in relation to firm performance.

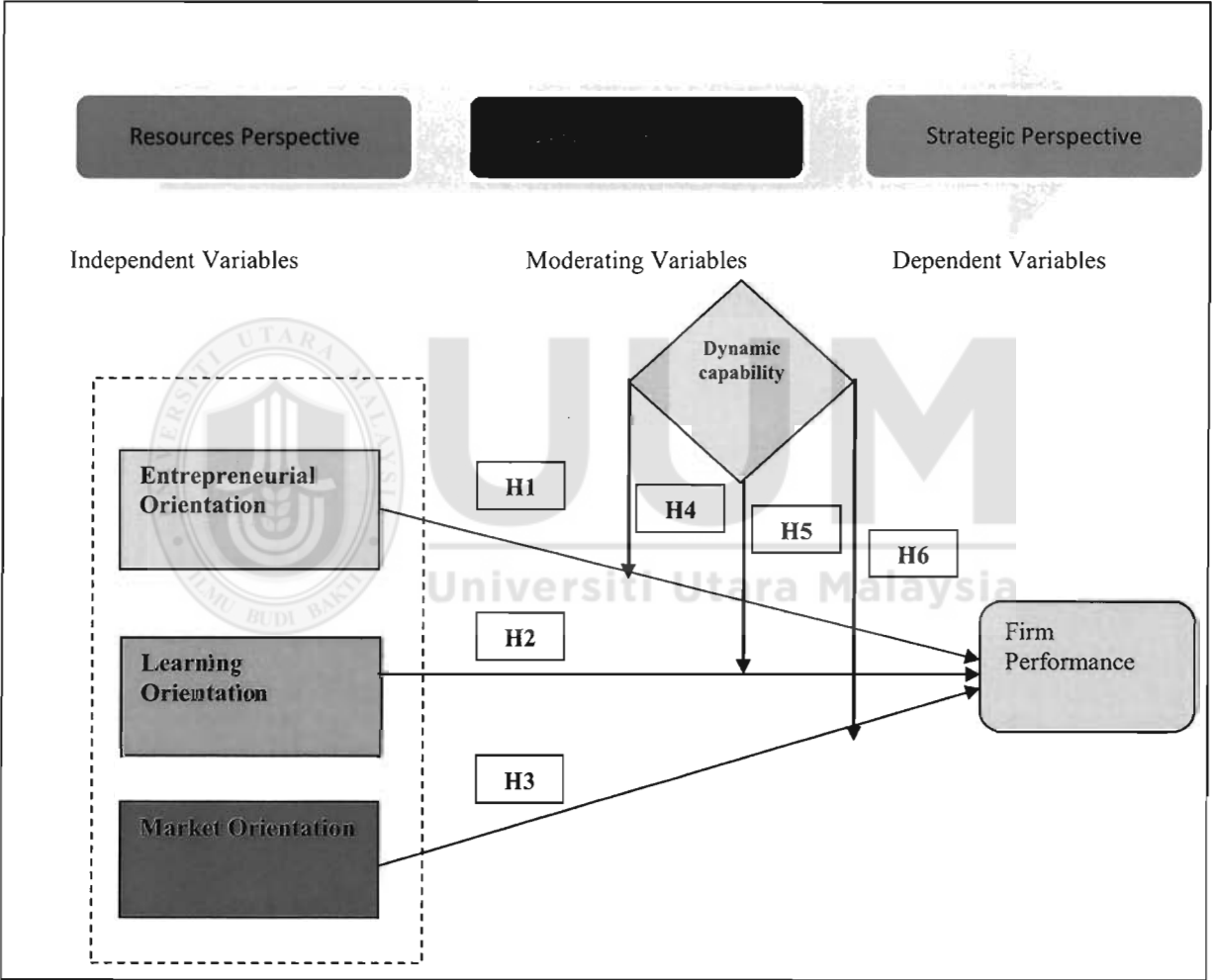


Figure 3.1

Conceptual Model of Strategic Orientations in Relation to Firm Performance moderated by Entrepreneurial dynamic capabilities

3.3 Development of Research Hypothesis

In RBV perspective, resources have generally been defined as the assets, processes, data; information, knowledge; skills and competence and others, which enable the firm to develop, deploy and implement strategies to improve efficiency and competitiveness (Barney, 1995). In this regards firm resources can be categorized into two forms, which are tangible or intangible. The current research is particularly interested in discussing intangible resources: organizational dynamism and capability, which can be evidenced by entrepreneurial orientation, (EO), learning orientation (LO) and market orientation, (MO).

3.3.1 Entrepreneurial Orientation, (EO)

The concept of entrepreneurial orientation is embedded in the firm-level processes, practices, decision-making style and strategic orientation within an entrepreneurially-oriented firm. Empirical studies found that entrepreneurial orientation could lead to improved firm performance. Wiklund and Shepherd (2005) suggested that an entrepreneurial orientation enhances the relationship between a firm's knowledge-based resources and its performance. Dimitratos and Plakoyiannaki (2003) found that uncertainty of the firm's domestic markets (environmental factors) has a positive moderating effect on the relationship between entrepreneurship and international performance. Zahra and Garvis (2000) suggested that entrepreneurial activities could enhance overall foreign market performance and revenue growth, and in the similar study they found that entrepreneurship moderates the relationship between environmental hostility and performance at firm's level. (Jantunen et al., 2005) found that entrepreneurial orientation is regarded as an important organizational resource

that supports in seeking and recognizing opportunity and in exploiting opportunities to expand and capture market.

Venkatraman (1997) suggested five dimensions of Entrepreneurial orientation which are innovativeness, pro-activeness, competitive aggressiveness, risk taking and autonomy, whereas Miller (1983) concentrated on only the first two dimensions which were used consistently in literature. Refer to previous literature studies, the commonly used dimensions for entrepreneurial orientation consists of innovativeness, pro-activeness and risk-taking (Covin & Slevin, 1991).

Proactiveness is referred to the propensity of anticipating changes in the business environment, future potential and pioneering new methods and techniques (Lee & Young, 2002). For instance: discovering new opportunities and developing new product or service (Lumpkin & Dess, 2001). Two main attributes of proactiveness are posited: 1) aggressive behavior targeted at competitor firms (being ahead of competitors), and 2) the organizational proactive pursuit of favorable business (being market oriented) opportunities (Lumpkin & Dess 2001). The term pro-activeness and competitive aggressiveness are often used interchangeably (Lumpkin & Dess, 1996)

Innovativeness refers to the firm's tendency to enter into process experimentation, support new ideas and change from established practices (Lumpkin & Dess, 1996). It can also involve investment in new technology and services in new market (Lumpkin & Dess, 2001). Leading the firm's innovation is regarded as a critical role especially a firm operates in an increasingly competitive market. Researchers have made attempts to provide explanations, including how firms innovate, how innovations spread to other individuals and what innovation context is

actually (Damanpour, 1991). Rogers (2003) had broadly defined the innovation as an idea, practice, or object that is perceived as new by an individual or organization.

Although EO is multidimensional concept, the effect of each dimension on firm performance can be observed independently (Lumpkin & Dess, 1996). Therefore in examining the entrepreneurial process, it is beneficial to identify the unique contributions of each sub-dimension of EO, so that firms could seek the best combination to improve its performance (Kreiser et al., 2002). Previous studies conducted by some scholars (Hughes, Hughes & Morgan, 2007) have supported Lumpkin and Dess's argument for the nature of EO. Hughes, Hughes and Morgan (2007) investigated emerging young firms in the United Kingdom results found that pro-activeness and innovativeness were most important EO dimensions for improving business performance. Surprisingly in their researches the competitiveness and autonomy demonstrated no effect on performance. Furthermore the risk taking was negatively related to firm performance. Frishammar and Anderson (2009) reported that pro-activeness is the only EO dimension contributes positively to the international performance of Swedish SMEs. Hansen et al. (2011), who studied the psychometric properties of the EO scale in more than 1200 SME across seven countries, reported that each EO dimension tended to work independently. In this regard, these studies imply that some EO dimension are responsible for improving firm performance, while other dimension may have little or even no influence at all. This suggest that the effect of EO dimension on firm performance vary, possibly depending on different industrial context, market environment, countries, culture or stages in a firm development.

In a recent study by Tateh et al. (2014) results shown that the respondents' entrepreneurial intentions are positively correlated to their personality traits

(innovativeness and proactiveness), and social learning (knowledge and experience). Results revealed that all EO dimensions explained the three regions, except competitiveness and autonomy in the Malays SME business venture (Awang et al. 2009). However future research might study entrepreneurial innovativeness and proactiveness at firm level in different industries. In a another local agro-entrepreneurial studies by Zainalabidin et al. (2011), results shown that in order for Farmer Organization Authority (FAO) members to be successful they have to depend on their creativity and innovativeness (Awang et al. (2010) studied factors analysis on EO, results shown that the latent constructs of EO were dependent on region. two dimensions of EO, which are innovativeness and pro-activeness, were found significant but regional dependent.

Building on RBV, entrepreneurial orientation is regarded as firm intangible resources and capability. It can be anticipated that a more innovative firm tend to outperform other firms with lower innovation in a competitive situations (Miller, 1983; McKee et al., 1989). Hence from organizational level, innovativeness is essential to overcome the market hostilities and rivalry, which may pose a threat on the SME survival. Therefore, the entrepreneurial innovativeness and pro-activeness are conceptualized relevant to agro based SME in this research, hence it is postulated having relationship between EO and firm performance

Hypothesis 1: There is positive relationship between entrepreneurial orientation and firm performance

3.3.2 Learning Orientation, (LO)

Learning orientation is defined as the development of new knowledge or insights that have potentials to influence organizational behavior and to form organizational culture, form the context of its values; beliefs and experience (Narver & Slater, 1990). Through collaborative relationship, learning is one of the key mechanisms to generate new knowledge (Mohr & Sengupta, 2002). In this regard, firms' learning orientation could have significant implications for their innovativeness and competitiveness (Hughes et al., 2007; Paladino, 2008; Kohli & Jaworski, 1990). Numerous studies have established the link of LO and firm performance (Baker & Sinkula, 1999; Hult et al., 1999; Zahra & Garvis, 2000). In the context of firm level, the ability of organizational learning from its experiences is considered as an important factor in determining its performance (Argyris & Schon, 1996; Slater & Narver, 1995; Nevis et al., 1995). Understanding the expectation and satisfying of the latent needs of customers is key important to improve the firm performance (Day, 1994; Slater & Narver, 1995). Organizational learning effort is aimed at exploiting and leveraging of existing knowledge to build up dynamic capabilities through knowledge transferring (Eisenhardt & Martin, 2000).

In a fast changing generation, the emergence of new markets, the rapid change technological application and deregulation of commerce or trade rules, hence it is very important for a firm to inculcate continual learning through an anticipatory action. In this regards it is recognized that learning orientation is critical for a firm. Based on the previous scholar work and building on knowledge based view (KBV), it is posited that there is relation between learning orientation and firm performance.

Hypothesis2: There is positive relationship between learning orientation and firm performance

3.3.3 Marketing Orientation, (MO)

Market orientation consists of the latent dimensions, including competitor, customer and cost orientation. These latent elements are considered important strategic orientations and contribute to marketing strategies leading to firm performance (Gatignon & Xuereb, 1997, Narver & Slater, 1990; Day & Wensley, 1988). Previous marketing researches have placed greater emphasis on two orientations: customer orientation and competitor orientation (Narver & Slater, 1990; Gatignon & Xuereb, 1997; Menguc & Auh, 2005), less empirical attention has been given to the effect cost orientation, especially in a cost deficiency sector, i.e Agro based firm.

Kohli and Jaworski (1990) defined market orientation as: the organization-wide generation of market intelligence pertaining to current and future customer needs, dissemination of the intelligence across departments, and organization-wide responsiveness to it. According to Narver, Slater and MacLachlan (2004) market orientation might consist of two behavioral characteristics, such as Customer Orientation: understanding the potential customer needs in order to create an added value for him on a continuance basis. Competitor Orientation: knowing the strength and weaknesses as well as capabilities and strategies of key competitors

Customer orientation is considered as an organizational culture that facilitates the understanding of potential customers and continuously makes attempt to provide customer value (Narver, Slater & MacLachlan, 2004). Firm embedded with a customer orientation would gather market intelligence pertaining to the

current and future needs of targeted customers, and disseminate the new knowledge throughout the organization. Employees within a customer-oriented organization realize who the customers are and how customers should be served. As they learn about the needs of their customers, they quickly share the learnt information with other members within the organization to ensure that the firm can continue to satisfy customer needs and anticipate potential demand, (Daugherty, Grawe & Chen 2009). Customer orientation requires that a seller understands a buyer's entire value chain, not only as it is today but also as it will evolve over time subject to internal and market dynamics (Narver & Slater, 1990). Consequently, a customer-oriented firm has to establish continuous communication with its current and potential customers, on the other hand create a customer-focused culture within its firm. According to marketing literatures, there are basically three pragmatic explanations underpin the relation between market orientation and firm performance.

First, according to Lusch and Luczniak's (1987) evolutionary perspective suggested that higher MO would enhance performance. Imitation or replications can achieve firm performance through MO, which provides firms with competitive strategies. Hence MO and performance should be positively related (Lusch & Luczniak, 1987). Second, in industrial organization economy (Aldrich, 1979) also explains the MO-performance link (Knight & Dalgic, 2000). A better fit between firms' strategies and their environments would enhance performance. Third, according to the resource-based view of the firm, differing resources may lead to varying strategies and competence, subsequently, to different performance (Barney, 1991; Porter, 1991; Wernerfelt, 1984).

Competitor orientation is considered as an organizational culture which emphasize on understanding of the short-term strengths and weaknesses, and long-

term strategies and capabilities of the current and potential key rivals (Deshpande et al., 1993; Narver & Slater, 1990). In other studies (Kohli & Jaworski, 1993; Olson et al., 2005) found that firms adopting a competitor orientation would develop an in-depth assessment of targeted competitors and make attempt to use market knowledge to surpass rivals strengths. In a competitor-oriented firm, the task of competitive evaluation is not only dependent on the senior management. Middle management and even all employees throughout the organization should take responsibility in the disseminating the intelligence of competitors' new products and services, as well as other non companies.

In order to develop the competitor orientation, it is important for the firm to collectively develop and share competitor intelligence among its employees. Firms shall seek intelligence, such as their latest market offerings of competing firms then develop innovative offering to gain a competitive advantage (Hunt and Morgan, 1996). Han et al. (1998) argued that a competitor-oriented culture could contribute to service innovations, which means competitor orientation emphasize on sourcing competitor's activities and offerings. Narver and Slater (1990) posited that competitor orientation can be explained as company understandings of strengths, weaknesses, opportunities and strategies of key competing firms in the market.

In addition to customer and competitor orientations, the current research will also take in cost orientation as one of market orientation variables. As suggested by Porter (1991), effective cost (low cost) is a common marketing strategy in a competitive environment. Therefore cost orientation is a critical aspect, especially in agro-entrepreneurial ventures. it should be empirically test in the integrated framework.

Cost orientation refers to the pursuit of efficiency in all parts of a firm's value chain, including supplier and customer value chain (Olson et al., 2005; Porter, 1985). Cost orientation is considered different from customer and competitor orientation, because it places concern and emphasis on internal activities. A cost-orientated firm spends in-depth understanding on the sources costs incurring to products and pertaining services to the market. Firms that are continuously invest efforts to reduce costs, which associated with the development of product and deployment of service can gain competitive advantage when competing in new market, because the new offer is having additional features but competitive price for their customers (Dickson, 1992). Among other cost efficient solutions, include reducing non-value-added services; material wastes and developing economic cost of logistic shipping process.

A market-oriented firm would recognize the changes in customer needs and respond to competitive moves made by other firms in their industry. Literature reviews shown that the linkage between MO and firm performance were empirically established; (Narver & Slater, 1990; Kohli & Jaworski, 1993; Deshpande & Farley, 2000). Market-oriented firms capture the ever change of customer demands and capitalize these change to competitive advantage and performance, if compared with less market-oriented firms. Literature review revealed that MO-performance relationship has been empirically tested for both domestic and international firms (Rose & Shoham, 2002). This significant relationship had also been substantiated in a recent meta-literature analysis (Shoham, 1998).

Current study begins with a market orientations literature review, with a particular interest in the customer; competitor and cost of market orientation. Making attempt to develop a set of hypotheses based on a synthesis of previous empirical

researches pertaining to the effect of market orientation on firm performance. Therefore building on the previous research studies and finding, Hult et al (2004) found that MO could positively affect firm's performance. Their studies also revealed that the MO should be studied by integrating with other important capabilities of a firm, such as entrepreneurial capabilities in future study. Current study, agro based SME industries in Malaysia is the research targets. MO is conceptualized as independent variables in relation to firm performance, as dependent variable.

Hypothesis 3: There is positive relationship between market orientations and firm performance.



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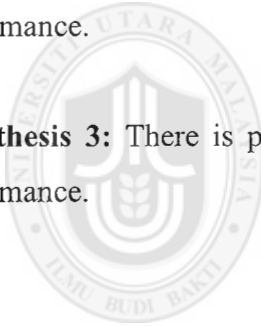
Development of Hypotheses

Therefore, taking into the above literature reviews pertaining to strategic orientations and firm performance, the present research proposes to test the relationship of strategic orientations on firm performance in agro based SME. This hypothesis development leads to the following hypotheses

Hypothesis 1: There is positive relationship between entrepreneurial orientation and firm performance.

Hypothesis 2: There is positive relationship between learning orientation and firm performance.

Hypothesis 3: There is positive relationship between market orientation and firm performance.



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3.3.4 Dynamic Capabilities (DC)

The resource-based view (RBV) of the firm depicts that organization as a unique bundle of tangible and intangible resource stocks (Peteraf, 1993). The organization can use these resources to exercise its strategic intent. Resources are also conceptualized as internal attributes, such as internal orientation, direction, routines and knowledge, which are managed by the organization (Conner, 1991; Constantin & Lusch, 1994). RBV suggests that a firm could achieve a competitive advantage through the conversion of internal resources into its distinct capabilities (Day, 1994; Teece et al., 1997). Capabilities are defined as an intricate managerial decision, action and responsibilities that determine the efficiency of a firm through it transforms inputs to outputs (Collis, 1994). Prahalad and Hamel (1990) argued that the critical task of management is to create an organization capable of creating product or services which exceeding customer's expectation. To achieve this strategic capability, management must successfully operate across organizational boundaries rather than focus on discrete and individual business unit, in other words, this strategic capability is derived from collective learning and sharing from across organizational boundaries, which include internal cross departments and external parties alike.

Resources are stocks of available factors that are owned or controlled by the firm whereas capabilities are an organization's capacity to deploy and develop new resources (Amit & Schoemaker, 1993). Penrose (1959) argue that the value of a resource is founded in its potential to yield competitive differentiation from one time to another. This view of capabilities has extended to incorporate the evolving nature of capabilities in a competitive environment under the dynamic capabilities

perspective. Hence the dynamic capability is considered as a cluster of attributes, which firm possess and coalesce around team of individuals, who able to recognize opportunity and seek advantage of competition.

Dynamic capability is referred to the development of organizational, functional, and technological resources to gain competitive advantage (Eisenhardt & Martin, 2000; Griffith & Harvey, 2001; Song et al., 2005). Under the dynamic capabilities perspective, competitiveness is characterized by timely response and agile strategies, from which management task is to develop, deploy and drive these dynamism effectively (Teece et al., 1997). Dynamic capabilities occur when management successfully adjusts the strategic combination of resources to the unique characteristics of the marketplace (Pisano, 1994; Grant, 1996). In this context, dynamic capabilities can be depicted as the continuous modification or recombination of resource (Eisenhardt & Martin, 2000).

Literatures revealed that firm re-engineering process is considered as dynamic practices and it could enhance firm performance (include productivity and profit). Dess et al. (2003) argued that entrepreneurship is a key driver of organizational transformation and strategic renewal activities, through the process of creation and combination of resources. Similarly, Zahra et al. (1999) suggest that entrepreneurial activities could provide a foundation for building new competencies or revitalizing existing firm operation. Within the similar topic, Zahra and George's (2002) regarded entrepreneurship as the process of intent discovery and exploiting opportunities that lie outside a firm for the pursuit of competitive advantage.

Building on the previous scholars' explanation and definition, it is clear that entrepreneurship is involved opportunity recognition, discovery and exploitation action in nature. Hence we conceptualize the entrepreneurial dynamism into two

organizational attributes, which are as explorative learning and exploitative innovation capabilities. For this research, the dynamic capability will be further discussed and developed into the research hypothesis in the subsequent sentence.

I Explorative Learning Capabilities

Exploration refers to firms' ability of capturing of resources through activities characterized by search, variation, risk taking, experimentation, discovery, and innovation (Goksel, Calantone & Griffith, 2007). Exploration can regarded as a zeal search for new knowledge, the use of unfamiliar technologies, and the creation of products with unknown demand (Levinthal & March, 1993). New knowledge is acquired through the network of relations and communication relationships both inside and outside an organization. Relational capability is a set of intangible asset that reflect a series of interactions occurring between the interrelated parties, for example the information sharing and knowledge exchange between the firm and customers (Goksel, Calantone & Griffith, 2007).

Explorative learning reflects efforts to develop new knowledge and create insightful understanding through a process of discovery and experimentation (March, 1991). Explorative learning can be also associated with a shift to use different technology, develop new product-service and business model (Benner & Tushman, 2003). Explorative learning occurs when firm seeks to experiment new knowledge and to create novel ways of doing things (He & Wong, 2004). In summary, all these explorative attempts are desired to renew the existing process and to achieve performance.

II Exploitative Innovation Capabilities

Reichstein and Salter (2006) supported that cost-oriented strategies, is considered as an incremental innovation, achieved it by focusing on mass and economic-scale production of fixed design. Generally exploitation is associated with mechanistic structures, path dependence in a stable market (Ancona et al., 2001). It involved the use of existing knowledge to improve the present operation or performance (Levinthal & March, 1993). Exploitative innovation reflects a process of knowledge application to improve current activities or resolve immediate problems (March, 1991) Exploitative innovation is also regarded as knowledge refinement and the identification of a problem or gap in the current business processes. In other word, exploitative innovation represents initiatives to improve the firm's present activities, such as product-service trajectories, relying on existing technological information (Benner & Tushman, 2002).

Innovation capability was shown to have positive impact firm performance (Hult et al., 2004; Panayides, 2006). Firms develop and display innovation capabilities can achieve market performance, such as product and cost leadership (Keskin, 2006). Through an innovative (i.e. valued added) on customer service a firm can break into new markets (Persson, 1991). Many ventures did not achieve success and encounter high mortality rate in a new venture, one of the factors is the entrepreneurs lack of dynamic capability to anticipate the trend, manage the changes and lead their team particularly in a rapid changing business environment. This context of discussion underpins the importance of understanding the dynamism of entrepreneurship and the moderating role of the entrepreneur as the key driver for firm performance.

Given that in dynamic industrial environment, a firm's ability to continually reconfigure current resources and rebuild new capabilities is crucial to achieve long term advantage. Development of such dynamic capabilities is dependent on accumulating experience within and across boundaries to move forward the business processes (Sundbo, 2001). Putting in other word, developing dynamic capability is important to overcome its static firm mechanism and stagnant performance and help to sustain wealth creation over the long term through influencing role (Goksel, Calantone & Griffith, 2007)

Development of Hypothesis

Given the above discussion on dynamic capabilities, Agro based organizational orientation and firm performance, the objective of this study is to identify the moderating effect of dynamic capabilities on SME strategic orientations and firm performance. Building above literature discussion, this study is focused on the moderating effect between the strategic orientations and firm performance. Therefore we formulated the following hypotheses:

Hypothesis 4: There is moderating effect of dynamic capabilities on the relationship between entrepreneurial orientation and firm performance

Hypothesis 5: There is moderating effect of dynamic capabilities on the relationship between learning orientation and firm performance

Hypothesis 6: There is moderating effect of dynamic capabilities on the relationship between market orientation and firm performance

Hypothesis 7: There is moderating effect of dynamic capabilities on the relationship between strategic orientations and firm performance

3.4 Research Design

The approach of this research focuses on confirmation and justification, following a deductive and deterministic model of inquiry. It involved hypothesis testing and representative sampling, adequate sample sizes, and appropriate statistical treatments. It is important to use a broad range of techniques in entrepreneurship study since it seems to be constant with the plurality of the entrepreneurship area (Smith, Gannon, & Sapienza, 1989). Results from the literature review by Gaylen and Douglas (2001) indicated trends towards more multivariate statistics and some increase in the emphasis on reliability and validity over the past decade.

Specifically, findings by Dean, Shook and Payne (2007) showed that there were nine techniques that experts specified as being most important for the future of entrepreneurship research; correlation, analysis of variance (ANOVA), multiple regression, hierarchical regression, logistic regression, event history, exploratory factor analysis (EFA), confirmatory factor analysis (CFA), and the Structural

Equation Model (SEM). Figure 3.1 shows the research design for the present

Study

3.5 Population and Sampling Frame

3.5.1 Population Selection Criteria

The target population of the study is SMEs in Malaysia which are categorized as agro-based industries. Agro based SMEs were chosen as they tend to be more vulnerable to external environmental forces than larger firms in aspects such as access to resources, financial capital, academic achievement; skill competency and entrepreneurial traits etc. Given that there have been many developments in the economy since 2005 such as price inflation, structural changes and change in business trends, a review of the definition was undertaken in 2013 and a new SME definition was endorsed at the 14th NSDC Meeting in July 2013. The criteria used to choose sample is based on the SME official definition by SME Corp, Guideline for SME definition, Oct 2013.

The selection criteria such as a business will be deemed as an SME if it meets either one of the two specified qualifying criteria, namely sales turnover or full-time employees, whichever is lower. If a business fulfills either one criteria across the different sizes of operation, then the smaller size will be applicable. Full-time employees include all paid workers working for at least 6 hours a day and 20 days a month; or at least 120 hours a month. Full-time workers also include foreign and contract workers in this study, the targeted population is from agro based manufacturing sectors, such as processing and preserving of fish, crustaceans and mollusks; processing and preserving of fruit and vegetables; manufacture of vegetable and animal oils and fats; manufacture of dairy products; manufacture of grain mill products, starches and starch products; manufacture of other food products; manufacture of prepared animal feeds etc.

Therefore, the selection criteria for the agro based industries SME is defined as below:

- Small Manufacturing sector: Sales turnover from RM300,000 to less than RM15 million OR full-time employees from 5 to less than 75 and
- Medium manufacturing sector: Sales turnover from RM15 million to not exceeding RM50 million OR full-time employees from 75 to not exceeding 200

Source: adapted from SME Corp.

3.5.2 Sampling Frame

The sampling frame for this study is obtained from the SME directory at the SME information portal (defined by Bank Negara Malaysia, 2013), guidelines issued by the SME Corp, Malaysia, Secretariat to the National SME Development Council, (NSDC) Oct 2013. Refer to the Table 1.4 definition of SME in Chapter one

This directory lists 35,476 SMEs in Malaysia (as at Oct 2013) which have been listed by state and organized in alphabetical order, divided by nine business sectors, as in Table 3.1. The list is accurate since it is regularly brought up to date, including the elements that belong to the target population and there is no duplication of elements.

Table 3.1
Malaysian SMEs by Business Sector

Sector	Total Establishments (a)	Total SMEs (b)	Percentage (%) of SMEs over Total Establishments (b)/(a)*100	Total Employment by SMEs
Overall Total	662,939	645,136	97.3	3,669,259
Services	591,883	580,985	98.1	2,610,373
Manufacturing	39,669	37,861	95.4	698,713
Agriculture	8,829	6,708	76.0	78,777
Construction	22,140	19,283	87.1	275,631
Mining & Quarrying	418	299	71.5	5,765

Source: adapted from SME Corp Malaysia (2013).

The Table 3.1 shows that the total SMEs in agricultural sectors are estimated 6708 units in Malaysia.

Table 3.2
Malaysian SMEs by Agricultural Sub-sector

Distribution of SMEs in Agriculture Sector by Sub-Sector and Size				
Sub Sector	Micro	Small	Medium	Total SMEs
Crops	2,678	1,413	634	4,725
Livestock	613	179	108	900
Fisheries	452	261	68	781
Forestry and logging	32	88	182	302
Total	3,775	1,941	992	6,708

Source: adapted from SME Corp Malaysia (2013).

Out of 6708 unit SMEs there are 3775 units of micro agro-based firms. For this study the sample population is targeted on small and medium firms, therefore, the adjusted numbers of firms in agricultural sectors is 2933 (1941 + 992).

Table 3.3
Target Population of Agro based SMEs

Element	<i>Agro based SME industries firms</i>
Unit of Analysis (sample unit)	At organizational/firm level, responded business founder/ owner/ manager(as firm representative)
Scope of extent	Agro based SME industries in Malaysia
Data Collection Duration	Sep 2013 to Dec 2013

The present study tested the measurement scale by focusing on several industries in the agro based sector. This study is considered appropriate the sector for the following reasons:

1. Agro based SMEs are mostly challenged by bio-technology; chemical laboratory technology and environmental (meteorology) technology innovation activities.
2. The sector has continuously experienced biotech upgrade and an increasing level of agro product innovation (eg. cloning and genetic modified) in recent years.
3. Agro based industries is the important sector to Malaysia, as resources based exporting country, and receive great attention from government to advance to food self sufficient and exporting country.

Determination of sample size is based on Krejcie and Morgan (1970), who propose a rule of thumb that sample sizes larger than 30 and less than 500 are appropriate for most research. The units of analysis for this study are the firm level and the owner or manager has been as the key respondent to represent their business to answer the questionnaires. All variables have been considered at the organizational level.

Sample Size Calculation

$$\text{Sample Size} = \frac{X^2 NP(1 - P)}{d^2(N - 1) + X^2 P(1 - P)}$$

Where X^2 is the chi square value corresponding to 95% confidence interval (3.8416), N represents the given population size (2933), P is the population proportion (0.50) and d refers to margin of error or degree of accuracy (0.05) at 95% confidence interval.

Using the above mentioned formula, the required sample size for this study was 533 firms.

Figure 3.3
Formula for Determining Sample Size
Source: Krejcie and Morgan (1970)

Sampling method used for this research is simple random sampling and information about all registered SMEs was accessed via SME Corp web site. From the sample size calculation, 533 agro based SMEs industries Malaysia (data for year 2013) are selected out of 2933 firms, by using the simple random sampling method, in which SME list are entered in SPSS software for random selection.

3.6 Operational Definition and Measurement of Variables

The questionnaire asked participants for demographic information including personal information and business-related activities. It contained several sections with measures for entrepreneurial and market orientations, dynamic capabilities and performance in metrics measurement.

3.6.1 Independent Variables

Entrepreneurial Orientation, EO

Lumpkin and Dess (2001) conceptualized EO as the processes, practices and decision-making activities employed by entrepreneurs that lead to new entry and support entrepreneurial opportunities. Measures of a firm's EO have evolved over the last two decades and include proactiveness in the pursuit of new opportunities, risk-taking propensity and innovativeness (Covin & Slevin, 1991; Miller, 1983). EO has been conceptualized as having from three to five dimensions (Richard et al., 2004). A review of the literature shows that the three most common used components are proactiveness, risk-taking and innovation. McDougall and Oviatt (2000) used the two-component approach in their conceptualization of international entrepreneurship, defining it as a combination of innovative and proactive behavior that crosses national borders.

In this study, we conceptualize that innovativeness and proactiveness will contribute to the EO-performance relationship in a dynamic, environment. Many entrepreneurs tend to be non-conventional, creative, lateral thinkers, who can think outside the box, identify innovative business opportunities, and be adept at adapting

to changing and uncertain environments (Timmons & Spinelli, 2004). More creative and innovative firms tend to outperform other firm types in more volatile situations (McKee et al., 1989; Miller, 1983). It measures an individual's belief (1:strongly agree to; 3: neutral; 5: strongly disagree) that he or she innovativeness and proactiveness activities necessary to be firm performance. The approach used to identify the items for scale is similar to that suggested by (Churchill, 1979). Therefore, three EO-Innovativeness and three proactiveness items are operationalized with five point Likert scale measures.

Learning orientation, LO

Result from literature review identified Zahra et al. (1999) developed a three-component scale to measure technological learning. Specifically, the breadth, depth and speed of technological learning were operationalized by sets of 19 similar items each. This scale was not selected because it focused on technological learning and the use of the entire 57-item scale was prohibitive. Breman and Dalgic (1998) used 23 items to capture LO. Here, too, the number of items was large. Additionally, as Breman and Dalgic (1998) acknowledged, the content, face and intrinsic validity of their scale could be questioned. Hence, their scale was not selected.

Thus, adopted from Sinkula et al (1997) and Hult et al.'s (1999) scale in this research, and LO dimension contains nine items, and each respondent is evaluated with statements using a five-point Likert scale anchored by (1: strongly agree; 3: neutral; 5: strongly disagree).

Market Orientation

Customer Orientation, in this study three customer orientation items are assessed by using items adopted and adapted from (Deshpande & Farley, 1998; & Kohli & Jaworski, 1993, Slater & Narver, 1994). Respondents are asked to indicate their level of agreement with statements regarding customer orientation within their firms (1: strongly agree, 3: neutral, and 5: strongly disagree). Competitor Orientation, in this study three competitor orientation items are assessed by using items adopted and adapted from (Narver, Slater & MacLachlan, 2004; Olson et al., 2005; Porter, 1985). Respondents are asked to indicate their level of agreement with statements regarding competitor orientation within their firms. (1: strongly agree, 3: neutral , and 5: strongly disagree). Cost Orientation, in this study three cost orientation items are assessed by using items are adopted and adapted from (Olson et al., 2005). Respondents are asked to indicate their level of agreement with statements regarding their firms' cost orientation. (1: strongly agree, 3: neutral, and 5: strongly disagree).

3.6.2 Moderating Variable

Dynamic Capabilities, DC

At the nexus of the interface between entrepreneurship and marketing are value creation and value appropriation within the market. Dynamic capability view of the firm explores how the firm builds, integrates and reconfigures a valuable asset position. Thus, we examine the entrepreneurial dynamic capabilities which help to excel the firm performance, by interfacing and integrating various organizational orientations, through the exploitative and explorative capabilities.

Exploitative (EIC) Capabilities, is defined such as product differentiation strategies; market entry strategies (liberalization; deregulation; free trade agreement); competitor strategies, Marketing strategies (positioning; segmenting; promotional); e-commerce & information technological strategies. Firm's new product management ability is conceptualized as its exploitation and exploration capabilities (March, 1991). An importer's exploitation capabilities reflect the importer's commitment to the dynamic improvement of its activities (Collis, 1994). Therefore, this study operationalizes agro-based SME exploitative (innovative) capability with a five items, measured by five-point Likert scale, which derived from the work of Douglas and Judge (2001). Meanwhile Explorative (ELC) Capabilities, is defined as business network strategies (supply chain management); strategic partnership & alliance; customer relationship; new market development strategies, new product/process innovation strategies, Operational excellence (cost & quality) strategies (efficiency & effectiveness). Exploration learning is operationalized as the strategic insights that enable agro-entrepreneur to recognize the intrinsic value of other resources or to develop novel strategies before competitors (Collis, 1994). Agro based SME explorative (learning) capabilities is operationalized with a five-items,

five point Likert scale, which derived from the work of (Menon et al. 1999). Relational (networking) capabilities are rare, difficult for competitors to replicate, and critical for creation of sustainable competitive advantage (Ganesan 1994; Mohr & Spekman, 1994, Lages et al., 2005). In this study, relational capability is adopted as relational learning capability, which include market intelligence compiling; collaborative networking, relationship building and information sharing etc.

3.6.3 Dependent Variable

Firm Performance

The dependent variable, firm performance, can be measured with accounting- or financial market-based metrics. Examples of accounting-based metrics are return on equity (Buchner 1987; Delios & Beamish 1999; Grant 1991), return on sales (Contractor, Kundu, & Hsu 2003; Lu & Beamish 2001; Tallman & Li 1996), and return on assets (ROA). Market performance was measured using items adapted from (Claycomb et al., 1999; Kohli & Jaworski, 1993). In this study, subjective approach was adopted from the work of Suliyanto and Rahab (2012) and it has six items and the items were rooted from the previous work of (Calantone et al. 2002; Keskin, 2006). Subjective measure was used due to difficulty involved in assessing the objective measure of performance, as owner/managers are generally unwilling to release firm's information to outsiders. The subjective performance of the firm is measured by the perception of the owner/managers providing responses to the survey. Respondents are asked to indicate the performance of their firms in the past year compared to the performance of their major competitors in certain areas

First, used Zhou et al.'s (2005) survey items were used. It includes three five-point items (1: strongly agree; 3: neutral; to 5: strongly disagree) to measure statements such as "Our firm's market sales has increased obviously compared to last few year ago" and "Our firm's return of asset has increased obviously compared to last few year ago". Thus, these items are averaged into a subjective firm performance scale. Second, innovation performance scale used the items proposed by (Calantone et al., 2002). Respondents are asked to indicate the performance of their firms in the past year compared to the performance of their major competitors in certain areas. Three five-point items are used. Each respondent is asked to assess innovation performance of their firms relative to competitors in the same market. For instance "During the past few years, our firm has developed many new management approaches / manufacturing method"; "Our firm's productivity has improved at a great speed compare to last few years ago". Total six items are measured, with five-point Likert scale 1: strongly agree; 3: neutral; to 5: strongly disagree). As such, these items are then averaged them to create an objective firm performance scale.

3.7 Research Instrument and Data Collection

This study was based on the questionnaire designed by (Awang, 2010; Lumpkin & Lichtenstein, 2005; Mika & Risto, 2010; Claycomb et al., 1999; Kohli & Jaworski, 1993) follows the procedure of accepted methods of scale development for a business research study (Cooper & Schindler, 2003). Questions on EO; LO; MO on firm performance have been adapted and modified from previous research instrument and questions of dynamic capabilities are also adapted from previous study.

Each respondent was posted with a cover letter by explaining the aims and benefits of the research, a copy of the questionnaire and a prepaid envelope. A mail survey usually allows anonymity of the respondents as long as the information given is kept confidential and used only for the purpose of the research. Anonymity of the respondents and the accuracy of the responses could not be assured if the survey were done through face-to-face interview sessions. Two weeks after the first mailing, a reminder letter was sent to the targeted business owners that had not yet replied. Respondents were given three months to reply the questionnaires. A coding system was applied to the questionnaire copies to identify the SMEs in agricultural sectors. The sample of questionnaire is attached in Appendix B1.

Questions for the respondents' demographic characteristics and moderating variables employ the categorical scale. The measurement of EO; LO and MO use a Likert scale marking system from 1 to 5, where 1 is "strongly disagree" and 5 is "strongly agree". Some of the previous research in the literature on firm performance had used a similar measurement of success. A five-point scale has also been applied to a firm's performance scale, using the same scale where 1 is "strongly disagree on firm performance" and 5 is "strongly agree on firm performance".

In general, a Likert scale (Likert, 1932) is an instrument to measure attitudes, preferences, metaphors, opinions, conceptions etc. (Gob, McCollin, & Ramalhoto, 2007). The Infosurv white paper research on the Likert Scale (Gwinner, 2006) concluded that most modern researchers agree that the neutral rating in a five-point scale is needed when conducting survey research as a scale without a neutral midpoint can introduce respondent bias as respondents are forced to choose a more positive or negative response. In addition, the middle rating indicates neutrality or mixed perception.



3.8 Data Analysis

In the area of strategic management, many of the early researchers in the RBV preferred qualitative research methods focusing on detailed case studies of single firms and industries (Hoskisson et al., 1999). Qualitative research approaches have traditionally been favoured when the main research objective is to improve our understanding of a phenomenon, especially when this phenomenon is complex and deeply embedded in its context. However, in the present study, a cross sectional quantitative data analytical techniques have been used since limited attention has been paid to the use of data analytical techniques in entrepreneurship (Dean, Shook, & Payne, 2007).

A quantitative cum deductive approach requires a clear understanding of the type, collection and analysis of evidence within a well-defined theoretical framework. The framework of this study has been derived from a literature review of previous research and it would be sufficient to formalize a model. Furthermore results from the quantitative study will improve generalizability for RBV research because it needs more vigorous testing of the theory and can be used to bolster the reliability of naturalistic research data (Levitas & Chi, 2002).

3.8.1 Goodness of Measure

In the present study, statistical procedures are used the data for the sample analysis. Descriptive Statistics are used to describe the basic features of data; provide a graphical view on the data and to present quantitative descriptions in a manageable form and help us to simply large amounts of data in a sensible way. Each descriptive statistic reduces lots of data into a simpler summary and visualizes data into a presentable form.

Descriptive statistics such as maximum, minimum, mean, standard deviation and variance was obtained for the interval scale dependent variables. This analysis is also used in detecting any violating of the assumptions made by the individual test which often involves statistical test for mean, standard deviation, range of scores and skewness and kurtosis (Pallant, 2000). A frequency, descriptive and reliability analysis are among the statistical techniques used for the descriptive analysis of this study. All of the investigation on the analysis can be found in the next chapter (Chapter 4).

3.8.2 Non Response Bias

Non-response bias occurs when there is a difference between the preference of these non-respondents and those of the responders on whose estimates was based. It also affect the ability to generalize study findings to the define population (Bryman, 2012). All major modes of survey contact such as interview, telephone and mail survey are susceptible to non-response bias of different degrees and kinds. As in the present study, mail survey was used as mode of surveying. Thus, distance between mail location Kedah and other states could perhaps affect the reliability and generalizability of the study whereby it could include early and late responders. In the other way, as indicated by Sullivan (1991), non-response bias also can be arisen in a number of ways such as the following reasons:

- Initial contact cannot be established with the sampled respondent-because the respondent office has been relocated, is out of office or far away from mail destination.
- Respondents are cognitively unable to understand and speak any of the languages

Therefore, a test of non-response bias is necessary in order to ensure that these responses can be generalized and are representative for the population of this study (Armstrong & Overton, 1977). To identify potential non-response bias among respondents. Sample t-test analysis using Levene's test for equality of variances was conducted to check whether there was a significant different between early and late respondents

3.8.3 Validity and Reliability Analysis

Validity is essential in measuring truth and accuracy throughout the research process and to overall study design. The present study used exploratory factor analysis to test the validity of the instrument and to study the patterns of relationship of dependent variables, with the goal of discovering something about the nature of the independent variables that affect it. The inferred independent variables (in this study, strategic orientations, EO; LO and MO) are called factors. Most researchers use factor analysis to assess summarization or for data reduction as it can identify the separate dimensions of the structure and determine the extent to which each variable is explained by each dimension (Pallant, 2000).

Data validity can be proved through correlation analysis, specifically in examining the correlation between theoretically defined sets of variables (Hair et al., 2006). Such correlations were investigated in the factor analysis by examining the test of Keiser Myer Olkin (KMO), Bartlett test of sphericity and Off diagonal elements in the Anti-Image Covariance (AIC) Matrix $> .09$.

The KMO is a procedure for determining the suitability of the correlational matrix for factor analysis. It is an index for comparing the magnitude of the observed correlation coefficients to the size of the partial correlation coefficients. Partial correlation exists between two variables when the added effects of other variables on the correlation have been eliminated (Zillmer & Vuz, 1995). When the KMO approaches 1.0, the sum of the squared partial correlation coefficients between all pairs is small, compared to the sum of the squared correlation coefficients (Zillmer & Vuz, 1995). A KMO index $\leq .50$ indicates the correlational matrix (i.e., data set) is not suitable for factor analysis.

Next, the analysis involves the examination of the number of off-diagonal elements in the anti-image covariance (AIC) matrix greater than .09 (Hair et al., 2006). This analysis stated that if the variables share common factors, the anti-image correlation between pairs of variables should be small or close to zero, because the linear effects of the other variables have been eliminated (Zillmer & Vuz, 1995). Thus, the count of off-diagonal elements in the anti-image covariance should be less than 30% (Zillmer & Vuz, 1995) in order to consider the data set suitable for factor analysis.

Once the correlational matrix has been determined suitable for factor analysis, methods for factor extraction need to be considered such as Principle Components Analysis (PCA). A PCA was used to analyze all the variance in the items so that the communalities are all 1.0 representing 100% of the variance of each item being included in the analysis. PCA is generally considered the best method for the purposes of data reduction. Communalities represent the amount of systematic variation for each variable that is accounted for by the set of factors (Zillmer & Vuz, 1995). Communalities can range in value from 0 to 1.0 with 0 indicating that the common factors do not explain any of the variance of that particular variable, and 1.0 indicating that all of the variance of that particular variable is explained by the common factors (Zillmer & Vuz, 1995).

Thus, if the majority of the communalities are high (e.g., $>.70$), a more parsimonious factor structure is likely. On the other hand, many low communalities (e.g., $<.30$), suggests that few variables are associated and thus a suitable factor model may not emerge. In essence, the value of communalities influences efficient convergence of the particular variable.

3.8.4 Regression Analysis

Present study used regression analysis as a statistical tool for the investigation of relationships between variables. We use to determine the causal effect of one variable upon another (in this study the effect of SME organizational orientation upon firm performance). To explore such relationship, we assembled data on the underlying variables of interest and employs regression to estimate the quantitative effect of the causal variables upon the variable that they influence. We assessed the "statistical significance" of the estimated relationships, that is, the degree of confidence that the true relationship is close to the estimated relationship.

In this study, firm performance is affected by orientation variables. Thus, "Multiple regressions" was used as this technique allows additional factors to enter the analysis separately so that the effect of each can be estimated. It is valuable for quantifying the impact of various simultaneous influences upon a single dependent variable. In order to examine the moderating effect of dynamic capabilities, hierarchical regression is the proper analysis. In hierarchical regression analysis, data was first structured hierarchically with first level units nested within second level units and second level units nested within third level units. Second, the parameter of such models was viewed as having a hierarchical linear structure.

In this study, 3-step hierarchical regression was utilized. Hierarchical regression was recommended by various authors if the research concerned with moderator variable detection (Aiken & West, 1991). In addition, Baron and Kemy (1986) propose that moderating effect can be tested using multiple regressions. **In step 1**, the independent variables SME organizational orientations were included to regress with the dependent variable firm performance. **In step 2**, independent

variables and moderator were regressed with the dependent variable. **In step 3**, the independent variables, moderator and interaction of moderator were regressed with the dependent variable.

Nevertheless before further analysis could be proceeded multiple regression assumptions were tested accordingly. Multiple regressions depend on four main assumptions to be fulfilled that is normality, linearity, independence of residuals and homoscedasticity (Hair et al., 2006). The ratio cases to independent variables used was five cases to each independent variable (Bartlett, Kortlik & Higgins, 2001). The ratio of ten cases to one independent variable was also fulfilled (Miller & Kunce, 1973). Casewise diagnostics were used to test for outliers, In this present study, no case of outliers was found.

This study has been given distinct attention which was normality, linearity, and homoscedasticity. Normality was tested using normality probability plots (Hair et al., 2006) and required firm performance was normally distributed in each value of SME organizational orientation. Residual plots against the predicted dependent values were utilized to test the linearity and homoscedasticity. Durbin-Watson was used to test the independence of error terms. If the value of Durbin-Watson is between 1.5 to 2.5, the assumption of independence of error terms is not violated (Norusis, 1995).

Table 3.4

Pretesting the Questionnaire (Content Validity)

Issues		Comment / Feedback	Corrective Action
1	Questionnaire content	Use simplified or straightforward wording for easier understanding	Reviewed the questionnaires wording, avoid using jargon or professional terms
2	Questionnaire content	The arrangement of Likert scale was inappropriate and confusing	Reworked the Likert scale arrangement
3	Clarity of Cover Letter	Objective of study was not specified and informed to targeted respondent in cover letter	Stated the objective and intent of DBA study

The research questionnaires was accepted since after revision according to the academic professor advise and industrial expert comments.

3.9.2 Results of Pilot Study

In the pilot survey, firm performance was measured using 6 items which were adapted and modified from previous research (use five-point Likert scale, ranging from 1 = strongly disagree to 5 = strong agree). An exploratory technique was used to identify the number of constructs and the underlying factors without imposing any preconceived structure on the outcome (Suhr, 2006). This study used values suggested by Coakes, Steed & Dzidic (2006) in interpreting the appropriate number

of correlations, Kaiser Meyer-Olkin (KMO) and Bartlett test and anti-image correlation matrix. In the present study, the Bartlett test of sphericity is significant and the Kaiser Meyer-Olkin (KMO) measure of sampling adequacy is far greater than 0.6

Pertaining to Agro based firm performances the literature has recommended the application of multiple performance measures (Corchran & Wood, 1984). Studies by Cooper and Gascon (1992) considered the financial aspects such as sales turnover, number of employees, value of capital assets etc., whereas the studies by Ricardo et al. (2011) considered the non-financial performance measures like reputation, public image, goodwill and employee commitment, entrepreneur's satisfaction, etc. Since the agro based entrepreneurs might be unwilling to provide objective data on financial performance, a subjective approach was adopted which considered the perception of such individuals on their performance. Two different dimensions were adopted for the study consisting of financial performance and non-financial performance of past few years. The financial performance measures included increase in return on market sales, return of equipment and return of assets whereas, non financial measures including the increase of new manufacturing method; new ideas; process and increase in productivity or output. All the above said variables were gathered using 5-point Likert scale items.

In this pilot study, SME strategic orientation variables were measured using 24 items in three independent variables: Entrepreneurial orientation, Learning orientation and Market orientation, using a five-point Likert scale, ranging from 1 =

strongly disagree, 5 = strongly agree. The Bartlett test of sphericity shows a significant result and the Kaiser Meyer-Olkin measure of sampling adequacy is greater than 0.6. The details of pilot test results can be referred to Appendix B2: Reliability Test (Pilot test) and Appendix B3: Principal Component Analysis (Pilot test)



CHAPTER 4

RESULTS AND DISCUSSION

4.1 Introduction

In previous chapter the detailed research method for this research with the justification were discussed. This chapter presents data analysis result and findings. The results and findings from the 396 questionnaires were analyzed using the Statistical Package Social Sciences (SPSS) Software. The guidance of the analysis process will be organized based on the objectives and hypotheses of this study. The chapter is organised as follows. First, section 4.1 reports about the overview of this chapter. Second, section 4.2 reports the response rate answered questionnaires. Third, Section 4.3 provides the reports of non-response bias. Fourth, section 4.4 provides descriptive analysis result for demographic profile of respondents. Next, section 4.5 reports about data screening and preparation procedure which includes missing values, validity, reliability, normality assumptions, outliers, homoscedasticity and linearity assumptions. section 4.6 is about the result of ANOVA test to compare the pattern of organizations orientation, dynamic capabilities and firm performance based on sales turnover, types of ownership and category of company. Section 4.7 provides the result of the inferential statistics includes correlation, multiple regression and hierarchical regression analysis due to achieve the objectives and hypothesis of this research. Last part is about the conclusion and summary of chapter.

4.2 Response Rate

In data collection process, questionnaires were distributed to 533 respondents who are manager or owner in SME companies in Peninsular Malaysia. As mentioned earlier in chapter 3, targeted sample size was 533 respondents as presents the number of population. According Sekaran (2003), the biggest number of sample size or response rate in research is better for the achievement of good result and to avoid the barriers in data collection process, researcher need to distribute more than target number of sample size. Most of researchers faced the difficulty to get back to the relevant respondents and the attitudes of respondents were refused to answer the questionnaire. Table 4.1 illustrates the response rate of this research.

Table 4.1
Summary of Response Rates

Details	Rate
Questionnaires distributed	533
Returned Questionnaires	414
Incomplete	18
Questionnaire completed	396
Response rates	74.0%

As shown in Table 4.1, out of 533 questionnaires that were distributed for SME’s owners or managers about capabilities of entrepreneur in Malaysia, 414 questionnaires were returned. Out of these 414 questionnaires, 18 were returned incomplete. Thus, only 396 questionnaires or 74.0 percent were coded in data key in process and used for further analyses.

4.3 Non –Response Bias

Based on Sekaran and Bougie (2010), non-response rate occurs after the sampling step of data collection process or survey. Non-response rate need to calculate for identifying whether reflects the total failure to obtain survey data. In statistics survey, non-response rate is appeared if responses of respondents differ from the potential answer of those respondents who did not answer. Based on Amstrong and Overton (2000), non-respondents were identified to have similar characteristics to late respondents. In this research, the samples were divided into early responses which were the first 70 responses and late responses which is the last 70 responses. Next, the chi square test was conducted to these demographic characteristics of respondents.

Table 4.2 shown the result of non-response test. The significant values of the analysis indicated that no statistically significant difference between the two groups, early and late response group (significant $p > .05$). Thus, it can be concluded that non-response bias will not significantly affect the generalizability of the findings of this research. Consequently, the analysis was carried out on the full 396 sample size.

Table 4.2
Results of Chi-square Test for Early and Late Group

Variables	P Values of Pearson chi-square	Significant/Not Significant
Gender	0.968	Not Significant
Age	0.108	Not Significant
Position Ori	0.670	Not Significant
Years	0.281	Not Significant
Level of Education	0.810	Not Significant
Number Employees	0.073	Not Significant
Sales turnover	0.137	Not Significant
Types of ownership	0.768	Not Significant
Organization product	0.322	Not Significant

As per Table 4.2 overall there was no statistically significant difference in the mean scores of the items in variables between early and late responses (significant $p > .05$). Thus, it is confirmed that the answered for 396 respondents were accurate to use for the next analysis.

In additional, the Levene's test was also used to see if there is a statistically significant difference in the mean scores for two groups in terms of their level of SME firm performance, See in Table 4.3.

Table 4.3

Independent Samples Test – SME Firm Performance Variables for early respondents vs. late respondents.

Items	Response	Mean	Std. Deviation	p- value
Firm Performance				
Our firm's market sales has increased obviously compared to last few year ago	Early Response	4.440	1.133	0.550
	Late Response	4.540	0.625	
Our firm's return of equipment has obviously increased compared to last few years ago	Early Response	4.520	0.959	0.637
	Late Response	4.590	0.591	
Our firm's return of asset has increased obviously compared to last few year ago	Early Response	4.480	1.026	0.579
	Late Response	4.560	0.565	
During the past few years, our firm has developed many new management approaches / manufacturing method	Early Response	4.800	0.542	0.062
	Late Response	4.510	0.817	
Compared to the least few year, today our firm encourages new ideas/method/welcome suggestion to innovate production/ improve performance	Early Response	4.700	0.527	0.190
	Late Response	4.560	0.676	
Our firm's productivity has greatly improved if compare to the last few years ago	Early Response	4.640	0.606	0.334
	Late Response	4.530	0.679	

4.4 Demographic Profiles

The data collection process was taken from employees of SME companies in peninsular Malaysia. The background of respondents were taken in this study which gather about age, gender, level of designation, years of experience, level of education, number of employees in organizations, range of organizations’ annual sales turnover, types of ownership and classification organization product. The data was collected to an insight into the subjects and may assist in interpreting results of the analysis. Table 4.4 until 4.10 summarised the description of the demographic characteristics for the participants in this study and the explanation as follows:

4.4.1 Gender of Respondents

Table 4.4
Gender of Respondent

Gender	Frequency	Percent
Male	285	72
Female	111	28
Total	396	100

Table 4.4 shows about the frequency and percent for gender of respondents. Based on the result above, the majority of respondents were male accounting for 285 or 720%. Mean while female respondents were 28% of sample size or 111. It indicates male interested than female to cooperate answered the questionnaire. Statistics analysis shown 72% of workers in selected companies were male in charge of business activities.

4.4.2 Position Level in Organization

Table 4.5
Position level in SME firms

Years	Frequency	Percent
Executive and Below	97	24.5
Senior Executive	78	19.7
Assistant Manager	22	5.6
Manager	128	32.3
Senior Manager	20	5.1
Owner/Head/Director and Above	51	12.9
Total	396	100.0

Table 4.5 above indicates the descriptive result for position of respondents who are works at selected SME's companies. About 32% of the respondents or 128 being employed as manager level, 24.5% of the respondents or 97 employed as executive19.7% or 78 head employed as senior executive, 12.9% or 51 as owner, head and directors, only 5.6% or 22 respondents were assistant manager and 5.1% or 20 respondents carrying the position as senior manager.

4.4.3 Sales Turnover

Table 4.6
Sales Turnover (Per Year)

Sales turnover	Frequency	Percent
Less than MYR 500,000	36	9.1
Between MYR 500,000- MYR 1 Million	107	27.0
Between MYR 1Million-MYR 3Million	179	45.2
More than MYR 3Million	74	18.7
Total	396	100.0

Table 4.6 demonstrates the distribution of percentage and frequency for amount of sales turnover for each SME company. Results found that most of companies (45.2% or 179) achieved sales turnover between MYR 1Million -3 Million. About 9% or 36 respondents stated that sales turnover of their companies were less than MYR 500,000.

4.4.4 Category of Product

Table 4.7
Category of Product

Organization Product	Frequency	Percent
Agriculture	128	32.3
Fruit crop	2	0.5
Food/ Fruit Processing	104	26.3
Fishery	2	0.5
Seafood	4	1
Livestock	4	1
Rubber products	14	3.5
Coco	8	2
Palm oil	39	9.8
Milk product	16	4
Bakery/Biscuit	10	2.5
Beverage	24	6.1
Others	41	10.4
Total	396	100

Table 4.7 indicates the type of industry. Most of respondents, 32.3% (128) are from agriculture industry and 26.3% (104) are from Food/Fruit Processing industry. Analysis above shown the samples are diverse as it consists of representatives from the various sectors of the population. The details of descriptives can be referred from the Appendix C1:Descriptive Statistic- Frequencies.

4.5 Data Screening Procedures

According Sekaran and Bougie (2010), in data preparation process, researcher ensured data and assure there were no mistakes at this process of data entries process. Each variables in this research was explored and screened to examine if the data by checking any missing values, validity, reliability, normality distribution, outliers, homocedasticity, independence residual, linearity and multicollinearity characteristics of data. At this stage if researcher found the errors, researcher need check those data before correcting its. The data screening process will be describes as follows:

4.5.1 Missing Values

According Hair et al. (2006), missing values were caused by the researcher-side, such as the error of data collection mistakes and data entry process. Besides that, the missing data can due to attitude of respondents, who refuse to answer the questions appropriately. Actually, this problem will affect the results of research. Therefore, it is important to the researchers to investigate the issue. In additional, this research uses SPSS software since this software is necessary use the complete data set, with that the missing data cannot be ignored. According Arbuckle (2010), the missing data problem can be solved by two method which are delete the observations or cases with reduce the number of sample size and applying the remedy method. Before doing study, researchers should examine the relationships of the missing data in order to obtain the original distribution of values.

In this research, researcher plans to follows the Hair et.al (2006) about the methods for identifying the missing data and remedy method if necessary. There are

several methods in identifying this problem, which are , first step is to identify the missing data by determine the amount or percentage of missing data by using SPSS for each variable, second step is diagnosing randomness of missing data with proceed to the Expectation Maximisation (EM)as describes in research methodology chapters.

As can be seen in Table 4.13, it is indicates the percentage result for missing data for each variables in this research. From the frequency analysis, there are no (0%) missing data for each variables. As conclusion, the missing data process was stop at this step and no need the Expectation Maximisation (EM) technique to overcome the missing values problems.

Table 4.8
Result of Missing Data

<i>Variable</i>	<i>Missing %</i>	<i>N of Items</i>
Organizations Orientations		
Entrepreneurial Orientation	0%	6
Learning Orientation	0%	9
Market Orientation	0%	9
Dynamic Capabilities		
Exploitative (Innovation) Capabilities	0%	5
Explorative (Learning) Capabilities	0%	5
Firm Performance	0%	6

4.5.2 Exploratory Factor Analysis

Costello and Osborne (2005) indicate the EFA method is for attempts with determine the nature of the construct influencing a set of responses. In this section, the EFA using Principal Component Analysis technique was conducted to ensure all of the constructs are valid and reliable before proceeding to the multiple regression and path analysis to infer the hypotheses of research.

According Costello and Osborne (2005), the researcher indicated that the simplest method to explore the constructs, with conduct the EFA and there are several guides or rule should be established :

- 1) The Kaiser-Meyer- Olkin Measure should equal or more than 0.50.
- 2) Bartlett test of Sphericity (Approximate Chi-Square) – Large and Sig.(p-value) – should be less than 0.05
- 3) Communalities – More than 0.50
- 4) Component Matrix –More than 0.30
- 5) Total variance explained- Eigenvalues – More than 1
- 6) Factor Rotation- All items in Rotated Component Matrix should be more than 0.50. The process of adjusting the factor axes in order to get a simpler and more significant factor solution, If no factor rotation appeared, means the measurements are already significant simple.

4.5.3 Factor Analysis of Strategic Orientations

Entrepreneurial Orientation

Table 4.9

Factor Analysis -EO

<i>Items</i>	<i>Rotated</i>
Our firm gives special attention to external research and development information	0.891
Our firm considers new idea/method/ approach as very important	0.804
Our employees are free to give new idea/suggestion for the process improvement	0.606
Our firm acts proactively in order to achieve objectives	0.920
Our firm typically adopt a very proactive posture	0.879
Our firm always be the first to introduce new technology	0.930
Kaiser-Meyer-Olkin Measure =0.687	
Bartlett's Test of Sphericity=861.862 (0.000)	
Comunalities values >0.50	
Component Matrix>0.30	
Total of Variance =78.75%	
Summary: Rules of EFA acceptable, all items in Entrepreneurial Orientation meets validity guiding criteria.	

Learning Orientation

Table 4.10
Factor Analysis –LO

<i>Items</i>	<i>Rotated</i>
Our company regularly seeks information from market (e.g., customers, competitors, suppliers)	0.651
Our company actively observes and adopts the latest and best practice in our sector	0.604
Our company has processes for acquiring knowledge about new products in the industry	0.77
Our company has mechanism for filtering and integrating different sources and type of knowledge	0.841
Our company prefers written communication when distribute information and knowledge	0.749
Our company sends out timely reports with appropriate information to every functional department	0.548
Our company is flexible and readily in changing our products, processes and strategies	0.739
Our company makes knowledge or information is accessible to those who need it	0.911
Our company able respond quickly to customers requirements	0.888
Kaiser-Meyer-Olkin Measure =0.868	
Bartlett's Test of Sphericity=2162.00 (0.000)	
Comunalities values >0.50	
Component Matrix>0.30	
Total of Variance =68.96%	
Summary: Rules of EFA acceptable, all items in Learning Orientation meets validity guiding criteria.	

Market Orientation

Table 4.11
Factor Analysis –MO

Items	Rotated
Our salespeople regularly collect information concerning competitors' activities	0.710
We frequently track the market performance of key competitors	0.582
We frequently evaluate the strengths of key competitors	0.713
We communicate with all department/functional units about our customer experiences and preference	0.707
Our strategy for gaining a competitive advantage is based on our understanding of customer needs	0.466
We regularly survey customers to assess the quality of our products and service	0.677
Improving operating efficiency is a top priority in our firm	0.701
Cost is the most critical component in our firm's performance measures	0.665
Achieving cost advantage is very important to our firm	0.794
Kaiser-Meyer-Olkin Measure =0.570	
Bartlett's Test of Sphericity=1480 (0.000)	
Comunalities values >0.50	
Component Matrix>0.30	
Total of Variance =68.29%	

Summary: Rules of EFA acceptable, all items in Market Orientation meets validity guiding criteria.

4.5.4 Factor Analysis of Dynamic Capabilities

Exploitative (Innovation) Capabilities

Table 4.12
Factor Analysis –EIC

<i>Items</i>	<i>Rotated</i>
Our firms continue exploit the most current marketing strategies and technologies method to promote our product and services	0.997
Our firms continue exploit our product cost and differentiating feature to promote our product and services	0.940
Our firms exploit the new technological and scientific knowledge to improve/innovate our product/process/ service	0.940
Our firm continues improve and chooses new approaches to processes, products and services that are different from those used in the past	0.833
Our firm continues exploit the market research; intelligence and information in our strategic planning and decision making process	0.870
Kaiser-Meyer-Olkin Measure =0.729	
Bartlett's Test of Sphericity=1842 (0.000)	
Comunalities values >0.50	
Component Matrix>0.30	

Summary: Rules of EFA acceptable, all items in Explorative (innovative) capabilities meets validity guiding criteria.

Explorative (Learning) Capabilities

Table 4.13
Factor Analysis –ELC

Items	Rotated
Our firms continue compile competitor market information and benchmark product or service to improve our firm’s market performance	0.997
Our firm continue learn and include new aspects to our processes, products and services compared to previous strategies	0.940
Our firm continue collaboration with our business partners to explore new market opportunity in local and foreign market	0.940
Our firm continue collaboration with strategic partners and institutional agency to explore innovative product and services	0.833
Our company considers employee learning capability as one of the key factors to improve the company’s performance	0.870
Kaiser-Meyer-Olkin Measure =0.740	
Bartlett's Test of Sphericity=1008 (0.000)	
Comunalities values >0.50	
Component Matrix>0.30	
Total of Variance =61.32%	
Summary: Rules of EFA acceptable, all items in Exploitative(Learning) capabilities meets validity guiding criteria.	

4.5.5 Factor Analysis of Firm Performance

Table 4.14
Factor Analysis-FP

Items	Rotated
Our firm’s market sales has increased obviously compared to last few year ago	0.756
Our firm’s return of equipment has obviously increased compared to last few years ago	0.873
Our firm’s return of asset has increased obviously compared to last few year ago	0.83
During the past few years, our firm has developed many new management approaches / manufacturing method	0.815
Compared to the least few year, today our firm encourages new ideas/method/welcome suggestion to innovate production/ improve performance	0.862
Our firm’s productivity has greatly improved if compare to the last few years ago	0.865
Kaiser-Meyer-Olkin Measure =0.713	
Bartlett's Test of Sphericity=876.453(0.000)	
Comunalities values >0.50	
Component Matrix>0.30	
Total of Variance =72.11%	
Summary: Rules of EFA acceptable, all items in firm performance meets validity guiding criteria.	

4.5.6 Reliability Test

As stated in research methodology chapter, the reliability test is done to test the goodness of the data while validity test is done to investigate on the instruments on its ability to measure what it is supposed to measure. Reliability will test for data that used questionnaire as instrument to collect data. It is to find out the consistency of respondents' answers to all the questions in the study. It tests the degree of the questions independently measures of the same concept in the sense of their correlation with one another. The Cronbach's alpha was used to measure the reliability of questions for each variable. The Cronbach's alpha above or equal to 0.60 will consider as reliable suggested by Nunnally (1978) and to measure the strength of reliability will follow Hair et al. (2006). The *Rule of Thumb* for Cronbach's Alpha as guidelines as stated in Chapter 3.

Table 4.15
Cronbach's alpha (α) reliability coefficients for the main constructs

Variable	Cronbach's Alpha	N of Items
Strategic Orientation	0.737	24
Entrepreneurial Orientation	0.703	6
Learning Orientation	0.904	9
Market Orientation	0.733	9
Dynamic Capabilities	0.676	10
Exploitative (Innovation) Capabilities	0.843	5
Explorative (Learning) Capabilities	0.829	5
Firm Performance	0.776	6

Table 4.15 shows the results of the reliability test for each variable used in this research. There are six variables were measured; Firm Performance as dependent

variable and independent variables are Entrepreneurial Orientation, Learning Orientation, Market Orientation, Exploitative (Innovation) Capabilities and Explorative (Learning) Capabilities.

The results of reliability test for Firm Performance was 0.776 (Good). Meanwhile the result of reliability criteria for others are: Entrepreneurial Orientation was 0.703 (Good), Learning Orientation was 0.904 (Excellent), Market Orientation was 0.733(Good), Exploitative (Innovation) Capabilities was 0.843(Very Good) and Explorative (Learning) Capabilities was 0.829 (Very Good). These results are acceptable because the value of Cronbach's Alpha for each variables were greater than 0.70

4.5.7 Normality Test

The earlier data screening steps handling missing data and outliers were already conducted to clean the data. The next analysis at this stage in testing the normality distribution of data since it is important criteria in multivariate technique and inferential statistics. Referring to Hair et al. (2006), the robust techniques are fewer effects when the assumptions are distributed, however in all cases, gathering with some of the assumptions critically determines a successful analysis. Since in this research was use the multivariate analysis, the normality assumption is most fundamental. As mentioned in research methodology chapter, the normality assumption of data was assessed by Skewness and Kurtosis values. Hair et al. (2006) advocate the use of Skewness and Kurtosis values as this analysis provide more accurate measurement of normality. The Skewness and Kurtosis values between ± 2

are usually acceptable (George & Mallery, 2005). The Normality can be examined by two statistical tests (i) Skewness (ii) Kurtosis tests.

The most common used critical values are ± 2.58 (0.01 is significance level) and ± 1.96 (0.05 error level). Means that the Skewness and Kurtosis value and critical ratio should less than or equal to -2 and not more than or equal to 2. The result of normality data as stated in Table 4.16. The result indicates the of normality distribution for each items in variable used in model. The result indicates most of Skewness and Kurtosis for each items are below than ± 2 , respectively. Therefore the data declare as normally distributed.

Table 4.16
Result of Normality test

<i>Variable</i>	<i>Skewness Statistics</i>	<i>Kurtosis Statistics</i>
Organizational Orientations	-0.61	0.453
Entrepreneurial Orientation	-0.869	-0.187
Learning Orientation	-1.287	1.253
Market Orientation	-1.019	0.584
Dynamic Capabilities	-0.485	-0.330
Exploitative (Innovation) Capabilities	-1.108	0.450
Explorative (Learning) Capabilities	-1.236	0.894
Firm Performance	-1.440	1.890

Besides Skewness and Kurtosis values, the Normal Q-Q plot of firm performance also presented, each observed value is paired with its expected value from the normal distribution and they fall more or less in a straight line (Coakes, Steed & Dzidic, 2006). See in the Figure 4.1 to Figure 4.4

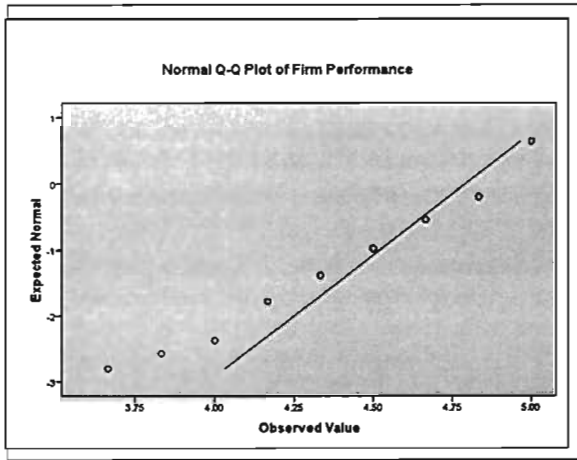


Figure 4.1
Normal Q-Q Plot for firm performance

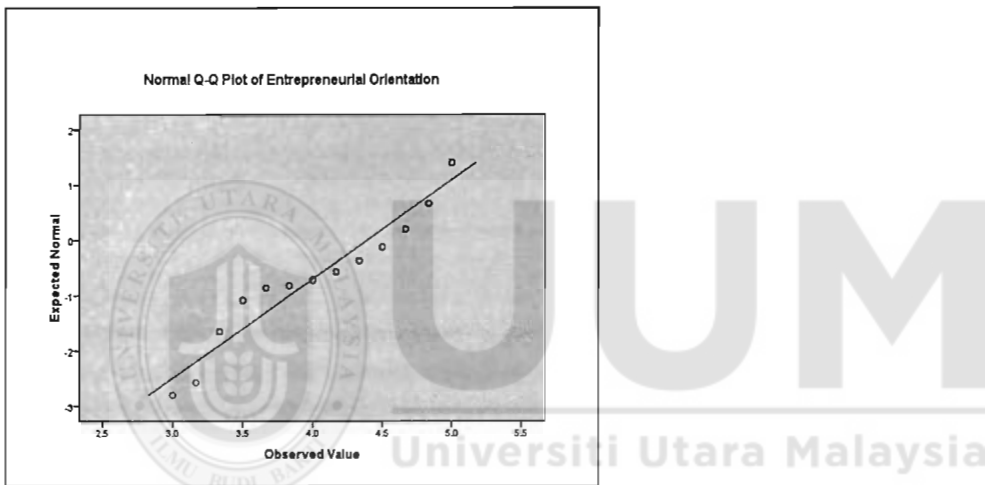


Figure 4.2
Normal Q-Q Plot for Entrepreneurial orientation

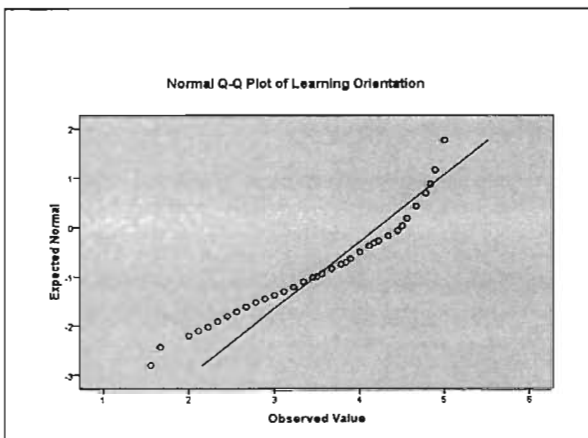


Figure 4.3
Normal Q-Q Plot for Learning orientation

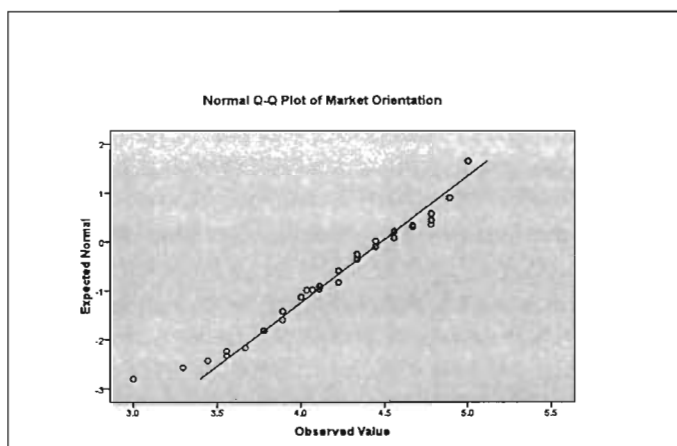


Figure 4.4
Normal Q-Q Plot for Market orientation

4.5.8 Multivariate Outliers

The next step of data screening stage was investigate the research data by distinguish the multivariate outliers. As described in previous chapter, an outlier is an observation or cases that are substantially different from the other cases and it has an extreme value characteristic in each variable. The outliers' problems are not representative of the population of research. Based on Hair et al. (2006), the outliers problem can seriously affects to the statistical tests but it is depends on the situation for example, if the outliers caused of data gathered from the different target sample or not from selected target respondents answered, researchers need to delete the observation. Hair et al. (2006) also mentioned that researcher can just retain the outliers observation if the data from target respondents for the research.

Outliers have been defined as cases that indicated a standardized residual of more than 4.0 or less than -4.0 (Tabachnick & Fidell, 2001). Therefore, the z-score result were reported within the range at $p < 0.001$ significant level which indicates that there are no serious multivariate outlier problems. Multivariate outlier could be detected by using Mahalanobis distance (Tabachnick & Fidell, 2007). Mahalanobis distance is the distance of a case from the centroid of the remaining cases where the

centroid is the point created by the means of all the variables. Mahalanobis and Cooks distance method was conducted and the result is presented in Table 4.17. From the table, result in Mahalanobis column relatively small numbers, meanwhile the Cooks distance column also revealed the figures were less than 0.05. The result indicates the multi-variate outliers in the data were not appeared.

Table 4.17
Test of Influential Outliers

Measurement	Minimum	Maximum	Mean	Std. Deviation	N
Mahalanobis Distance	0.407	69.88	4.987	4.616	396
Cook's Distance	0.000	0.627	0.004	0.032	396

4.5.9 Homocedasticity

Homoscedasticity means the distribution of data will appear the constant variance of the error term and the variance of the dependent variable is approximately the same at different levels of the explanatory variables (Hair et al., 2006). Homoscedasticity is indicated when the width of the band of the residuals is approximately the same at different levels of the dependent variables and scatterpot show a pattern of residuals normally distributed around the mean. To check for homoscedasticity, the scatterplots of studentized residuals against the predicted values were used (Hair et al., 2006). The homocedasticity assumptions are related to the error term or commonly known as residual. In this case, the researcher need to examine the

residual are random in nature and do not indicate any discernible pattern. Their effect tends to diminish as the number of observations or data increases.

The variance of the error term in data, is assumed constant for all time period, in short the assumption of homocedasticity holds. To check for homoscedasticity, the scatterplots of studentized residuals against the predicted values were used (Hair et al., 2006). From the scatter plot, there is no clear relationship between predicted residual. It is shown the residual of relationships were no pattern and assume that the error variance equal over all times. With that the residual of data is constant and the homocedasticity assumption was exists. See in figure 4.5 for studentized residual plot

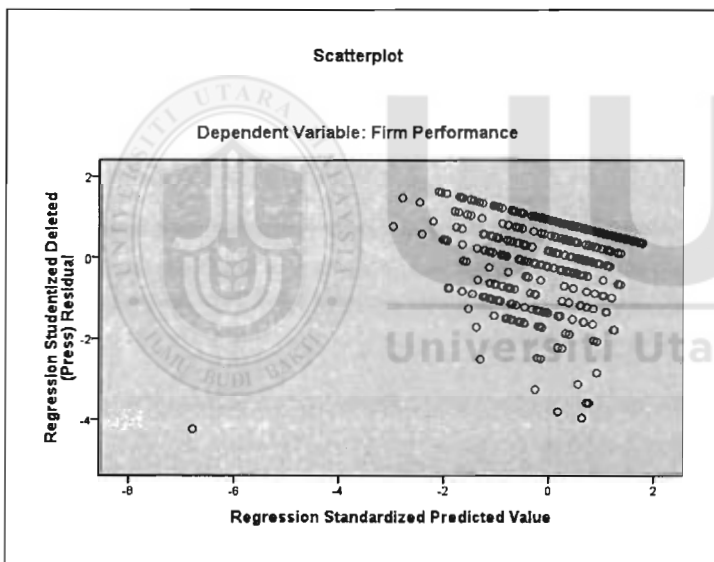


Figure 4.5
Scatterplots of studentized residuals against the predicted values

4.5.10 Independence Residual

Independent of residuals is referred as the predicted value is not related to any other predictions. Independent of residuals test is to ensure that the residuals are not correlated serially from one observation to the next and the size of the residual for one case has no impact on the size of the residual for the next case. The Durbin-

Watson is used to test for the presence of serial correlation among the residuals. Based on Table 4.18, the Durbin-Watson equal to 1.40, indicated that all values are within the acceptable range (1.0 to 2.0) which indicated nonexistence autocorrelation problem. Thus the independence of residual assumption was met.

Table 4.18
Test of Independent of residuals

Measurement	Value
Durbin - Watson	1.402

4.5.11 Multicollinearity Result

Based on the previous research conducted by Hair et al. (2006) the researcher stated that the multicollinearity problem appears when the variables occurs separate actually measure the same thing. The collinearity can be detected by tolerance and variance inflation factors (VIF) test for independent variable. The multicollinearity problem appeared when the tolerance below than 1.0 and VIF values above than 10, (Pallant, 2000). Below is the tolerance and VIF value for the independent variables, see in Table 4.19

Table 4.19
Tolerance and VIF for each independent variable

Variable	Tolerance	VIF
Entrepreneurial Orientation	0.932	1.073

Learning Orientation	0.941	1.063
Market Orientation	0.925	1.082
Exploitative (Innovation) Capabilities	0.687	1.065
Explorative (Learning) Capabilities	0.964	1.037

Result in Table 4.24, it indicated that the value of tolerance for Entrepreneurial Orientation is 0.932, Learning Orientation is 0.941, Market Orientation is 0.925, Exploitative (Innovation) Capabilities is 0.687 and Explorative (Learning) Capabilities is 0.964. The value of VIF for Entrepreneurial Orientation is 1.073; Learning Orientation is 1.063, Market Orientation is 1.082, Exploitative (Innovation) Capabilities is 1.065 and Explorative (Learning) Capabilities is 1.037. This result proved that the tolerance values were below than 1.0. The VIF values for each independent variable were not more than 10. Therefore, no multicollinearity problem was appeared in this research. Next, the Linearity assumption is to be checked.

4.5.12 Linearity

Next assumption before proceed to the multiple regression and path analysis as one of parametric analysis is linearity assumption. In this test, data should having significant relationship between independent and dependent variable. According Pallant (2000), the rule of linearity is at least exist one pair relationship between independent and dependent variable. Table 4.20 shown the result of relationship using Pearson Correlation test.

Table 4.20

Result of Correlation Analysis (N= 396)

Variables	1	2	3	4	5
1. Entrepreneurial orientation	-				
2. Learning orientation	.005	-			
3. Market Orientation	.173**	-.209**	-		
4. Dynamic Capability	.164**	.034	.025	-	
5. Firm Performance	.246**	.054	.181**	.141**	-

** Correlation is significant at the 0.01 level (2-tailed)

* Correlation is significant at the 0.05 level (2-tailed)

Table 4.20 provides descriptive statistics and correlations for all study variables. Result reports that p-value (Sig.) for relationship between each independent variable and dependent variable was less than 0.05. In this study, the correlation coefficient will be used to explore the strength of relationship for each variable. The Cohen (1998) methods explore the strength of relationship as follow,

Table 4.21

The Strength of Relationship

No.	Correlation Coefficient, r	Type of Strength
1.	0.1 to 0.29 OR -0.1 to -0.29	Weak
2.	0.30 to 0.49 OR -0.30 to -0.49	Moderate
3.	0.50 to 1.0 OR -0.50 to -1.0	Strong

Source: adapted Cohen (1988)

Summary of Pearson Correlation:

- Entrepreneurial Orientation- Firm Performance– Significant, positive and weak relationship
- Learning Orientation- Firm Performance- Not significant, No relation
- Market orientation- Firm Performance- Significant, positive and weak relationship
- Dynamic capabilities- Firm Performance- Significant, positive and weak relationship

In summary, the results above indicated there exist relationship between independent variables and dependent variable. Hence the linearity assumption was satisfied in this study. As conclusion, since the validity, reliability, normality, multicollinearity, independence residual, linearity and homocedasticity assumption were met, the multiple regression analysis and path analysis as parametric statistics can be conducted to achieve the objective of this research. The details of correlation matrix can be referred to Appendix C2: Correlation Matrix- Firm Performance.

4.5.13 Correlation Analysis

From the Section 4.4.12 correlation analysis has been conducted in this study to measure the relationship between two variables. Pearson correlation was used to examine the coefficient of all variables and measures the strength of the relationship. The strength of a correlation ranges in absolute value from 0 to 1; the closer the correlation is to 1, the stronger the relationship, the closer the correlation is to 0, the weaker the relationship. Correlation analysis was also used to help to check multicollinearity and test the relationship between the variables. The multicollinearity was not a problem as all of the correlation coefficient r values were

0.701 ($p < 0.01$) and below. The results revealed that the tolerance values were below than 1.0. The VIF values for each independent variable were not more than 10. There was no multicollinearity problem if the independent variables were below 0.8 (Allison, 2006). Essentially, there is no definitive criterion for the level of correlation that constitutes a serious multicollinearity problem (Tsui et al., 1995). Furthermore, a correlation value in the range of 0.141 to 0.246 is considered low value to imply a weak correlation. To answer the first research question, Pearson's correlation analysis shown between SME strategic orientation and firm performance has offered initial support for the hypotheses postulation in this study, which there is significant positive relationship between organizational orientations and firm performance. Additionally, the correlation coefficient, (r) indicated the strength of relationship between two variables. See in Table 4.21 Strength of Relationship.

However the next question is how much variance present in dependent variables need to be explained and when independent variables are tested simultaneously this is not clear (Hair et al., 2006). Hence, multivariate analysis must be carried out using multiple regression analysis. Subsequently hierarchical regression analysis was used to examine the moderating effect of dynamic capabilities on the relationship between SME organizational orientation and firm performance.

4.6 Inferential Statistic on Hypothesis Testing

To answer the second research question, the multiple regression analysis was conducted to determine the relationship between the independent and dependent variables.

4.6.1 Multiple Regression Analysis

This section will explain the used of Multiple regression analysis (MRA) which investigated the relationship between independent variables and dependent variable in this section. According Hair et al. (2006) this analysis is a statistical technique used to analyze the relationship between a single dependent variable and several independent variables. MRA is the popular technique to reveal possible interactions among the independent variables and the dependent variable. To sure that the regression analysis is valid, five assumptions are adopted in this study namely; normality, homoscedasticity, linearity, multicollinearity and outliers (Hair et al., 2006). Previous sections discussed the results of assumptions test before start conducting MRA. All five statistical assumptions were satisfied. Next MRA, subsequently hierarchical regression is to be conducted the theoretical hypothesis.

The objective of the above hypothesis is to examine the relationship between strategic orientations and firm performance. Linear Regression analysis was conducted.

1. Testing the relationship between independent variables (strategic orientations) and dependent variables (firm performance).
2. Testing the effect of moderating variables (dynamic capabilities) between independent variables and dependent variables (firm performance).

Hypothesis 1: There is positive relationship between entrepreneurial orientation and firm performance

Table 4.22

Regression Result between Entrepreneurial orientation on firm performance

	B	T	Sig.	Significant/Not
Entrepreneurial Orientation	0.059	2.429	0.016*	Significant
<i>R</i> ²	0.015			
<i>F</i>	5.898			
<i>Sig.</i>	0.016*			

* *p*-value less than significant level ,0.05

The result of the regression analyses between EO and FP is provided in Table 4.22. Table 4.22 revealed that the EO can collectively explain 1.5% of the variance in FP ($R^2=0.015$, $F=5.898$, $p<0.05$). Result of R^2 means the strength of EO were positive correlated but weak relationship towards firm performance. EO ($\beta = 0.059$, $t\text{-test}=2.429$ ($p< 0.05$), and are significant influenced FP. The result also had shown when increase 1 percent in EO, the FP will increase by 5.9 percent.

Result 1: There is significant positive relationship between entrepreneurial orientation and firm performance- the hypothesis is supported

Hypothesis 2: There is positive relationship between learning orientation and firm performance

Table 4.23

Regression Result between Learning orientation and Firm Performance

	B	T	Sig.	Significant/Not
Learning Orientation	0.304	3.165	0.109	Not
<i>R</i> ²	0.215			
<i>F</i>	8.841			
<i>Sig.</i>	0.109			

* *p*-value less than significant level ,0.05

The results of the regression analysis between LO and FP are provided in Table 4.23. The relationship between the LO and firm performance was not significant ($R^2= 0.215$, $p> 0.05$)

Result 2: There is positive relationship between learning orientation and firm performance- not significant and the hypothesis is not supported.

Hypothesis 3: There is positive relationship between market orientation and firm performance

Table 4.24
Regression Result between Market Orientation and Firm Performance

	B	T	Sig.	Significant/Not
Market Orientation	0.325	10.320	0.000*	Significant
<i>R</i> ²	0.213			
<i>F</i>	106.501			
<i>Sig.</i>	0.000*			

* *p*-value less than significant level ,0.05

The result of the regression analyses between MO and FP is provided in Table 4.24. Result revealed that the MO can collectively explain 21.3% of the variance found in FP ($R^2=0.213$, $F=106.501$, $p<0.05$). Result of R^2 means the strength of MO were positive correlated and strong relationship towards firm performance. MO ($\beta = 0.325$, $t\text{-test}=10.230$ ($p< 0.05$)) was significant influenced FP. The result also had shown when increase 1 percent in MO, the FP will increase by 32.5 percent.

Result 3: There is significant positive relationship between market orientation and firm performance- the hypothesis is not supported.

From the multivariate regression analysis, the relationship between independent variables (strategic orientations) and dependent variables (firm performance) are empirically verified as

H1: There is positive relationship between entrepreneurial orientation and firm performance- supported,

H2: There is positive relationship between learning orientation and firm performance is not supported and

H3: There is positive relationship between market orientation and firm performance- supported.

By taking correlational analysis and multivariate regression analysis, these findings have answered the Research Question 1, (RQ1), What is relationship between strategic orientations and Agro based SME performance in Malaysia ?

The statistical results revealed that EO and MO are positive in relationship to firm performance, except LO. The details of regression analysis can be inferred from Appendix C3 Multiple Regression.

4.6.2 Hierarchical Regression Analysis

According to Zhao and Cavusgil (2006), to investigate the moderating effects contents interval scale better categorized the scale of moderating variable to categorical scale. Based on Shariff et al., (2010) in theirs behavioral research, they split the moderating variable; changed behavior into two groups. The sample was split into 2 groups according to the mean score of the changed behavior. The data above the mean were defined as high changed behavior, and the data below the mean as low changed behavior. In this research, the dynamic capabilities were categorized into three groups and follows Table 4.25 below:

Table 4.25
Mean Rating Score

Rating score	Mean Score
Low	$1.0 \leq \text{Mean score} \leq 2.23$
Moderate	$2.34 \leq \text{Mean score} \leq 3.67$
High	$3.68 \leq \text{Mean Score} \leq 5.00$

Source: (Abd Majid and McCaffer,1997)

Table 4.26
Descriptive Statistics after dynamic capabilities divided by three groups

Category	Frequency	Percentage (%)
Low DC	0	0
Medium DC	37	9.3
High DC	359	90.7

Results shown that most of companies, 90.7 percent were at high dynamics capabilities, followed by medium dynamics capabilities 9.3 percent or 37 frequency.

The details of hierarchical regression can be referred from Appendix C4: Hierarchical Regression.

Hypothesis 4: There is moderating effect of dynamic capabilities on relationships between entrepreneurial orientations and firm performance

Table 4.27

Effects DC towards relationships between EO and FP

Variables	Model 1				Model 2				Model 3			
	B	SE B	β	Sig	B	SE B	β	Sig	B	SE B	β	Sig
Entrepreneurial Orientation (EO)	.059	.024	.121	.016								
Entrepreneurial Orientation (EO); Dynamic Capabilities (DC)					.058 090	.024 .046	.119 .097	.017 .042				
EO x DC									.110	.078	.177	.010
<i>R</i> ²	0.015				0.024				0.026			
Adjusted <i>R</i> ²	0.012				0.019				0.017			
<i>R</i> ² Change	0.015				0.009				0.011			
Sig F Change	0.018				0.081				0.022			
F Value	5.898				4.870				3.244			

* *p*-value less than significant level, 0.05

Table 4.27 summarised the results of path analysis to examine the role of dynamic capabilities as the moderating in the relationship between entrepreneurial orientations and firm performance. Model 1 indicated that entrepreneurial orientation factors effected 1.5 percent of firm performance ($R^2=0.015$, $F=5.898$, $p<0.05$). The presence of dynamic capabilities in Model 2 had only 0.9 percent of increase in the effect, indicating significant changed (R^2 changed=0.009, F change=1.028, $p<0.05$). Next, Model 3 is the moderating effect of dynamic capabilities between entrepreneurial orientation and firm performance, ($R^2 =0.026$, F change=1.028, $p<0.05$). Since the *p*-value for *F*-change was less than 0.05, it proved that the present of moderating variable. From the result, it could be concluded that dynamic capabilities had moderated effects the linkage between EO and firm performance.

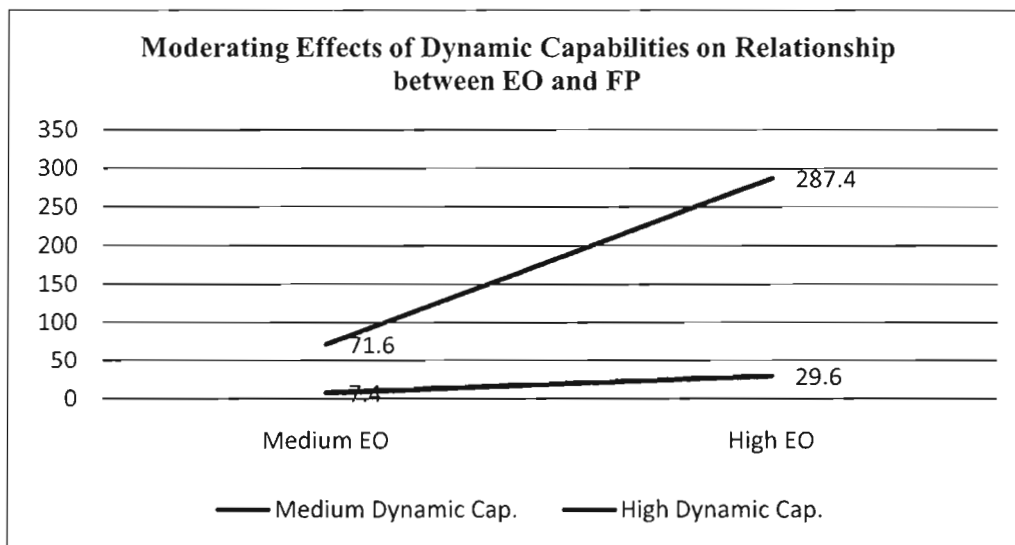


Figure 4.6

Moderation Graph for EO and Firm Performance

Therefore the result of hierarchical analysis shown that H4 There is moderating effect of dynamic capabilities on relationships between entrepreneurial orientations and firm performance- supported.

Hypothesis 5: There is moderating effect of dynamic capabilities on relationships between learning orientation and firm performance

Table 4.28

Effects DC towards relationships between LO and Firm Performance

	Model 1				Model 2				Model 3			
Variables	B	SE B	β	Sig	B	SE B	β	Sig	B	SE B	β	Sig
Learning Orientation (LO)	.031	.019	.008	.001								
Learning Orientation (LO); Dynamic Capabilities (DC)					.002 .093	.019 .047	.206 .300	.006 .000				
LO x DC									.212	.003	.210	.105
R²	0.090				0.100				0.046			
Adjusted R²	0.002				0.005				0.039			
R² Change	0.090				0.010				0.036			
Sig F Change	0.000				0.000				0.105			
F Value	7.397				6.105				6.303			

* *p*-value less than significant level, 0.05

Table 4.28 summarised the results of path analysis to examine the dynamic capabilities as the moderating in the relationship between learning orientations and firm performance. Model 1 indicated that the direct effect of learning orientation on firm performance, it accounted for 9.0 percent of variance in firm performance ($R^2=0.090$, $F=7.397$, $p<0.00$). The presence of dynamic capabilities in Model 2 had only 1.0 percent of increase in the effect, (R^2 change=0.010, F change=1.028, $p<0.05$). Model 3 is the moderating effect of dynamic capabilities between learning orientation and firm performance, Model 3 is accounted for 4.6 variance in explaining firm performance ($R^2 =0.026$, F change=12.105,0). The hierarchical regression results shown that the LO x DC has no significant moderating effect on firm performance ($\beta=.210$; $p > 0.05$). Since the p-value for sig F-change was more than $p> 0.05$, it shown that the moderating effect is not significant. From the result, it could be concluded that dynamic capabilities has no moderating effects in between learning orientation and firm performance. Therefore, the hierarchical analysis shown that H5: There is moderating effect of dynamic capabilities on relationships between learning orientation and firm performance- the moderating effect is not significant, thus hypothesis is not supported.

Hypothesis 6: There is moderating effect of dynamic capabilities on relationships between market orientation and firm performance

Table 4.29

Effects DC towards relationships between MO and FP

	Model 1				Model 2				Model 3			
Variables	B	SE B	β	Sig	B	SE B	β	Sig	B	SE B	β	Sig
Market Orientation (MO)	.236	.026	.422	.000								
Market Orientation (MO); Dynamic Capabilities (DC)					.233 .057	.026 .043	.416 .461	.000 .000				
MO x DC									.716	.949	1.17	.019
<i>R</i> ²	0.213				0.216				0.217			
Adjusted <i>R</i> ²	0.211				0.212				0.211			
<i>R</i> ² Change	0.213				0.003				0.001			
Sig F Change	0.000				0.000				0.000			
F Value	106.501				54.210				36.261			

* *p*-value less than significant level, 0.05

Table 4.29 summarised the results of path analysis to examine moderating variable, dynamic capabilities effects on relationship between market orientations and firm performance. Model 1 indicated that the direct effect of Market orientation on firm performance, it accounted for 21.3 percent of variance in firm performance ($R^2=0.213$, $F=106.501$, $p<0.00$). The presence of dynamic capabilities in Model 2 had only 0.3 percent of increase in the effect, (R^2 change=0.003, F change=51.291, $p<0.00$). Model 3 is the moderating effect of dynamic capabilities between market orientation and firm performance, Model 3 is accounted for 21.7 variance in explaining firm performance ($R^2 =0.217$, F change=15.030, $p<0.05$). The hierarchical regression results shown that the MO X DC has significant moderating effect on firm performance ($\beta=1.17$; $p < 0.05$). Since the *p*-value for sig F-change was less than $p< 0.05$, it proved that the present of moderating effect. From the

result, it could be concluded that dynamic capabilities has moderating effects in between market orientation and firm performance.

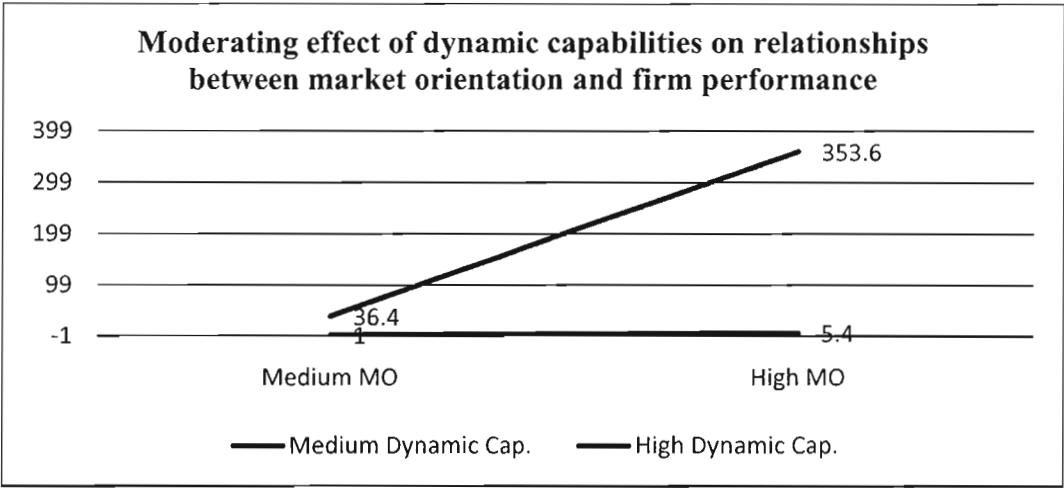


Figure 4.7
Moderation graph for MO and Firm performance

Since the F-change is significant with p-value was less than 0.05, it proved that the present of moderating variable; Dynamic Capabilities and the interaction significant influenced on the equation. When dynamic capabilities as moderating variable is included in the model, the result shown that dynamic capabilities has moderated effects the linkage between market orientation and firm performance. Therefore, the result of finding shown that H6: There is moderating effect of dynamic capabilities on relationships between market orientation and firm performance- Supported

Table 4.30
Effects of Dynamic Capabilities between EO; LO; MO and Firm Performance

Variables	Model 1				Model 2				Model 3			
	B	SE B	β	Sig	B	SE B	β	Sig	B	SE B	β	Sig
Entrepreneurial Orientation (EO)	.173	.039	.218	.000								
Learning Orientation (LO);	.054	.031	.086	.082								
Market Orientation (MO);	.205	.064	.161	.001								
Entrepreneurial Orientation (EO)					.169	.039	.213	.000				
Learning Orientation (LO);					.051	.031	.082	.097				
Market Orientation (MO);					.194	.064	.152	.003				
Dynamic Capabilities					.155	.076	.099	.042				
EO X DC									2.006	.013	.127	.036
LO X DC									1.056	.007	.025	.060
MO x DC									1.297	.069	.131	.008
R^2	0.087				0.097				0.106			
Adjusted R^2	0.080				0.088				0.090			
R^2 Change	0.087				0.010				0.009			
Sig F Change	0.000				0.042				0.033			
F Value	12.506				10.498				6.548*			

* *p*-value less than significant level, 0.05

Table 4.30 summarised the results of path analysis to examine the role of dynamic capabilities as the moderating in the relationship between organization orientations and firm performance. **Model 1** indicated that organizational orientation factors effected 8.7 percent of firm performance ($R^2=0.087$, $F=12.506$, $p<0.05$). There are two dimensions showed the significant linkage with firm performance. The presence of dynamic capabilities in **Model 2** had only 1.0 percent of increase in the effect, indicating significant changed (R^2 changed=0.010, F change=4.172, $p<0.05$). Three of the dimensions were significant, that were Entrepreneurial Orientation ($\beta=0.169$, $t=4.359$, $p<0.05$), Market Orientation ($\beta=0.194$, $t=3.029$, $p<0.01$) and Dynamic Capabilities ($\beta=0.155$, $t=2.043$, $p<0.05$).

Next, **Model 3** was the effect of organizational orientation and dynamic capabilities with the present of the interaction between organizational orientation and dynamic capabilities on firm performance result. Since the *p*-value for *F*-change was less than 0.05, it proved that the presence of moderating variable; Dynamic

Capabilities and the interaction significant influenced on the equation. While, Dynamic Capabilities as moderating variable include in the model, Learning Orientation and its interaction (LO X DC) was not significant. From the result, could be concluded that dynamic capabilities had moderated effects the linkage between strategic orientations partly.

Predictor Variable	β	p
Entrepreneurial orientation:	.127	p = 0.036
Market orientation	.131	p = 0.008

(Learning orientation was not significant predictors in this model)

As the results from the moderation analysis, Hypothesis 7- There is positive relationship between EO; LO; MO and agro based firm performance- partly supported. In summary, results from the hierarchical regression analysis, by taking in hypothesis H4 to H6, shown that the dynamic capability exerts its moderating effect on individual strategic orientation, namely entrepreneurial orientation and market orientation, except learning orientation. These results has answered the research question three,(RQ3), which is to determine the moderating effect of dynamic capability on strategic orientations. Furthermore, dynamic capability also exhibits partial influential effect on strategic orientations, as entire organizational intangible resources in agro based SME firm performance. Its moderating effect could be verified from the Hypothesis 7, in which H7 there is moderating effect in between strategic orientation (EO; MO) on firm performance- partially supported , except LO. In other word, from the organizational management perspective, it provides a clear managerial implication that dynamic capability is an important success factor to gain sustainable advantage in a competitive business market.

CHAPTER FIVE

DISCUSSION AND CONCLUSION

5.1 Introduction

This final chapter summarizes the outcomes of the study, elaborates the research outcomes and suggests possible future research directions. This chapter highlights the discussions and conclusion for the study's relevance to Malaysian SMEs. Subsequently the research implications, limitations and suggestions for future research are also highlighted.

5.2 Research Findings

Referring to the statistical analysis from Chapter 4, objectives of this study is to investigate the moderating effects of dynamic capabilities on the relationship between strategic orientations and agro base SME performance. In this research study we analyzed three conditions.

The first finding showed that there has positive relation exist between strategic orientations and agro based SME performance. The relationship between entrepreneurial and market orientations on agro base SME performance were found positively related, except the learning orientation was not significant. These results have answered the Research Question, (RQ1) and Hypothesis 1; 2 and 3.

The second, finding showed that there has been significant individual moderating effect of dynamic capabilities on performance of the interaction between EO and MO of agro based SME, results are similar to previous studies (Wiklund & Shepherd,

2005), however learning orientation was not significantly influenced by DC. These results have answered the Research Question, (RQ2) and Hypothesis 4; 5 and 6.

The third finding showed that there has partial supported moderating effect on performance of the interaction between organizational orientations (EO, LO; MO). As an integrated organizational resources, moderation effect of dynamic capabilities between entrepreneurial orientation and market orientation on agro base SME performance was significant, except learning orientation was not. This result has answered the research question 3 and hypothesis 7.

A series of seven hypotheses are posited, which emphasized the contributions of intangible resources influence agro based SME performance. As a result of this study, the finding will be more helpful in the analysis of SME firm performance with in the specific context of the RBV. A summary of the findings of this study is provided in Table 5.1.

Table 5.1

Summary of Results

	Hypothesis	Findings
1	H1: There is positive relationship between entrepreneurial orientation and firm performance	Supported and weak Relationship
2	H2: There is positive relationship between learning orientation and firm performance	Not Supported
3	H3: There is positive relationship between market orientation and firm performance.	Supported and weak Relationship
4	H4: There is a moderating effect of entrepreneurial dynamic capabilities on the relationship between entrepreneurial orientation and firm performance	Supported but Weak Influence
5	H5: There is a moderating effect of entrepreneurial dynamic capabilities on the relationship between learning orientation and firm performance	Not Supported
6	H6: There is a moderating effect of entrepreneurial dynamic capabilities on the relationship between market orientation and firm performance	Supported but Weak Influence
7	H7: There is a moderating effect of entrepreneurial dynamic capabilities on the relationship between EO; LO; MO and firm performance	Partially Supported

5.3 Results Discussion

5.3.1 Entrepreneurial Orientation

Resource based view emphasizes the effect of both assets and capabilities on performance (Barney, 1991; Kumar et al., 2012). Entrepreneurial orientation is a set of principles that directs and influences the activities of a firm that generates the behavior intended to ensure viability and performance (Hakala & Kohtamäki, 2011). The relationship between entrepreneurial orientation and firm performance has been at the forefront of entrepreneurship literature for many years. Scholars have primarily theorized a positive relationship between entrepreneurial orientation and the performance and profitability of the firm (Davis, 2007; Giudici & Reinmoeller, 2013). However, many studies have difference in their measuring approaches on EO, some examining overall EO in relation to performance and others examining individual dimensions of EO and revealing vary results (James, Dennis & Vincent, 2014).

Current study reveal that there is a significant relationship between entrepreneurial orientation and firm performance, the relationship is categorized as weak relationship, ($r = .246$, $p < 0.01$). The result of the regression between EO and FP reveal that the EO can collectively explain 1.5% of the variance in FP ($R^2 = 0.015$, $F = 5.898$, $p < 0.05$). Result of R^2 means the strength of EO is positive correlated but weak relationship towards firm performance. EO ($\beta = 0.059$, $t\text{-test} = 2.429$ ($p < 0.05$), and are significant influenced FP. This current study has found and reconfirmed previous studies that independent effect of EO on performance contributes in the differential relationship of innovativeness and pro-activeness with objective performance (Awang et al., 2009).

According to Covin and Slevin (1991) EO could be a stand-alone strategic variable in explaining types of resources related to firm performance, innovativeness and pro-activeness revealed positive relationship to performance, this finding supports Kreiser et al. (2002), and Lumpkin and Dess (2001) who established similar pattern of relationship. In another study, the results of correlation analysis revealed that EO and firm performance has positive relationship, which agreed with the previous research findings (Jantunen et al., 2005). In examining EO as a one-dimensional construct, many past researchers have found support for a positive relationship between EO and firm performance. Zahra et al., (2006) found that a significant positive relationship between EO and performance and that this relationship is enhanced over time in firms.

In the business realm agro based SME industries are facing various challenges, such as aging founder, lack of technological application in production and producing low values products. The findings revealed that innovativeness is an important factor in achieving firm performance, a clear message to Malaysian agro base SMEs shall embrace mindset changing to be more innovative in their business venture. From the theoretical perspective, innovativeness is defined as a firm's effort to acquire opportunities and introduce novelty in technological processes and decision making. Innovative firms emphasize on new methods and employ large number of skill workers (Lumpkin & Lichtenstein, 2005). Innovativeness in the context of industrial sectors mean that SMEs have to take consideration how innovation can be implemented in their operation, such as the science and technology (research in new engineering processes), product-market (market research, innovation in advertising and promotion) and administrative (new management systems, control techniques

and new organizational structure) to be exploited for achieving competitive advantage.

Furthermore competing in a fast changing environment and highly competitive market, agro base SMEs shall emphasize on their pro-active strengths, using new technologies, selling new product or service in the market. It involves taking opportunities other than at hand and focuses on new product or service development (Lumpkin & Lichtenstein, 2005). Proactive firms champion in exploiting trends to suit future needs of customers and anticipate changes in demand or emerging problems that lead to new venture opportunities. First mover advantage when firms are the first to enter new market and establish brand identity, implement administrative techniques or adopt new operating technology in an industry (Lumpkin & Lichtenstein, 2005). Referring to Chapter 4 the hierarchical regression analysis, results revealed that dynamic capabilities has significant moderating effect on the relation between entrepreneurial orientation and firm performance, (EO x DC) ($R^2 = 0.026$, $F \text{ change} = 1.028$, $p < 0.05$). This research suggested that performance of agro-based SME firm does depend on dynamic capability in the sense of management leadership and competency, in addition to organizational resources and orientations. In other words, the availability of resources in marketplace and possess of resources by the agro base SME firm does not necessary produce performance. The stock of resources should be effective reconfigured into the firm competency.

Strategic actions are managerial capabilities, which include exploitative and explorative in nature, implying the development and leverage the existing competitive advantages, while at the same time supporting entrepreneurial actions conducive to exploitation of future opportunities (Hitt et al., 2001). Entrepreneurial actions can be defined as managerial actions from which the firm identifies,

recognizes and makes attempt to exploit opportunities, which may not be discovered or exploited by the rivals. According to Hitt et al. (2001) argued that strategic entrepreneurship can contribute to understanding how competitive advantages are developed and deployed, which means strategic entrepreneurship tends to identify the most viable opportunities and then prepare for the exploitation of them in order to establish sustainable competitive advantages.

In this context, agro base SMEs shall develop their exploitation (innovation) capability emphasizes on the aspect of utilization the results of R&D, resources of external, and converts into new product or process. It could contributes to the refinement of agro-entrepreneur's existing capabilities to respond to changing environments, especially in knowledge based economy, agro-entrepreneur need acquire substantial information computing technological; scientific; marketing and regional trading knowledge through exploration capability to develop new innovations in their agro based business ventures. In previous study revealed that the firm's entrepreneurial orientation and its dynamic capabilities have a positive and significant effect on performance, (Jantunen et al., 2005).

5.3.2 Market Orientation

Current study reveal that there is a significant relationship market orientation-firm performance although the relationship is categorized as weak relationship, ($r = .173$, $p < 0.01$). The result of the regression analyses between MO and FP reveal that the MO can collectively explain 21.3% of the variance found in FP ($R^2 = 0.213$, $F = 106.501$, $p < 0.05$). Result of R^2 means the strength of MO were positive correlated

towards firm performance. MO ($\beta = 0.325$, $t\text{-test}=10.230$ ($p < 0.05$)) was significant influenced FP.

According to Breznik and Lahovnik (2014) recognize a marketing opportunity and establishing a strategy for developing a marketing capability will not be successful if the firm not simultaneously exploit other dynamic capabilities. Research findings substantiate that firm have to deploy and develop all relevant dynamic capabilities. Past researches had also focused on the construct development of market orientation and the impact of market orientation on firms' performance (Hooley & Gray, 2000). Based on the previous findings, it is necessary, therefore, for firms to have a market orientation approach to improve the firm's marketing competency and make positive impact on the firms' performance (Norzalita & Norjaya, 2004).

The current study has shed light to Malaysian agro based SME industries that there is direct relation between MO and firm performance it means that market orientation is an important strategy to survive and compete in regional markets. In different context, a successful approach to market orientation involves a systematic approach to researching customer and competitor behavior. Marketing orientation is the act of a company taking strategic steps to understand the specific wants and needs of its customers and to tailor its products, services and corporate image toward matching those customer-focused ideologies.

In Malaysia agro base SMEs usually are comparative small in size and capital, lacks research resources, or has high segmentation between its departments is at a disadvantage when it making business in competitive market. Knowing what the customer wants and needs is not enough to guarantee a market share in today's economic environment. Building a marketing orientation concept around low price

alone instead putting SME at a disadvantage situation. Therefore a well-established; implemented and well researched approach to market orientation will help a SME gain a stronghold on its target market and strengthen its product or brand identity. A diagram is shown to illustrate the environmental forces arising from a competitive market, See in Figure 5.1, depicting that various factors and demands are to satisfy in any business market, regardless it geographical regions.

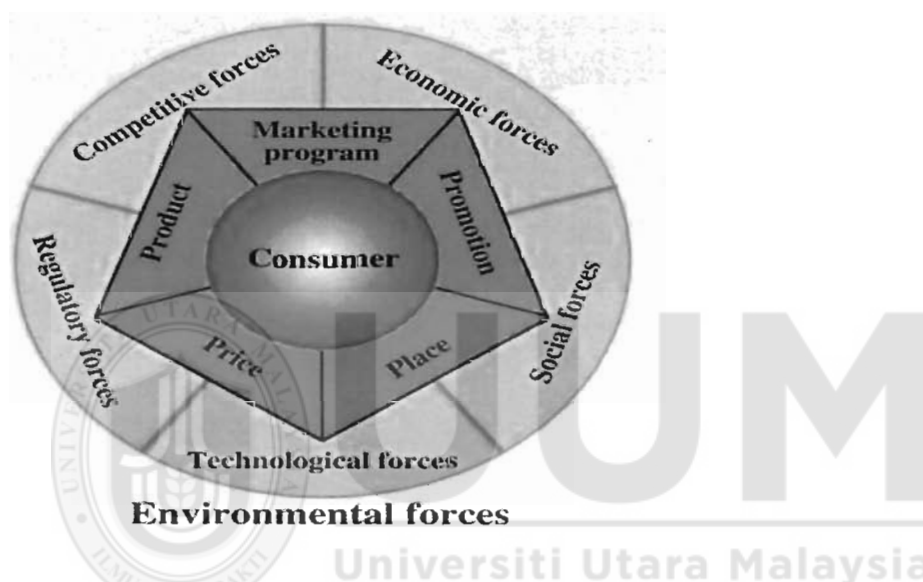


Figure 5.1 *Environmental Force*

Sources: (Philip Kotler, 1991)

Referring to Chapter 4, the hierarchical regression analysis, results revealed that dynamic capabilities has significant moderating effect on the relation between market orientation and firm performance, (MO x DC) ($R^2 = 0.217$, F change=15.030, $p < 0.05$), it is accounted for 21.7 variance in explaining firm performance. The hierarchical regression results shown that the interaction of (MO X DC) has significant moderating effect on increment of firm performance ($\beta = 1.17$; $p < 0.05$). As several previous studies of moderators on market orientation, in this study it was found that dynamic capability has moderating effect on relationship between market

orientation and agro based SME performance. With data collected from 135 manufacturing and service firms in Taiwan, hypotheses were supported by empirical results (Wang et al., 2013) findings indicated that dynamic capability is an important intermediate organizational mechanism through which the benefits of market information as intangible resources are converted into performance. In a separate study, proactive exploration of new market knowledge could enhances the dynamism of organizations, through its embedded moderating effect, DC could increases organizational performance. (Tseng & Lee, 2014). As a summary in this study, dynamic capabilities have significant moderating effect in between market orientation and firm performance. Gregoire, Pamela and Dean (2010) suggested that through dynamic explorative learning, market opportunities and useful knowledge can be recognized in line with strategic intentions. This finding was found consistent with previous empirical researches.

Addressing on agro based SME in Malaysia global marketplace has increased competitiveness across all consumer brands. For instance online internet has created a system whereby consumers can easily comparison shop, read peer reviews and access consumer reports at the click of the button. To effectively market to this new, highly informed consumer, an approach to market strategies must be flexible and must be quickly altered to meet the ever-changing thought processes and demands of today's savvy shopper. Companies that have established an approach to market orientation but fail to update it as needed run the risk of alienating their customers. Markets that rapidly change have just as great an impact on a company's market orientation strategy as educated consumers. New players entering, advances to existing products and an ever-changing cost of raw materials, products and services all impact market orientation. Hence restraining to a past market orientation and

failing to take new external factors into consideration can put a company at a disadvantage.

From the theoretical perspective, March (1991) argued that development of exploitation capabilities, entrepreneur can increase its degree of product introductions, introducing new products and services into the market, overcoming prior venture limitations, and enhancing both value delivery to current customers and value added services to new customers. Henderson and Clark (1990) argued that new knowledge can be discovered through networks of relationship both inside and outside (customer or suppliers) of firm. Rothaermel and Deeds (2004) indicated that exploration is related to strategic path breaking and seeking opportunity in emerging markets and discovering new technologies and opportunities.

The global economy is becoming more market-based, competitiveness is fierce reality, meanwhile many regional emerging markets, such as China, Indonesia and Vietnam, are booming with full opportunities. Hence to be competitive in this market liberation trend, It is necessary for agro base SME firms to be more dynamic in nature (both exploitative and explorative alike) at the organizational level in order to adapt to the changing environment, while maintain competitiveness in both local and global. Firms embedded with strong customer orientation will pursue competitive advantage by placing the highest priority on the creation of customer value (Olson et al., 2005). Furthermore customer orientation is referred to a firm's understanding of its buyers to be able to continuously create value for them (Narver et al., 2004). According to Garcia, Calantone, and Levine (2003) exploration capabilities are founded on firm's ability to extend its knowhow and to capitalize on previously unexplored opportunities. Because exploration focuses on developing markets, networks and requires discovery of something new and innovative, and all

a high LO in SMEs (Hermann et al. 2012). The findings showed that learning orientation is an important determinant of firm innovativeness and it also acting as a mediator in the relationship between informalization level of the organization and firm innovativeness.

However current study reveals that there is no significant relationship learning orientation- Firm performance, ($r = .054$, $p > 0.05$) and the relationship is categorized as no relation. The results of the regression analysis between LO and FP are provided in Table 4.28. The relationship between the LO and firm performance was not significant. The results show contrary to previous researches, a plausible explanation for negative results are as following: **Firstly**, traditionally agro based SMEs are formed and grew from family based business many of owners might not emphasize organizational as an important factor for business growth and survival. It is also known that the owners or founder agro based SME less access tertiary academic education, while their second generation could be professional managers, this could explain why learning orientation results were inconsistent in Malaysia agro based SME. **Secondly**, most of the workers employed in agro based SME industries are foreign workers, perhaps low in academic standing and education, their priority in employment is to earn living, hence it might be one of reason explain the negative relation on learning orientation toward firm performance.

On the other hand, in this study the individual moderating relationship between LO and FP, it was found that not significant, one of the possibilities might be attributed to similarity the latent dimension of dynamic capability and learning orientation. In previous literature, Zollo and Winter (2002) argued that dynamic capabilities are the result of organizational learning and fixed methods of collective

activity, through which an organization regularly generates and modifies its operational behaviors in a way which increases its effectiveness.

In another study, Barkema and Schijven (2008) pointed that experience may not always be pleasant or contribute to firm's task performance. Also Barkema and Schijven (2008) shown that experience can actually hurt performance under conditions of outcome and causal ambiguity, due to its enhancement effect on superstitious learning phenomena. Therefore, the negative relationship could be arisen from the learned experience, agro base SME industries might develop rigid perception that past work experience more applicable than class room information and book knowledge. Nevertheless, agro base SME industries must understand that organizational learning is a dynamic process of creation, acquisition; distribution; application and integration of knowledge aims at the development of capabilities (intangible resources), which would contribute to better organizational performance through of individual and collective learning (Lopez, Peon & Ordas, 2005). For instance an individual learning may be relatively easy to be imitated however, a continuous and collective organizational learning, which has greater cumulative effects and are much difficult to be imitated by its competitors (DeNisi et al., 2003).

From the practical perspective, Malaysia ago based SMEs are faced with an ageing farming community, where the average age of paddy farmers is above 60 years and 40 percent of fruit farmers are above 55 years of age. In this context, farmers have had little initiatives to invest in new forms of mechanization and has no interest in complying with international food safety standards or adopt good agricultural practices, as well as lack of innovative knowledge to use technologies to increase the productivity. Due to climate change concerns, governments in developed markets such as the European Union are forcing retailers and producers to be more

responsible in ensuring environmental sustainability. Large firms such as Walmart and Unilever are requiring suppliers to adopt good agriculture practices that minimise detrimental impact on the environment. All these market demands will be obstacle to Malaysian agro based SMEs, if they are failed to keep up with new trends and development.

Finally, learning orientation in most of the related literature was found to be predictor of firm performance in term of innovativeness (Ozge & Esra, 2014). A diagrammatic chart, produced by American Productivity & Quality Centre, (APQC), illustrating the levels of knowledge, See in Figure 5.1. Apparently agro based SME in Malaysia, shall be continual explore new information and apply knowledge to their agro business.

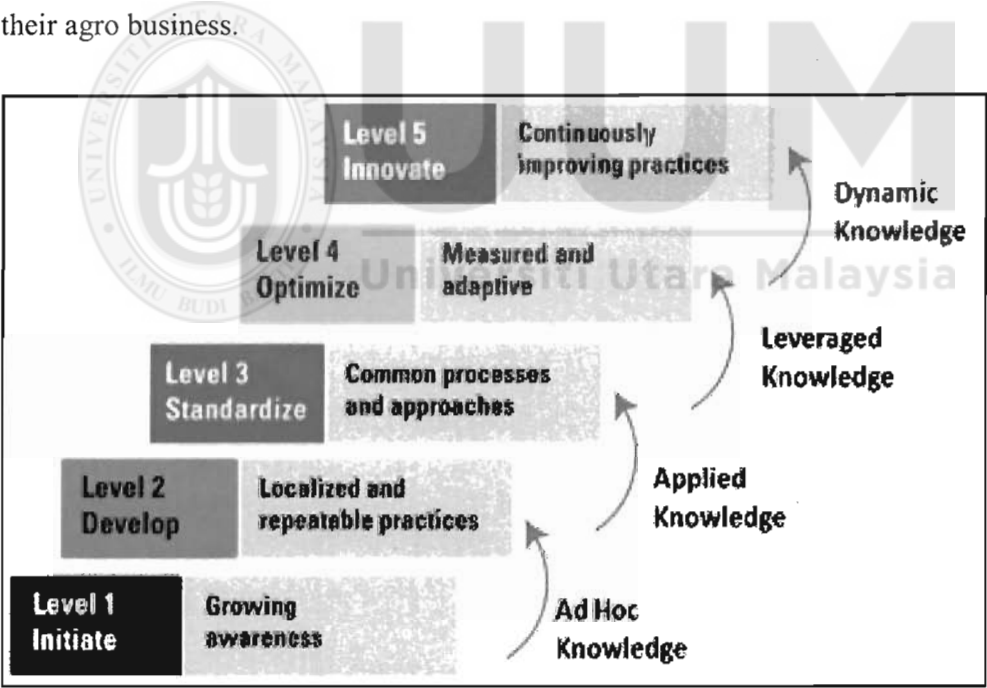


Figure.5.2

Level of Knowledge

Sources: APQC (American Productivity & Quality Centre).

5.3.4 Dynamic Capabilities

Referring to Chapter 4, hierarchical regression analysis, results revealed that dynamic capability has exerting moderating effect on the relation between strategic orientation and firm performance. The DC interaction has significance effect on increment of the firm performance (EO x LO x MO x DC) dynamic capability between strategic orientations and firm performance interaction has significant influence on the equation. However the interaction between (LO X DC) was found not significant.

The empirical results suggested that dynamic capabilities give impact on SME performance is an indirect moderating influence on strategic orientation, namely EO and MO. In other words, dynamic capability is supporting and enhancing the exploitation and exploration of new marketing and technological resources, which in turn lead to competitive performance in terms of market share and profitability. In this study, hierarchical regression analysis results concluded that moderating effects of dynamic capabilities has significant relation on firm performance. The finding is agreed with a recent longitudinal study in SMEs, dynamic entrepreneurial capability facilitated successful product innovation and technology change, through exploitative and explorative capabilities (Lanza & Passarelli, 2014). Their results also consistent earlier findings shown that firm possess of strategic orientations does not guarantee is performing in a fast changing world, a continual improving and innovating capability is important to survive in a munificent and hostile market (Wiklund & Shepherd, 2005). Hence dynamic capability is crucial, in particular agro based SME must be more innovative improving their productivity and also take more proactive approaches to seek external resources and through networking and business partnership.

Gnizy, Baker and Grinstein (2014) ascertained that SMEs need to pay attention to organizational learning processes, which help optimize the deployment of more tangible, lower order behaviors required for foreign launch success. Incorporating of DC that can enable firms to proactively develop market strategies and enable innovative capabilities using knowledge based approach under conditions of uncertainty. In another study, Grunbaum and Marianne (2013) findings revealed a positive relationship between dynamic capabilities and innovation performance in the companies. A recent study conducted by Lin and Wu (2014) investigating 1000 Taiwanese companies, their findings shown that dynamic capabilities could moderate the firm's valuable, rare, inimitable and non substitutable (VRIN) resources to improve performance. On the contrary, non VRIN resources have an insignificant mediating effect. Among three types of dynamic capabilities, dynamic learning is most effectively mediates the influence of VRIN resources on performance.

In a recent study conducted by Grimaldi, Quinto and Rippa (2014) provided empirical evidence of dynamic capability their findings revealed that companies with strong sensing of the market nature and availability of external resources, the seizure of internal resources and reconfiguring both are more inclined to develop innovation approaches. Teece (2007) considered dynamic capabilities is a high-level skills which related to management's ability of sensing, sourcing and then seizing opportunities, deflect rivalry and reconfigure resources and assets to match changing environment, meet the customer needs. Subsequently the conversion of resources into agro based activities through innovative process and new product. Hence if an agro based SME fails to engage dynamic activities, it will not be able to seize market opportunities (eg. customer expectation) and technological developments. In other words, If a SME possesses resources but lacks dynamic capabilities, it may create a

return for short period and its competitive returns will not sustain in the long term. Contrary, if agro based SMEs embedded with strong dynamic capabilities, they tend to adapt changing business ecosystems through exploitative innovation and explorative collaboration with other agencies.

From organizational perspective, managerial capabilities implying the development and leverage the existing competitive advantages, at the same time supporting entrepreneurial actions conducive to exploitation of future opportunities (Hitt et al., 2001). Benner and Tushman (2003) argued that strategic resources are the foundation of both exploitative and exploratory activities. Exploration and exploitation activities are the leveraging point that exists in a competitive marketplace, and they require a constant surveillance of the capability to accomplish change quickly (Ozsomer & Gencturk, 2003).

Therefore, to survive and sustain in the rapid changing market, in the context of Malaysia, agro base SME shall focus on a firm's capability to continue renew its resources and team skills and managerial capabilities to create radically new competences. Garcia, Calantone, and Levine (2003) ascertained the exploitation capability emphasizes on the aspect of utilization the results of R&D, resources of external, and converts into new product or process. In this study the hierarchical regression analysis results revealed that moderating effects of dynamic capabilities, a similar finding by (Lumpkin & Lichtenstein, 2005) had significant relation on firm performance. Exploitation of R&D resources could contribute to the refinement of agro-entrepreneur's existing capabilities in responding to changing environment. Whereas exploration capabilities are enabling firm's ability to extend its knowhow and to capitalize on previously unexplored and new opportunities.

To summarize, today's turbulent business and fast changing environment gives rise to a large number of new problems which must be analyzed using the dynamic capabilities concept. In a multiple case studies, Kriz, Voola and Yuksel (2014) ascertained that as markets become increasingly hypercompetitive, the dynamic capability is needed as a immediate measure to create sustainable advantage. Hence continuous organisational renewal offers the only effective mechanism for advantage-building. Dynamic explorative in nature is suggested to be especially suited to recognize learning opportunities in fast changing environments. Development of dynamic capabilities can be at least in three ways.

First, problem solving strategies are procedural focusing on how to develop knowledge or 'know-how' rather than on what knowledge to develop. As a result, more general, yet flexible knowledge is likely to be developed more quickly and have to wider application enabling it to be leveraged in multiple situations (Bogner & Barr, 2000). **Second**, dynamic explorative learning involves constantly searching for new and better ways. Entrepreneurial management is not about analyzing and optimizing, but more about sensing and understanding opportunities, getting things started, and finding new and better ways to assemble things (Teece, 2007). **Third**, in a highly dynamic environment, higher order capabilities, dynamic capability can help overcome the path dependence associated with the development of the original, lower order capabilities (Collis, 1994), a path breaking logic of strategic opportunity may be required to develop new knowledge and spur growth (Eisenhardt & Martin, 2000). A picture is used to illustrate the dynamic capabilities, See in Figure 5.3

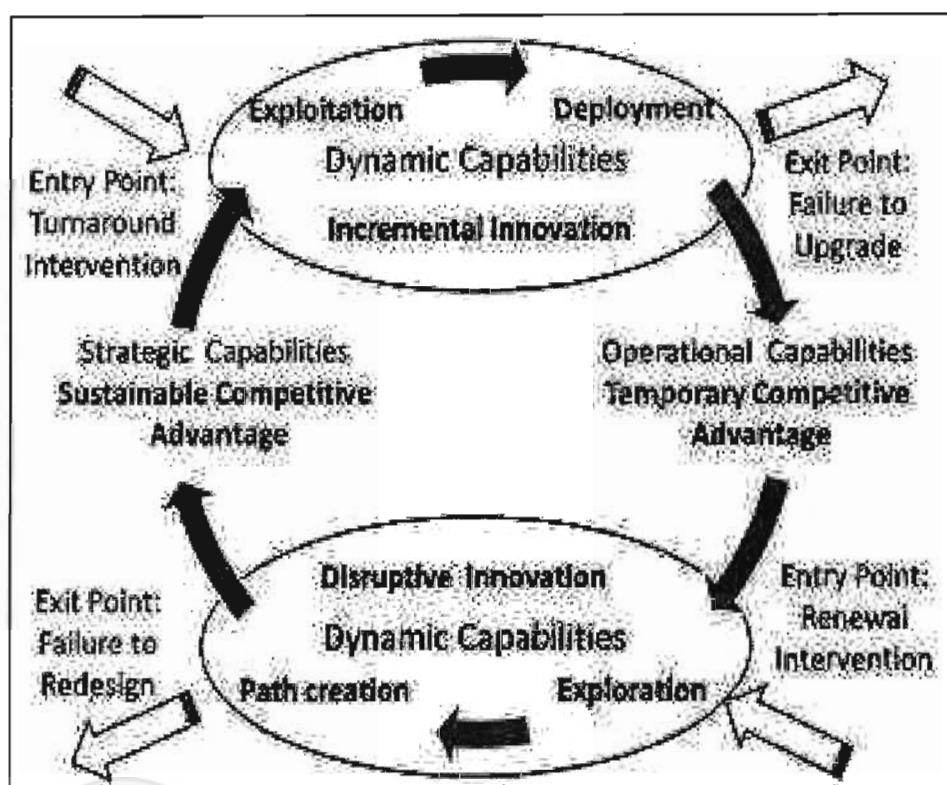


Figure 5.3

Dynamic Capabilities

Source: adapted from Sarah Dixon, Bradford University School of Management

According to Malaysian economy growth model, as illustrated in Figure 2.7 National Innovation Model and Figure 2.9 Balanced Approach of Market and Technology Driven Innovation Model, in next decades Malaysian economic growth is dependent on two conceptual models, namely technology driven innovation and the market-driven innovation model. Within technology driven innovation model, research & development (R&D) activities are funded, and innovation technology commercialized to the global market. Whereas in a market-driven innovation model, the availability of market is determined prior to entry through venturing entrepreneurs who has acquired the best science and technology, optimal utilization of on market intelligence would facilitate commercialization to meet the needs of the market. In a dynamic business world, strategic entrepreneurship in this context is

considered as an integration of the entrepreneurial (i.e. opportunistic actions) and strategic (advantage-oriented actions) perspectives to form conducive firm orientation and implement entrepreneurial strategies to repositioning resources-competence; to progress and produce results, and this dynamic entrepreneurship is synergized with organizational transformation; resource reconfiguration and product innovation. According to Tondolo and Bitencourt (2014) studies, firm should develop dynamic capabilities, which encompass strategic managerial leadership, organizational process and operational mechanism.

Building on the dynamic theoretical perspective, therefore, agro based SME industries must understand the fact of reality that succeeds in capitalizing the existing resources would have performed well for temporal, but the continual changes in market landscape will threaten future economic growth and business performance. How can agro-entrepreneurs change themselves to meet the future challenges and migrate themselves into the innovation-led economy? Obviously Malaysian agro entrepreneurs need to supplement their resources based economy model with innovation driven approach by utilizing innovation of science and technology and leveraging regional market access, as seen in regional economic market, eg. Japan, Korea, Singapore and Taiwan.

5.4 Contribution of Research

Firstly, from theoretical perspective, this study made an attempt to analyze the link between the strategic orientation, dynamic capabilities and firm performance among the agro base SME industries. Secondly, from practical and managerial perspective, the present study made contribution to translate the theoretical concept of dynamic capabilities into actionable knowledge and managerial skills (exploration and exploitation in nature). Thirdly, from the industrial and governmental perspective, the results of this shed light to the policy makers to create a more practicable and comprehensive assistance ship to improve the SME firm performance.

5.4.1 Theoretical Contribution:

The dynamic capabilities concept was formed and has been developed by integration of evolutionary theory, transaction cost theory, and the organisational learning and tacit knowledge concepts. The concept has at the centre of its attention the knowledge of the firm on how to manage its resources proactively in order to form new asset combinations and thereby capture economic rent. This dynamic knowledge is importance if firms are to compete in the knowledge economy (Lowendahl & Revang 2008). The dynamic capabilities concept reveals what in fact amounts to a new mechanism of developing competitive advantages, one that is characteristic of innovative, information driven economy. This dynamic mechanism is founded not just on the firm's pool of tacit knowledge (its key strategic asset), but primarily on the firm's ability to capture economic returns from its knowledge assets. (Krazkiewicz, 2013).

To our knowledge, the assumed strategic orientations- dynamic capabilities– firm performance relationship has not been previously subject to large-scale empirical testing. The present study provides some empirical evidence on the conceptual of static RBV constraints, which may contribute in bridging theoretical & practical gap. From practical aspect, this study helps to shed some light on the nature of dynamic capabilities and their central role as related to the managerial role in leading innovation and change management. It underlying that dynamic capability dimension consists of higher order processes that help to continually renew and reconfigure organizational resources. Because by merely exploiting already existing competencies, firms are not in a position to sustain their superior profitability or favorable market positions forever. Therefore, dynamic capabilities allow firms not just to utilize their strategic orientation in more effective ways but also to explore new market opportunity and learn from networking in order to face volatile market and changing environment. This study makes several contributions to the dynamic capabilities literature.

First, in attempting understand and empirically measure three strategic orientations, namely EO; LO & MO, which underpinned the theoretical RBV concept. It also made attempt to operationalizes sub dimensional construct of dynamic capabilities, which include explorative and exploitative capabilities as its latent variables. As a result of this empirical study, it shows that dynamic capabilities are not vague concept and fuzzy abstractions that cannot be measured, indeed DC has specific processes which can be theoretically conceptualized and empirically measured. More importantly the theoretical model is researchable by providing empirical evidence of their link, between RBV, KBV and strategic management

perspective, Therefore this study is helpful to clarify the nature of dynamic capabilities.

Second, using a quantitative survey, the study attempts to empirically validate the influence of dynamic capabilities on SME performance outcomes. By explaining the indirect link between strategic orientations and firm performance, it revealed that strategic orientations might not themselves be a mere source of sustainable competitive advantage; rather they could contribute to firm performance by combining their synergic effects through dynamic capabilities. It is also important to note that the identification of dynamic capabilities as processes that shape the firm's resource base links them from sustainable competitive advantage and thus confronts doubts of scholars arguing over its terminology and tautology issues arising firm performance. Teece (2007) defined dynamic capabilities as the company's ability to integrate, build and reconfigure internal and external competencies to address rapidly changing environments. Dynamic capabilities thus reflect an organization's ability to achieve new and innovative forms of competitive advantage, depending on the path and positioning in the market.

Third, it is noteworthy that most quantitative and qualitative studies on dynamic capabilities tend to investigate their role and impact in obviously "dynamic industries" such as semiconductors or biotechnology, in large, developed countries. However, it would be equally important to test and confirm the applicability of the dynamic capabilities concept in more traditional industries and in a developing economic or emerging market contexts exhibiting different constraints and characteristics (Easterby-Smith et al., 2009). The present study also indicates that dynamic capabilities have a positive impact on firm performance in traditional agro based SME, indicating their significance especially in a dynamic environment. In this

regards this study empirically enhances the argument noted by Eisenhardt and Martin (2000) that dynamic capabilities can operate in environments other than those experiencing rapid change (Helfat et al., 2007). Hence this empirical result has its significance, because its finding comes from firms operating in more traditional sectors (agro based SME industries) of smaller entities in Malaysia. In this context, firms face a double competitive pressure: from their counterparts based in low-cost producing countries as well as from highly differentiated companies which are active in large economies with significant technological and organizational potential.

5.4.2 Practical Contribution

First, this study seeks to empirically explore the relationship between strategic orientation and firm performance. In particular, it addresses the question of whether dynamic capabilities exert moderating influence on firm performance. In this context, the present study hypothesizes and measures a theoretical framework by using hierarchical regression examines whether DC impact on SME firm performance. The proposed model was tested in different agro based SME firm firms. Empirical findings suggested that dynamic capabilities give moderating effect on strategic orientations which in turn have a significant effect on performance. Hence this study defined dynamic capability and forms a theoretical foundation for their conceptualization. Subsequently it developed and tested specific item measures for each variables. The findings support the proposed conceptualization and measurement of both these important aspects of organizational performance

Second, this research contributed to the development of dynamic capabilities, a continual exploration and exploitation process, by empirically established a set of

identifiable dimensions and a set of measurable strategic processes, it also shows that DC are strategic and managerial capabilities that could be helpful in developing competitive advantage in dynamic environments. As it was noted earlier, in the field of strategic management many scholars remain skeptic about the nature and role of the dynamic capabilities concept (Winter, 2003) and that there has still lack of measures for dynamic capabilities. Hence this study make some contributions by producing measures, although further validation (e.g. with different sample populations, environmental dynamism or cultural setting) is still needed. Nevertheless this study combined both theoretical construct and strategic orientations aspects from RBV, KBV and strategic management perspective to define a measurable dimension on capabilities. Most importantly the present work might be a useful basis for further investigation.

Third, these findings shall be considered in the light of previous research, which assumes a potential positive influence of dynamic capabilities on performance. Since the concept of dynamic capabilities has not been adequately examined, and there are many possibilities for further study and remains ambiguous to a large extent (Helfat et al., 2007, Tondolo & Bitencourt, 2014). Taking into consideration this background, the present study attempts to go beyond existing theory and the results of study could help to gain empirical evidence. The results of correlation and hierarchical regression revealed that dynamic capabilities can be conceptualized as a higher order construct encompassing two sub dimensions: exploitative (innovative in nature) and explorative (learning in nature) capabilities. Therefore, the proposed conceptual model offers a quantified dynamic capabilities measure based on a set of two identifiable and measurable factors.

Finally, this study's results confirm that dynamic capabilities have a positive impact on strategic orientation and firm performance even in traditional industries indicating their positive role in the agricultural sectors. Wang and Ahmed (2007) defined dynamic capabilities as an organization behavioral orientation constantly to integrate, reconfigure, renew and recreate its resources and capabilities, and most importantly, upgrade and rebuild its core capabilities in response to changes in the environment to achieve and sustain competitive advantage. Output of this strategic orientations-dynamic capabilities-firm performance research framework can help managers exploit firm's internal resources and explore external market opportunities. However, ability to implement the theoretical understanding through practical implications, managers needs to develop a theoretical understanding of their firm's survival and growth. As the firm grows, resources and capabilities become ever more complex and interwoven (Breznik & Lahovnik, 2014).

From the practitioner perspective, managers of agro base SME should develop dynamic capabilities and take appropriate actions to address environmental challenges. For instance what important to be explored in market, what to learn from networking and to create better economic rent, what market intelligence relevant to competitor further leverage and improve their firm's marketing strategies. According to Ambrosini and Bowman (2003) the dynamic capabilities' view focuses on the ability of an organization to create new resources, to renew their competencies and strategies in facing up a changing environment and demanding market.

5.4.3 Managerial Implication

5.4.3.1 SMEs Embarks Management for Change

In a recent study, the result suggests that the overall market orientation has a significant relationship with organizational performance (Sany Sanuri et al., 2014) these results are consistent with several previous studies (Kara et al., 2005; Mokhtar & Yusoff, 2009) that indicate the positive impact of market orientation on firm performance. The result is also consistent with previous literature, which suggested that positive association exist between market orientation and organizational performance among Malaysian manufacturing firms (Mokhtar & Yusoff, 2009).

In another study, Marketing capabilities are significantly and positively related to the marketing performance of a firm, which indicate that medium-sized firms in Malaysia can use their marketing capabilities to cater to the needs of their customer and to achieve a superior performance (Haniff & Halim, 2014). These results also agreed with previous studies, the longitudinal case studies on food industries, the findings revealed that SMEs holding specific dynamic capabilities are more likely to succeed in changing their business models (Roaldsen, 2014).

A recent study in agriculture SME Malaysia, data were collected from 226 entrepreneurs, result has revealed seven important factors that influence the development of long-term relationships of SME entrepreneurs with buyers. Factors were included trust, reputation, product quality, customer satisfaction and market orientation (Zarina Ismail et. al., 2013). In another study, using 307 SME in agriculture sectors, results indicated that market orientation, innovation and a cost focus are first-order indicators of positional advantage and are positively related to firm performance (Micheels & Gow, 2012). The findings are similar to those of

Pelham (2000) who finds that agricultural SMEs may see comparative advantages and performance implications stemming from their ability to react quickly to customers through their market orientation and commitment to learning.

Hence by translating the theoretical implication into practical application, SMEs need to focus on those activities that related to market; customer and cost orientations as they would benefit firm performance. From the practical implication, agro SMEs shall revamp their management system by improving efficiency and effectiveness in managing organizational resources, because market demand and customer taste are continual changing, i.e firms that innovate regularly would increase their chances of survival and growth, for instance implementation Good Agricultural Practice (GAP): A resource management system in agricultural production on a sustainable basis. This system can improve farm productivity and produce safe and quality food. It also takes into account the welfare, safety and health of workers and preserving the environment.

Furthermore agro based SME shall re-strategize their business model and marketing strategies, to satisfy new market trend and customer needs. For instance online business there is an influx of business operations conducted online, by creating a virtual homepage through world wide web (www). There are many benefits of having an online business. Firstly, one of the major problems is the distribution of profits in the agricultural supply chain. Apparently online agro bazaars could exclude such 'middle-person' and there will be no additional costs involved. Price of agricultural products could be reduced for higher returns. Secondly, through online business and transaction, Agro Bazaar could provide a platform where buyers and sellers can gather and conduct their business in an easy and effective manner. Online business provides extensive network, which benefits to

the agricultural sector in Malaysia. Agro Bazaar will enable retailers, wholesalers, collectors, traders, farmers, exporters and importers to interact with each other in order to achieve and fulfill their own goals while offering the same benefits to the people they do business with. In 21st century business world, E-Commerce is important in developing the agriculture sectors to meet the market and customer demands. Hence through online business, Agro Business can create a cost effective solution, satisfy customer needs of choices and convenience and improve the competitiveness in regional markets.

5.4.3.2 SME Embraces for Skills Development

In a recent dynamic capability cross sectional study, findings suggested that SMES involved in explorative learning, by engaging internal R&D, external new knowledge acquisition and employee training, firms could likely increase its innovative process, which is in turn positively related to financial performance (Piening & Salge, 2015). In Malays context, National SME Development Council has mandated Pembangunan Sumber Malaysia Bhd. (PSMB), an agency under the Ministry of Human Resources (MOHR), to co-ordinate and to oversee training and human resource development for SMEs. Under PSMB, training needs are analyzed and programs are kept in line with SME requirements, from the most basic to the more technically advanced (SME Annual Report 2006). Among the major initiatives of PSMB are as follows: (a) Introduction of an SME Training Accreditation System into the Myskill Card in order for SME employers to keep a record of employee training; (b) Establishment of six training committees were established by PSMB to identify SME training needs and to ensure that courses met specific and targeted requirements; (c) Launching of the HRD Portal, a web-based portal that acts as an online training resource centre for

employers, employees and training providers. These training programs are offered by 29 ministries, aim to upgrade SMEs capacity. Besides that Government has also established the Human Resource Development Fund, and made available the grant for skills upgrading. The grant for Skills Upgrading is aimed at enhancing the skills and capabilities of employees of SMEs in the technical and managerial levels. SME Corp has appointed 22 training providers to undertake technical skills for SMEs, including skills development centres (SDCs) in different states.

In an organizational setting, in this case agro base SME industries, learning is one of key resources that determine competitive advantages (Hunt & Morgan, 1996). Sinkula et al. (1997) view learning orientation as the propensity of a firm to create and use knowledge, and that helps the firm achieve competitiveness. Also, it is a firm-wide activity that creates and uses knowledge to achieve competitive advantages (Calantone et al., 2002). This knowledge is of particular importance if firms are to compete in the knowledge economy (Lowendahl & Revang, 2008). In an empirical study, adopting new skills and IT technologies in supporting customer relation marketing, the IT functionality could enhance the marketing dynamic capability (Eric et al., 2013).

As summary, by extending the theoretical implication into practical application, dynamic capability is crucial, in particular agro based SME must be more innovative improving their productivity and also take more proactive approaches to seek external resources and through networking and business partnership. Gnizy, Baker and Grinstein (2014) ascertained that SMEs need to pay attention to organizational learning processes. From the practical perspective, agro based SME shall proactively explore and exploit the benefits of training to develop their firm competency in holistic and balance manner. Selectively focusing on one

or emphasize two elements may hamper entrepreneurs effort to strengthen their business and complete in hostile market (Wiklund & Shepherd, 2005). Besides innovativeness, managers of agro based SME firms need to cultivate proactive learning behavior and also inculcate dynamism cultures into their business organization.

5.4.3.3 SME Networking Strategic Partnership

Wills-Johnson (2008) surveys in the social networks literature indicates Social Capital refers to aspects of individual networks. According to Wills-Johnson (2008), Social Capital has been defined as “something extra” in a network which allows the actors in the network, when working together, to create a whole which is greater than the sum of their individual contributions; in essence, Social Capital is a measure of the synergies or super additivity networks can create. It has been noted that networks of relationships and interactions between individuals can facilitate the creation of value within firms (Wills-Johnson, 2008).

It is well documented in both the economics and the management literature (Chesbrough, Vanhaverbeke and West (2006) revealed that the innovation activities of firms are not exclusively “internal” processes. Few firms are actually able to “do it alone” in supporting innovation investments. There is also a broad consensus on the importance of external collaboration for the innovation performance of firms. As Powell and Grodal (2005) suggested that innovation is progressively seen by analysts as an “interactive” and “distributed” process. An increasing number of studies (Rammer, Czarnitzki, & Spielkamp 2009; Chen, Chen & Vanhaverbeke, 2011; Xie et al., 2013) show that firms must increase their number of interactions with other

market base actors (i.e., customers and suppliers) or research institutions (i.e. universities and research centres) in order to compete in dynamic global market.

Knowing that R&D is one of resources for firm innovation activities, however the problem of insufficient financial resources or inadequate internal competency have caused burden to many SMEs (Spithoven, Clarysse, & Knockaert, 2011). Therefore, from practical perspective, agro based SME shall proactively explore external and exploit available resources, for instance participation in scientific conference or technical workshop. Forming strategic partnership with research institutes and technical agencies sharing resources and exchanging knowledge and experience, for instance joint venture or sign memorandum of understanding (MoU) with local universities, UUM, UPM, USM, UiTM, DOA etc

According to network and social capital theories and other strategic perspectives that social networks have significant influence on the firm performance. The complex net of a firm with its external environment and marketplace offering opportunities for its exploration (Brass et al. 2004). Marinova and Phillimore (2003) ascertained that emphasis should be placed on the role of networks with external firms to benefit resource-poor SMEs, enabling them to survive competitive pressures from larger firms. A number of researchers have substantiated that dynamic networking could contribute to the success of born global firms by helping to identify new market opportunities and contribute to building market knowledge (Chetty & Holm, 2000). Findings consistent with Eisenhardt and Martin (2000) that dynamic networking capability as the capacity of the firm to develop a purposeful set of routines within its networks, resulting in the generation of new resource configurations and the firm's capacity to integrate, reconfigure, gain and release

resource combinations. These firms often seek partners who complement their own competencies in these lead markets (McDougall & Oviatt, 2000).

Literature also suggested that firms need to develop two kinds of alliance capabilities: alliance portfolio management capabilities and relational capabilities (Wassmer 2010). Alliance portfolio management capabilities concern the ability to develop the alliance portfolio strategy, establish an alliance management system, and coordinate and monitor the portfolio (Hoffman et al., 2005). Their main goal is to learn from prior alliance experiences and to institutionalize these experiences within the firm (Heimeriks & Duysters, 2007). The second alliance capability is the relational capability, which is the ability to interact with other companies (Lorenzoni & Lipparini, 1999). Therefore, by transforming the theoretical implication into practical application, SMEs should pursue strategies on the development of valuable networks with external players in order to succeed (Lee, Lee, & Pennings, 2001). In Malaysia, agro based SME may explore business networking, for instance taking part in business association to build up strategic alliance or to take part agricultural exhibition to promote and market their products:

- Malay Chamber of Commerce Malaysia, (MCCM);
- National Chamber of Commerce & Industry Malaysia, (NCCIM);
- Arab Malaysian Chamber of Commerce
- China–ASEAN Business Council (CABC),
- Asia-Pacific Chambers of Commerce

5.5.2 Non Objective Response

Firm performance can be assessed objectively or subjectively. The former relies on secondary or accounting data and the latter is based on respondent's perception or self-reported data. Objective measurement has an advantage in reducing the common method bias, but it is often difficult to accomplish (Stam & Elfring, 2008). In another study, Runyan, Droge and Swinney (2008) asserted the advantage of subjective over objective measurement. In subjective or self report measurement, more respondents are expected to answer the questions, especially for financial indicators than in objective measurements.

As financial details are sensitive issues, firm shows great reluctance to disclose such information. Subjective measurement can be conducted by comparing a firm current with its previous performance or with its competitor (Madsen, 2007). A more comprehensive comparison was conducted by Runyan, Droge and Swinney (2008) subsequently they assessed the performance of 267 small business in various industries in US, by using comparison with (i) previous performance, (ii) comparison with major competitors (iii) comparison with similar firm in the industries. Nevertheless, the current study did not collect the objective data for the financial performance of the entrepreneurs. Instead their perceptions were collected from the unit of analysis pertaining to the firm performance.

5.5.3 Cross Sectional Study

Another fundamental limitation of this study derives from its cross-sectional design.

The cross-sectional design of this study did not allow us to examine the impact of dynamic capabilities on operational capabilities and firm performance over time. It

5.6 Suggestion for Future Study

Despite the acceptance of the concept of dynamic capabilities expressed in the literature and it being treated as “the most forward-thinking school of strategic management”, many researchers are skeptic about the essence of the concept of “dynamic capabilities”, its applicability (Winter, 2003) and scientific status. Some researchers, including Henry Mintzberg treats the concept of dynamic capabilities as a similar constituent of the school of learning (Teece, 2007).

Based on the research findings and limitations, this research points to several further research opportunities.

First, this research developed a conceptual framework for exploring the direct relationship SME organizational resources (orientation) and firm performance in the agro based SME industries. Furthermore, it assessed the moderating effects of dynamic capabilities in between SME EO; LO and MO and firm performance. However one may be reconsider this framework with another sample from another business sector to cautiously confirm its applicability and generalizability.

Second, future research might consider how SME tangible resources affect other performance indicators, for example, productivity and effectiveness. The findings of such research would contribute to advancing the body of knowledge necessary for better understanding of the effects of SME tangible resources and firm performance of agro based SMEs Malaysia

Third, the findings in this research were based on SME owners/ managers self-reporting in a questionnaire. This produces certain constraints, such as a positive or negative response bias. Therefore, it is also recommended to explore the relationships tested in this research by obtaining data from multiple sources within

firms, such as interviewing the owners/ managers and conducting qualitative case studies. Replication of this research with the inclusion of some other variables, such as tangible resource (machinery; financial resources; human resources etc) and further research is called for to explore other the moderating effect such as firm age and size would be helpful to understand the relationship between SME resources and agro base SME firm performance or productivity in from a different lens. Hence it would enhance the generalizability and the validity of the findings.

5.7 Conclusion

Business competition exists in everywhere, whether in emerging market or developing countries or at worst in developed nations. Continual innovation and dynamic capabilities are increasingly important in today competitive and changing environment. The effect of dynamic capabilities as a moderating role to explore and reconfigure organizational resources leading to performance in agro based SME firms, which is scientific and technologically less exploited and largely lack unexplored in agricultural sectors. This study aims to fill the gap by investigating the effect of dynamic capabilities between the relationships of entrepreneurial; learning and market orientations, as independent variable and agro based SME firm performance, as dependent variable. Building on the resourced based view, this study theoretically hypothesis a positive relationship from strategic orientations to agro based SME firm performance. Moderating effect of dynamic capabilities as strategic innovation role is also examined. Empirical findings from the cross-sectional quantitative survey from 396 agro based SME firms in Malaysia revealed that EO and

MO are positively related to agro based SME firms. Also, the dynamic capabilities have moderating effect on EO and MO individually. However, dynamic capabilities have partial moderating effect on strategic orientations, as a bundle of firm intangible resources toward SME firm performance.

In conclusion this study extends the present knowledge by incorporating the importance of strategic leadership role particularly, dynamic capabilities on implementing of innovation leading to agro based firm performance. Findings of this study provide a practical insight and managerial implication into how capability and strategic orientations SME firm performance. Finally this study recognized few limitations and also identify further research opportunities. This study has brought into light the dynamic capabilities and leadership requires support the agro entrepreneur in Malaysia. Though these agro entrepreneur committed toward organizational orientations that alone could not improve their performance, because the role of dynamic capabilities comprising explorative learning and exploitative innovation were found to be very important in sustaining the agro based business.

This study makes contributions to the literature on agro base SME entrepreneurship in Malaysia by investigating the effect of the dynamic capabilities and organizational orientations on its firm performance. To our knowledge, these integrated model and moderating effect have not previously been empirically investigated in this way, even though there have been studies on the relationship between the entrepreneurial orientation, market orientation and firm performance (Dimitratos & Plakoyiannaki, 2003; Knight & Cavusgil, 2004). This study complements existing studies, and the results suggest that it is not only the firm's entrepreneurial culture, but also its leader capability to create new competency and configurations that have an effect on firm performance in a dynamic market.

Our findings thus provide empirical support for the dynamic capability view of the firm, which emphasizes the capability to explore new market; new knowledge and exploit the new technologies and implement innovation and able to take advantage of new opportunities (Teece et al., 2007), which leading to firm performance.



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Appendix A1: Summary of Literature review

Master List: Literature Review								
No	Title	Author	Sources	Year	Type Study	Search Engine	Review	Hard Copy
	Entrepreneurship Growth: Entrepreneurship Finance:							
1	<u>Differentiating factors of venture growth: from statics to dynamics</u>	Hannu Littunen & Markku Virtanen, 2009	International Journal of Entrepreneurial Behaviour & Research	2009, Vol. 15, ISS 6	Research Paper	Emerald	Yes	Yes
2	<u>Delivering global enterprise: the international EDGE, International Journal of Entrepreneurial Behaviour & Research</u>	Anne M.J. Smith & Robert A. Paton, 2010.	International Journal of Entrepreneurial Behaviour & Research	2010, Vol. 16 No. 1	Research Paper	Emerald	Yes	Yes
3	<u>Strategic Entrepreneurship within SME: The Role of Government Support Programs</u>	Einar Lier Madsen and Odd Jarl Borch	Bodo Graduate School of Business, Norway	NA	Research Paper	Emerald	Yes	Yes
4	<u>Strategic entrepreneurship and growth in small and medium-sized companies</u>	Einar Lier Madsen	Bodo Graduate School of Business, Norway	NA	Research Paper	Emerald	Yes	Yes
5	<u>Strategic entrepreneurship: origins, core elements and research directions</u>	Lida P. Kyrgidou, Mathew Hughes, 2010	European Business Review	2010, Vol. 22 No. 1, pp. 43-63	Conceptual paper	Emerald	Yes	Yes
6	<u>Corporate entrepreneurship and innovation part 1: the missing link</u>	Elspeth McFadzean, Andrew O'Loughlin, Elizabeth Shaw, 2005	European Journal of Innovation Management	2005 Vol. 8 No. 3, pp. 350-372	Conceptual paper	Emerald	Yes	Yes
7	<u>Corporate entrepreneurship and innovation part 2: a role- and process based approach</u>	Elspeth McFadzean, Andrew O'Loughlin, Elizabeth Shaw, 2005	European Journal of Innovation Management	2005, Vol. 8 No. 4, pp. 393-408	Conceptual paper	Emerald	Yes	Yes
8	<u>Corporate Entrepreneurship as Resource Capital Configuration in Emerging Market Firms</u>	Daphne W. Yiu, Chung-Ming Lau, 2008	Entrepreneurship Theory and Practices	2008, January,	Research Paper	Baylor University	Yes	Yes
9	<u>Strategic Entrepreneurship: Exploring Different Perspectives of an Emerging Concept</u>	Donald F. Kuratko, David B. Audretsch, 2009	Entrepreneurship Theory and Practices	2009, January	Conceptual paper	Baylor University	Yes	Yes
10	<u>Combining Strategic Management & Internal Control Process: A Recipe for Entrepreneurial Competitive Advantage</u>	Thomas R. Pressly, 2009	The Entrepreneurial Executive,	2009, Vol. 14,	Conceptual paper	Penn State University	Yes	Yes
11	<u>Small & Medium Enterprises: The Aspect of Appliance The Principles of Strategic Management</u>	Ruta Adamoniene, Jonas Andriuscenka, 2007	Economic and Management	2007, Vol 12	Conceptual paper	Emerald	Yes	Yes
12	<u>Determinants of Venture Performance in Singapore</u>	Clement K. Wang, Bee Llan Ang, 2004	Journal of Small Business Management	2004 Vol. 42(4), pp. 347-363	Research Paper	Emerald	Yes	Yes
13	<u>Venture Capital Finance: Managerial Factors and Management Conflict in ICT Industry</u>	Sohaimi MOHD SALLEH, 2004	Thesis for PhD	2004, Oct	Thesis	Emerald	Yes	Yes
13	<u>Entrepreneurial Orientation among Bumiputera Small and Medium Agro-Based Enterprises (BSMAEs) in West Malaysia: Policy Implication in Malaysia</u>	Amran Awang, Zainal ariffin ahmad, Abdul Rashid Said Asghar, Khairul Anwar Subari, 2010	International Journal of Business and Management	2010, May, Vol. 5, No. 5;	Research Paper	Emerald	Yes	Yes

Appendix A1: Summary of Literature review

	Strategic Management Strategic Management							
1	Conceptualising global strategic sustainability and corporate transformational change	Helen Borland, 2009,	International Marketing Review	2009, Vol. 26, No 4/5, pp. 554-572	Conceptual Paper	Emerald	Yes	Yes
2	Do interactions within networks lead to knowledge management?	Abbas Monnevarian and Azideh Amini, 2009	BUSINESS STRATEGY SERIES	2009, VOL. 10 NO. 3 2009, pp. 339-355	Research Paper	Emerald	Yes	Yes
3	Monsanto: from a strategic perspective: Key Success Factors	Thekur Rajendar Singh, 2010	BUSINESS STRATEGY SERIES	2010, VOL. 11 NO. 2, pp. 90-99	Empirical Paper	Emerald	Yes	Yes
4	Perceived corporate entrepreneurship in GICs: evidence from Malaysia	Harry Entebang, Richard T. Harrison and Ernest Cyril de Run, 2010	BUSINESS STRATEGY SERIES	2010, VOL. 11, NO. 2 pp. 78-80,	Empirical Paper	Emerald	Yes	Yes
5	A Review of Empirical Research on Dynamic Competitive Strategy	Thomas Hutterer and Basche Israel, 2009,	International Journal of Management Reviews	2009, Vol. 13, Issue 4, pp. 423-461	Empirical Paper	Blackwell Publishing	Yes	Yes
6	Recognizing critical success factors (CSFs) to achieve the strategic goals of SAIPA Press	Leili Agheili Maelbodi and Abbas Monnevarian, 2010	BUSINESS STRATEGY SERIES	2010, VOL. 11, NO. 2, pp. 124-133	Empirical Paper	Emerald	Yes	Yes
7	The power of vision: statements that resonate	Sooken Kintabutra and Gayle C. Avery, 2010	JOURNAL OF BUSINESS STRATEGY	VOL. 33, NO. 1 2010, pp. 37-45,	Conceptual Paper	Emerald	Yes	Yes
8	Conceptualising Corporate Entrepreneurship Strategy	R. Duane Ireland, Jeffrey S. Covin, Donald F. Kuratko, 2009	Entrepreneurship Theory and Practice	2009,	Conceptual Paper	Baylor University	Yes	Yes
9	Entrepreneurial Strategic Posture, International Diversification, and Firm Performance	Amonrat Thumrungratje, Patrycja Tenshuaj, 2005,	The Multinational Business Review	2005, Vol. 13, IS 1	Conceptual Paper		Yes	Yes
International Business								
1	Theoretical milestones in international business: The journey to international entrepreneurship theory	Bruce Mitgwe, 2006	Journal of International Entrepreneurship	2006, Vol. 4: 5-25	Theretical paper	Emerald	Yes	Yes
2	SME internationalization research: past, present, and future	Witje Ruzier, Robert D. Harich & Bosjan Antonicic, 2006	Journal of Small Business and Enterprise Development	2006, Vol. 13, No. 4, pp. 476-497	Conceptual Paper	Emerald	Yes	Yes
3	The effects of entrepreneurial marketing on born global performance	Akin Kocak & Temi Abimbola, 2009,	International Marketing Review, IMR	2009, Vol. 26 No. 4/5, pp. 439-452	Research Paper	Emerald	Yes	Yes
4	The International Biotechnology Industry: A Dynamic Capabilities Perspective	Anoop Madhok and Thomas Osogowitsch, 2000	Journal of International Business Studies	2000, Vol. 31, No. 2, pp. 325-335	Research Paper	JSTOR	Yes	Yes
5	Adaptation of International Marketing Strategy Components, Competitive Advantage, and Firm Performance: A Study of Hong Kong Exporters	Gerald Albaum and David K. Tse, 2003	Journal of International Marketing	2003, Vol. 9, No. 4, pp. 59-81	Research Paper	JSTOR	Yes	Yes
6	The entrepreneur in the Born Global firm in Australia and Sweden	Svante Andersson & Felicias Evangelista, 2006	Journal of Small Business and Enterprise Development	2006, Vol. 13 No. 4, pp. 642-659	Research Paper	Emerald	Yes	Yes
7	Factors that impact on the perceived benefits of internet international marketing in Taiwanese SMEs	Li-Ling Hsu, Tzu-Chuan Chou, Tsuen-Ho Hsu, 2008	Journal of Targeting, Measurement and Analysis for Marketing	2008, Vol. 16, 4, pp. 249-260	Research Paper	Palgrave Macmillan	Yes	Yes
8	ENTRY METHODS AND INTERNATIONAL MARKETING DECISION MAKING: AN EMPIRICAL INVESTIGATION	Demetris Vrontis and Philip J. Kitchin, 2005	INTERNATIONAL JOURNAL OF BUSINESS STUDIES	2005, VOL. 13, NO. 1, June 2005	Research Paper	JSTOR	Yes	Yes
9	International Marketing Environment Analysis	Geri Clarke, 2005	The Marketing Review	2005, Vol. 5, 159-173	Conceptual Paper	Westburn Publishers Ltd	Yes	Yes
10	Marketing mix standardization in multinational corporations: A review of the evidence	Andreas Birnik and Cliff Bowman, 2007	International Journal of Management Reviews	2007, Vol. 9, Issue 4 pp. 303-324	Research Paper	Blackwell Publishing Ltd	Yes	Yes
11	A Meta-Analysis of Studies on the Determinants of Standardization and Localization of International Marketing and Advertising Strategies	Hongshik John Cheon Chang-Hoan Cho John Sutherland, 2007	Journal of International Consumer Marketing	2007, Vol. 19 (4)	Research Paper	Haworth Press, Inc	Yes	Yes
12	The battleship strategy: The complementing role of born global in MNC's new opportunity creation	T. J. Vapole & Pshvi Tassevalainen & Mika Gabriellson, 2008,	Journal of International Entrepreneurship	2008, Vol. 6:1-21	Conceptual Paper	Springer	Yes	Yes
13	Changing Paradigm of International Entrepreneurship Strategy	Richard W. Wright, Leo Paul Dana, 2003	Journal of International Entrepreneurship	2003, Vol. 1: 135-152	Conceptual Paper	Kluwer Academic Publisser	Yes	Yes
14	International Entrepreneurship Research: What Scope for International Business Theories?	Stephen Young, Pavlos Dimitratos Leo Paul Dana, 2003	Journal of International Entrepreneurship	2003, Vol. 1: 31-42	Conceptual Paper	Kluwer Academic Publisser	Yes	Yes
15	Entrepreneurial Orientation, Dynamic Capabilities and International Performance	ARI JANTUNEN, KAIJU PUUMALAINEN, SAMI SAARENKI, TO, KALEVI KYLA" HIKKO, 2005,	Journal of International Entrepreneurship	2005, Vol. 3, 223-243	Research Paper	Springer	Yes	Yes
16	Entrepreneurial market and learning orientations and international entrepreneurial business venture performance in South African firms	Fredric Kropp, Roel J. Lindsey, Aviv Shoham, 2006	International Marketing Review	2006, Vol. 23 No. 5, pp. 504-523	Research Paper	Emerald	Yes	Yes
17	Networking capability and international entrepreneurship: How networks function in Australian born global firms	Gillian Sullivan Mort & Jay Weerawardena, 2006	International Marketing Review	2006, Vol. 23 No. 5, pp. 549-572	Research Paper	Emerald	Yes	Yes
18	International Entrepreneurship as a Dynamic Adaptive System: Towards a Grounded Theory	Hamid Elomedi, 2004	Journal of International Entrepreneurship	2004, Vol. 2, 5-59	Conceptual Paper	Kluwer Academic Publisser	Yes	Yes
19	Global Corporate Ventures: A New Trend of International Corporate Entrepreneurship	Stephen K. Callaway, 2008	The Multinational Business Review	2008, Vol. 16, IS 3	Conceptual Paper	University of Toledo	Yes	Yes
20	Foreign Market Entry Strategies of Japanese MNC	Charles R. Taylor, Shaoming Zou, Gregory E. Osland	International Marketing Review	2000, Vol. 17, No. 2	Research Paper	MCB University Press	Yes	Yes

Appendix A1: Summary of Literature review

	International Marketing:							
1	Presentation of a generic "EMICO" framework for research exploration of entrepreneurial marketing in SMEs	Rosalind Jones & Jennifer Rowley, 2009	Journal of Research in Marketing and Entrepreneurship	2009, Vol. 11 No. 1, pp. 5-21	Research Paper	Emerald	Yes	Yes
2	Market creation: the epitome of entrepreneurial marketing practices	Johan Gaddefors; Alistair R. Anderson, 2008	Journal of Research in Marketing and Entrepreneurship	2008, Vol. 10 No. 1, pp. 19-39	Research Paper	Emerald	Yes	Yes
3	Entrepreneurial, market, and learning orientations and International entrepreneurial business venture performance in South African firms	Fredric Kropp, Noel J. Lindsay, Aviv Shoham, 2006	International Marketing Review	2006, Vol. 23 No. 5, pp. 504-523	Research Paper	Emerald	Yes	Yes
4	The effect of market orientation on innovation speed and new product performance	Pilar Carbonell, Ana I. Rodríguez Escudero, 2010	Journal of Business & Industrial Marketing	2010, Vol. 25, Iss:7 pp. 501-513	Research Paper	Emerald	Yes	Yes
5	An Examination of Exploration and Exploitation Capabilities: Implications for Product Innovation and Market Performance	Goksel Yalcinkaya, Roger J. Calantone, and David A. Griffith, 2007	Journal of International Marketing	2007, Vol. 15, No. 4, pp. 63-93	Research Paper	American Marketing Association	Yes	Yes
6	Marketing/entrepreneurship interface research priorities	Can Uslay, Richard D. Teach, 2008	Journal of Research in Marketing and Entrepreneurship	2008, Vol. 10 No. 1, pp. 70-75	General Review	Emerald	Yes	Yes
7	Learning and innovation in inter-organizational network collaboration	Mika Westerlund, Risto Rajala, 2010	Journal of Business & Industrial Marketing	2010, Vol 25, No 6 pp 435-442	Research Paper	Emerald	Yes	Yes
8	Relationship Capabilities, Quality, and Innovation as Determinants of Export Performance	Luis Filipe Lages, Graça Silva, and Chris Styles, 2009	Journal of International Marketing	2009, Vol. 17, No. 4, pp. 47-70	Research Paper	American Marketing Association	Yes	Yes
9								
10	How to use a two product strategy against low-price competition	Klaus Hilleke and Stephan A. Butscher, 1997	Pricing Strategy & Practice	1997, Volume 5 - Number 3 - pp. 108-115	Conceptual Paper	MCB University Press	Yes	Yes
11	Analysis of pricing strategies for new product introduction	Biren Prasad, 1997	Pricing Strategy & Practice	1997, Vol. 5, No 4, pp. 132-141	Conceptual Paper	MCB University Press	Yes	Yes
12	Target pricing: a marketing management tool for pricing new cars	Ogenyi Ejye Omar, 1997	Pricing Strategy & Practice	Vol. 5, No 2, pp. 61-69	Research Paper	MCB University Press	Yes	Yes
13	Gaining sustainable competitive advantage through strategic pricing: selecting a perceived value price	Kenneth N. Thompson and Barbara J. Go, 1997	Pricing Strategy & Practice	Vol 5, No 2, pp. 70-79	Conceptual Paper	MCB University Press	Yes	Yes
14	Evolution of strategic sales organizations in business-to-business marketing	Nigel F. Piercy, 2010	Journal of Business & Industrial Marketing	2010, Vol 25, No 5, pp 349-359	General Review	Emerald	Yes	Yes

Appendix B1: Questionnaire



Dear Sir/Madam,

Subject: Research Survey of Organizational Dynamic Capabilities

My name is Anslem Chow, I'm a student from University Utara Malaysia UUM, and currently I'm conducting an academic research to study the relationship among Moderating effect of dynamic capabilities on firm performance.

This questionnaire is divided into 5 sections and designed to gather information for a research entitled "Moderating effect of dynamic capabilities on organizational orientations (entrepreneurial, learning and market orientations), leading the firm performance". The data collected will be used to analyze the SME entrepreneur capabilities in Malaysia.

Hence we're seeking your managerial input and contribution to establishing and building the conceptual theory. I truly hope that you are able to answer the questions carefully based on your perception. Your response will remain anonymous and will ONLY be used for the purpose of academic research. I greatly appreciate your time and effort in answering this questionnaire.

I'm grateful to you for spending time and effort to complete this academic study,

Your Support is greatly appreciated,

Thank you very much,

Yours Sincerely,

CHOW YEONG KANG,

This study is Conducted By: Chow Yeong Kang, (ANSLEM), Doctorate of Business Administration, College of Business, Universiti Utara Malaysia,

Section 1: Demographic Information:

Gender: Male: ☐ Female: ☐

Age: below 35: ☐ 36 – 45: ☐ 46 – 50: ☐ above 50: ☐

Position: _____ **Years of Working:** _____, **Highest Education Level:** _____

Number of employees in your organization?:

Below 5: ☐ Between 6-30: ☐ Between 31- 75: ☐
Below 5-75: ☐ Between 75-200: ☐ More than 200: ☐

Range of your organizations' annual sales turnover ?

Less than MYR 300,000: ☐ Between MYR 300,000- MYR 3 Million ☐
Between MYR 3 Million-MYR 20 Million ☐ Between MYR 15- 50 Million: ☐

Types of ownership?

Proprietorship: ☐ Private Limited: ☐ Public Listed: ☐

How do you classification your organization product?:

Agriculture: <input type="checkbox"/>	Fruit crop: <input type="checkbox"/>	:	<input type="checkbox"/>	Food/ Fruit Processing: <input type="checkbox"/>
Fishery: <input type="checkbox"/>	Seafood: <input type="checkbox"/>	Livestock: <input type="checkbox"/>	Metal: <input type="checkbox"/>	
Rubber products: <input type="checkbox"/>	Coco: <input type="checkbox"/>	Pal oil: <input type="checkbox"/>	Floriculture: <input type="checkbox"/>	
Milk product: <input type="checkbox"/>	Bakery/Biscuit: <input type="checkbox"/>	Beverage: <input type="checkbox"/>	Others: <input type="checkbox"/>	

Others: Please specify:

Scheme of Certification or Recognition: Yes: ☐ No: ☐

For example: HACCP: Hazard Analysis Critical Control Program; ISO 9001 (quality management system); ISO 14001 (environmental management system & ISO2200 (Food safety management system), SALM (GAP):Skim Amalan Ladang Baik Malaysia; SOM: Skim Organik Malaysia; Malaysian Phytosanitary Certification Assurance Scheme (MPCA); Malaysian Fumigation Accreditation Scheme (MAFAS); Malaysian Heat Treatment Accreditation Scheme (MAHTAS); Plant Material Verification Scheme (SPBT); Paddy Seedlings Verification Scheme etc

Section 2: The following statement measure organizational orientations of your company

i. Entrepreneurial Orientation : Place a tick (✓) against your chosen option for each question

Six Items: Please indicate your level of agreement with the following statements about your firm's:	Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
1. Our firm give special attention to external research and development information					
2. Our firm considers new idea/method/ approach as very important					
3. Our employees are free to give new idea/suggestion for process improvement					
4. Our firm acts proactively in order to achieve objectives					
5. Our firm typically adopt a very proactive posture					
6. Our firm always the first to introduce new technology					

ii. Learning Orientation,(LO): Place a tick (✓) against your chosen option for each question

Nine Items: Please indicate your level of agreement with the following statements about your firm's	Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
1. Our company regularly seeks information from market (e.g., customers, competitors, suppliers)					
2. Our company actively observes and adopts the latest and best practice in our sector					
3. Our company has processes for acquiring knowledge about new products in the industry					
4. Our company has mechanism for filtering and integrating different sources and type of knowledge					
5. Our company prefers written communication when distribute information and knowledge					
6. Our company sends out timely reports with appropriate information to every functional department					
7. Our company is flexible and readily in changing our products, processes and strategies					
8. Our company makes knowledge or information is accessible to those who need it					
9. Our company able respond quickly to customers requirements					

iii. Market Orientation (MO) Place a tick (✓) against your chosen option for each question

Nine Items: Please indicate your level of agreement with the following statements about your firm's:	Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
1. Our salespeople regularly collect information concerning competitors' activities					
2. We frequently track the market performance of key competitors					
3. We frequently evaluate the strengths of key competitors					
4. We communicate with all department/functional units about our customer experiences and preference					
5. Our strategy for gaining a competitive advantage is based on our understanding of customer needs					
6. We regularly survey customers to assess the quality of our products and service					
7. Improving operating efficiency is a top priority in our firm					
8. Cost is the most critical component in our firm's performance measures					
9. Achieving cost advantage is very important to our firm					



UUM
Universiti Utara Malaysia

Section 3: The following statement measure dynamic capabilities of your company

Exploitative (Innovation) Capabilities: Place a tick (✓) against your chosen option for each question

Five Items: Please indicate your level of agreement with the following statements about your firm.	Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
1. Our firms continue exploit the most current marketing strategies and technologies method to promote our product and services, eg. Internet; website; Online transaction eg. E-commerce; Online booking;					
2. Our firms continue exploit our product cost and differentiating feature to promote our product and services					
3. Our firms exploit the new technological and scientific knowledge to improve/innovate our product/process/ service					
4. Our firm continues improve and chooses new approaches to processes, products and services that are different from those used in the past.					
5. Our firm continues exploit the market research; intelligence and information in our strategic planning and decision making process					

Explorative (Learning) Capabilities: Place a tick (✓) against your chosen option for each question

Five Items: Please indicate your level of agreement with the following statements about your firm's	Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
1. Our firms continue compile competitor market information and benchmark product or service to improve our firm's market performance					
2. Our firm continue learn and include new aspects to our processes, products and services compared to previous strategies					
3. Our firm continue collaboration with our business partners to explore new market opportunity in local and foreign market					
4. Our firm continue collaboration with strategic partners and institutional agency to explore innovative product and services					
5. Our company considers employee learning capability as one of the key factors to improve the company's performance					

Section 4: The following statement measure firm performance of your company:

Firm Performance: Place a tick (✓) against your chosen option for each question

Six Items: Please indicate your level of agreement with the following statements about your firm.	Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
1. Our firm's market sales has increased obviously compared to last few year ago					
2. Our firm's return of equipment has obviously increased compared to last few years ago					
3. Our firm's return of asset has increased obviously compared to last few year ago					
4. During the past few years, our firm has developed many new management approaches / manufacturing method					
5. Compared to the least few year, today our firm encourages new ideas/method/welcome suggestion to innovate production/ improve performance					
6. Our firm's productivity has greatly improved if compare to the last few years ago					



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Appendix B2 Reliability Test (Pilot)

Reliability: Entrepreneurial Orientation

Notes		
Output Created		14-Oct-2013 10:10:09
Comments		
Input	Data	C:\Users\user\Desktop\CS.YEONG\SPSS Template Job 1.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	30
	Matrix Input	
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data for all variables in the procedure.
Syntax		RELIABILITY /VARIABLES=INVA1 INVA2 INVA3 PROV1 PROV2 PROV3 /SCALE('Entrepreneurial Orientation') ALL /MODEL=ALPHA.
Resources	Processor Time	00:00:00.078
	Elapsed Time	00:00:00.047

[DataSet1] C:\Users\user\Desktop\CS.YEONG\SPSS Template Job 1.sav

Scale: Entrepreneurial Orientation

Case Processing Summary

		N	%
Cases	Valid	29	96.7
	Excluded ^a	1	3.3
	Total	30	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's	
Alpha	N of Items
.760	6

Reliability: Learning Orientation

Notes		
Output Created	14-Oct-2013 10:11:24	
Comments		
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	Active Dataset	DataSet1
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	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	30
	Matrix Input	
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data for all variables in the procedure.
Syntax	RELIABILITY /VARIABLES=KNAC1 KNAC2 KNAC3 KNDS1 KNDS2 KNDS3 KNAP1 KNAP2 KNAP3 /SCALE('Learning Orientation') ALL /MODEL=ALPHA.	
Resources	Processor Time	00:00:00.031
	Elapsed Time	00:00:00.031

[DataSet1] C:\Users\user\Desktop\CS.YEONG\SPSS Template Job 1.sav

Scale: Learning Orientation

Case Processing Summary			
		N	%
Cases	Valid	30	100.0
	Excluded ^a	0	.0
	Total	30	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics		
Cronbach's Alpha	N of Items	
.879	9	

Reliability: Market Orientation

Notes		
Output Created		14-Oct-2013 10:12:22
Comments		
Input	Data	C:\Users\user\Desktop\CS.YEONG\SPSS Template Job 1.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	30
	Matrix Input	
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data for all variables in the procedure.
Syntax		RELIABILITY /VARIABLES=COMP1 COMP2 COMP3 CUST1 CUST2 CUST3 COST1 COST2 COST3 /SCALE('Market Orientation') ALL /MODEL=ALPHA.
Resources	Processor Time	00:00:00.094
	Elapsed Time	00:00:00.048

[DataSet1] C:\Users\user\Desktop\CS.YEONG\SPSS Template Job 1.sav

Scale: Market Orientation

Case Processing Summary			
		N	%
Cases	Valid	30	100.0
	Excluded ^a	0	.0
	Total	30	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics		
Cronbach's Alpha	N of Items	
.859	9	

Reliability: Exploitative (Innovation) Capabilities

Notes		
Output Created		14-Oct-2013 10:13:44
Comments		
Input	Data	C:\Users\user\Desktop\CS.YEONG\SPSS Template Job 1.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	30
	Matrix Input	
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data for all variables in the procedure.
Syntax		RELIABILITY /VARIABLES=EXPOI1 EXPOI2 EXPOI3 EXPOI4 EXPOI5 /SCALE('Exploitative (Innovation) Capabilities') ALL /MODEL=ALPHA.
Resources	Processor Time	00:00:00.032
	Elapsed Time	00:00:00.031

[DataSet1] C:\Users\user\Desktop\CS.YEONG\SPSS Template Job 1.sav

Scale: Exploitative (Innovation) Capabilities

Case Processing Summary			
		N	%
Cases	Valid	30	100.0
	Excluded ^a	0	.0
	Total	30	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics	
Cronbach's Alpha	N of Items
.721	5

Reliability: Explorative (Learning) Capabilities

Notes		
Output Created		14-Oct-2013 10:14:25
Comments		
Input	Data	C:\Users\user\Desktop\CS.YEONG\SPSS Template Job 1.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	30
	Matrix Input	
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data for all variables in the procedure.
Syntax		RELIABILITY /VARIABLES=EXPLO1 EXPLO2 EXPLO3 EXPLO4 EXPLO5 /SCALE('Explorative (Learning) Capabilities') ALL /MODEL=ALPHA.
Resources	Processor Time	00:00:00.078
	Elapsed Time	00:00:00.062

[DataSet1] C:\Users\user\Desktop\CS.YEONG\SPSS Template Job 1.sav

Scale: Explorative (Learning) Capabilities

Case Processing Summary		
		N
		%
Cases	Valid	30
	Excluded ^a	0
	Total	30

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics	
Cronbach's Alpha	N of Items
.830	5

Reliability: Firm Performance

Notes		
Output Created		14-Oct-2013 10:15:20
Comments		
Input	Data	C:\Users\user\Desktop\CS.YEONG\SPSS Template Job 1.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	30
	Matrix Input	
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data for all variables in the procedure.
Syntax		RELIABILITY /VARIABLES=FPER1 FPER2 FPER3 IVPM1 IVPM2 IVPM3 /SCALE('Firm Performance') ALL /MODEL=ALPHA.
Resources	Processor Time	00:00:00.093
	Elapsed Time	00:00:00.047

[DataSet1] C:\Users\user\Desktop\CS.YEONG\SPSS Template Job 1.sav

Scale: Firm Performance

Case Processing Summary		
	N	%
Cases Valid	30	100.0
Excluded ^a	0	.0
Total	30	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics	
Cronbach's Alpha	N of Items
.871	6

Reliability: Exploitative (Innovation) Capabilities

Notes		
Output Created		14-Oct-2013 10:13:44
Comments		
Input	Data	C:\Users\user\Desktop\CS.YEONG\SPSS Template Job 1.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	30
	Matrix Input	
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data for all variables in the procedure.
Syntax		RELIABILITY /VARIABLES=EXPOI1 EXPOI2 EXPOI3 EXPOI4 EXPOI5 /SCALE('Exploitative (Innovation) Capabilities') ALL /MODEL=ALPHA.
Resources	Processor Time	00:00:00.032
	Elapsed Time	00:00:00.031

[DataSet1] C:\Users\user\Desktop\CS.YEONG\SPSS Template Job 1.sav

Scale: Exploitative (Innovation) Capabilities

Case Processing Summary

		N	%
Cases	Valid	30	100.0
	Excluded ^a	0	.0
	Total	30	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's	
Alpha	N of Items
.721	5



Reliability: Explorative (Learning) Capabilities

Notes		
Output Created		14-Oct-2013 10:14:25
Comments		
Input	Data	C:\Users\user\Desktop\CS.YEONG\SPSS Template Job 1.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	30
	Matrix Input	
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data for all variables in the procedure.
Syntax		RELIABILITY /VARIABLES=EXPLO1 EXPLO2 EXPLO3 EXPLO4 EXPLO5 /SCALE('Explorative (Learning) Capabilities') ALL /MODEL=ALPHA.
Resources	Processor Time	00:00:00.078
	Elapsed Time	00:00:00.062

[DataSet1] C:\Users\user\Desktop\CS.YEONG\SPSS Template Job 1.sav

Scale: Explorative (Learning) Capabilities

Case Processing Summary

		N	%
Cases	Valid	30	100.0
	Excluded ^a	0	.0
	Total	30	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's	
Alpha	N of Items
.830	5



Reliability: Firm Performance

Notes		
Output Created		14-Oct-2013 10:15:20
Comments		
Input	Data	C:\Users\user\Desktop\CS.YEONG\SPSS Template Job 1.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	30
	Matrix Input	
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data for all variables in the procedure.
Syntax		RELIABILITY /VARIABLES=FPER1 FPER2 FPER3 IVPM1 IVPM2 IVPM3 /SCALE('Firm Performance') ALL /MODEL=ALPHA.
Resources	Processor Time	00:00:00.093
	Elapsed Time	00:00:00.047

[DataSet1] C:\Users\user\Desktop\CS.YEONG\SPSS Template Job 1.sav

Scale: Firm Performance

Case Processing Summary

		N	%
Cases	Valid	30	100.0
	Excluded ^a	0	.0
	Total	30	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.871	6



Appendix B3: PCA Validity (Pilot)

Factor Analysis

[DataSet1] C:\Users\user\Desktop\CS.YEONG\SPSS Template Job 1.sav

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.643
Bartlett's Test of Sphericity	Approx. Chi-Square	86.960
	df	15
	Sig.	.000

Communalities		
	Initial	Extraction
Our firm gives special attention to external research and development information	1.000	.775
Our firm considers new idea/method/ approach as very important	1.000	.638
Our employees are free to give new idea/suggestion for the process improvement	1.000	.799
Our firm acts proactively in order to achieve objectives	1.000	.896
Our firm typically adopt a very proactive posture	1.000	.683
Our firm always be the first to introduce new technology	1.000	.811

Extraction Method: Principal Component Analysis.

Total Variance Explained									
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.120	52.001	52.001	3.120	52.001	52.001	2.983	49.711	49.711
2	1.482	24.693	76.694	1.482	24.693	76.694	1.619	26.982	76.694
3	.663	11.051	87.745						
4	.392	6.530	94.274						
5	.228	3.807	98.081						
6	.115	1.919	100.000						

Extraction Method: Principal Component Analysis.



Component Matrix^a

	Component	
	1	2
Our firm gives special attention to external research and development information	.530	.703
Our firm considers new idea/method/ approach as very important	.770	-.213
Our employees are free to give new idea/suggestion for the process improvement	.888	.100
Our firm acts proactively in order to achieve objectives	.931	-.168
Our firm typically adopt a very proactive posture	.759	-.327
Our firm always be the first to introduce new technology	.120	.892

Extraction Method: Principal Component Analysis.

a. 2 components extracted.

Rotated Component Matrix^a

	Component	
	1	2
Our firm gives special attention to external research and development information	.304	.827
Our firm considers new idea/method/ approach as very important	.798	.019
Our employees are free to give new idea/suggestion for the process improvement	.821	.353
Our firm acts proactively in order to achieve objectives	.940	.109
Our firm typically adopt a very proactive posture	.821	-.093
Our firm always be the first to introduce new technology	-.143	.889

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

Component Transformation
Matrix

Component	1	2
1	.957	.290
2	-.290	.957

Extraction Method: Principal
Component Analysis. Rotation
Method: Varimax with Kaiser
Normalization.

Factor Analysis

[DataSet1] C:\Users\user\Desktop\CS.YEONG\SPSS Template Job 1.sav

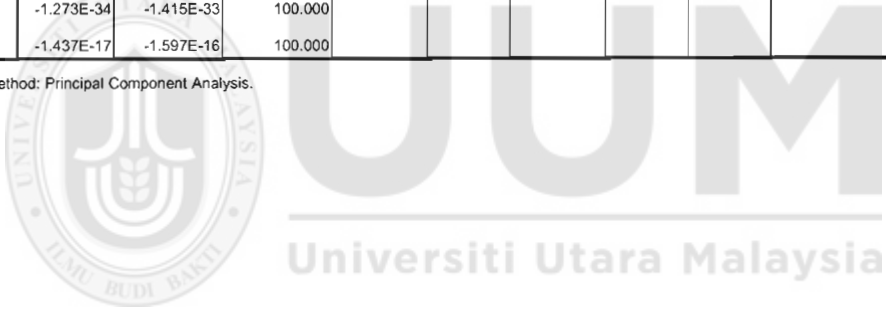
KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.891
Bartlett's Test of Sphericity	Approx. Chi-Square	76.975
	df	26
	Sig.	.000

Communalities		
	Initial	Extraction
Our company regularly seeks information from market (e.g., customers, competitors, suppliers)	1.000	.771
Our company actively observes and adopts the latest and best practice in our sector	1.000	.797
Our company has processes for acquiring knowledge about new products in the industry	1.000	.834
Our company has mechanism for filtering and integrating different sources and type of knowledge	1.000	.837
Our company prefers written communication when distribute information and knowledge	1.000	.653
Our company sends out timely reports with appropriate information to every functional department	1.000	.675
Our company is flexible and readily in changing our products, processes and strategies	1.000	.647
Our company makes knowledge or information is accessible to those who need it	1.000	.535
Our company able respond quickly to customers requirements	1.000	.516

Extraction Method: Principal Component Analysis.

Total Variance Explained									
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.585	62.052	62.052	5.585	62.052	62.052	3.990	44.336	44.336
2	2.189	24.321	86.373	2.189	24.321	86.373	3.783	42.037	86.373
3	.774	8.595	94.968						
4	.453	5.032	100.000						
5	3.233E-16	3.592E-15	100.000						
6	3.279E-17	3.644E-16	100.000						
7	1.064E-17	1.182E-16	100.000						
8	-1.273E-34	-1.415E-33	100.000						
9	-1.437E-17	-1.597E-16	100.000						

Extraction Method: Principal Component Analysis.



Component Matrix^a

	Component	
	1	2
Our company regularly seeks information from market (e.g., customers, competitors, suppliers)	.902	.403
Our company actively observes and adopts the latest and best practice in our sector	.774	-.614
Our company has processes for acquiring knowledge about new products in the industry	.902	.403
Our company has mechanism for filtering and integrating different sources and type of knowledge	.902	.403
Our company prefers written communication when distribute information and knowledge	.774	-.614
Our company sends out timely reports with appropriate information to every functional department	.902	.403
Our company is flexible and readily in changing our products, processes and strategies	.774	-.614
Our company makes knowledge or information is accessible to those who need it	.676	-.279
Our company able respond quickly to customers requirements	.272	.575

Extraction Method: Principal Component Analysis.

a. 2 components extracted.

Rotated Component Matrix^a

	Component	
	1	2
Our company regularly seeks information from market (e.g., customers, competitors, suppliers)	.934	.325
Our company actively observes and adopts the latest and best practice in our sector	.143	.977
Our company has processes for acquiring knowledge about new products in the industry	.934	.325
Our company has mechanism for filtering and integrating different sources and type of knowledge	.934	.325
Our company prefers written communication when distribute information and knowledge	.143	.977
Our company sends out timely reports with appropriate information to every functional department	.934	.325
Our company is flexible and readily in changing our products, processes and strategies	.143	.977
Our company makes knowledge or information is accessible to those who need it	.301	.667
Our company able respond quickly to customers requirements	.593	-.232

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

Component Transformation Matrix

Component	1	2
1	.728	.685
2	.685	-.728

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

Factor Analysis

[DataSet1] C:\Users\user\Desktop\CS.YEONG\SPSS Template Job 1.sav

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.765
Bartlett's Test of Sphericity	Approx. Chi-Square	152.454
	df	26
	Sig.	.000

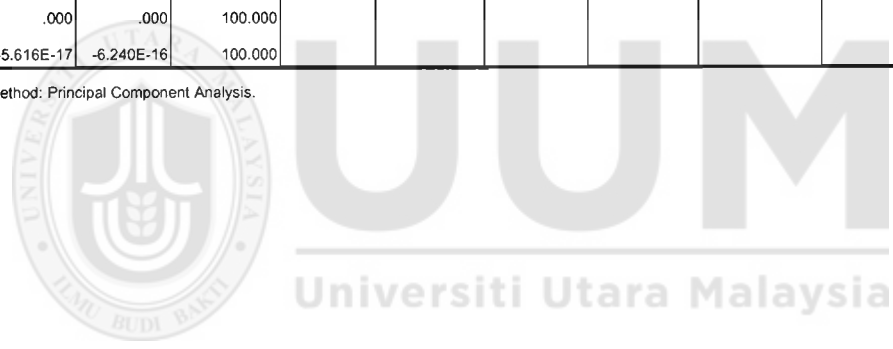
Communalities

	Initial	Extraction
Our salespeople regularly collect information concerning competitors' activities	1.000	.753
We frequently track the market performance of key competitors	1.000	.888
We frequently evaluate the strengths of key competitors	1.000	.768
We communicate with all department/functional units about our customer experiences and preference	1.000	.766
Our strategy for gaining a competitive advantage is based on our understanding of customer needs	1.000	.813
We regularly survey customers to assess the quality of our products and service	1.000	.643
Improving operating efficiency is a top priority in our firm	1.000	.583
Cost is the most critical component in our firm's performance measures	1.000	.883
Achieving cost advantage is very important to our firm	1.000	.713

Extraction Method: Principal Component Analysis.

Total Variance Explained									
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.931	65.903	65.903	5.931	65.903	65.903	5.347	59.410	59.410
2	1.626	18.071	83.975	1.626	18.071	83.975	2.211	24.565	83.975
3	.816	9.070	93.045						
4	.426	4.735	97.780						
5	.200	2.220	100.000						
6	.000	.000	100.000						
7	.000	.000	100.000						
8	.000	.000	100.000						
9	-5.616E-17	-6.240E-16	100.000						

Extraction Method: Principal Component Analysis.



Component Matrix^a

	Component	
	1	2
Our salespeople regularly collect information concerning competitors' activities	.766	.095
We frequently track the market performance of key competitors	.880	.040
We frequently evaluate the strengths of key competitors	.770	.035
We communicate with all department/functional units about our customer experiences and preference	.680	.092
Our strategy for gaining a competitive advantage is based on our understanding of customer needs	.879	.274
We regularly survey customers to assess the quality of our products and service	.538	-.381
Improving operating efficiency is a top priority in our firm	-.369	.668
Cost is the most critical component in our firm's performance measures	-.418	.842
Achieving cost advantage is very important to our firm	.655	.533

Extraction Method: Principal Component Analysis.

a. 2 components extracted.

Rotated Component Matrix^a

	Component	
	1	2
Our salespeople regularly collect information concerning competitors' activities	.954	.280
We frequently track the market performance of key competitors	.954	.280
We frequently evaluate the strengths of key competitors	.954	.280
We communicate with all department/functional units about our customer experiences and preference	.954	.280
Our strategy for gaining a competitive advantage is based on our understanding of customer needs	.954	.280
We regularly survey customers to assess the quality of our products and service	.360	.552
Improving operating efficiency is a top priority in our firm	-.097	-.757
Cost is the most critical component in our firm's performance measures	-.078	-.937
Achieving cost advantage is very important to our firm	.805	-.254

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

Component Transformation

Matrix

Component	1	2
1	.930	.368
2	.368	-.930

Component Matrix^a

	Component	
	1	2
Our salespeople regularly collect information concerning competitors' activities	.766	.095
We frequently track the market performance of key competitors	.880	.040
We frequently evaluate the strengths of key competitors	.770	.035
We communicate with all department/functional units about our customer experiences and preference	.680	.092
Our strategy for gaining a competitive advantage is based on our understanding of customer needs	.879	.274
We regularly survey customers to assess the quality of our products and service	.538	-.381
Improving operating efficiency is a top priority in our firm	-.369	.668
Cost is the most critical component in our firm's performance measures	-.418	.842
Achieving cost advantage is very important to our firm	.655	.533

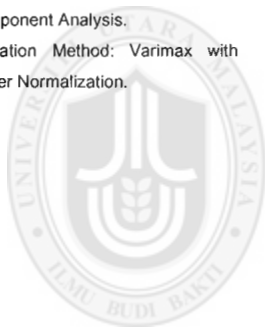
Extraction Method: Principal Component Analysis.

Extraction Method: Principal

Component Analysis.

Rotation Method: Varimax with

Kaiser Normalization.



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Appendix C1: Descriptive Statistic Frequencies

Frequencies

		Notes
Output Created		22-Jan-2014 13:34:32
Comments		
Input	Data	C:\Users\user\Desktop\CS.YEONG\DATA FINAL.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	396
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data.
Syntax		FREQUENCIES VARIABLES=INVA1 INVA2 INVA3 PROV1 PROV2 PROV3 KNAC1 KNAC2 KNAC3 KNDS1 KNDS2 KNDS3 KNAP1 KNAP2 KNAP3 COMP1 COMP2 COMP3 CUST1 CUST2 CUST3 COST1 COST2 COST3 EXPOI1 EXPOI2 EXPOI3 EXPOI4 EXPOI5 EXPLO1 EXPLO2 EXPLO3 EXPLO4 EXPLO5 FPER1 FPER2 FPER3 IVPM1 IVPM2 IVPM3 /ORDER=ANALYSIS.
Resources	Processor Time	00:00:00.046
	Elapsed Time	00:00:00.039

Frequency Table

Our firm gives special attention to external research and development information

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	8	2.0	2.0	2.0
	Agree	91	23.0	23.0	25.0
	Strongly Agree	297	75.0	75.0	100.0
	Total	396	100.0	100.0	

Our firm considers new idea/method/ approach as very important

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	160	40.4	40.4	40.4
	Strongly Agree	236	59.6	59.6	100.0
	Total	396	100.0	100.0	

Our employees are free to give new idea/suggestion for the process improvement

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	2	.5	.5	.5
	Neutral	2	.5	.5	1.0
	Agree	131	33.1	33.1	34.1
	Strongly Agree	261	65.9	65.9	100.0
	Total	396	100.0	100.0	

Our firm acts proactively in order to achieve objectives

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	29	7.3	7.3	7.3
	Neutral	54	13.6	13.6	21.0
	Agree	145	36.6	36.6	57.6
	Strongly Agree	168	42.4	42.4	100.0
	Total	396	100.0	100.0	

Our firm typically adopt a very proactive posture

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	4	1.0	1.0	1.0
	Disagree	5	1.3	1.3	2.3
	Neutral	96	24.2	24.2	26.5
	Agree	96	24.2	24.2	50.8
	Strongly Agree	195	49.2	49.2	100.0
	Total	396	100.0	100.0	

Our firm always be the first to introduce new technology

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	66	16.7	16.7	16.7
	Disagree	8	2.0	2.0	18.7
	Neutral	8	2.0	2.0	20.7
	Agree	77	19.4	19.4	40.2
	Strongly Agree	237	59.8	59.8	100.0
	Total	396	100.0	100.0	

Our company regularly seeks information from market (e.g., customers, competitors, suppliers)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	6	1.5	1.5	1.5
	Disagree	17	4.3	4.3	5.8
	Neutral	58	14.6	14.6	20.5
	Agree	119	30.1	30.1	50.5
	Strongly Agree	196	49.5	49.5	100.0
	Total	396	100.0	100.0	

Our company actively observes and adopts the latest and best practice in our sector

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	12	3.0	3.0	3.0
	Disagree	29	7.3	7.3	10.4
	Neutral	54	13.6	13.6	24.0
	Agree	138	34.8	34.8	58.8
	Strongly Agree	163	41.2	41.2	100.0
	Total	396	100.0	100.0	

Our company has processes for acquiring knowledge about new products in the industry

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	14	3.5	3.5	3.5
	Disagree	30	7.6	7.6	11.1
	Neutral	65	16.4	16.4	27.5
	Agree	121	30.6	30.6	58.1
	Strongly Agree	166	41.9	41.9	100.0
	Total	396	100.0	100.0	

Our company has mechanism for filtering and integrating different sources and type of knowledge

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	10	2.5	2.5	2.5
	Disagree	29	7.3	7.3	9.8
	Neutral	66	16.7	16.7	26.5
	Agree	194	49.0	49.0	75.5
	Strongly Agree	97	24.5	24.5	100.0
	Total	396	100.0	100.0	

Our company prefers written communication when distribute information and knowledge

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	9	2.3	2.3	2.3
	Disagree	27	6.8	6.8	9.1
	Neutral	67	16.9	16.9	26.0
	Agree	159	40.2	40.2	66.2
	Strongly Agree	134	33.8	33.8	100.0
	Total	396	100.0	100.0	

Our company sends out timely reports with appropriate information to every functional department

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	5	1.3	1.3	1.3
	Disagree	23	5.8	5.8	7.1
	Neutral	68	17.2	17.2	24.2
	Agree	161	40.7	40.7	64.9
	Strongly Agree	139	35.1	35.1	100.0
	Total	396	100.0	100.0	

Our company is flexible and readily in changing our products, processes and strategies

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	20	5.1	5.1	5.1
	Disagree	39	9.8	9.8	14.9
	Neutral	64	16.2	16.2	31.1
	Agree	134	33.8	33.8	64.9
	Strongly Agree	139	35.1	35.1	100.0
	Total	396	100.0	100.0	

Our company makes knowledge or information is accessible to those who need it

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	11	2.8	2.8	2.8
	Disagree	25	6.3	6.3	9.1
	Neutral	59	14.9	14.9	24.0
	Agree	110	27.8	27.8	51.8
	Strongly Agree	191	48.2	48.2	100.0
	Total	396	100.0	100.0	

Our company able respond quickly to customers requirements

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	10	2.5	2.5	2.5
	Disagree	20	5.1	5.1	7.6
	Neutral	41	10.4	10.4	17.9
	Agree	92	23.2	23.2	41.2
	Strongly Agree	233	58.8	58.8	100.0
	Total	396	100.0	100.0	

Our salespeople regularly collect information concerning competitors' activities

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	26	6.6	6.6	6.6
	Agree	77	19.4	19.4	26.0
	Strongly Agree	293	74.0	74.0	100.0
	Total	396	100.0	100.0	

We frequently track the market performance of key competitors

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	37	9.3	9.3	9.3
	Agree	119	30.1	30.1	39.4
	Strongly Agree	240	60.6	60.6	100.0
	Total	396	100.0	100.0	

We frequently evaluate the strengths of key competitors

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	21	5.3	5.3	5.3
	Agree	70	17.7	17.7	23.0
	Strongly Agree	305	77.0	77.0	100.0
	Total	396	100.0	100.0	

We communicate with all department/functional units about our customer experiences and preference

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	69	17.4	17.4	17.4
	Strongly Agree	327	82.6	82.6	100.0
	Total	396	100.0	100.0	

Our strategy for gaining a competitive advantage is based on our understanding of customer needs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	36	9.1	9.1	9.1
	Agree	146	36.9	36.9	46.0
	Strongly Agree	214	54.0	54.0	100.0
	Total	396	100.0	100.0	

We regularly survey customers to assess the quality of our products and service

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	8	2.0	2.0	2.0
	Agree	187	47.2	47.2	49.2
	Strongly Agree	201	50.8	50.8	100.0
	Total	396	100.0	100.0	

Improving operating efficiency is a top priority in our firm

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	34	8.6	8.6	8.6
	Agree	153	38.6	38.6	47.2
	Strongly Agree	209	52.8	52.8	100.0
	Total	396	100.0	100.0	

Cost is the most critical component in our firm's performance measures

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	13	3.3	3.3	3.3
	Agree	54	13.6	13.6	16.9
	Strongly Agree	329	83.1	83.1	100.0
	Total	396	100.0	100.0	

Achieving cost advantage is very important to our firm

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	5	1.3	1.3	1.3
	Agree	36	9.1	9.1	10.4
	Strongly Agree	355	89.6	89.6	100.0
	Total	396	100.0	100.0	

Our firms continue exploit the most current marketing strategies and technologies method to promote our product and services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	17	4.3	4.3	4.3
	Agree	49	12.4	12.4	16.7
	Strongly Agree	330	83.3	83.3	100.0
	Total	396	100.0	100.0	

**Our firms continue exploit our product cost and differentiating feature to promote our product
and services**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	8	2.0	2.0	2.0
	Disagree	20	5.1	5.1	7.1
	Neutral	56	14.1	14.1	21.2
	Agree	113	28.5	28.5	49.7
	Strongly Agree	199	50.3	50.3	100.0
	Total	396	100.0	100.0	

**Our firms exploit the new technological and scientific knowledge to improve/innovate our
product/process/ service**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	8	2.0	2.0	2.0
	Disagree	20	5.1	5.1	7.1
	Neutral	55	13.9	13.9	21.0
	Agree	126	31.8	31.8	52.8
	Strongly Agree	187	47.2	47.2	100.0
	Total	396	100.0	100.0	

**Our firm continues improve and chooses new approaches to processes, products and services
that are different from those used in the past**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	25	6.3	6.3	6.3
	Disagree	27	6.8	6.8	13.1
	Neutral	46	11.6	11.6	24.7
	Agree	126	31.8	31.8	56.6
	Strongly Agree	172	43.4	43.4	100.0
	Total	396	100.0	100.0	

Our firm continues exploit the market research; intelligence and information in our strategic planning and decision making process

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	19	4.8	4.8	4.8
	Disagree	22	5.6	5.6	10.4
	Neutral	31	7.8	7.8	18.2
	Agree	153	38.6	38.6	56.8
	Strongly Agree	171	43.2	43.2	100.0
	Total	396	100.0	100.0	

Our firms continue compile competitor market information and benchmark product or service to improve our firm's market performance

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	2	.5	.5	.5
	Disagree	21	5.3	5.3	5.8
	Neutral	39	9.8	9.8	15.7
	Agree	109	27.5	27.5	43.2
	Strongly Agree	225	56.8	56.8	100.0
	Total	396	100.0	100.0	

Our firm continue learn and include new aspects to our processes, products and services compared to previous strategies

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	12	3.0	3.0	3.0
	Neutral	35	8.8	8.8	11.9
	Agree	109	27.5	27.5	39.4
	Strongly Agree	240	60.6	60.6	100.0
	Total	396	100.0	100.0	

**Our firm continue collaboration with our business partners to explore new market
opportunity in local and foreign market**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	74	18.7	18.7	18.7
	Agree	140	35.4	35.4	54.0
	Strongly Agree	182	46.0	46.0	100.0
	Total	396	100.0	100.0	

**Our firm continue collaboration with strategic partners and institutional agency to explore
innovative product and services**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	68	17.2	17.2	17.2
	Agree	94	23.7	23.7	40.9
	Strongly Agree	234	59.1	59.1	100.0
	Total	396	100.0	100.0	

**Our company considers employee learning capability as one of the key factors to improve
the company's performance**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	82	20.7	20.7	20.7
	Agree	65	16.4	16.4	37.1
	Strongly Agree	249	62.9	62.9	100.0
	Total	396	100.0	100.0	

Our firm's market sales has increased obviously compared to last few year ago

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	3	.8	.8	.8
	Disagree	6	1.5	1.5	2.3
	Neutral	22	5.6	5.6	7.8
	Agree	124	31.3	31.3	39.1
	Strongly Agree	241	60.9	60.9	100.0
	Total	396	100.0	100.0	

Our firm's return of equipment has obviously increased compared to last few years ago

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	8	2.0	2.0	2.0
	Neutral	13	3.3	3.3	5.3
	Agree	140	35.4	35.4	40.7
	Strongly Agree	235	59.3	59.3	100.0
	Total	396	100.0	100.0	

Our firm's return of asset has increased obviously compared to last few year ago

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	2	.5	.5	.5
	Disagree	7	1.8	1.8	2.3
	Neutral	17	4.3	4.3	6.6
	Agree	132	33.3	33.3	39.9
	Strongly Agree	238	60.1	60.1	100.0
	Total	396	100.0	100.0	

**During the past few years, our firm has developed many new management approaches /
manufacturing method**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	5	1.3	1.3	1.3
	Neutral	22	5.6	5.6	6.8
	Agree	39	9.8	9.8	16.7
	Strongly Agree	330	83.3	83.3	100.0
	Total	396	100.0	100.0	

**Compared to the least few year, today our firm encourages new ideas/method/welcome
suggestion to innovate production/ improve performance**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	1	.3	.3	.3
	Disagree	3	.8	.8	1.0
	Neutral	8	2.0	2.0	3.0
	Agree	80	20.2	20.2	23.2
	Strongly Agree	304	76.8	76.8	100.0
	Total	396	100.0	100.0	

Our firm's productivity has greatly improved if compare to the last few years ago

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	1	.3	.3	.3
	Disagree	9	2.3	2.3	2.5
	Neutral	12	3.0	3.0	5.6
	Agree	102	25.8	25.8	31.3
	Strongly Agree	272	68.7	68.7	100.0
	Total	396	100.0	100.0	

Descriptives

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Descriptive Statistics			
	N	Mean	Std. Deviation
Entrepreneurial Orientation	396	4.4196	.57545
Learning Orientation	396	4.2090	.73281
Market Orientation	396	4.6545	.35726
Organizational Orientations	396	4.4277	.32678
Exploitative (Innovation) Capabilities	396	4.2689	.78696
Explorative (Learning) Capabilities	396	4.4127	.62581
Dynamic Capabilities	396	4.3408	.46356
Firm Performance	396	4.6014	.45581
Valid N (listwise)	396		

Descriptives

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Descriptive Statistics			
	N	Mean	Std. Deviation
Our firm gives special attention to external research and development information	396	4.73	.488
Our firm considers new idea/method/ approach as very important	396	4.60	.491
Our employees are free to give new idea/suggestion for the process improvement	396	4.64	.520
Our firm acts proactively in order to achieve objectives	396	4.14	.914
Our firm typically adopt a very proactive posture	396	4.19	.917
Our firm always be the first to introduce new technology	396	4.04	1.484
Valid N (listwise)	396		

DESCRIPTIVES VARIABLES=KNAC1 KNAC2 KNAC3 KNDS1 KNDS2 KNDS3 KNAP1 KNAP2 KNAP3
/STATISTICS=MEAN STDDEV.

Descriptives

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Descriptive Statistics			
	N	Mean	Std. Deviation
Our company regularly seeks information from market (e.g., customers, competitors, suppliers)	396	4.22	.951
Our company actively observes and adopts the latest and best practice in our sector	396	4.04	1.056
Our company has processes for acquiring knowledge about new products in the industry	396	4.00	1.099
Our company has mechanism for filtering and integrating different sources and type of knowledge	396	3.86	.956
Our company prefers written communication when distribute information and knowledge	396	3.96	.993
Our company sends out timely reports with appropriate information to every functional department	396	4.03	.933
Our company is flexible and readily in changing our products, processes and strategies	396	3.84	1.157
Our company makes knowledge or information is accessible to those who need it	396	4.12	1.059
Our company able respond quickly to customers requirements	396	4.31	1.014
Valid N (listwise)	396		

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DESCRIPTIVES VARIABLES=COMP1 COMP2 COMP3 CUST1 CUST2 CUST3 COST1 COST2 COST3
  /STATISTICS=MEAN STDDEV.
```

Descriptives

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Descriptive Statistics			
	N	Mean	Std. Deviation
Our salespeople regularly collect information concerning competitors' activities	396	4.67	.593
We frequently track the market performance of key competitors	396	4.51	.662
We frequently evaluate the strengths of key competitors	396	4.72	.556
We communicate with all department/functional units about our customer experiences and preference	396	4.83	.380
Our strategy for gaining a competitive advantage is based on our understanding of customer needs	396	4.45	.656
We regularly survey customers to assess the quality of our products and service	396	4.47	.609
Improving operating efficiency is a top priority in our firm	396	4.44	.648
Cost is the most critical component in our firm's performance measures	396	4.80	.477
Achieving cost advantage is very important to our firm	396	4.88	.358
Valid N (listwise)	396		

DESCRIPTIVES VARIABLES=EXPOI1 EXPOI2 EXPOI3 EXPOI4 EXPOI5 /STATISTICS=MEAN STDDEV.

Descriptives

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Descriptive Statistics			
	N	Mean	Std. Deviation
Our firms continue exploit the most current marketing strategies and technologies method to promote our product and services	396	4.79	.502
Our firms continue exploit our product cost and differentiating feature to promote our product and services	396	4.20	.995
Our firms exploit the new technological and scientific knowledge to improve/innovate our product/process/ service	396	4.17	.984
Our firm continues improve and chooses new approaches to processes, products and services that are different from those used in the past	396	3.99	1.181
Our firm continues exploit the market research; intelligence and information in our strategic planning and decision making process	396	4.10	1.076
Valid N (listwise)	396		

DESCRIPTIVES VARIABLES=EXPLO1 EXPLO2 EXPLO3 EXPLO4 EXPLO5 /STATISTICS=MEAN STDDEV.

Descriptives

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Descriptive Statistics			
	N	Mean	Std. Deviation
Our firms continue compile competitor market information and benchmark product or service to improve our firm's market performance	396	4.35	.897
Our firm continue learn and include new aspects to our processes, products and services compared to previous strategies	396	4.46	.780
Our firm continue collaboration with our business partners to explore new market opportunity in local and foreign market	396	4.27	.757
Our firm continue collaboration with strategic partners and institutional agency to explore innovative product and services	396	4.42	.767
Our company considers employee learning capability as one of the key factors to improve the company's performance	396	4.42	.812
Valid N (listwise)	396		

DESCRIPTIVES VARIABLES=FPER1 FPER2 FPER3 IVPM1 IVPM2 IVPM3 /STATISTICS=MEAN STDDEV MIN MAX.

Descriptives

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DESCRIPTIVES VARIABLES=FPER1 FPER2 FPER3 IVPM1 IVPM2 IVPM3 /STATISTICS=MEAN STDDEV.
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Descriptive Statistics

	N	Mean	Std. Deviation
Our firm's market sales has increased obviously compared to last few year ago	396	4.50	.738
Our firm's return of equipment has obviously increased compared to last few years ago	396	4.52	.661
Our firm's return of asset has increased obviously compared to last few year ago	396	4.51	.710
During the past few years, our firm has developed many new management approaches / manufacturing method	396	4.75	.612
Compared to the least few year, today our firm encourages new ideas/method/welcome suggestion to innovate production/ improve performance	396	4.72	.563
Our firm's productivity has greatly improved if compare to the last few years ago	396	4.60	.684
Valid N (listwise)	396		

Appendix C2: Correlation Matrix- Firm Performance

		Correlations		
		Innovativeness	Proactiveness	Entrepreneurial Orientation
Innovativeness	Pearson Correlation	1	.182	.447
	Sig. (2-tailed)		.000	.000
	N	396	396	396
Proactiveness	Pearson Correlation	.182	1	.918
	Sig. (2-tailed)	.000		.000
	N	396	396	396
Entrepreneurial Orientation	Pearson Correlation	.447	.918	1
	Sig. (2-tailed)	.000	.000	
	N	396	396	396
Learning Orientation	Pearson Correlation	.065	.186	.013
	Sig. (2-tailed)	.199	.000	.791
	N	396	396	396
Customer	Pearson Correlation	.016	.023	.077
	Sig. (2-tailed)	.754	.655	.127
	N	396	396	396
Competitor	Pearson Correlation	.044	.035	.094
	Sig. (2-tailed)	.378	.487	.062
	N	396	396	396
Cost Orientations	Pearson Correlation	.058	.022	.108
	Sig. (2-tailed)	.247	.666	.032
	N	396	396	396
Market Orientation	Pearson Correlation	.049	.032	.112
	Sig. (2-tailed)	.330	.527	.026
	N	396	396	396
Dynamic Capabilities	Pearson Correlation	-.030	.030	.023
	Sig. (2-tailed)	.551	.551	.654
	N	396	396	396
Firm Performance	Pearson Correlation	.123	.086	.121
	Sig. (2-tailed)	.015	.001	.016
	N	396	396	396

Correlations

		Learning Orientation	Customer	Competitor
Innovativeness	Pearson Correlation	.065	.016	.044
	Sig. (2-tailed)	.199	.754	.378
	N	396	396	396
Proactiveness	Pearson Correlation	.186	.023	.035
	Sig. (2-tailed)	.000	.655	.487
	N	396	396	396
Entrepreneurial Orientation	Pearson Correlation	.013	.077	.094
	Sig. (2-tailed)	.791	.127	.062
	N	396	396	396
Learning Orientation	Pearson Correlation	1	-.152	-.108
	Sig. (2-tailed)		.002	.032
	N	396	396	396
Customer	Pearson Correlation	-.152	1	.437
	Sig. (2-tailed)	.002		.000
	N	396	396	396
Competitor	Pearson Correlation	-.108	.437	1
	Sig. (2-tailed)	.032	.000	
	N	396	396	396
Cost Orientations	Pearson Correlation	-.193	.346	.817
	Sig. (2-tailed)	.000	.000	.000
	N	396	396	396
Market Orientation	Pearson Correlation	-.179	.667	.925
	Sig. (2-tailed)	.000	.000	.000
	N	396	396	396
Dynamic Capabilities	Pearson Correlation	.024	-.024	.133
	Sig. (2-tailed)	.636	.639	.008
	N	396	396	396
Firm Performance	Pearson Correlation	.008	.279	.438
	Sig. (2-tailed)	.869	.000	.000
	N	396	396	396

Correlations

		Cost Orientations	Market Orientation
Innovativeness	Pearson Correlation	.058	.049
	Sig. (2-tailed)	.247	.330
	N	396	396
Proactiveness	Pearson Correlation	.022	.032
	Sig. (2-tailed)	.666	.527
	N	396	396
Entrepreneurial Orientation	Pearson Correlation	.108	.112
	Sig. (2-tailed)	.032	.026
	N	396	396
Learning Orientation	Pearson Correlation	-.193	-.179
	Sig. (2-tailed)	.000	.000
	N	396	396
Customer	Pearson Correlation	.346	.667
	Sig. (2-tailed)	.000	.000
	N	396	396
Competitor	Pearson Correlation	.817	.925
	Sig. (2-tailed)	.000	.000
	N	396	396
Cost Orientations	Pearson Correlation	1	.892
	Sig. (2-tailed)		.000
	N	396	396
Market Orientation	Pearson Correlation	.892	1
	Sig. (2-tailed)	.000	
	N	396	396
Dynamic Capabilities	Pearson Correlation	.094	.090
	Sig. (2-tailed)	.063	.074
	N	396	396
Firm Performance	Pearson Correlation	.422	.461
	Sig. (2-tailed)	.000	.000
	N	396	396

Correlations

		Dynamic Capabilities	Firm Performance
Innovativeness	Pearson Correlation	-.030	.123
	Sig. (2-tailed)	.551	.015
	N	396	396
Proactiveness	Pearson Correlation	.030	.086
	Sig. (2-tailed)	.551	.001
	N	396	396
Entrepreneurial Orientation	Pearson Correlation	.023	.121
	Sig. (2-tailed)	.654	.016
	N	396	396
Learning Orientation	Pearson Correlation	.024	.008
	Sig. (2-tailed)	.636	.869
	N	396	396
Customer	Pearson Correlation	-.024	.279
	Sig. (2-tailed)	.639	.000
	N	396	396
Competitor	Pearson Correlation	.133	.438
	Sig. (2-tailed)	.008	.000
	N	396	396
Cost Orientations	Pearson Correlation	.094	.422
	Sig. (2-tailed)	.063	.000
	N	396	396
Market Orientation	Pearson Correlation	.090	.461
	Sig. (2-tailed)	.074	.000
	N	396	396
Dynamic Capabilities	Pearson Correlation	1	.100
	Sig. (2-tailed)		.047
	N	396	396
Firm Performance	Pearson Correlation	.100	1
	Sig. (2-tailed)	.047	
	N	396	396

Appendix C3: Multivariate regression- (EO)

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SAVE OUTFILE='C:\Users\user\Desktop\NEED TO REVIEW\CS.YEONG\DATA FINAL.sav' /COMPRESSED.
REGRESSION
  /MISSING LISTWISE  /STATISTICS COEFF OUTS R ANOVA  /CRITERIA=PIN(.05) POUT(.10)  /NOORIGIN  /DEPEN
DENT FP  /METHOD=ENTER EO.
```

Regression

		Notes
Output Created		03-Apr-2014 03:50:21
Comments		
Input	Data	C:\Users\user\Desktop\NEED TO REVIEW\CS.YEONG\DATA FINAL.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	396
Missing Value	Definition of Missing	User-defined missing values are treated as missing.
Handling	Cases Used	Statistics are based on cases with no missing values for any variable used.
Syntax		REGRESSION /MISSING LISTWISE /STATISTICS COEFF OUTS R ANOVA /CRITERIA=PIN(.05) POUT(.10) /NOORIGIN /DEPENDENT FP /METHOD=ENTER EO.
Resources	Processor Time	00:00:00.172
	Elapsed Time	00:00:00.052
	Memory Required	2708 bytes
	Additional Memory Required for Residual Plots	0 bytes

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Entrepreneurial Orientation ^a		. Enter

- a. All requested variables entered.
b. Dependent Variable: Firm Performance

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.121 ^a	.015	.012	.26887

- a. Predictors: (Constant), Entrepreneurial Orientation

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.426	1	.426	5.898	.016 ^a
	Residual	28.483	394	.072		
	Total	28.910	395			

- a. Predictors: (Constant), Entrepreneurial Orientation
b. Dependent Variable: Firm Performance

Coefficients^a

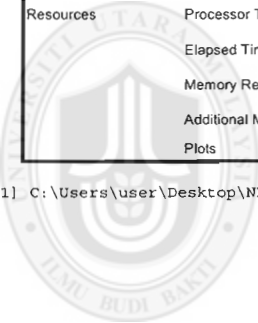
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.532	.107		42.182	.000
	Entrepreneurial Orientation	.059	.024	.121	2.429	.016

- a. Dependent Variable: Firm Performance

Regression

Notes		
Output Created		03-Apr-2014 03:50:32
Comments		
Input	Data	C:\Users\user\Desktop\NEED TO REVIEW\CS.YEONG\DATA FINAL.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	396
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on cases with no missing values for any variable used.
Syntax		REGRESSION /MISSING LISTWISE /STATISTICS COEFF OUTS R ANOVA /CRITERIA=PIN(.05) POUT(.10) /NOORIGIN /DEPENDENT FP /METHOD=ENTER INNO PROACT.
Resources	Processor Time	00:00:00.187
	Elapsed Time	00:00:00.101
	Memory Required	2964 bytes
	Additional Memory Required for Residual Plots	0 bytes

[DataSet1] C:\Users\user\Desktop\NEED TO REVIEW\CS.YEONG\DATA FINAL.sav



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Variables Entered/Removed ^b			
Model	Variables Entered	Variables Removed	Method
1	Proactiveness, Innovativeness ^a		Enter

- a. All requested variables entered.
- b. Dependent Variable: Firm Performance

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.139 ^a	.019	.014	.26859

- a. Predictors: (Constant), Proactiveness, Innovativeness

ANOVA ^b						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.558	2	.279	3.864	.022 ^a
	Residual	28.352	393	.072		
	Total	28.910	395			

- a. Predictors: (Constant), Proactiveness, Innovativeness
- b. Dependent Variable: Firm Performance

Coefficients ^a						
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.233	.212		19.936	.000
	Innovativeness	.099	.046	.111	2.177	.030
	Proactiveness	.023	.017	.066	1.304	.032

- a. Dependent Variable: Firm Performance

Appendix C3 Multivariate regression- (LO)

REGRESSION
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA /CRITERIA=PIN(.05) POUT(.10) /NOORIGIN /DEPENDENT FP /METHOD=ENTER LO.

Regression

Variables Entered/Removed ^b			
Model	Variables Entered	Variables Removed	Method
1	Learning Orientation ^a		Enter

- a. All requested variables entered.
b. Dependent Variable: Firm Performance

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.008 ^a	.000	-.002	.27087

- a. Predictors: (Constant), Learning Orientation

ANOVA ^b						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.002	1	.002	.027	.869 ^a
	Residual	28.908	394	.073		
	Total	28.910	395			

- a. Predictors: (Constant), Learning Orientation
b. Dependent Variable: Firm Performance

Coefficients ^a					
Model		Unstandardized Coefficients		Standardized Coefficients	Sig.
		B	Std. Error	Beta	
1	(Constant)	4.778	.079		.000
	Learning Orientation	.003	.019	.008	.869

- a. Dependent Variable: Firm Performance

Appendix C3 Multivariate regression- (MO)

REGRESSION
/MISSING LISTWISE /STATISTICS COEFF OUTS R ANOVA /CRITERIA=PIN(.05) POUT(.10) /NOORIGIN /DEPEN
DENT FP /METHOD=ENTER MO.

Regression

		Notes
Output Created		03-Apr-2014 13:15:16
Comments		
Input	Data	C:\Users\user\Desktop\NEED TO REVIEW\CS.YEONG\DATA FINAL.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data	396
	File	
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on cases with no missing values for any variable used.
Syntax		REGRESSION /MISSING LISTWISE /STATISTICS COEFF OUTS R ANOVA /CRITERIA=PIN(.05) POUT(.10) /NOORIGIN /DEPENDENT FP /METHOD=ENTER MO.
Resources	Processor Time	00:00:00.125
	Elapsed Time	00:00:00.053
	Memory Required	2708 bytes
	Additional Memory Required for Residual Plots	0 bytes

[DataSet1] C:\Users\user\Desktop\NEED TO REVIEW\CS.YEONG\DATA FINAL.sav

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Market Orientation ^a		. Enter

a. All requested variables entered.

b. Dependent Variable: Firm Performance

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.461 ^a	.213	.211	.24034

a. Predictors: (Constant), Market Orientation

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.152	1	6.152	106.501	.000 ^a
	Residual	22.758	394	.058		
	Total	28.910	395			

a. Predictors: (Constant), Market Orientation

b. Dependent Variable: Firm Performance

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.337	.141		23.606	.000
	Market Orientation	.325	.031	.461	10.320	.000

a. Dependent Variable: Firm Performance

Variables Entered/Removed ^b			
Model	Variables Entered	Variables Removed	Method
1	Cost Orientations, Customer, Competitor ^a		Enter

a. All requested variables entered.

b. Dependent Variable: Firm Performance

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.463 ^a	.214	.208	.24072

a. Predictors: (Constant), Cost Orientations, Customer, Competitor

ANOVA ^b						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.195	3	2.065	35.639	.000 ^a
	Residual	22.714	392	.058		
	Total	28.910	395			

a. Predictors: (Constant), Cost Orientations, Customer, Competitor

b. Dependent Variable: Firm Performance

Coefficients ^a						
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.399	.159		21.439	.000
	Customer	.079	.035	.111	2.238	.026
	Competitor	.124	.043	.231	2.846	.005
	Cost Orientations	.109	.043	.195	2.506	.013

a. Dependent Variable: Firm Performance

Appendix C4 Hierarchical regression- (EO)

Regression

		Notes
Output Created		05-Apr-2014 02:18:36
Comments		
Input	Data	C:\Users\user\Desktop\NEED TO REVIEW\CS.YEONG\DATA FINAL.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	396
Missing Value	Definition of Missing	User-defined missing values are treated as missing.
Handling	Cases Used	Statistics are based on cases with no missing values for any variable used.
Syntax		REGRESSION /MISSING LISTWISE /STATISTICS COEFF OUTS R ANOVA CHANGE /CRITERIA=PIN(.05) POUT(.10) /NOORIGIN /DEPENDENT FP /METHOD=ENTER EO /METHOD=ENTER EO DCCode /METHOD=ENTER EO DCCode EOXDC.
Resources	Processor Time	00:00:00.171
	Elapsed Time	00:00:00.077
	Memory Required	3876 bytes
	Additional Memory Required for Residual Plots	0 bytes

[DataSet1] C:\Users\user\Desktop\NEED TO REVIEW\CS.YEONG\DATA FINAL.sav

Variables Entered/Removed ^b			
Model	Variables Entered	Variables Removed	Method
1	Entrepreneurial Orientation ^a		. Enter
2	Dynamic Capabilities ^a		. Enter
3	Entrepreneurial O_ Dynamic Capabilities ^a		. Enter

- a. All requested variables entered.
- b. Dependent Variable: Firm Performance

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.121 ^a	.015	.012	.26887	.015	5.898	1	394	.016
2	.156 ^b	.024	.019	.26792	.009	1.028	1	393	.081
3	.157 ^c	.026	.017	.26826	.001	1.626	1	392	.022

- a. Predictors: (Constant), Entrepreneurial Orientation
- b. Predictors: (Constant), Entrepreneurial Orientation , Dynamic Capabilities
- c. Predictors: (Constant), Entrepreneurial Orientation , Dynamic Capabilities, Entrepreneurial O_Dynamic Capabilities

ANOVA ^d						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.426	1	.426	5.898	.016 ^a
	Residual	28.483	394	.072		
	Total	28.910	395			
2	Regression	.699	2	.350	4.870	.008 ^b
	Residual	28.211	393	.072		
	Total	28.910	395			
3	Regression	.700	3	.233	3.244	.022 ^c
	Residual	28.209	392	.072		
	Total	28.910	395			

- a. Predictors: (Constant), Entrepreneurial Orientation
- b. Predictors: (Constant), Entrepreneurial Orientation , Dynamic Capabilities
- c. Predictors: (Constant), Entrepreneurial Orientation , Dynamic Capabilities, Entrepreneurial O_Dynamic Capabilities

Variables Entered/Removed ^b			
Model	Variables Entered	Variables Removed	Method
1	Entrepreneurial Orientation ^a		. Enter
2	Dynamic Capabilities ^a		. Enter
3	Entrepreneurial O_ Dynamic Capabilities ^a		. Enter

d. Dependent Variable: Firm Performance

Coefficients ^a					
Model		Unstandardized Coefficients		Standardized Coefficients	
		B	Std. Error	Beta	
1	(Constant)	4.532	.107		42.182 .000
	Entrepreneurial Orientation	.059	.024	.121	2.429 .016
2	(Constant)	4.275	.170		25.141 .000
	Entrepreneurial Orientation	.058	.024	.119	2.393 .017
	Dynamic Capabilities	.090	.046	.097	1.949 .042
3	(Constant)	4.149	.995		4.171 .000
	Entrepreneurial Orientation	.187	.226	.179	4.383 .002
	Dynamic Capabilities	.134	.342	.144	4.390 .006
	Entrepreneurial O x Dynamic Capabilities	.110	.078	.177	4.128 .010

a. Dependent Variable: Firm Performance



Appendix C4: Hierarchical Regression- (LO)

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.008 ^a	.090	.002	.27087	.090	7.397	1	394	.000
2	.100 ^b	.100	.005	.26986	.010	12.105	1	393	.000
3	.215 ^c	.046	.039	.26525	.036	14.798	1	392	.000

- a. Predictors: (Constant), Learning Orientation
b. Predictors: (Constant), Learning Orientation , Dynamic Capabilities
c. Predictors: (Constant), Learning Orientation , Dynamic Capabilities , Learning Orientation_Dynamic Capabilities

Coefficients ^a					
Model		Unstandardized Coefficients		Standardized Coefficients	
		B	Std. Error	Beta	
1	(Constant)	4.778	.079		60.139
	Learning Orientation	.031	.019	.008	.165
2	(Constant)	4.513	.155		29.060
	Learning Orientation	.002	.019	.206	.118
	Dynamic Capabilities	.093	.047	.300	1.986
3	(Constant)	4.648	.157		29.677
	Learning Orientation	.198	.019	.536	3.036
	Dynamic Capabilities	.022	.048	.349	3.669
	Learning Orientation_Dynamic Capabilities	.212	.003	.210	3.847

- a. Dependent Variable: Firm Performance

ANOVA^d

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.200	1	.539	7.397	.000 ^a
	Residual	28.908	394	.073		
	Total	28.910	395			
2	Regression	1.389	2	.445	6.105	.000 ^b
	Residual	28.620	393	.073		
	Total	28.910	395			
3	Regression	1.330	3	.443	6.303	.000 ^c
	Residual	27.579	392	.070		
	Total	28.910	395			

a. Predictors: (Constant), Learning Orientation

b. Predictors: (Constant), Learning Orientation , Dynamic Capabilities

c. Predictors: (Constant), Learning Orientation , Dynamic Capabilities, Learning Orientation_Dynamic Capabilities

d. Dependent Variable: Firm Performance



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Appendix C4: Hierarchical regression- (MO)

SAVE OUTFILE='C:\Users\user\Desktop\NEED TO REVIEW\CS.YEONG\DATA FINAL.sav' /COMPRESSED.
REGRESSION /MISSING LISTWISE /STATISTICS COEFF OUTS R ANOVA CHANGE /CRITERIA=PIN(.05) POUT(.10) /NOORIGIN /DEPENDENT FP /METHOD=ENTER MO /METHOD=ENTER MO DCCode /METHOD=ENTER MO DCCode MOXDC.

Regression

		Notes
Output Created		05-Apr-2014 02:29:26
Comments		
Input	Data	C:\Users\user\Desktop\NEED TO REVIEW\CS.YEONG\DATA FINAL.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	396
Missing	Definition of Missing	User-defined missing values are treated as missing.
Value	Cases Used	Statistics are based on cases with no missing values for any variable used.
Handling		
Syntax		REGRESSION /MISSING LISTWISE /STATISTICS COEFF OUTS R ANOVA CHANGE /CRITERIA=PIN(.05) POUT(.10) /NOORIGIN /DEPENDENT FP /METHOD=ENTER MO /METHOD=ENTER MO DCCode /METHOD=ENTER MO DCCode MOXDC.
Resources	Processor Time	00:00:00.203
	Elapsed Time	00:00:00.109
	Memory Required	3900 bytes
	Additional Memory Required for Residual Plots	0 bytes

[DataSet1] C:\Users\user\Desktop\NEED TO REVIEW\CS.YEONG\DATA FINAL.sav

Variables Entered/Removed ^b			
Model	Variables Entered	Variables Removed	Method
1	Market Orientation ^a		. Enter
2	Dynamic Capabilities ^a		. Enter
3	Market O_Dynamic Capabilities ^a		. Enter

a. All requested variables entered.

b. Dependent Variable: Firm Performance

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.461 ^a	.213	.211	.24034	.213	106.501	1	394	.000
2	.465 ^b	.216	.212	.24012	.003	51.291	1	393	.000
3	.466 ^c	.217	.211	.24027	.001	15.030	1	392	.000

a. Predictors: (Constant), Market Orientation

b. Predictors: (Constant), Market Orientation , Dynamic Capabilities

c. Predictors: (Constant), Market Orientation , Dynamic Capabilities, Market O_Dynamic Capabilities



ANOVA^d

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.152	1	6.152	106.501	.000 ^a
	Residual	22.758	394	.058		
	Total	28.910	395			
2	Regression	6.251	2	3.125	54.210	.000 ^b
	Residual	22.659	393	.058		
	Total	28.910	395			
3	Regression	6.280	3	2.093	36.261	.000 ^c
	Residual	22.630	392	.058		
	Total	28.910	395			

a. Predictors: (Constant), Market Orientation

b. Predictors: (Constant), Market Orientation , Dynamic Capabilities

c. Predictors: (Constant), Market Orientation , Dynamic Capabilities, Market O_Dynamic Capabilities

d. Dependent Variable: Firm Performance

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.749	.114		33.007	.000
	Market Orientations	.236	.026	.422	9.231	.000
2	(Constant)	3.599	.160		22.466	.000
	Market Orientations	.233	.026	.416	9.075	.000
	Dynamic Capabilities	.057	.043	.461	9.328	.000
3	(Constant)	3.339	1.199		33.326	.000
	Market Orientations	.701	.278	1.254	2.518	.012
	Dynamic Capabilities	.745	.409	.802	3.819	.040
	Market O_Dynamic Capabilities	.716	.949	1.172	4.690	.019

a. Dependent Variable: Firm Performance

Appendix C4: Hierarchical regression- (EO; LO; MO; DC)

```
SAVE OUTFILE='C:\Users\user\Desktop\DATA FINAL EDITED.sav' /COMPRESSED.
REGRESSION /MISSING LISTWISE /STATISTICS COEFF OUTS R ANOVA COLLIN TOL /CRITERIA=PIN(.05) POUT(.10) /N
OORIGIN /DEPENDENT FP /METHOD=ENTER EO LO MO /METHOD=ENTER EO LO MO DCCategory /METHOD=ENTER EO LO MO
DCCategory EOXDCC LOXDCC MOXDCC.
```

Regression

Notes		
Output Created		17-Feb-2014 12:00:42
Comments		
Input	Data	C:\Users\user\Desktop\DATA FINAL EDITED.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	396
Missing Value	Definition of Missing	User-defined missing values are treated as missing.
Handling	Cases Used	Statistics are based on cases with no missing values for any variable used.
Syntax		REGRESSION /MISSING LISTWISE /STATISTICS COEFF OUTS R ANOVA COLLIN TOL /CRITERIA=PIN(.05) POUT(.10) /NOORIGIN /DEPENDENT FP /METHOD=ENTER EO LO MO /METHOD=ENTER EO LO MO DCCategory /METHOD=ENTER EO LO MO DCCategory EOXDCC LOXDCC MOXDCC.
Resources	Processor Time	00:00:00.187
	Elapsed Time	00:00:00.085
	Memory Required	5388 bytes
	Additional Memory Required for	
	Residual Plots	0 bytes

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Market Orientation , Entrepreneurial Orientation , Learning Orientation ^a		. Enter
2	Dynamic Capabilities ^a		. Enter
3	EOXDCC, LOXDCC, MOXDCC ^a		. Enter

a. All requested variables entered.

b. Dependent Variable: Firm Performance

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.296 ^a	.087	.080	.43711	.087	12.506	3	392	.000
2	.311 ^b	.097	.088	.43535	.010	4.172	1	391	.042
3	.325 ^c	.106	.090	.43493	.009	1.253	3	388	.033

a. Predictors: (Constant), Market Orientation , Entrepreneurial Orientation , Learning Orientation

b. Predictors: (Constant), Market Orientation , Entrepreneurial Orientation , Learning Orientation , Dynamic Capabilities

c. Predictors: (Constant), Market Orientation , Entrepreneurial Orientation , Learning Orientation , Dynamic Capabilities, EOXDCC, LOXDCC, MOXDCC



ANOVA ^d						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.168	3	2.389	12.506	.000 ^a
	Residual	74.897	392	.191		
	Total	82.065	395			
2	Regression	7.959	4	1.990	10.498	.000 ^b
	Residual	74.106	391	.190		
	Total	82.065	395			
3	Regression	8.670	7	1.239	6.548	.000 ^c
	Residual	73.395	388	.189		,
	Total	82.065	395			

a. Predictors: (Constant), Market Orientation , Entrepreneurial Orientation , Learning Orientation

b. Predictors: (Constant), Market Orientation , Entrepreneurial Orientation , Learning Orientation , Dynamic Capabilities

c. Predictors: (Constant), Market Orientation , Entrepreneurial Orientation , Learning Orientation , Dynamic Capabilities, EOXDCC, LOXDCC, MOXDCC

d. Dependent Variable: Firm Performance



Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2.657	.363		7.320	.000		
	Entrepreneurial Orientation	.173	.039	.218	4.446	.000	.968	1.033
	Learning Orientation	.054	.031	.086	1.746	.082	.955	1.048
	Market Orientation	.205	.064	.161	3.210	.001	.926	1.080
2	(Constant)	2.290	.404		5.674	.000		
	Entrepreneurial Orientation	.169	.039	.213	4.359	.000	.966	1.035
	Learning Orientation	.051	.031	.082	1.665	.097	.953	1.050
	Market Orientation	.194	.064	.152	3.029	.003	.919	1.088
	Dynamic Capabilities	.155	.076	.099	2.043	.042	.987	1.013
3	(Constant)	2.046	2.718		6.753	.045		
	Entrepreneurial Orientation	3.142	.037	.179	4.382	.003	.010	1.584
	Learning Orientation	3.213	.012	.342	.682	.496	.009	1.153
	Market Orientation	1.020	.482	.300	2.015	.035	.016	1.005
	Dynamic Capabilities	1.719	.055	.288	3.010	.003	.006	1.183
	EOXDCC	2.006	.013	.127	4.046	.036	.006	1.125
	LOXDCC	1.056	.007	.025	2.052	.060	.007	1.161
	MOXDCC	1.297	.069	.131	5.053	.008	.006	1.105

a. Dependent Variable: Firm Performance



Mean Effects

Notes		
Output Created		17-Feb-2014 12:48:58
Comments		
Input	Data	C:\Users\user\Desktop\DATA FINAL EDITED.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	396
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each analysis are based on cases with no missing data for any variable in the analysis.
Syntax		ONEWAY FP BY DCCategory /STATISTICS DESCRIPTIVES /MISSING ANALYSIS.
Resources	Processor Time	00:00:00.062
	Elapsed Time	00:00:00.039

[DataSet1] C:\Users\user\Desktop\DATA FINAL EDITED.sav

Descriptives

Firm Performance									
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum	
					Lower Bound	Upper Bound			
Medium	37	4.4189	.53521	.08799	4.2405	4.5974	2.00	5.00	
High	359	4.6202	.44343	.02340	4.5742	4.6663	3.00	5.00	
Total	396	4.6014	.45581	.02291	4.5564	4.6465	2.00	5.00	