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The Effect of Entrepreneurial Leadership on Value Creation and Performance of Automotive Parts Manufacturers Businesses in Thailand



for Doctor of Philosophy (Management)

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The examining committee has unanimously approved this Thesis, submitted by Mrs. Wanlee Putsom, as a partial fulfillment of the requirements for the Doctor of Philosophy Management at Mahasarakham University



Mahasarakham University has granted approval to accept this Thesis as a partial fulfillment of the requirements for the Doctor of Philosophy Management

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ABSTRACT

Entrepreneurial leadership (EL) in automotive parts manufacturing businesses is one of the fast growing research topics in Management. Understanding how EL in automotive parts manufacturing businesses react to value creation, which generats better performance performance is a prime concern for all organizations. Previous research has linked EL characteristics in several competencies and other organizational outcomes. However, only a few studies involved technological competency and other EL dimensions, including personal competency and managerial competency influence to value creation and business performance. Therefore, to fulfil this study gap, the main purpose of this study is to investigate four dimensions of EL that affect value creation and business performance. This study examined value creation as having the role of a mediator that influences the four dimensions of EL and business performance. This study also investigates organizational climate and organizational learning as moderators, which moderate between the four dimensions of EL and value creation influence to business performance. This research applies three theories to draw the conceptual model, including the entrepreneurial leadership theory, contingency theory of leadership, and dynamic capability theory. Automotive parts manufacturing businesses in Thailand have been regarded as population framework of the study. The population of this research is obtained from Thai Autoparts Manufacturers Association (TAPMA database), which listed 616 automotive parts manufacturing businesses. The data were collected by mail survey of questionnaires, which was sent directly to the department managers or general managers of each firm. A total of 235 questionnaires were usable. The structural equation model (SEM) is used to analyze the data.

The results of the study are described as follows. First, the result found that four dimensions of EL which are personal competency, managerial competency, proactive competency, and technological competency have positive effects on value creation. Second, the findings show that managerial competency impacts on business performance. However, personal competency, proactive competency, and technological competency do not effect to business performance. Thrid, the findings indicate that organizational climate is a moderator, which negatively moderate the association between managerial competency and value creation, while organizational learning is found to positively moderate the relationship between managerial competency and value creation.Forth, the results indicate that value creation partially mediates the interation between EL and business performance. In addition, overall the study outcome shows that the model of the study fits and is consistent to the empirical results.

Grounding on the results of the study, manager and policy maker in automotive parts manufacturing businesses or other can utilize EL via managerial competency, technological competency, personal competency and proactive competency to enhance firm value creation and eventually create better business performance. As well, learning of employees could be continually encouraged and supported for sustainable growth of organization.

Keyword : Entrepreneurial leadership, Value creation, Business performance, Automotive parts manufacturer



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CHAPTER I

INTRODUCTION

Overview

Thailand 4.0 is a new policy launched by the Thai Government to shift the hold economy in the country to a new platform (Thai Embassy-Washing D.C, 2017). The main reason to exposed Thailand 4.0 because the Thai Government want to unlock the country from several economic challenges resulting from past economic development models which place emphasis on agriculture, light industry, and advanced industry become innovative technology-based economic (The Economist, 2017). These policies emphasized four objectives consist of economic prosperity, social well-being, raising human values, and environmental protection (Thailandtoday, 2017). From the Thailand 4.0 policies consist of core objective, to create a value-based economy that is driven by innovation, technology, and creativity by used the transformative shift from the traditional farming, SMEs, or services to smart farming, startup, or high value services, from unskilled labors to knowledge worker or high skilled labors, and from buy technologies to make technologies throughout the five business clusters for innovation and startup; food agriculture and biotech; health, wellness and bio-med; smart devices, robotics, and mechatronics; digital, internet of thing, and embedded technology; and creative, culture and high values services. Therefore, from Thailand 4.0 policy exhibited that all of the businesses in Thailand should be increased competitiveness and survival with applied high technology and use the robotics and auto operation in their businesses (Thailand Board of Investment, 2017b).

To move Thailand 4.0 policy forward, Thai Government focuses on ten strategic industries. One strategy industry is the automotive sector is key futurefocused industries that set a goal to foster and promotes emerging technology, innovation, and creativity (Suwannarat, Williams, Smiths, & Ibrahim, 2010; Thailand Board of Investment, 2017b). In addition, Thailand Board of Investment also confirmed that the automotive sector very important to Thai economic for several reasons. First, automotive businesses have is thieved growing because several of the large car manufacturers depend on Thai industries and employees to work for their regional production (Thailand Business News, 2018). The new enticements in the 4.0 policy have the promised to bring next-gen automotive industry such as BMW to Thailand. In Thailand, BMW is working on their advancement in battery factories, electric, solar and hydrogen car technologies (Hall, MacKinnon, & Cumbers, 2014). Secondly, the Thai Government proposes the innovation blueprints to strengthen the important relationship between automotive industries and other sectors such as interlinked automation, modern auto production, and robotics (Thailand Board of Investment, 2018). Lastly, in the automotive sector, the top-level automakers that are raising their automobiles production can be replaced by robotic devices for safety (Thailand Board of Investment, 2017a).

These phenomenons indicated all of leaders who conduct in the automotive industries have to possess superior skills and ability to learn, improve, change and develop new knowledge to achieve satisfactory business performance and outcomes. The characteristic of leaders that proper with Thailand 4.0 policy and the automotive industry is entrepreneurial leadership. Entrepreneurial leadership (EL) is personal characteristics and traits to role and behaviors to challenge of dealing with constant innovation and change (Swiercz & Lydon, 2002), a plurality of experience and increased capacity for problem-solving (Cope, Kempster, & Parry, 2011) and knowledge and technology competency (Zarefard & Cho, 2017) because these competencies can support leaders in the automotive industry to create competitiveness and sustainable business (Leitch & Volery, 2017). In addition, EL characteristics associated to support and create new processes to produce new products and services using high technology that leads to superior business performance (Anuvareepong, 2017). There will be four competencies to cover the EL characteristics in the Thailand 4.0 context consist of personal competency, managerial competency, proactive competency, and technical competency.

First, personal competency relates to individual ability in decision making in business such as general cognitive capacity, objective and subjective assessment ability, self-concepts, motivated action tendencies (e.g., Le Deist & Winterton, 2005). Second, managerial competency referred to adequate or superior performance in a job (Klemp Jr, 1980); or the possession of a body of knowledge, which is used to identify and elaborate an individual's work (Harley, 1995); logical thought, use of unilateral power, self-control, stamina and adaptability, and specialized knowledge (Nwokah & Ahiauzu, 2008); and managing the future, promoting continuous improvement, maintaining competitiveness, energizing employees, and fostering innovation (Trivellas & Drimoussis, 2013). Third, proactive competency is the capacity to make changes in the organization rather than letting the organization adapt to the problems (Bindl & Parker, 2010). It also is a characteristic of individuals who select and create situations that enhance the likelihood of high-level job performance and who seek more organizational information, obtain sponsorships, anticipate changing environmental contingencies, and identify and pursue opportunities (Crant, 1995; Crant, 1996). Finally, technological competent individuals exhibit a wide range of abilities, and they know how to apply these technical skills effectively (Hargittai & Shafer, 2006). Leaders who have technological expertise possess a meta-skill for measuring how well leaders apply their knowledge and skills (Linley, Govindji, & West, 2007).

All the details that have been mentioned about the four dimensions of EL that are affected by other variables have not been studied extensively in the modern context. The importance of technical ability, as one of the leader's competencies to lead their businesses, has been poorly researched. The significance of EL characteristics in the automotive parts businesses, especially in Thailand, is lacking. It is considered that the automotive parts manufacturing businesses in Thailand might profitably be consistency with EL phenomenon in order to satisfy the Thailand 4.0 policy statement. From literature review, a few studies have found that in an EL setting, value creation exists despite this construct being mentioned in entrepreneurial marketing situations (e.g., Bäckbro & Nyström, 2006; Fayolle, 2007; Swaminathan & Moorman, 2009; Tian, 2012). Thus, the value creation construct represents a second gap addressed in this study, because there are few evidences to confirm the result in an EL context. The new concept investigated in this research is the proposal that value creation is a mediator variable that affects business performance. Moreover, the third gap addressed in this research relates to the two moderators, namely, organizational climate and learning. Usually, both constructs very favor and continuously study from several scholars. However, this study brought two variables in the moderating role that effect to value creation variable that not shown in the previous study.

Therefore, the conceptual framework adopted in this study consists of recognizing four competencies: personal, management, proactive and technological. These competencies will encourage and contribute to the fulfillment of the characteristics of EL. All the competencies should be effective in value creation activities and business performance while being moderated by two variables, namely, organizational climate and learning The primary purpose of this study is to investigate the relationship among four dimensions of EL (personal competency), managerial competency, proactive competency, and technological competency), and the moderating effects of organizational climate and organizational learning on value creation and, consequently, business performance. This study utilizes a quantitatively-based questionnaire with measures applied comparatively across several leaders in the automotive parts industry. The approach taken in the study described here derives from EL research and involves the development of entrepreneurial leader styles in the context of Thai automotive part manufacturers.

Purposes of the Research

The purpose of this research was to determine the set of factors that are critical for the successful development of EL dimensions in the automotive parts manufacturers in Thailand. The effect of the EL dimensions via value creation through business performance is also evaluated. Additionally, the specific objectives of this research are presented as follows:

1. To examine the effect of EL dimensions (personal competency, managerial competency, proactive competency, technological competency) on value creation,

2. To investigate the effect of value creation construct on business performance,

3. To examine the effect of EL dimensions (personal competency, managerial competency, proactive competency, technological competency) on business performance,

4. To explore the moderating effect of organizational climate among the four dimensions of EL (personal competency, managerial competency, proactive competency, a technological competency) and value creation,

5. To determine the moderating effect of organizational learning among the four dimensions of EL (personal competency, managerial competency, proactive competency, a technological competency) and value creation.

Research Questions

The main research question is how the four dimensions of EL affect value creation and business performance, and how the four dimensions of EL influence value creation and business performance while moderated by organizational climate and organizational learning. Moreover, the specific research questions are presented as follows:

1. How does each dimension of EL (personal competency, managerial competency, proactive competency, technological competency) influence value creation?

2. How does the value creation variable affect business performance?

3. How does each dimension of EL (personal competency, managerial competency, proactive competency, technological competency) affect business performance?

4. How do the four dimensions of EL, when moderated by organizational climate, affect value creation?

5. How do the four dimensions of EL, when moderated by organizational learning, affect value creation?

Definition of Terms

Automotive parts Manufacturer: the entrepreneur who runs an automotive parts business, for both motorcycle and vehicles, as part of a wide range of production processes involved in the design, development, manufacturing, marketing, and selling the parts of motor vehicles to the OEM (Original Equipment Manufacturer) and REM (Replacement Equipment Manufacturers) markets (Mayyas, Qattawi, Omar, & Shan, 2012).

Business performance: the operational ability to satisfy the desires of the business and that includes measuring return on investment, return on equity, net profit margin, return on assets, sale growth, and growth in number of employees (Zahra, Neubaum, & El–Hagrassey, 2002).

Entrepreneurial leadership: a leadership role performed according to the entrepreneurial style of leadership that permits the generation of entrepreneurial activities that are very important to all of the businesses through promoting personal competency, managerial competency, proactive competency, and technology competency to achieve set goals, value creation activity and business performance (Tippins & Sohi, 2003; Prieto, 2010; Bagheri, Lope Pihie, & Krauss, 2013; Wahab & Mahmood, 2015)

Managerial Competency: the specific competencies of leaders such as planning, organizing, delegating, appraisal, development of subordinates, and self-management (Chong, 2013).

Organizational climate: a set of measurable properties of the work environment, perceived directly or indirectly by the people who live or work in an organization, through assessing cooperation, ties, communication, team work, and fairness expressed to all employees (Benzer et al., 2011).

Organizational learning: the way a leader creates new knowledge and improves or updates the original knowledge based on applying knowledge to create high performance and a superior outcome through mutual learning between leaders and followers (Brown & Duguid, 2000; Imran, Ilyas, Aslam, & Ubaid-Ur-Rahman,2016; Fu, 2017). *Personal competency*: an ability of leaders encompassing general cognitive ability, specialized cognitive skills, competence performance, modified competenceperformance, objective and subjective self-concepts, motivated action tendencies, action competence, key competencies, and meta-competencies (Eraut, 1998; Weinert, 1999; Le Deist & Winterton, 2005).

Proactive competency: the skills to identify and use new opportunities, to demonstrate aggressive behavior, to show initiative, and to persist until meaningful changes are achieved to improve the effectiveness of performance both of the organization and individuals (Seibert, Grant, & Kraimer, 1999).

Technological competency: the abilities possessed by modern leaders to create value through creativity and innovations arise from the use of digital tools to deliver more benefits to the customer and to improve business value (Patel & Pavitt, 1997; Murphy, Hanchett, Olmsted, Farber, Lee, Haas, & Streed, 2012).

Value creation: the amount of value that is subjectively realized by a target user who is the focus of value creation be it individual consumers, employees, organization (e.g., reputation, royalty, survivor, or sustain), or society (communities, stakeholders, etc.) (Lepak, Smith, & Taylor, 2007).

Scope of the Research

This research purposes to investigate the effect of entrepreneurial leadership dimensions on value creation and business performance in the automotive parts businesses in Thailand. This research uses three theories to describe phenomena occurring in this research. These include entrepreneurial leadership theory, contingency theory and dynamic capability theory. All theorizations are constructed to reveal the relationship between entrepreneurial leadership, its antecedent and consequences. Additionally, value creation is hypothesized as the mediator of the effect between the four dimensions of EL (personal competency, managerial competency, proactive competency and technological competency) and business performance. However, organizational climate and organizational learning are hypothesized as the moderators of the effect between the four dimensions of EL and value creation. Therefore, the scope of this research is presented as follows: Entrepreneurial leadership is defined as a leadership role performed according to the entrepreneurial style of leadership and that generates entrepreneurial activities that deliver more value to a business in terms of both built value creation and business performance (Hitt, Tihanyi, Miller, & Connelly, 2006; Simsek, Jansen, Minichilli, & Escriba-Esteve, 2015). In this study, EL included four dimensions: First, personal competency refers to person's capacity for interaction rather than the person's control, interact within an organization and autonomy of subordinates (Markman & Baron, 2003). Second, managerial competency refers to leadership skills in the context of concentrating on planning and coordination (Renko, El Tarabishy, Carsrud, & Brännback, 2015). Third, proactive competency refers to a leader ability to recognize new opportunities, to adjust to situations rather than change it and seek new dimension to describe organizational success (Bateman & Crant, 1999). Lastly, technological competency refers to leader skill to use technology in the workplace included computers, an automation office, robots, machine-learning and internet of things (IOT) as is characteristic of smart entrepreneurs (Songkünnatham, 2018).

The anticipated outcome of the investigation of the four dimensions of EL is to be able to assess business performance that arises from leaders' skills. Business performance can be measured in different contexts, such as the innovativeness of firms, market share, growth rate in number of employee, sales, etc. (e.g., Schwartz, Stiefel, & Wiswall, 2013). Success is derived from a leader's competencies, which are reflected in subordinate action and business performance in term of increasing of return on investment (ROI), return on equity (ROE), return on assets (ROA), net profit margin, sale growth, and growth in the number of employees. Moreover, this research aims to examine the mediating effect of value creation and business performance. Value creation is defined as the ability of the leaders and business to produce products and services, their exchange value, and the use value of commodities (Kraaijenbrink, 2011). Sources of value creation rise from several sources both inside and outside a business (Amit & Zott, 2001).

Additionally, this research also examines the moderating effect of organizational climate and organizational learning which moderates the effect between the four dimensions of EL and value creation. Organizational climate is defined as individual employee's perception of the psychological impact of the work environment on their workplace (James & James, 1989). Organizational learning refers to the process of creating, retaining, and transferring knowledge within an organization between leaders and subordinates during their work and life (Fu, 2017).

Mainly, this research aims to investigate the effects of entrepreneurial leadership on value creation and performance of the automotive parts businesses in Thailand. Also, the dimensions of EL, included personal competency, managerial competency, proactive competency, and technological competency, are assumed to be the independent variables in this research model. This research will gather data from automotive parts businesses in Thailand by means of survey questionnaires. In conclusion, the scope of this research includes three major parts. First, it examines the effect of four dimensions of EL (personal competency, managerial competency, proactive competency and technological competency) on value creation and business performance. Second, it examines the mediating effect of value creation which mediates the effect between the four dimensions of EL and business performance. Lastly, it examines the moderating effect of organizational climate and organizational learning which, in turn, moderates the effect between four dimensions of EL and value creation.

Significance of the Research

The findings of this study will redound to the benefit of automotive parts manufacturing businesses considering that entrepreneurial leaders play an important role in value creation and business performance today. The greater demand for leaders who possess entrepreneurial and leadership competencies background justifies the need for more effective, business-changing leading approaches. Thus, automotive parts manufacturing businesses that apply the recommended approach derived from the results of this study will be able to create higher value creation. Leaders will be guided on what should be emphasized by workers in the automotive manufacturing business methods to improve businesses' performance in organization. For the researcher (or researchers if it is a group study), the study will help them uncover criteria areas in the entrepreneurial leadership process that many researchers were not able to explore. Thus, a new theory on entrepreneurial leadership theory, contingency theory and dynamic capabilities may be derived.

Organization of the Dissertation

This research is arranged into five appendices and chapters. The first chapter provides the conceptual and theoretical bases for this research, research objective, research questions, and the definition of terms. The second chapter, the literature review, explains the theoretical basis of limitations indicated in chapter one. The literature review analyzes prior research studies and theories in connection to this current work.

Additionally, this chapter determines the limitations of prior research and the methods used in this research designed to conquer such limitations identified in previous studies. The more significant fields of a research study in the literature review involve influential researchers on the entrepreneurship concept, EL theory, contingency theory and dynamic capability theory integrated to the EL view. In chapter three, the methodological details are provided concerning the sample population, and an explanation of the research method through the use of a questionnaire tool. This chapter explains the process used to examine the data. Additionally, an agenda of projected accomplishment dates is given. In chapter four a presentation of data and a detailed analysis is given and a discussion follows dealing with the information from the questionnaires. Finally, the data is compiled and final considerations, and recommendations for future research are made.

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CHAPTER II

LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

Since the 1980s, the growth level of the entrepreneurial movement has advanced, not only because of the electronic age, but due to a plethora of new materials, products, financial networks, joint venture possibilities, and paradigmatic adjustment in politics, economics, and societies. It seems that an entire new remodeling of the methods in which business, communication, and government are conducted has arisen. Therefore, it is imperative for everyone involved in entrepreneurial ventures, particularly the entrepreneur, to wholly realize the importance of sound leadership practices (Fernald, Solomon, & Tarabishy, 2005)

The earlier chapter gave indications of studies that include EL and Thailand 4.0 which essentially outlined the purposes of the research, the research questions, and the scope of the study. Thus, this chapter provides details of the Thailand 4.0 framework and EL containing the theoretical foundation, literature review, conceptual framework, and hypothesis development. Accordingly, a number of hypotheses are proposed to examine and answer the research objectives and research questions.

EL was the critical construct for this research and the essential factors that were used to measure the characteristics of business leaders in Thailand. This research aimed to examine the empirical evidence of how EL affects business performance. From the literature review, EL characteristics can increase a firm's performance, lead firms into corporate sustainability (Bos-Brouwers, 2010), reveal maintainable value creation (Surie & Ashley, 2008), develop new innovative ability (Chen, 2007), increase business growth (Koryak, Mole, Lockett, Hayton, Ucbasaran, & Hodgkinson, 2015), and create sustainable competitive advantage and profitability (Kuratko, 2007). For these reasons, the perception of EL is starting to catch the attention of both practitioners and scholars. Nevertheless, still, there has been less empirical research on entrepreneurial leaders' influence on value creation and business performance. These are challenges for generalizing the concept of EL characteristics that can be used to analyze the level of expending personal resources for organizational benefits. It can result in a unique advantage through value creation (Brush, Carter, Greene, Hart, & Gatewood, 2002).

Additionally, most EL strategy research examines the relationship of every single construct and lacks a holistic model which integrates business performance and value creation into one conceptual framework. When considering the features of an entrepreneurial leader, there is a lack of evidence to demonstrate the relationship between dimensions of EL and value creation as moderated by the organizational climate and organizational learning which leads to both financial and nonfinancial business performance. For these reasons, this research proposed EL characteristics that included five dimensions, which, in turn, influenced value creation and business performance. Moreover, this research also integrated theoretical viewpoints that support the relationships between dimensions of EL, which are personal competency, managerial competency, proactive competency, technological competency. The theoretical foundation of this research includes the EL theory (Kuratko, 2016), contingency theory (Fiedler, 1964), and dynamic capability theory (Teece, Pisano, & Shuen, 1997). This chapter is arranged into four major sections. The first section presents the context of the Thailand 4.0 policy and the implications for Thai entrepreneurs. Second, it defines the theoretical foundation, including the entrepreneurial leadership theory, contingency theory, and dynamic capability. Third, it offers the literature review of all concepts in this research, including definitions and empirical results of prior research. Lastly, it constructs a conceptual model and hypotheses of EL which were established from the theories, the literature review, and the discussion.

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พหาน ปณุ ส

Thailand 4.0 and Thai Automotive Parts Manufacturing Businesses

Thailand 4.0

According to recent policy, many countries have revealed innovative approaches for the 21st century. In the USA, the government released "A Nation of Makers" recently to support Americans in turning ideas and solutions into reality (Wilczynski, 2015), The United Kingdom has been promoting its "Design in Innovation Strategy" to support British businesses to innovate better and grow faster (Daengdej & Dowpiset, 2018), China announced its "Made in China 2025" policy to broadly upgrade Chinese industry (Li, 2018). Moreover, India has launched its "Make in India" campaign to attract capital and technological investment (Khare, Bajpai, & Bharati, 2015). Lastly, South Korea is building a "Creative Economy" to change to advanced innovation and to adopt new engines for growth (Kong, Gibson, Khoo, & Semple, 2006). These are major concerns which prompted the government to transform Thailand's economic structure to "Thailand 4.0." Under the current Thai government, the country is focusing on becoming a value-based and innovationdriven economy by moving from producing commodities to innovative products; placing emphasis on promoting technology, creativity, and innovation in selected industries; and from a production-based to a service-based economy (Jones & Pimdee, 2017). The Thailand 4.0 development plan is focused on 10 targeted industries, which can be divided into two sections. In five industries (Next-Generation Automotive; Smart Electronics; High-Income Tourism and Medical Tourism; Efficient Agriculture and Biotechnology; and Food Innovation), the plan is to develop existing industrial sectors by adding value through advanced technologies (Kosaiyapattanapundit & Sangthong, 2017). The government has targeted five additional growth engines to quicken Thailand's future growth: Automation and Robotics; Aerospace; Bio-Energy and Bio-chemicals; Digital; and Medical and Healthcare (Puncreobutr, 2017). The transformation and development of Thailand is a significant priority for the government. As such, increasing awareness among both Thai and foreign investors is crucial to highlighting the critical opportunities and investment trends in the country (Thailand Board of Investment., 2017). Therefore, it is essential for the entrepreneurial leader to note the unique leader characteristics demanded of Thai

automotive part manufacturers and be prepared to play the lead role in the management of companies because automotive manufacturers are the first out of five industries that the Thai Government is seeking to develop through advanced technology. Another critical point to note is the importance of leadership ability now, which is more than was necessary for leaders in former times. They should possess more creativity and innovation by using and exploring advanced technology.

Thai Automotive Parts Manufacturing Businesses

The automobile industry was acknowledged as the 'the industry of industries' in the twentieth century and is considered one of the most globalized industries today (Wad, 2009). This industry is one of the automotive industry supply chains continually promoted by the Thai government (Rastogi, 2018). Since the early 1980s, the Thai Government has adjusted and developed in a context of economic globalization and emerging regionalization of the ASEAN auto market (Wad, 2009). Moreover, the automobile policy, that encompasses all the automotive business through these policies in Thai automotive manufacturing, appears as a success story in the twenty-first century owing to the export success of the Thai-based automobile industry via the value chains of Japanese Car Producers and American MNCs (Natsuda & Thoburn, 2013). Over 50 years, the country has developed from an assembler of auto components into a top automotive manufacturing and export hub (Rastogi, 2018). Thai automobile manufacturing policy has shifted from high to low protective measures and from an inward-oriented to a more export-oriented strategy. The development of government policy towards the automobile industry can be divided into three phases consisting of (1) early promotion and initial protection (1960-1970) (2) industrial rationalization through local content requirements (1971-1986) and (3) liberalization and internalization (1987-present) (Abdulsomad, 1999). Through these driving policies, Thailand offers excellent investment potential, leading automotive products, and a fast-developing region for automotive manufacturing leading to it becoming known as the "Detroit of Asia" (Busser, 2008; Petison & Johri, 2008).

Generally, the automotive parts industry provides impetus to other producers who can be considered as supporting industries. Metal forging, heat treatment, mold and die making, and plastics compounding are some examples of supporting industries in the automobile industry sector. Parts and components producers are involved in original equipment manufacturing (OEM) and in replacement equipment manufacturing (REM) (Consulting, 2017). Their finished products are sold to satisfy final assembly line needs, repair shops and general customers in the replacement market for used vehicles. The vehicle final assembly level is the last stage in the automobile production system where the final product is manufactured from components and parts (Abdulsomad, 1999). ASEAN countries, such as Indonesia, Vietnam, Thailand, and Malaysia, invest in research and development. Thailand's automotive industry has developed a relatively complete supply chain resulting in economies of scale and which can meet world quality standards. Thailand also has the advantage of being a regional hub in ASEAN. Thailand's automotive parts industry has a high competitiveness in export markets compared to other ASEAN countries. In 2016, Thailand was the number one exporter in ASEAN of auto parts and motorcycle parts (McKinsey & Company., 2018).

Moreover, the auto parts and motorcycle manufacturers in Thailand have been ranked fourteenth in the world. In the auto parts and export of motorcycle parts sector, they have been ranked seventh (Thailand Board of Investment., 2017). Currently, Thailand auto parts exports can be divided into two sections which consist of OEM-accounts for 70 percent of the export value--and REM--which accounts for 30 percent of auto parts and spare parts (Yongpisanphob, 2017).

Previous research has documented that automotive part manufacturers play a significant role in the economy of a country. Consequently, the performance of the manufacturers' sector is closely associated with the performance of the nation (Sutanonpaiboon & Pearson, 2006; Punyasavatsut, 2008). Currently, automotive industry in Thailand has strong potential to be an export base to produce automotive parts for the big companies such as Mitsubishi, Toyota, Auto Alliance (partnership between Mazda and Ford), GM, and Isuzu have decided to use Thailand as their export base (Kasuga, Oka, Yamaguchi, Higa, & Hoshino, 2005). In the year 2017, the chair of the Thai Autoparts Manufacturers Association announced that Thailand's exports of automotive part amounted to about 19,844.69 million dollars, and represented a growth in sales from 2016 of approximately 15.50%, making this sector

one with the highest export value (Suwannarat, 2016; Thai Autoparts Manufacturers Association., 2018).

Furthermore, to increase the competitiveness of automotive parts in Thailand, the Thai Government has set a target of the automotive parts industry being the first business sector linked to the Thailand 4.0 Policy. Therefore, if leaders in all automotive parts businesses hope to achieve superior performance in business then they must have the necessary capability to manage their businesses (Banomyong & Supatn, 2011). Also, leaders need more specialized ability than previously, because there should be able to encourage the usage of digital equipment and e-commerce in their businesses (Mohamad & Ismail, 2009). Today, almost all entrepreneurs use the internet of things (IoT). This is one part of a company's online presence (Abazi & Abazi, 2014). This is because information technology in Thailand is expected to grow significantly as it is heavily emphasized in Thai organizations (Sebora, Lee, & Sukasame, 2009). Therefore, leaders in automotive parts businesses must have technological competencies such as information technology, computer technology, and production and assembly technology to develop and invent new products and provide services to businesses.

Theoretical Foundation

This research attempts to assimilate many theoretical perspectives to support how EL affects business performance. This research acts to integrate three approaches applied to the theoretical foundation for this research, including the EL theory, contingency theory, and dynamic capability theory. The EL theory is used to explain the relationships between entrepreneurial leader characteristics and its consequences. The contingency theory is applied to describe the moderating effect of organizational climate and organizational learning on the relationship between EL and value creation. The dynamic capability explained the relationship between value creation and business performance. Each theoretical foundation describes possible sources of the EL style as follows:

Entrepreneurial Leadership Theory

EL involves establishing an individual or group to accomplish shared objectives using proactive entrepreneurial capabilities by optimizing risk, innovating to exploit opportunities, taking personal responsibility, and managing change within a dynamic atmosphere for the improvement of business (Roebuck, 2011). The foundation of the entrepreneurial leader theory assumes that entrepreneurial actions can achieve sustainable competitive advantage (Kuratko, 2007). It has its roots in extensively-studied fields of leadership and entrepreneurship (Swiercz & Lydon, 2002; Kuratko, 2007; Timmons & Spinelli, 2007). EL refers to leadership roles performed in entrepreneurial ventures rather than involving a focus on the entrepreneurial style of leadership (Mintzberg, Ahlstrand, & Lampel, 2009). EL is defined as being possessed by leaders who can create new products, new processes and expansion opportunities in existing businesses, working in social institutions and dealing with ignored social issues, participating in social and political movements, contributing to the change of current services and policies implemented by civil society organizations and governments (Esmer & Dayi, 2017).

In the context of leadership and entrepreneurship, leadership is an essential area in the social sciences; and research on leadership has led to a multitude of empirical findings (McMurray, Pirola-Merlo, Sarros, & Islam, 2010). Currently, leadership is considered a developed field (Hunt & Dodge, 2000); yet leadership scholars continue to study leadership because there are still many aspects of leadership that are unknown. On the other hand, entrepreneurship is defined as the relationship between the presence of profitable opportunities and the existence of entrepreneurial individuals (Shane & Venkataraman, 2000). The process leads to a valuable difference created by time and effort and involves assessment of accompanying financial, psychological and social risks as well as financial rewards and personal satisfaction (Hisrich, 1989). The personal characteristics of a successful entrepreneur are self-confidence, determination, communication and persuasion skills, openness to knowledge, new ideas, having vision, using initiative, showing reliability, given to positive thinking, showing flexibility, risk-taking, and hard work, demonstrating organizational ability, the ability to control, and reconciliation with the

environment, showing persistence and rationality, able to seize opportunities and given to continuous self-renewal (Esmer & Dayi, 2017).

There are many aspects of entrepreneurship that need to be examined, in contrast to leadership; this is because entrepreneurship is a young field (Hitt, Ireland, Camp, & Sexton, 2001). Cogliser and Brigham (2004) noted that there is an intersection between leadership and entrepreneurship and that one cannot be separated from the other. This is shown in the entrepreneurship literature that covers topics like leadership designed to enable goal achievement of others and through motivating them (Fernald et al., 2005). Considering the very substantial interest in both leadership and entrepreneurship, it may be expected that the intersection between entrepreneurship and leadership also has been examined widely in the literature.

EL is a distinctive type of leadership. Central is the theory of the Entrepreneurial Leader concept (Bagheri & Pihie, 2011). There are character differences between entrepreneurial leaders and other managers (Nicholson, 1998). Cunningham and Lischeron (1991) support this idea and argue that the entrepreneurial leader is a people-manager in motivating, directing and leading people. Defining a vision is central. EL is more about personality traits or style, setting clear goals and creating opportunities. Being the entrepreneurial leader means to be more than a manager; it means to be a leader of people (Kerr, Kerr, & Xu, 2018). The entrepreneurial leader should have seven characteristics leading to entrepreneurial leaders who see opportunities where others do not (Conger & Kanungo, 1998; Santora, Seaton, & Sarros, 1999).

The previous literature supports the concept that entrepreneurs learn by doing, which is known merely as the experiential theory. This same belief is found in leadership theory (Kempster & Cope, 2010). The experiential method can be generally defined as learning that is developed through knowledge, skills, and values that are not directly accrued through an academic setting (Mooney and Edwards, 2001). It is learning through a variety of activities experienced through real-world experiences. Another theoretical framework that is combined into this research is the EL theory. This is a relatively new theory where, independently, the two words have been well established in the research, but together they are not often combined as one theory (Roomi & Harrison, 2011). Defining each term briefly, entrepreneurship is

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generally the creation of opportunity beyond the resources that the individual controls, whereas leadership combines strategic vision and influence with the goal of motivating others through a cultural process developed in the organization (Roomi & Harrison, 2011). It is commonly thought to consider an entrepreneur and a leader as two individuals moving down different career paths. Yet when looking at the job function for each, they have many common qualities (Martin & Osberg, 2007). It can be observed that a leader performs duties within an established organization with organizational structure firmly established, while an entrepreneur engages in more complex solo roles where organizational structure is not so developed (Martinez & Aldrich, 2011).

Additionally, it would also appear that the personality traits and skills needed to create and develop a new entrepreneurial venture support the idea that entrepreneurial character traits could be far more complex (Vecchio, 2003; Mattare, 2008). Thus, because the functions of each can be somewhat similar, both theories can be used to support the newer theoretical approach of EL theory (Cogliser & Brigham, 2004). There is evidence in the current literature that supports EL theory (Barker, 2001; Kuratko, 2007; Gibb, 2014; Pisapia & Feit, 2015).

EL involves setting clear goals, creating opportunities, empowering people, preserving organizational intimacy, developing human resources, influencing others to manage resources strategically, and influencing and directing the performance of others toward achievement of organizational goals that involve recognizing and exploiting entrepreneurial opportunities (Cunningham & Lischeron, 1991; Ireland, Hitt, & Sirmon, 2003; Renko et al., 2015). Moreover, EL refers to setting clear organizational goals and leading others towards the accomplishment of these goals by facilitating opportunity and encouraging advantage-seeking behaviors via the empowerment of others in the organization (Kolzow, 2014). As such, EL may take place in both established organizations and new ventures (Kuratko, 2007).

Opportunity-seeking is central to the literature of EL. Identifying opportunities is where others do not require specific competencies needed to be compatible with the changing nature and growing needs in new and established organizations (Swiercz & Lydon, 2002; Bagheri et al., 2013). This study concludes that EL is based on a leader creating, identifying and exploiting opportunities in an innovative, risk-taking way

(Currie, Humphreys, Ucbasaran, & Mcmanus, 2008). These abilities are used to influence other managing resources towards opportunity-seeking and advantageseeking behaviors (Covin & Slevin, 1993; Ireland, Hitt, & Drucker, 1999; Rowe, 2001; McCarthy, Puffer, & Darda, 2010). The importance of being a leader and managing resources for opportunity-seeking is to create an entrepreneurial vision and to inspire a team of competent and competitive people to enact the vision (Gupta, MacMillan, & Surie, 2004). The leader is the one who must create visionary scenarios that are necessary for selecting and mobilizing a supporting cast of interdependent members who commit to and enact the vision to achieve strategic value creation (Gupta et al., 2004; Chen, 2007) Entrepreneurial competencies can be developed through purposeful entrepreneurship education (Kempster & Cope, 2010).

As mention above, EL has its roots in the extensively-studied fields of leadership and entrepreneurship. EL is a relatively new trend in leadership studies, and it has interested scholars increasingly in the 21st century (Covin & Slevin, 1989; Fernald et al., 2005; Kuratko, 2007; Greenberg, McKone-Sweet, & Wilson, 2013; Leitch, Mcmullan, & Harrison, 2013;). While some researchers admit its relevance (Greenberg et al., 2013; Middlebrooks, 2015), yet others claimed it is an oxymoron as an attempt to combine two contradictory terms (Fernald et al., 2005). Furthermore, EL is appropriate in a dynamic, complex and uncertain competitive environment, and represents a type of entrepreneurial leadership that is distinctive from the behavioral form displayed by other leaders (Gopinathan, Wong, & Tang, 2008). That is, leadership is capable of sustaining innovation and adaptation in high-velocity and uncertain environments (Surie & Ashley, 2008). Thus, entrepreneurial leaders should be creative innovators who are committed to action and value-creation in the market (Surie & Ashley, 2008). EL involves, according to Brown and Duguid (2000), a creative and proactive response to environmental opportunities.

Therefore, the EL theory contends that entrepreneurial leadership is characterized by a pool of unique capabilities that are most important to value creation in sustainable innovation and adaptation in an uncertain environment (Lockett, Hayton, Ucbasaran, Mole, & Hodgkinson, 2013). Also, EL behavior also supports organizational success through proactive entrepreneurial behavior by optimizing risk, innovating to take advantage of opportunities, taking personal responsibility and managing change within a dynamic environment for business performance (Tarabishy, Solomon, Fernald Jr, & Sashkin, 2005; Zyl & Mathur-Helm, 2007)

In this research, the EL theory is applied to EL as a factor to create value and business performance for both financial and social entrepreneurs' success along with delivering a competitive advantage (Austin, Stevenson, & Wei-Skillern, 2012). EL is not the same as entrepreneurship, which is typically seen as an activity for venture creation (William Walton Kirkley, 2016). The EL theory modifies entrepreneurs and leadership to represents a new type of leadership that creates more value for the organization (Tarabishy, Fernald Jr, & Solomon, 2002). An entrepreneurial leader understands the importance of entrepreneurial action with managers at any level to create sustainable competitive advantages as the foundation for profitable growth in the organization (Kuratko, 2007). Furthermore, organizations, and hence their employees, are required to continuously seek new opportunities and innovate regarding products, processes, technologies, different administrative routines, and structures. Also, the ability to proactively compete in organizations is required to succeed in businesses in Thailand. Thus, the dimensions of EL consist of personal competency, managerial competency, proactive competency, and technological competency-based entrepreneurial capability that lead to the businesses being able to achieve value creation and superior business performance. Besides, the components of value creations are assessed through customer benefits, business domain gains, and business partner increases.

Contributions and Limitations of EL Theory

The EL theory focuses on the specification of leadership characteristics, especially the leaders in businesses that have more challenges than other business. Such leaders often start as sole proprietorships where a single entrepreneur controls all aspects of a business (Isenberg, 2010). While it can be challenging to run a solo operation, it also keeps things simple: the owner does not have to worry about leading or managing employees (Hamel, 2008). As businesses grow, owners or leaders may eventually hire workers to assist with increasing workloads (Petch, 2016). Therefore, EL theory presents several potential contributions and limitation to the theory and practical implications for all businesses.

The first contribution of EL is that tasks can be delegated and increase worker productivity improved (DeMers, 2015). Good EL can determine the strengths and weaknesses of different employees and delegate work accordingly (Hamel, 2008). Efficient division of labor can result in higher work output, which ultimately results in higher sales and higher profit (Pal & Bansal, 2012).

Second, EL theory support the idea that lack of resources or uncertainties does not discourage leaders, instead these problems motive them and lead them to search for new solutions to overcome these problems.

Third, the EL concept indicates that leaders do not sink into skepticism and they do not remain under a constant pressure of problems. They direct people to find solutions to problems that seem impossible to solve, by initiating analyses and finding solutions with their productive thinking skills.

Finally, adoption of the EL concept can improve employee morale and make employees more loyal to the company (Greenberg, McKone-Sweet, & Wilson, 2011). Loyal employees trust their leaders and may be willing to work harder and stay with the company when times are tough (David, 2006). Recruiting and training new workers can be expensive, so fostering high morale through good EL can have an impact on the bottom line (Bristol, 2015).

On another hand, limitation of EL concept is entrepreneurial lead should have several abilities as the previous studies explained limitation follow this:

First, EL refers to many characteristics of leadership but which consist of five defining characteristics for successful entrepreneurs: innovative behavior, achievement orientation, action leadership stance and dedication to organizational growth (Mokhber et al., 2016). These characteristics or attributes of the entrepreneurial leader are proposed from the research of several thought leaders (Cogliser & Brigham, 2004). Many types of research indicate that entrepreneurs have a propensity to take on more challenges, be more persistent and engage in a higher level of risk-taking experiences than other leaders (Malach-Pines, Sadeh, Dvir, & Yafe-Yanai, 2002). Taking into account these characteristics that affect business, it

becomes challenging to find people who have so many abilities. The ideal people may be difficult to find in the real world.

Secondly, leaders can be a disadvantage in business is that EL itself is not a productive activity (Hamel, 2008). While spending time leading and instructing workers is essential to make sure that they perform their duties well, managers do not produce goods or services while acting as leaders (Cogliser & Brigham, 2004). An entrepreneur who hires a few employees might find that the time he spends performing leadership tasks cuts into his productive time, for he must spend time communicating with clients and making sales (Krantz, 2015). Some owners hire manages to lead employees on their behalf but hiring administrators can be expensive (Stevenson & Gumpert, 1985). Another potential drawback of EL in business is that leaders and workers do not always see eye to eye (Javitch, 2008).

Thirdly, workers may feel that they cannot relate to their leaders, and an "us versus them" mentality can develop (Robinson, 2009). Disagreements between managers and employees may result in disputes that waste time and reduce productivity (Javitch, 2008; Adams, 2018). Managers need to have excellent people skills and be able to adapt their leadership styles to mesh with the personalities of different employees (Tsai, 2011).

In conclusion, EL theory describes leadership and entrepreneurship characteristics that are show to be more consistently associated with entrepreneurship than with leadership. EL is different from general leadership in that the EL style emphasizes creating new products, new processes, and expansion opportunities in companies. Thus, EL theory should be capable of application to the automotive parts manufacturing. The EL theory recognizes the advantages and disadvantages that are involved with the EL characteristics and capability of leadership. 2103

Contingency Theory

The contingency theory has a long and ongoing tradition in entrepreneurship research. For example, some of the earlier works includes that of Miller and Toulouse (1986) who investigated the relationships between strategy, structure, decisionmaking, and leaders' personalities regarding performance. When they investigated the interaction effects of the context (in this case, dynamic or stable environments), they

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found, for example, innovation strategies were more favorable in dynamic environments (Hacklin, Björkdahl, & Wallin, 2018). In a similar type of study, Covin and Slevin (1989) used a contingency approach when they investigated how environment, structure, entrepreneurial orientation, and strategy affected performance outcomes of firms. In hostile environments, they found that organic structure, great entrepreneurial mindset, and a strategy that focused on long-term orientation and high product prices was related to high performance. (Iakovleva, 2002) similarly showed that the entrepreneur model was particularly useful in hostile environments. In benign environments, by contrast, it was found that mechanical structure, low entrepreneur traits, and a strategy that focused on short-term orientation and the reliance of single stakeholders were important (Lumpkin & Dess, 1996).

Today, the contingency theory is still extensively used in entrepreneurship research. For example, Chowdhury's (2011) study suggests that young firms need to align with the appropriate structural system used by firms in response to the type of customer-driven complexities encountered. It has been found that high formalization is most useful for firms with low customer complexities and that low formalization is more useful for firms with high customer complexity (Al-Qatawneh, 2009). Similarly, Patel and Conklin (2012) used a contingency theory lens when they studied how highperformance work systems were affected by group culture and retention on labor productivity. When they introduced the contextual variable, group culture, they found significantly stronger effects in comparison to not using the contextual variable (Frank, Enkawa, & Schvaneveldt, 2015).

Entrepreneurship scholars have also compared the results of additive models with contingency models (Darroch & Speed, 1983). Wiklund and Shepherd (2005) investigated the effects of entrepreneur orientation on business performance. They compared the results of an additive model with those of a contingency model, and they found that by also adding the interaction effects of context (environment and access to capital), they were better able to explain the impact of entrepreneurial characteristics on business performance (Neneh, 2011). Robinson and Mcdougall (2001) also compared the effects of adding a model to a contingency model and investigated the effects of entry barriers on performance. They found that when they applied an additive conceptual model, they could only report limited support for entry
barriers that influenced startups performance (Linton, 2014). However, when they used a contingency model where the entry barriers' effect on a start-up's performance would 'depend on' the industry life cycle, they were able to find substantially stronger results (McDougall, Covin, Robinson, & Herron, 1994). These results showed, for example, that the entry barriers' effect on performance is weakened for firms acting in the early stages of the industry life cycle and is amplified for firms operating in the later stages of the industry life cycle (Zajc Kejžar & Ponikvar, 2014). In conclusion, then, the contingency theory offers a view that goes beyond the examination of additive relationships by also including possible interaction effects with different contextual variables (Linton, 2014). The contingency theory, thus, can be argued to allow for more fine-grained theory-building as contingency theories also take into consideration the context of firms (Zeithaml, Varadarajan, & Zeithaml, 1988).

Previous studies have indicated that much research accommodates the contingency theory for hypothesizing a firm's effective operation that is accomplished by contingence with EL factors affecting business performance (Hitt et al., 2001; Antonakis, Cianciolo, & Sternberg, 2004; Ensley, Pearce, & Hmieleski, 2006). Thus, the most critical part of the contingency theory is the ability to predict a firm's performance which is the appropriate result of value creation and its business success (Rashidirad, Salimian, Soltani, & Fazeli, 2017). Consequently, this research has applied EL to creating value or innovation through customer benefit, business domain gains, and business partner increase as the value factors that influence a business to improve businesses performance (Hitt et al., 2001). Moreover, organizational climate is recognized as the moderator between EL and value creation factors. Hence, the contingency theory is the theoretical foundation of the relationship between the antecedents of EL and each dimension of EL, as well as the moderating effect of organizational climate which moderates EL, and value-creation that affects business performance. ณ สุก

Contribution and Limitation of Contingency Theory

This theory has received contributions from previous studies, and several scholars acknowledge it and refer to this theory in their studies (Lorsch, 2010). Contingency theory offers a fluid approach to management that is more realistic in the

modern world where organizations must continually adapt to their external environments (Donaldson, 2006). For businesses in a stable environment, mostly immune to economic fluctuations and with steady levels of supply and demand, the contingency theory promotes a mechanistic style of management (McHugh et al., 2003). Business leaders will find less differentiation between their tasks as each subtask is relatively stable and secure to control (Burns & Stalker, 2009). Due to this stability and because functional areas are not heavily dependent on each other, there will be less integration between business units and departments (Gluck, Kaufman, & Walleck, 1980). People in businesses become less autonomous and will be subject to stricter controls over their work as tasks become standardized and formalized so that operations can run smoothly (Burns & Stalker, 2009). As the environment in which the organization operates is stable, there is no need for complex decision-making involving people at lower levels. Instead, decision making and authority will become centralized at the top of the organizational pyramid (Borgatti & Foster, 2003).

In contrast, businesses in uncertain environments, susceptible to change and where access to resources is hindered or where resources themselves are limited, contingency theory suggest an organic or dynamic organizational structure (Tushman & Nadler, 1978). As workers' tasks are often changing, responsibilities will need to be differentiated, and specialists created so that the business can respond quickly to change (Macmillan & McLaren, 2012). Business units will need to become more tightly integrated as rapid communication and sharing of information and ideas between departments becomes increasingly vital (Porter, 1989). Business people will have more freedom or choices in their roles and decision making will be decentralized, involving people at lower levels to empower workers to make quick decisions and respond more effectively to external challenges (Van der Vliet, 2012).

Dynamic leaders who understand and use contingency theory operate in a state of alertness and vigilance that can demand all their faculties (Johnson, 2018). The next detail describes the contribution of contingency theory used in business. First, contingency theory creates an appropriate solution in specific situations as leaders using contingency theory respond to the causes of individual problems, rather than to the problem itself. Such a leader seeks to understand all the influences that lead to difficulty (Ejimabo, 2015). Second, the contingency approach focus is the organization which it considers holistically. Contingency theory encourages leaders to think about the consequences of a decision as it relates to the whole business (Kaplan & Mikes, 2012). A leader's actions must reflect the culture, commitment to employee safety and well-being, profit orientation, branding positioning and customer service attitudes of the entire organization (Tsai, 2011). At the same time, the leader must respond to the problem at hand, according to the immediate causes of the issue (Johnson, 2018). This dual focus on the overall organization and the specifics of a problem requires a leader to see the big and small pictures at the same time.

Third, the contingency theory encourages leaders to integrate a variety of inputs into their work. Leaders operating under the principles of contingency theory must do more than identify the one or two influences on an issue (Peters, Hartke, & Pohlmann, 1985). They must be prepared to evaluate multiple inputs that may all be contributing to a problem. Using the example of a drop in productivity, the leader may discover that not only lighting and air conditioning add to the problem, but the company's revised production bonus program, the move from individual recognition to team recognition, a loss of some benefits and outdated equipment all contribute to the single problem (Thomson, 2009). Contingency leaders must learn to integrate all the threads that intertwine to make for effective decisions and problem-solving (Zhou & George, 2003).

Finally, the contingency theory supports leaders to make policy shifts. Businesses issue policies to reduce the amount of time spent making routine decisions (Waldron, Vsanthakumar, & Arulraj, 2000). However, a business that embraces contingency theory requires leaders who can bend policy or even override it if circumstances demand a new type of decision (Reina, 2015). This puts a burden on leaders to interpret policies loosely yet maintain the company's values and vision at all decisions (Jones, 2013). Contingencies arise that may be unforeseen, and leaders need the flexibility to adjust to new circumstances (Hayat, Abbas, Pop, & Asghar, 2010).

Even though contingency theory has been applied to leadership in large empirical studies, there are still limitations (Korzynski, 2014). First, the contingency theory lacks an adequate literature; thus it has not adequately spelled out various types of actions which can be taken in different situations (Rahim, 2002). It is not sufficient to say that 'a managerial action depends on the situation' (Johnson, 2018). The approach ideally should provide information along the lines 'if this is the situation, this action can be taken' (Peretomode, 2012). Unless this is done, the approach cannot offer much assistance to the practice of management (Waldron et al., (2000). No doubt, researches have been conducted in this direction but, by and large, they have not satisfied the needs of managers (Yukl, 1989).

Second, the contingency theory has to deal with complicated events (Manktelow, 2013). The suggestion of this theory is straightforward, that is, leaders should do according to the needs of the situation (Cherry, 2018). However, when put into practice, this becomes very complex (Olum, 2004). Determination of a situation in which managerial action is to be taken involves the analysis of many variables with different dimensions (Zeithaml et al., 1988). Therefore, there is a possibility that managers, who are always short of time, may ignore a thorough analysis of all these variables and may resort to short-cuts and adopt a more accessible way (Tripon & Dodu, 2005).

Third, the contingency approach is difficult to subject to empirical testing due to contingency theory being complex. This presents problems in testing the precepts of the theory (Nanda, 2016). For empirical testing of the theory, it is necessary that a suitable methodology is available (McMahon, 1972). A methodology may be available, but because of the involvement of many factors, testing becomes difficult (Kiser & Hechter, 1991). Finally, the contingency approach is primarily reactive and does not involve proactive action (Zeithaml et al., 1988). If merely suggests what leaders can do in a given situation (Cherry, 2018). For a given organization, super system constitutes environment and management can be applied to supra-system also (Nanda, 2016). Therefore, leaders are responsible for managing the situation in such a way that they avoid the undesirable aspects of the environment (Yukl & Mahsud, 2010).

Moreover, there are other limitations of contingency theory that scholars are aware of. Despite some good ideas that contingency theory offers to management thought, it is not free from criticism (Wood, 1979). First, the leaders should be concerned about contingency theory because this theory does not follow the concept of the 'universality of principles' which often applies to specific management situations (Amanchukwu et al., 2015). Second, it is argued that what contingency theory asserts was asserted that flexibility of management principles (Johnson, 2018). Therefore, the theory has added nothing new to the management thought (Horner, 1997). Third, as there is no definite solution to a problem, managers think of alternatives to arrive at the right choice (Reilly, 1998). This is costly regarding time and money (Hofer, 1975). It also does not provide a theoretical foundation upon which management principles will be based (Zeithaml et al., 1988). Lastly, it is not possible for managers to determine all the factors relevant to the decision-making situation (Olum, 2004). Because of constraints of time, money and ability, managers can neither collect complete information about the environment nor analyze it entirely (Tripon & Dodu, 2005).

Besides, it is not possible to establish a perfect relationship between these factors. Application of this theory may, therefore, be a complicated task as decisions are based on limited information (Beach & Mitchell, 1978). These criticisms are only theoretical (Donaldson, 2001). The theory contributes to the development of management thought if applied rationally (Pine, 2006). Disadvantages of the contingency theory may be several: a) A leader may appear to subordinates as inconsistent and insincere because of frequently changing approaches and b) Individual managers may not be sufficiently skilled to reverse the decision and leadership styles to match different situations (Chokchainarong, 2006). As mentioned above, different contributions and limitations of contingency theory have been identified in researches and academic studies. In this study, after a review of the literature, it can be confirmed that contingency theory remains suitable to combine into the EL conceptual framework in the automotive parts manufacturing businesses.

Dynamic Capabilities Theory

Dynamic capability is the capability of an organization to purposefully adapt an organization's resource base and emphasizes the ability to react adequately and timely to external changes requiring a combination of multiple capabilities (Teece et al., 1997). Scholars in dynamic capability outlined a framework—generally referred to as "dynamic capabilities" —for understanding firm-level capability differences (Teece & Pisano, 1994; Teece et al., 1997). The "dynamic capabilities" framework is based on conjectures that firm-level differences in capabilities are rooted in three factors (Teece, 2017).

First, Asset positions: Following evolutionary economic and path-dependence logic, a firm's ability to change their future repertoire of capabilities is constrained by its current stock of capabilities. Teece and Pisano (1994) used the term "assets" broadly to define the legacy of resources (knowledge, technical skills, organizational competencies, etc.) that shaped the firm's options for future capacity expansion.

Second, Processes: Firms can "reconfigure" their asset positions through investments and other managerial interventions (Ambrosini, Bowman, & Collier, 2009). But a firm's capacity to reconfigure is not unlimited (Teece et al., 1997). It depends on a set of 'higher-order' routines (like governance structures, resource allocation processes, management systems, etc.) that shape organizational adaptability (Pisano, 2017). It is this capacity to reconfigure a firm's asset positions and specifically the "processes" that underlie this capacity that Teece and Pisano (1994) called its "dynamic capabilities."

Third, Paths: Because most capabilities are cumulative and develop over time through a series of coordinated investments, they involve commitments to "paths," rather than discrete projects (Fuhl, 2006). A critical strategic problem for firms is to identify and commit to paths for capability creation that lead to competitive advantage (Teece et al., 1997). Managerial discretion in the selection of paths—along with constraints imposed by pre-existing asset positions and processes for the dynamic capabilities' framework—has both descriptive and normative implications (Pisano, 2015). Path choice could be used to help explain firm-level differences (Laaksonen & Peltoniemi, 2018), but it also could function to inform managers about how to make better capability decisions.

Dynamic capabilities framework proponents have argued that these kinds of choices are important to a firm's competitive advantage, and thus should be a focal point for strategic analysis (Kaur & Mehta, 2017). The third leg of the framework—a choice about paths—was the most explicitly normative, but the original formulations in Teece and Pisano(1994) and Teece and colleagues (1997) offered only high-level normative guidance. It was hoped at the time that future research would illuminate

many more details and principles about how managers should make capability investment commitments (Pisano, 2017).

The dynamic capabilities theory is a critical source of capability thinking in value creation (Zahra, Sapienza, & Davidsson, 2006). This concept was developed by Teece and colleagues (1997). They stated that the term "dynamic capabilities" is a combination of two terms which are "dynamic" and capabilities." According to this context, dynamic is the ability to renovate competences (Protogerou, Caloghirou, & Lioukas, 2005) to accomplish congruence with the shifting business surroundings (Oliva, Day, & MacMillan, 1988); some innovative responses are needed when timing and time-to-market are serious considerations (A. R. Deshpande, 2012), the change in technology is rapid (Wu, 2010), and the nature of upcoming markets and competition are hard to determine (e.g., Teece, 1998; King & Tucci, 2002). Capabilities accentuate the critical part of strategic management in appropriately integrating, adapting, and reconfiguring external and internal organizational abilities, functional competencies, and resources to match the necessities of a shifting environment (e.g., Zander & Kogut, 1995; Scharpf, 2000; Capron & Mitchell, 2009; Trainor, Rapp, Beitelspacher, & Schillewaert, 2011). Therefore, the term dynamic capability is the firm's ability to integrate, build, and reconfigure internal and external competencies to address rapidly changing environments (Teece et al., 1997).

Dynamic capability is an important and complex concept that occupies a central place in the entrepreneurship and competitive strategy literature (Zahra et al., (2006). In many studies, scholars recognize the significance of dynamic capability and complexity theory (Arndt & Gould, 2010). Researchers have found that dynamic capability can be utilized in several contexts in organizational science theory such as learning theory (Cohen & Levinthal, 2000, Zahra & George, 2002) as well as in the behavioral theory of the firm (March & Simon, 1958). In addition, dynamic capability allows a framework to be developed that illustrates the relationships among substantive capabilities, dynamic capabilities, learning, and organizational performance (Zahra et al., 2006). It has been stated that organizational learning arises from the evolution of capabilities and Cyert and March (1963) suggested that organizational learning is multifaceted and centers on adaptions of goals and existing attention rules. Zahra and colleagues (2006) found that dynamics capabilities can

produce superior performance in dynamic environments. On the contrary, Calantone, Cavusgil and Zhao (2002) confirmed that learning orientation influences the performance of a business.

Therefore, dynamic capabilities concept and EL are not a new notion in organization science. For example, Zahra and colleagues (2006) stated that the emergent of dynamic capabilities encourages value creation and are consistent with EL that creates, defines, discovers, and exploits opportunities to compete with a rival. As Davidsson (2004) mentioned, seeking a correlate between entrepreneurial leadership and capabilities is part of the process to generate value for businesses. As mention above, dynamic capability theory involves leaders in organizational learning, organizational climate assessment and value creation activities. It is thus contended that in this study the dynamic capability theory is relevant to this research because at present automotive parts manufacturing enterprises are faced with a range of dynamic phenomenon from their external environments such as technology disruption, fierce completion, and Government pressures.

Contribution and Limitation of Dynamic Capabilities Theory

Dynamic capabilities theory emphasizes the capacity to renew, reconfigure and integrate the firm's core capabilities to address environmental changes (Teece et al., 1997). Dynamic capabilities describe the capacity of a firm to purposefully create, enlarge or adapt its resource base (Helfat, Finkeistein, Mitchell, Peteraf, Singh, Teece, & Winter, 2007). Consequently, the contribution of dynamic capability as a most significant and enduring source of competitive advantage is owing to the ability of firms to acquire, integrate and deploy resources to address the changing environment rather than the simple possession of specific resources and capabilities (Teece et al., 1997; Teece, 2009). The notion of dynamic capabilities (Teece & Pisano, 1994) represents a new strategic framework that evolved through the realization that an expanded paradigm was needed to explain how firms may gain and sustain competitive advantage. The dynamic capabilities framework (Teece et al., 1997) was created to explain how and why certain firms were able to build competitive advantage under regimes marked by rapid change. The dynamic capability theory in the leadership literature focuses on the two most popular forms of leadership: the visionary leader—the charismatic transformational leader who inspires, or the relationship leader—the mentor who has the compassion and empathy needed to form healthy relationships to support their organization (Dutton, Workman, & Hardin, 2014). In the dynamic capability leadership framework, the move is away from a "command and control" model to a more "cultivate and coordinate" model. The way that leadership is taught must change (Chen, 2007). Normally, the capabilities leadership framework is a powerful tool for understanding and integrating the four critical components of dynamic capability leadership (Ambrosini et al., 2009).

First, dynamic capability leaders show a higher than average strength in making sense of data in the context in which they are operating. "Sensemaking" is a heightened form of collecting data from many sources that is then mapping it into a productive context (Wilden, Devinney, & Dowling, 2016). Without this filtering process, data can become overwhelming and inhibit efficiency within an organization (Lecler, 2013).

Second, the ability to map is an essential part of sensing and seizing. It involves the ability to map the data in a way that will give leaders an overall advantage (Čirjevskis, 2015). Mapping the data allows leaders to monitor the pulse constantly on what is going on both internally regarding organization dynamics, as well as externally, as in keeping a real-time log of customer experiences (Hazy, 2004).

Third, the possession of capabilities to create a framework and flow for many companies has not been met as they do not understand the dynamics of competition for market share. Sometimes these businesses failed to reexamine their old framework of what defines their competition in time to gain valuable insights into the real source of competition—new and local companies (Breznik & Lahovnik, 2016). Dynamic capability leaders can let go of old frameworks and assumptions that block their insight to stay open to new information (Augier & Teece, 2007). Finally, leaders can be inventing new methods to capitalize on the existence of a dynamic environment. New leadership means using the information that is gathered and developing something new to benefit customers' experiences (Teece, 2007). These leaders show

strength in creating structures and processes needed to move toward the vision of the organization or individual teams (Teece, 2018). The most successful leaders of the future will be those who can seize relevant information and use it to take advantage of new opportunities. In an age where information is king, and change is the only constant, dynamic capabilities represent a skill sets leaders must hone to gain the advantage in a competitive market (Eisenhardt & Martin, 2000).

While dynamic capabilities have many contributions, it does have some limitations. First, dynamic capabilities theory may not enable the organization to understand its environment fully. Thus, the organization is undoubtedly selective (Luhmann, 1995), since it follows only those patterns of action that look to be meaningful to itself. Subsequently, complexity reduction at the organization's border includes the possible risk of making an inappropriate assessment of the organizational environment (Felin & Powell, 2016). This common problem of in organizations is ultimately not resolvable. Inconsistency and selectivity also causes managers to have blind spots and to demonstrate uncertainty in many kinds of strategic action, which may harm organizational survival (Teece, Peteraf, & Leih, 2016).

Second, dynamic capabilities theory induces selectivity which leads the organizations to have blind spots; competitive blind spots refer to the unavoidably ignorant nature of the strategic action path chosen (Schreyögg & Sydow, 2010). Since social systems are self-referential, they are innocent and uncritical in some ways. It applies mainly to their primary socially-constructed distinctions on which their remarks on reality, collective sense, and identity are built (Luhmann, 1995).

Finally, dynamic capabilities theory also causes the organization to have an environmental complexity which involves uncertainty (Burisch & Wohlgemuth, 2016). In identifying an organization's main problem (Thompson, 1962), uncertainty may be expressed by management through over simplification so that there is a chance of failure in the future. Unlike the blind spots, organizational decision makers do recognize environmental uncertainty (Zahra et al., (2006).

Therefore, dynamic capabilities theory has both advantages and disadvantages whose effects have been shown in several studies. From the literature review, it was found that this theory was consistency in the EL context and with automotive parts manufacturing businesses because leaders who work in automotive industries face dynamic environments that affect their performance. There are many reasons to claim that automotive parts businesses operate in a dynamic environment. First, the automotive industry has always been the target industry for investment promotion and is a key contributor to the country's economic development both in terms of finance and technology transfer. Under the new investment promotion policy, the automotive industry remains a target industry and target cluster receiving strong attention from the government. Second, the businesses sector has been undergoing automotive technology research and development in order to be a global green automotive production base, which the government has coordinated with the private sector in order to formulate a Master Plan for the Automotive Industry. Lastly, the Thai Government is promoting fuel-efficient transportation through the use of natural gas vehicles. There are more than 10,000 natural-gas-powered taxis and related NGV and subsidies have been introduced.

Consequently, for these reasons leaders working in automotive parts businesses should be capable of adapting and improving operational processes to capitalize on the changing external environment that affects their performance. This means that dynamic capability considerations could be considered along with EL characteristics and respondents in this research.

In conclusion, the phenomenon of EL in this research is explained by several theories, including the EL theory, contingency theory, and dynamic capability theory. The EL theory explains how EL has positive relationships with value creation through producing customer benefits, business domain gains, and business partner and business performance. The contingency theory explains how leaders can set the direction to follow for developing an organizational climate and organizational learning incorporating the vision of the future. They are concerned with the ideas that their followers can be brought into alignment and be inspired to create value and improve business performance. Contingency theory explains how organizational climate and organizational learning moderates EL consisting of personal competency, managerial competency, proactive competency and technological competency which affects value creation. Moreover, the dynamic capability theory describes the relationship between value creation and business performance. The full conceptual model which illustrates the relationships of dimensions of EL and constructs,

consequence constructs and moderators is shown in Figure 1. The next section mentions the literature review and the hypotheses generation for EL.



Figure 1: Conceptual Model of EL on Value Creation and Business Performance of Automotive Part Manufacturers Businesses in Thailand

Relevant Literature Review and Research Hypotheses

The conceptual framework which is shown in Figure 1 is developed from the literature review. This framework delivers essential constructs for, namely, EL, which contains four dimensions including personal competency, managerial competency, proactive competency, and technological competency. These influence the consequences of EL including value creation and business performance. This study uses EL measurements because the four dimensions cover all the characteristics of leadership, including all small, medium and large-sized businesses. However, in prior studies, investigators have used the EL tool in various sectors. We have taken an

interest in the automotive part manufacturers' context, which is beyond that of previous studies on entrepreneurial leaders.

Additionally, this study considers moderators of EL and value creation which are organizational climate and organizational learning that creates pressure to increase value creation. Accordingly, organizational climate and organizational learning positively moderate the relationships of each EL dimension. Thus, the full conceptual model of EL affects the automotive parts manufacturing business performance as illustrated in Figure 1.

Entrepreneurial Leadership

The conceptual development of EL is in its embryonic stage. The existing studies primarily draw on mainstream leadership literature, especially transactional and transformational leadership styles. Transactional leadership is based on an economic, or quasi-economic, means of exchange between leaders and followers (Tarabishy et al.,2005). Transactional leaders are individuals who emphasize work standards and task-oriented aims. They perform their leadership within organizational constraints and adhere to the existing rules and regulations (Burns, 1978). Power, authority, and control are rooted in this behaviour as organizational goals are achieved by rewarding or punishing subordinates in the style of a transaction (Jogulu, 2010). Transactional leaders see the leader's role as instrumental rather than inspirational which is based on the principle of exchange, and it functions to provide the necessary incentives or disincentives to obtain desired task outcomes (Gupta et al., 2004).

Conversely, transformational leadership behaviours are intended to motivate followers to work for transcendental goals or organizational visions and to attain selfactualizing needs using self-reinforcement as the basis of control (Rowley & Ulrich, 2016). Many pieces of research often refer to the commonality between EL and transformational leadership, since both emphasize the ability of a leader to have a positive impact on the motivation and performance of subordinates (Olutade, Liefooghe, & Olakunle, 2015). However, an entrepreneurial leaders' ability to evoke such performance is found in the context of the firm's need to adapt to emerging environmental contingencies (Gupta et al., 2004). EL is a specific type of leadership that influences others to manage resources strategically in pursuit of entrepreneurial opportunities (Dess et al., 2003). This leadership style, embodying the characteristics of both entrepreneurs and successful leaders, has received much attention in new ventures and established organizations (Rowley & Ulrich, 2016). Successful new ventures, even at the early new venture creation stage, are often the result of entrepreneurial teams motivated by a leader who can instil an entrepreneurial vision and influence others in the pursuit of an opportunity (Di Fabio et al., 2016). EL is primarily interested in an individual's decisions and is required for individuals aspiring to superior business performance (Swiercz & Lydon, 2002). It is established organizations, responding to environmental change that also faces the challenge of strategic renewal where entrepreneurial leaders must instil an entrepreneurial vision and make change happen (Burns & Stalker, 2009). Therefore, effective leadership is imperative to the development and growth of new ventures and the entrepreneurial endeavours of established firms (Hitt, Ireland, Sirmon, & Trahms, 2011).

EL is defined as a specific type of leadership that possesses "the ability to influence others to manage resources strategically and to emphasize both opportunity-seeking and advantage-seeking behaviours" (Ireland et al., 2003, p. 971). This definition draws insights from entrepreneurship as a value-creation process that involves the ability and desire to recognize as well as pursue an opportunity (Stevenson & Jarrillo-Mossi, 1986). Further, leadership is "the process of influencing others to understand and agree about what needs to be done and how it can be done effectively, and the process of facilitating individual and collective efforts to accomplish a shared objective" (Yukl & Chavez, 2002, p. 3). Similarly, Gupta and colleagues (2004, p. 242) define EL as "leadership that creates visionary scenarios that are used to assemble and mobilize a 'supporting cast' of participants who become committed by the vision to the discovery and exploitation of strategic value creation."

These definitions imply that two challenges will face entrepreneurial leaders. The first is the challenge of envisaging and creating a scenario of possible opportunities that can be seized to revolutionize the current transaction set within given resource constraints. The second is the challenge of convincing both potential followers and a firm's stakeholders that the transformation of this transaction set is possible by assembling resources to accomplish the objectives (Gupta et al., 2004). On another hand, EL can also be called entrepreneurship or corporate entrepreneurship; and even EL is equivocal, depending on the context and perspective taken. All the terms have similarities, but they are approached from slightly different points of view. Typically, leadership has been studied in an entrepreneurial setting instead of entrepreneurship studied among corporate leaders. The latter is a relatively new direction in leadership studies (Greenberg et al., 2013). While some studies are interested in considering EL, they imply that encouraging leaders to act more like entrepreneurs, can create more effective leaders (Middlebrooks, 2015).

Moreover, EL can illustrate the process, where start-up entrepreneurs establish their company and eventually exit by selling or renouncing their company to another shareholder. To put it succinctly, EL requires the entrepreneurial ability to identify opportunities for change, has the leadership ability to motivate others, and mobilizes resources to make change happen. Therefore, an entrepreneurial leader is characterized as a leader who can explore their environments, identify opportunities that are exploitable, and motivate others to participate actively in the process of value creation. A summary of the definitions of EL is presented in Table 1.



Authors (Year)	Definitions
Cunningham and	EL involves setting clear goals, creating opportunities,
Lischeron (1991)	empowering people, preserving organizational intimacy, and
	developing a human resources system.
El-Namaki (1992)	Leaders who can work in unpredictable environments while
	the companies' advantages are demolished by the competitors
	and can face substantively increasing uncertainty and
	competitiveness.
Prabhu (1999)	Persons who create and manage innovative entrepreneurial
	organizations whose primary mission is the social change and
	development of their client group. As persons who create and
	manage innovative entrepreneurial organizations or ventures
	whose primary purpose is the social change and development
	of their client group.
Swiercz and Lydon,	Entrepreneurial leaders are individuals who aspire to initiate,
(2002)	develop, and manage entrepreneurial enterprises.
Dess and colleagues	EL is the ability to influence others to manage resources
(2003)	strategically and to emphasize opportunity-seeking.
Ireland and	EL entails the ability to influence others to manage resources
colleagues (2003)	strategically to emphasize both opportunity-seeking and
	advantage-seeking behaviors.
Gupta and colleagues	Leadership that creates visionary scenarios and is used in
(2004)	assembling and mobilizing a supporting cast of participants
24	who become committed by the vision of the discovery and
	exploitation of strategic value creation.

Table 1: Summary of Definitions of E	L
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Authors (Year)	Definitions
Thornberry and	Leadership requires passion, vision, focus, and the ability to
Krohn (2006)	inspire others. EL requires all these, plus a mindset and skill
	set that helps Entrepreneurial leaders identify, develop, and
	capture new business opportunities.
Chen (2007)	A leader is the one who must create visionary scenarios that
	are necessary for selecting and mobilizing a supporting cast
	of interdependent members who commit to and enact the
	vision to achieve strategic value creation.
Satyanarayanan and	Leadership capable of sustaining innovation and adaption in
colleagues (2007)	high velocity and an uncertain environments and should,
	therefore, be able to adapt to environmental contingencies.
Surie and Ashley	Leadership capable of sustaining innovation and adaptation
(2008)	in high velocity and uncertain environments.
Yang (2009)	In the dynamic, complex and uncertain competitive
	environment, a type of entrepreneurial leader who is distinct
	from the behavioral form of leaders is needed.
McCarthy and	EL to be the ability to influence other managing resources
colleagues (2010)	for opportunity seeking and advantage-seeking behavior.
Ruvio amd colleagues	EL can recognize opportunities through the form of
(2010)	entrepreneurial vision, lead to performance, and growth.
Carpenter and	EL is the ability to envisage, find, seize, and exploit
Sherretz (2012)	opportunities. Moreover, the leader can build partnerships,
119800	raise resources, foster experimentation and play, encourage
J LJ	risk-taking, accept failure, and communicate the purpose and
	need for change while also create the infrastructure to foster
	innovation, including new ways or combinations of
	providing services and building new business models.

Table 1: Summary of Definitions of EL (continued)

Authors (Year)	Definitions
Wang and friends	Entrepreneurial ability to identify opportunities for change and
(2012)	leadership to motivate and mobilize resources to make things
	happen.
Bagheri and	Creating innovation and inspiring a team to enact the vision.
colleagues (2013)	Leadership in an entrepreneurial context requires some
	competencies, which can be improved by purposeful
	education.
Greenberg and	Entrepreneurial leaders are individuals who, through an
colleagues (2013)	understanding of themselves and the contexts in which they
	work, act on and shape opportunities that create value for their
	organizations, their stakeholders, and the wider society.
Altuntaş (2014)	EL is a type of leadership that consists of actions towards the
	establishment of business at the individual level, operations
	towards following the innovations at the organizational level
	and actions towards benefiting from the opportunities that are
	distinguished at the market level.
Gerdes (2014)	Leadership style consists of many different ones have
	visionary, and team leadership is critical for an excellent
	functioning entrepreneurial leader while reinforcing the vision
	and mission by communication, includes personable and
	responds to peoples' needs, show the value of their actions to
	employees, establish relationships, and lead with heart.
Zijlstra (2014)	Entrepreneurial leaders are individuals who aspire, develop
14	and manage entrepreneurial enterprises. To become these
	individuals, Entrepreneurial leaders must continuous acquire
	new leadership competencies, defined as the specific
	leadership capabilities required for successfully leading
	competitive and challenging activities, both in new ventures
	and in established organizations.

Table 1: Summary of Definitions of EL (continued)

Authors (Year)	Definitions
Renko and colleagues	EL entails influencing and directing the performance of group
(2015)	members toward the achievement of organizational goals that
	involve recognizing and exploiting entrepreneurial
	opportunities.
Anju and Mathew,	The one who has an apt 'entrepreneurial' approach and
(2017)	precisely the ability to keep themselves abreast with the fast-
	changing situations and to make use of opportunities to bring
	in a benefit for the organization before and faster than others.
Esmer and Dayi	Entrepreneur status of a leader. In other words, EL can be
(2017)	used for a leader who has the characteristics such as taking
	risks, evaluating the opportunities, being innovative,
	productive, interchanging and strategic. In short, EL, it is a
	combination of leadership and entrepreneurship.
Harrison, Paul, and	EL is a concept appeared by blending the leadership potential
Burnard (2016)	with an entrepreneurial spirit. When more exceptional points
	and the spirit of entrepreneurship is added to the variable
	nature of leadership, EL arises, and it can change the course
	of the world.

Table 1: Summary of Definitions of EL (continued)

Based on these definitions, EL aims to drive business performance to rely on a leader's ability to create and manage an innovative, entrepreneurial organization (Prabhu, 1999). Meanwhile, they can create advantages for companies and can cope with substantively increasing uncertainty and competitiveness (El-Namaki, 1992). As mentioned earlier, entrepreneurial leaders have distinct characteristics that promote advancement and achievement of entrepreneurial initiatives. Entrepreneurial leaders must continuously acquire new leadership capabilities which are defined as the leadership competencies required for successfully leading competitive and challenging activities, both in new ventures and in established organizations (Zijlstra, 2014). Entrepreneurial leaders refer to leader characteristics that comprise changing

situations, use of opportunities, and the motivation and mobilization of resources to achieve organizational goals that involve the discovery and exploitation of strategic value creation (Gupta et al., 2004; Chen, 2007; Wang et al., 2012; Renko et al., 2015; Anju & Mathew, 2017). Therefore, in this research, EL is defined as the typical characteristics of a leader who have the traits of both an entrepreneur and a leader (Fernald et al., 2005), chooses a product or service, and finds a way to organize resources to create efficiency or value-adding (Bird & Jelinek, 1988).

Many prior studies in EL have emphasized characteristics of leadership that drive firms or businesses to deploy in pursuing opportunities (Zahra, Gedajlovic, Neubaum, & Shulman, 2009) to achieve the highest level of organizational success (Darling & Beebe, 2007), and provide leaders with knowledge in operating their business and encourage them to realize success (Hazlina Ahmad, Ramayah, Wilson, & Kummerow, 2010). Entrepreneurial leaders have special capabilities and can influence the growth of businesses (Koryak et al., 2015). Moreover, the scholars confirm that leaders who are entrepreneurial leaders strive to achieve value creation through the display of innovativeness, pro-activeness, and risk management (Weerawardena & Sullivan Mort, 2006). EL highlights and affects success both at the firm (Devarajan, Ramachandran, &Ramnarayan, 2003) and country levels (Harrison et al., 2016), affects the growth of businesses (Ng & Thorpe, 2010; Koryak et al., 2015; Perkins, 2015), creates innovative capability (Chen, 2007; Ardianti & Inggrid, 2018), and sustains value (Chopra & Sharma, 2012; Chew, Semmelrock-Picej, & Novak, 2013; Accordingly, the summary of the critical research on EL is presented in Table 2.

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Authors	Title	Independent	Dependent	Results
		Variables	Variables	
Devarajan	Entrepreneurial	Strategic	Firm	The empirical results
and	Leadership and	factors,	success	show the factors
colleagues	Thriving	Behavior		influencing the success of
(2003)	Innovation	factors,		the firm to operate in a
	Activity	Effectiv <mark>e</mark>		developing country. They
		entrepre <mark>ne</mark> uria		found that strategic and
		l leadership of		behavioral factors
		top		influenced the effective
		manag <mark>emen</mark> t		entrepreneurial leadership
		teams		of top management teams
				leading to thriving
				innovation activity and
				firm success.
Tarabishy	The	Entrepreneuria	Business	The relationship between
and	Entrepreneurial	1 leadership	performance	transactional and
colleagues	Leader's Impact			transformational
(2005)	on the			leadership styles and the
	Organization's			organization that exhibits
	Performance in			an entrepreneurial
	Dynamic Markets			strategic posture,
				represent an attempt to
\ <i>?</i>	19800			both reveal the
	249		รด์	commonality of these two
		าญ สา	64.	fields of study and to
				provide a basis for further
				studies on entrepreneurial
				leadership.

Table 2: Summary of the Key Research on EL

Authors	Title	Independent	Dependent	Results
		Variables	Variables	
Chen,	Entrepreneurial	Entrepreneurial	New	The authors suggest that
(2007)	leadership and	leadership	Venture's	entrepreneurial leaders
	new ventures:	8	Innovative	who are risk-taking, pro-
	Creativity in		Capability	active and innovative can
	entrepreneurial		(Patent	stimulate their
	teams		creation)	entrepreneurial team
				members' creativity and
				improved new venture's
				innovative capability by
				the joint contribution of
				higher entrepreneurial
				leadership and more
				creativity in
				entrepreneurial teams.
Darling	Entrepreneurial	Entrepreneurial	Operational	The authors indicated
and Beebe	Leadership	Leadership	Excellence	that the heart of
(2007)	Strategies and	Strategies and		successful
	Values: Keys to	Values		entrepreneurial
	Operational			leadership strategies is a
	Excellence			concern for people and
			- N	interpersonal values that
	19800	T		provide a paradigm of
	2 4 9		รด ั	interactive cues and the
		Len av	60	foundational core for the
				successful fulfillment of
				those strategies.

Table 2: Summary of the Key Research on EL (continued)

Title	Independent	Dependent	Results
	Variables	Variables	
Not another	Leadership	Family-	The authors
study of great	system	controlled	described the system
leaders'	8	businesses	of leadership that
Entrepreneurial		(FCBs)'s	could develop
leadership in a		growth and	businesses and
mid-sized		survival	different managerial
family firm for			levels that can sustain
its further			through a
growth and			management routine
development			to produce
			competitive
			advantage and unique
			competency to
			compete and grow.
Entrepreneurial	Entrepreneurial	Venture's	The results indicate
leadership	leadership	performance	significant differences
vision in	vision,		in the meaning of
nonprofit vs.	inspirational		vision articulated for
for-profit	and		each type of venture
organizations	communicative,		and entrepreneurial
	Differentiation		pradict only a
9800	strategy, a	e	differentiation strategy
74 g	Wide-ranging	รัต ใ	which also mediated
	strategy	64.	the relationship
			between vision and the
			ventures' performance
			and growth.
	TitleNot anotherstudy of greatleaders'Entrepreneurialleadership in amid-sizedfamily firm forits furthergrowth anddevelopmentEntrepreneurialleadershipvision innonprofit vs.for-profitorganizations	TitleIndependentVariablesNot anotherLeadershipstudy of greatsystemleaders'IEntrepreneurialIidadirsizedIfamily firm forIgrowth andIdevelopmentIItentrepreneurialIgrowth andIdevelopmentIItentrepreneurialIis furtherIgrowth andIItentrepreneurialIItentrepreneurialIIcadershipIIcadershipIIcadershipIitis furtherIIcadershipI	TitleIndependentDependentVariablesVariablesNot anotherLeadershipstudy of greatsystemleaders'IEntrepreneurialIleadership in aIidadi sizedIfamily firm forIgrowth andIdevelopmentIleadershipIgrowth andIdevelopmentIleadershipIgrowth andIdevelopmentIII </td

Table 2: Summary of the Key Research on EL (continued)

Authors	Title	Independent		Dependent	Results
		Variabl	es	Variables	
Ling and	Entrepreneuria	TMTs'		Human	The results indicated that the
Jaw	l leadership,	entrepreneu	rial	capital return,	entrepreneurial leadership of
(2011)	human capital	leadership	8	Global	TMS had not only direct
	management,			learning,	positive influences on a
	and global			Global	firm's IHCM but also had
	competitivenes		Л	marketing,	indirect positive influences
	s. An empirical			Global	on a firm's global
	study of			innovation	completeness through the
	Taiwanese				meditating effects of IHCM.
	MNCs				
Chew and	Sustainable	Dynamic		Sustainable	The research uncovers the
colleagues	value creation	capabilities,	,	value	following key patterns,
(2013)	through	Ambidexter	rity,		amongst others, of
	entrepreneurial	and <mark>Absorp</mark>	tive		successful entrepreneurial
	leadership in	capacity			leadership practices by the
	SME				founders/CEOs, which
				K	appear to resonate well with
					the fundamental
					characteristics of dynamic
					capabilities, ambidexterity,
)			and absorptive capacity.
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Table 2: Summary of the Key Research on EL (continued)

	I		I	
Authors	Title	Independent	Dependent	Results
		Variables	Variables	
Chopra	Corporate to	Governance,	Sustainable	The results indicated that
and	Entrepreneurial	Entrepreneur's	Entrepreneurial	entrepreneurship
Sharma	Leadership in	profile,	Competitive	leadership also revolves
(2012)	Emerging Economy -	Entrepreneur <mark>ia</mark> l	Advantage	and evolves to creating
	Lessons from	instincts		competitive advantage
	Enterprises			through the leadership
				style, their ability to
				manage resources, dream,
				innovate and translate
				vision into reality in each
				set of conditions is that
				which is not imitable. The
				EL characteristic which
				becomes unique and
				creates a local niche.
Wang, Tee	Entrepreneurial	Philosophical	Entrepreneurial	The benevolent leadership
and	leadership and	traditions and	leader's	rooted in Confucianism is an
Ahmed	context in	cultural values,	background	overarching leadership style,
(2012)	Chinese firms:	Organizational	and the firm's	while transactional and
	A tale of two	personal and	strategic focus	transformational leadership
	Chinese private	transitional	RI.	styles are contingent upon a
	enterprises	factors		range of factors,
	5 L	20.	20	entrepreneurial leader's
		6		background, and the firm's
				strategic focus and
				developmental stage.

Table 2: Summary of the Key Research on EL (continued)

		- -		
Authors	Title	Independent	Dependent	Results
		Variables	Variables	
Harrison	Entrepreneurial	Entrepreneurial	Developing	The entrepreneurial
and	Leadership: A	leadership	country	leadership is essential in
colleagues	Systematic	1	success	enhancing business
(2016)	Literature			performance, especially in
	Review			turbulent and competitive
				environments.
Huang and	Entrepreneurial	Entrepreneurial	New venture	The environment dynamism
colleagues	Leadership and	leadership	performance	moderates the relationship
(2014)	Performance in			between entrepreneurial
	Chinese New			leadership and both type of
	Ventures			innovation (i.e., exploratory
				and exploitative) and shows
				the influence of
				entrepreneurial leadership on
				the pursuit of excellent
				venture performance.
Freeman	Entrepreneurial	Entrepreneurial	Entrepreneurial	The start-up processes have
and	Leadership in	leaders at start-	process:	the three key challenges
Siegfried	the Context of	up: developing	strategic	(developing a vision,
(2015)	Company	a vision,	thinking,	achieving optimal
	Start-Up and	achieving	coaching, and	persistence, and executing
	Growth	optimal	self-evaluation	through chaos) and three
	0 40	persistence, and	579	capabilities (strategic
		executing	V	thinking, coaching, and self-
		through chaos.		evaluation) during the
				growth stage associated with
				entrepreneurial leadership.

Table 2: Summary of the Key Research on EL (continued)

Authors	Title	Independent	Dependent	Results
		Variables	Variables	
Hefti and	Entrepreneurial	Entrepreneurial	Business	The finding showed a
Levie	Leadership -	leadership,	performance	model of entrepreneurial
(2015)	Vision Casting	Entrepreneurial		leadership and business
	and the Role of	vision		performance that
	Signaling			incorporates the role of
				entrepreneurial vision in the
				threefold view of
				entrepreneurial leadership
				for entrepreneurial leaders,
				their employees and
				stakeholders, and for
				entrepreneurship educators.
Koryak	Entrepreneurial	Entrepreneurial	The growth of	The authors indicated the
and	leadership,	leadership and	enterprises	interrelationships between
colleagues	capabilities	cap <mark>abilities</mark>	(SMEs)	the substantial capabilities,
(2015)	and firm			entrepreneurial leadership,
	growth			and dynamic capabilities
				affect the new substantive
				growth capabilities and
				continued pursuit of new
				opportunities.
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Table 2: Summary of the Key Research on EL (continued)

Authors	Title	Independent	Dependent	Results
		Variables	Variables	
Perkins	Entrepreneurial	Three stage-	Organizational	Entrepreneurial leadership
(2015)	Leadership	specific	growth	must solve specific
	Theory: An	developmental-		context requirements, the
	Exploration of	tasks are 1)		developmental-tasks, to
	Three Essential	articulate a		move the organization
	Start-Up Task	clear,		into the next stage. The
	Behaviors	compelling		study proposed that when
		vision 2) build		leaders achieve these
		brand identi <mark>fy</mark>		tasks, they secure vital
		an image, a <mark>nd</mark>		resources and core
		3) assemble a		capabilities necessary for
		capable team		growth.
Harrison	Entrepreneurial	Developing	Entrepreneurial	The results indicated that
and	Leadership in	eco <mark>nomy</mark>	leadership	the model of
colleagues	the Retail	context and	outcome (Business	entrepreneurial leadership
(2016)	Pharmacy	entrepren <mark>eurial</mark>	creation, business	in the context of a
	Sector of a	leadership	commercialization,	developing economy
	Developing	skills	and business	consists of a causal
	Economy		management)	condition, contextual
				factors, intervening
				conditions, strategies, and
	W2800		6	outcomes of
	2 40	9/	a50 3	entrepreneurial leadership
		122	21 60	(the creation,
				commercialization, and
				management of a
				successful business).

Table 2: Summary of the Key Research on EL (continued)

Authors	Title	Independent	Dependent	Results
		Variables	Variables	
Shao	Entrepreneurial	Entrepreneuri <mark>a</mark> l	Business	The correlation between
(2017)	leadership as a	leadership,	performance	entrepreneurial leadership
	determinant of	Market		and business performance,
	business	orientation		the correlation between
	performance:	(Customer		entrepreneurial orientation
	A study of	orientation,		and business performance
	Small and	Competitor		and finally, the moderating
	Medium	orientation,		effect of entrepreneurial
	Enterprises	Interfunctional		leadership on entrepreneurial
	(SMEs) in	coordinatio <mark>n),</mark>		orientation and business
	Johannesburg	Relationship		performance in
		marketing		Johannesburg.
		orientation		
		(Tr <mark>ust,</mark>		
		Communication,		
		Reciprocity,		
		shared value,		
		empathy,		
		bonding)		

Table 2: Summary of the Key Research on EL (continued)

From the literature review, most EL researchers have examined the relationship of each single construct such as the relationship between EL (or social EL, or strategic entrepreneurship) and the consequences such as competitive advantage (Tarabishy et al., 2005; Chopra & Sharma, 2012), operational excellence (Darling, Keeffe, & Ross, 2007), new venture performance (Huang et al., 2014), and business performance (Ruvio et al., 2010; Hefti & Levie, 2015; Shao, 2017). Moreover, there are few holistic models which have integrated independent variables

and the dependent variable of EL into one conceptual framework. For the consequences of EL, there are a few pieces of evidence to demonstrate the relationships between dimensions of EL and value creation, which lead to superior business performance while being moderated by organizational climate and organizational learning. Additionally, there is a lack of research which examines the new dimensions of EL that include technological competency.

In the case of leaders in automotive parts manufacturers businesses in Thailand who play a role in EL, it was found that they needed more ability to manage both the internal and external environments (Birkinshaw, Hood, & Young, 2005). At the same time, these leaders must improve and develop themselves to learn more, develop new technology skills such as mobile application, computer packages, and information technology through portable equipment apart from office automation and other technology that is used in business units (Rose & Bearman, 2012). In addition, Chew and colleagues (2013) claimed that EL in SMEs can create sustainable value through dynamic capability when leaders in the business possess the capacity to sense and seize opportunities brought by rapid environmental change. Therefore, nowadays entrepreneurial leaders need more ability than previously to deal with business customers and employees in automotive parts business contexts.

Therefore, for the many reasons mentioned above, this research attempts to fill these gaps. Next, more detail is discussed as to the four dimensions of EL and its consequences. In this research, EL has four-dimensional components that are indicated to examine how EL influences value creation and business performance; namely, personal competency, managerial competency, proactive competency, and technological competency. More details will be given of these dimensions and the consequences of EL including value creation that consists of customer value, business value, and business performance. These aspects are discussed below.

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The Effect of Entrepreneurial Leadership Dimensions on Value Creation

This section examines the effects of five dimensions of EL, including general entrepreneurial leader behavior, explorer behavior, minor behavior, accelerator behavior, and integrator behavior, seeking to represent EL. This relates to their consequences which are value creation, including customer value and business value to businesses performance in the context of automotive parts manufacturer businesses in Thailand.

EL is a distinctive style of leadership that can be present in organizations of any size, type, or age (Renko et al., 2015). The literature review revealed that many authors had studied EL. According to Cunningham and Lischeron (1991), EL involves setting clear goals, creating opportunities, empowering people, promoting mutual and organizational awareness, and developing a sound human resource system. Ireland and colleagues (2003) maintained that EL is the ability to influence others to manage resources strategically to promote opportunity-seeking and advantage-seeking behaviors. Gupta and friends (2004) defined EL as leadership that creates visionary scenarios that can be used to mobilize and commit subordinates to the discovery and exploitation of strategic value creation. According to Thornberry and Krohn (2006), such leadership, in general, requires passion, vision, focus, and the ability to inspire others. EL requires all these qualities plus a mindset and skill set that can help entrepreneurial leaders identify, develop, and exploit new business opportunities. Surie and Ashley (2008) defined good leadership as the ability to sustain innovation and adaptation in rapidly-changing and uncertain environments.

This study used characteristics of EL ability identified in previous empirical studies. The four dimensions consist of personal competency (Bagheri et al., 2013), managerial competency (Wahab & Mahmood, 2015), proactive competency (Seibert et al., 1999; Prieto, 2010), and technological competency (Tippins & Sohi, 2003). However, few studies have been undertaken in the context of business, especially in the automotive parts manufacturers businesses (e.g., Cook & Nixson, 2000; Edvardsson & Durst, 2013). This research has focused on automotive part manufacturing businesses in Thailand where it has been recognized there is a need for EL in order to fulfill the goal of value creation they are working toward and which is relevant to innovation and

creativity (Bagheri & Akbari, 2018). The entrepreneurial leader's nature is that they can adapt and seize opportunities to improve performance (Rahim, Zainal Abidin, Mohtar & Ramli, 2015). The next section explains more aspects of each dimension of EL that are related to its consequences and proposes hypotheses arising from the literature review and empirical evidence.

Personal Competency

In the context of competency, entrepreneurship scholars emphasize the relationship between entrepreneurial learning and the knowledge and competencies acquired from experience (Politis, 2005). Some others have considered entrepreneurial learning as a complex process which occurs through various means such as social interaction and reflection (Pittaway & Cope, 2007). In effect, entrepreneurial learning happens as a dynamic process of personal interaction with one's environment (Rae, 2007; Cope, Kempster, & Parry, 2011). This complex interaction shapes and develops entrepreneurial perceptions, attitudes, and abilities (Rae & Carswell, 2000). Similarly, EL learning occurs through a social process of acquiring entrepreneurial qualities (Gupta et al., 2004; Kempster & Cope, 2010)

Personal perceptions toward one's capabilities to step into the challenging process of venture creation has been highlighted as one of the main factors influencing entrepreneurial interest, entrepreneurial intention, and entrepreneurs' successes in leading entrepreneurial activity to growth and development (Baum & Locke, 2004; Kickul, Wilson, Marlino, & Barbosa, 2008;. On the other hand, EL competencies have emerged as critically important in the success of entrepreneurial activities, both new venture businesses and established businesses (Gupta et al., 2004; Fernald et al., 2005; Yang, 2009). Bandura (1986) reflects on the impact of personal beliefs on an individual's abilities and competencies to successfully perform a specific task. According to this theory, human action is a function of different personal, behavioral, and environmental factors, and individuals play a critical role in changing and developing their perceptions toward their capabilities through controlling their thoughts, feelings, and actions (Barbosa, Gerhardt, & Kickul, 2007).

Many entrepreneurship scholars have employed competency to explain entrepreneurial ability through focusing on different phases of venture creation including the phase of stepping into a new business venture (Mayer-Haug, Read, Brinckmann, Dew, & Grichnik, 2013), the phase during the process of business creation (Avlijaš, 2008), and the phase of successfully leading the business to growth and development (Arham, Boucher, & Muenjohn, 2013). Chen and colleagues (1998) defined entrepreneurial ability as the strength of beliefs in one's abilities to successfully perform the roles and tasks associated with entrepreneurship. The authors argued that individuals who perceived themselves as lacking requisite entrepreneurial capabilities avoid entrepreneurial activities and behavior (Kirkley, 2017). A robust body of literature also confirms the significant association between ability and developing the perquisite entrepreneurial capabilities and entrepreneurial intention; or, the desire to choose entrepreneurship as a career path (Zhao, Hills, & Seibert, 2005; Barbosa et al., 2007; Wilson, Kickul, & Marlino, 2007). Thus, there is limited information on personal perceptions of a leader's competencies leading to entrepreneurial activities (Bagheri et al., 2013). In particular, there is no understanding of specific capabilities that shape one's belief in their competencies to lead a business (Blackburn, Carey, & Tanewski, 2010). The prior studies do not specify the characteristics of a leader with personal competencies and how they are different from other leadership concepts (Vlok, 2012).

Drawing upon the related literature on entrepreneurship competencies and leadership ability, this study attempts to provide a deeper understanding of EL competencies, a concept that has not yet been formally defined. More specifically, it provides better insights on how personal competencies develop and what factors shape the perceptions of personal competencies based on automotive part manufacturing business perceptions toward their abilities that lead to the development of an entrepreneurial leader. These considerations lead this researcher to posit that personal competencies directly affect EL. Thus, this research proposes hypotheses as follows:

Hypothesis 1a: Personal competency of EL will positively affect value creation

Managerial Competency

Managerial competencies are linked in a sophisticated way to managerial performance, being the main requirements for consistent performance over time. The research is based on many findings and models in organizational research, starting with the model of competencies and continuing with many others (e.g., Spencer & Spencer, 1993; Sanghi, 2016). In their study of competition to achieve future success, Prahalad and Hamel (1994) assert that the core competencies transcend any other event within the organization. Businesses are involved in many specialized activities, so significant and universal, that no person can acquire all the necessary competencies to master the whole scheme (Bucur, 2013). Accordingly, organizations must identify, develop and focus on the necessary core competencies in their critical plans (García-Carbonell, Martín-Alcázar, & Sánchez-Gardey, 2016). Specific competencies focus on individuals rather than on the organization, and they are different regarding the job or the position within the framework of the business (Bucur, 2013).

Anitei, Chraif and Chiriac (2012) studied validating core competencies in Romania, and they published a study on validating the scale with behavior anchors within the study of core competencies. Core competencies can differ for different positions while most job competencies are typical for the position (Zenger & Folkman, 2014). Managerial competencies are utilized as measures for performance as well as for performance predictors (Bucur, 2013). Managerial competencies are necessary mainly from the perspective of improving performance (Yaşar, Ünal, & Zaim, 2013). Managerial performance is hierarchically organized (Landry, Arnold, & Arndt, 2005; Lombardo & Eichinger, 2006; Schley & Schratz, 2011). The most important competency is the profound and active learning competency gained from experience (Embo, Driessen, Valcke, & van der Vleuten, 2015). This one is the main ones, and it controls the others because it can generate the proper internal conditions for performance to develop (Lombardo & Eichinger, 2006). Most competencies are saturated with factors such as indirect and more complex measures of intelligence (Gottfredson, 2002).

Moreover, Kanungo and Misra (1992) argue that managerial abilities can be differentiated into skills (necessary for specific routine tasks) and competencies (essential for all non-routine tasks). One could arguably build a two-sided model of the managers by seeing whether they are called skills or competencies in the theoretical framework (Ley et al., 2006). Though, this study takes into consideration the interchangeability of actual meanings that different scholars give for the various elements of competencies within managerial competency (Kurschus & Pilinkiene, 2012). Based on prior research, Peterson and Van Fleet (2004, p. 1304) stated that "managers must possess a core set of skills to achieve the organization's goals effectively," even if it is not agreed overall which skills are needed by managers in their work.

Related to the aspect of which skills are needed, Stevenson and Gumpert (1985), who have presented the promoter (sees opportunities) and trustee-types of managers (threatened by change), also explain how there are two distinct culture types which companies can have and reveal the characteristics of the cultures as well as the pressures which make companies have either of the cultures. A culture illustrating an entrepreneurial culture's strategic orientation is characterized by opportunities. The decision windows are narrow, and there is risk involved with the opportunities (Stevenson & Gumpert, 1985). There is a need to reduce risks, inertia, and the costs of change (Stevenson & Gumpert, 1985). Related to the activities of managers, Dunphy and Meyer (2002) have compared managers and entrepreneurs and have presented their theoretical findings based on different activities which are involved in both groups' work. They found management activities to be planning, organizing, commanding, coordinating, controlling, monitoring, supervising, serving employees, serving as a liaison, making corrections, acting out a role, redundant, budgeting, allocating resources, leading, culture-building and evaluating.

Furthermore, in support of the empirical finding from Mann (1965), Peterson and Van Fleet (2004) confirmed that the three skill categories of EL included technical, human, and conceptual skills. These are needed at all levels of management, with a different mix of them at different management levels. If different level managers require different combinations of skills, then it would make sense that the activities as presented by Dunphy and Meyer (2002) still vary and need different skills to be managed. In studies on EL, it has been proposed that, in the case of apex research institutes, successful automotive parts manufacturers businesses have leaders who unite good managerial competency and a thriving management capability (Man, Lau, & Chan, 2002). Young and Dulewicz (2009) stated it is rational to conclude that some managerial competencies are causally linked to useful and/or superior performance in a job.

In recent years, modeling has drawn more interest and attention in research on managerial competency and competency (Qiao & Wang, 2009). But there is so far little empirical support that competencies are positively linked to human performance (Spreitzer, Kizilos, & Nason, 1997; Goldstein, Yusko, & Nicolopoulos, 2001; Russell, 2001). Studies also say that the debate on competencies in the entrepreneurial research field is in its initial phases (Brinckmann, 2008). Mainly, the competency literature in higher education is scarce and somewhat underdeveloped (Martinez, 2008).

Therefore, managerial competencies are concluded as crucial for expression of EL capability and for the support of people who possess a critical position in the firm to create value and business performance through management functions. This study considers the positive effects of EL on value creation. This idea is based on previous findings and is according to core competencies that apply to creating value in the automotive parts manufacturers businesses. Thus, this research proposes the hypothesis as below:

Hypothesis 1b: Managerial competency of EL will positively affect value creation

Proactive Competency

Despite the general recognition of the five-factor model, theorists have claimed that when attempting to connect personality to a specific condition of attention (Gendlin, 1964), the criterion-related validity of essential personality traits is likely to be exceeded by compound or emergent personality variables that are more specifically tailored to the outcome (Schneider & Hough, 1995). According to Schneider and Hough (1995), compound personality traits involve essential personality traits that do not all co-vary. Proactive competency is thought to be one example of such a compound variable (Hough, 2003), and it has proven to be predictive of some career development outcomes. Bateman and Crant (1993)
developed the proactive competency model, describing it as a relatively constant tendency to effect environmental change that differentiates individuals based on the scope to which they act to guide their environments. Individuals with a prototypical proactive competency recognize opportunities and utilize them, display initiative, act and continue until meaningful change occurs (Crant, 2000).

In contrast, persons who are not proactive demonstrate differing response forms (Bateman & Crant, 1999): they fail to identify, let alone seize, opportunities to change things (Duyar & Normore, 2012). Less proactive individuals are passive and reactive, preferring to adjust to situations rather than change them (Crant, 2000, p. 439). As work becomes more dynamic and decentralized, proactive behavior and initiative become an even more serious element of organizational success (Bateman & Crant, 1999). For example, as new practices of management are presented that minimize the surveillance function, businesses will increase trust in employees' initiative to recognize and solve problems (Frese, Fay, Hilburger, Leng, & Tag, 1997).

Crant (2000) defined proactive behavior as taking the initiative in improving current circumstances or creating new ones; it involves challenging the status quo rather than passively adapting to present conditions. Employees can engage in proactive activities as part of their in-role behavior in which they fulfill basic job requirements (Crant, 2000). For example, sales representatives might proactively pursue feedback on their performances for closing a sale with an important goal of improving job performance (Robertson-Smith & Markwick, 2009). Extra-role activities can also be proactive, such as efforts to redefine one's role in the organization (Wu & Parker, 2017). For example, employees in career management activities might act proactively by recognizing and seizing opportunities to modify the scope of their jobs or move to more specialized tasks undertaken by the business (Crant, 2000). Crant (1995) established that proactive competency of real estate representatives was best described as incremental variance in job performance after controlling for both extraversion and conscientiousness.

Proactive competency appears more specially adjusted to forecasting inspiration in learning circumstances than the more common Big Five factors and facets (Major, Turner, & Fletcher, 2006). Numerous researchers have observed an arrangement of possible outcomes of proactive competency at work. For example, Crant (1995) examined the condition of validity of the proactive competency measure established by Bateman and Crant (1993). Using a sample of 131 real estate representatives, results showed that the proactive competency scale described an additional 8% of the variance in an objective measure of representatives' job performance beyond understanding, social desirability, general mental ability, and two of the big five personality factors–conscientiousness and extraversion (Crant, 1995).

A previous study, which gathered data from a glass manufacturing company, revealed that proactive competency was positively and significantly associated with participation in organizational improvement initiatives (Parker, 1998). Becherer and Maurer (1999) investigated the influences of a proactive disposition on entrepreneurial behaviors. The finding from 215 businesses leaders indicated that the leaders' level of proactivity was significantly related to three types of entrepreneurial performances: starting versus not starting the business, the number of startups, and the categories of ownership.

Proactive competency seems to have the possibility of providing a further understanding of the personality trait-entrepreneurship relationship (Crant, 1996). The proactive competency scale measures a personal disposition toward proactive behavior, which is a concept that intuitively appears to be associated with entrepreneurship (Crant, 1996). In research conducted by Crant (1996), it was observed that, in the relationship between proactive competency and entrepreneurial intentions, proactive competency was positively related to entrepreneurial intentions (Tsakiridou & Stergiou, 2014). This may also be the circumstance for EL; because people with a proactive competency may be more inclined to mobilizing resources and gain the commitments required for value creation that the entrepreneurial leader faces. More proactive people may have a greater desire to become entrepreneurial leaders to help create value for their firm (Bateman & Crant, 1999).

Hence, proactive competencies represent very important skills enabling leaders to provide a new method to improve their work, a powerful force for constructive change, gives an ability to solve problems in a timely manner, allows the identification and pursuit of new opportunities, and allows success to be achieved in the future. These competencies are consistency with EL characteristic and EL theory, thus, this research proposes the hypothesis as follows:

Hypothesis 1c: Proactive competency of EL will positively affect value creation

Technological Competency

The widespread policy of Thailand 4.0 is considered in the last element of EL that encourages entrepreneurial alertness and is now seriously pursued by all sectors in Thailand (Baxter, 2017). The Thailand 4.0 policy will mean that computers and automation will come together in an entirely new way (Jones & Pimdee, 2017), with robotics connected remotely to computer systems equipped with machine-learning algorithms that can learn and control the robotics with very little input from human operators (Marr, 2016).

The Thailand 4.0 policy introduces what has been called the "smart entrepreneurs" (Songkünnatham, 2018), in which cyber-physical systems monitor the physical processes of the management and make decentralized decisions (Gerlitz, 2015). The physical systems become the Internet of Things, communicating and cooperating both with each other and with humans in real time via the wireless web (Sommer, Härri, Hrizi, Schünemann, & Dressler, 2015). Thailand 4.0 involves innovation in the modern era to apply digital processes while integrating value-added innovation to the workplace (Board of Investment, 2017). All organizations will need to recognize the distinctive and sustainable characteristic of entrepreneurial leaders in order to lead their organizations in adopting the right method (Dharmajiva, 2017).

The first unique characteristic of an entrepreneurial leader is a humble personality. A humble person possesses a form of EL and is ready to accept another person's abilities recognizing that they may have more knowledge or expertise than oneself (Thadphoothon, 2018). Entrepreneurial leaders must be open-minded, accept the opinions of others, and be happy to request knowledge from inside and outside organizations (Sheth & Apte, 2017).

Nowadays, due to the availability of knowledge that is very quickly and easily accessible, entrepreneurial leaders need to think that they do not need to do everything

in the organization by themselves (Raišiene, 2014). An entrepreneurial leader in the 4.0 policy era will have to admit dynamic change faster than other leaders who are unable to follow and keep up-to-date (Henning, Kagermann Wolfgang & Johannes, 2013). Second, adaption is accepted as necessary in rapid, dynamic changing environments. An entrepreneurial leader must continue to seek new information (Morrar, Arman, & Mousa, 2017). These abilities of the entrepreneurial leader must not be considered as a weakness and such individuals must resist being embarrassed by a subordinate who is more knowledgeable in some area (Heskett, 2013). Third, an entrepreneurial leader must be capable of inspiring their team through their actions and words to believe in a common vision (Berg, 2015). The mark of a true leader is the ability to encourage employee commitment and engagement that is the foundation for continued success (Viinikainen, 2013). The habits of an inspiring leader are marked by leading and ceasing to boss. Such behavior is prone to be emulated by others in the organization (Avolio, Waldman, & Yammarino, 1991). A characteristic of an entrepreneurial leader also includes an understanding of the diversity represented in an organization, not only of race or religion, but includes the variety of genders in employment, such as lesbian, gay, bisexual and transgender (LGBT) (Qvist, 2014).

Leaders still have many characteristics of entrepreneurial leaders in the 4.0 era, such as being a visionary, being engaged, participating, using ideas, coaching, having hyperawareness, making informed decisions, and executing at speed (Neubauer, Tarling, & Wade, 2017). Many scholars have suggested several EL characteristics as being appropriate in the 4.0 era. Interestingly, some characteristics are specified in the four dimensions of EL. Therefore, in the last dimension of entrepreneurial leadership the focus is on the characteristic of a technological leader who can perform business through the Internet of Things (IoT) and can communicate and cooperate both with humans in real time via the wireless web (Benioff, 2015).

Therefore, technological competencies represent one part of the EL dimension and are consistently needed by leaders in automotive parts manufacturing businesses. Technological ability in this context implies possession of knowledge in computerbased-systems, communication ability throughout internet and computer devices to all stakeholders, ability to adapt useful applications from information technology and seek to create new applications in the operation of the business, and has an interest in searching for and applying new technological approaches so as to create high performance. These abilities show a consistency with EL characteristic as well as dynamic capability theory, thus, this research proposes the hypothesis as follows:

Hypothesis 1d: Technological competency of EL will positively affect value creation

The Effect of Value Creation on Business Performance

This section investigates the effects of value creation and on the business performance as shown in Figure 1 above.

Value creation

Over more than two centuries scholars have acknowledged the role of firms in creating value for society. This is achieved by placing emphasis on the products and services within their boundaries and giving careful consideration to their exchange value and the usefulness value of commodities for employees and others (Kraaijenbrink, 2011). In today's business environment, companies face enormous pressure to create value. This pressure comes not only from shareholders but also from a wide array of market observers such as the financial press, financial institutions, and shareholder activists. (Willmott, 2010) commented that people have many value systems that they apply to their life both in organizations and society. Moreover, Birkinshaw, Bresman and Håkanson (2000) indicated that when task integration (equivalent to value creation) was the objective it involved many activities. They argued that the human integration process involved in value creation included the possession of positive attitudes towards the integration among employees and leaders.

The source of value creation depends on human action characterized by following intersubjective and situational interactions (Joas, 1997; Emirbayer & Mische, 1998). Therefore, value creation should be different from the characteristics of human activity (Kraaijenbrink, 2011). Sources of value creation for businesses

come from many sources both inside (form individual, employee, owner, leaders their worked in business) and outside (suppliers, partners, customers, etc.) (Amit & Zott, 2001). When they arise for inside, some scholar believe that value creation is enhanced significantly if the concept of personalized creation experience is embraced as the source of unique value (Prahalad & Ramaswamy, 2004) together with managers' abilities (Holcomb, Ireland, Holmes, & Hitt, 2009), and if knowledge from employees in an organization is explored and exploited (Kang, Morris, & Snell, 2007). On other hand, sources of value creation from outside come from the customers and sellers as the key of competitive advantage because their lead to revenues and profit gains for businesses (Walter, Ritter, & Gemünden, 2001) and also through many activities in business such as CSR (Husted & Allen, 2009) and supply chain management (Huemer, 2006).

Value creation is a primary purpose of all business operations gained through their superior ability to organize and coordinate activities (Pies, Beckmann, & Hielscher, 2010). In terms of value, it is a matter of relating parts such as things, people, or activities that have meaning (Kraaijenbrink, 2011), the way in which an individual actor's action take on meaning for the actor (Graeber, 2005), and the way people represent the importance of their operations to themselves (De Angelis, 2005). Therefore, this research emphasizes EL as residing in a leader's ability to create visionary scenarios that can be used to assemble and mobilize the values for business (Hitt et al., 2011). Leaders in business will have entrepreneurial business owners who understand that maximizing value creation is possible only when the company maintains a best solution policy or plan and has the ability to control the environment so as to efficiently integrate the company's resources (Miller, 1983; Neck, 2011). Planning and control of value creation requires the ability to measure and relate the creation of value to current and prospective owners through a relationship with key stakeholders (e.g., Hillman & Keim, 2001). Since entrepreneurial businesses are highly likely to seek outside financing at some stage of their development, they have a need to measure and be able to relate the value they have created in their businesses (e.g., Young & O'Byrne, 2000).

Value is a relative term that can be viewed differently by the various stakeholders (both inside and outside business) who have an interest in the company

(Husted & Allen, 2009). Entrepreneur's action including new ventures and involves continuous interaction between employees and society to created values in various dimensions (Kreiser, Marino, & Weaver, 2002). Job creation, personal fulfillment, and community pride add to the general level of energy and optimism in society (e.g., Harrison & Kanter, 1978; Bartlett & Ghoshal, 1995; Spence, Schmidpeter, & Habisch, 2003). Olson and Knight (1997) argue that creating value for shareholders is consistent with creating value for the other constituents of the company. Value creation translates into structural advantages for entrepreneurial business because companies with higher rates of value creation can grow faster (Amit & Zott, 2001), have improved access to capital markets (Möller & Rajala, 2007), offer more opportunities to employees (Grönroos & Ravald, 2011), and have a greater ability to self-fund (Mazzawi, 2002). Customers also benefit because the company can attract capital at a lower cost (Xie, Wu, Xiao, & Hu, 2016). This lower cost capital can then be invested in activities that better meet customers' products, services, or cost needs (Bátiz-Lazo, 2001). Measuring value is critical for entrepreneurial businesses that wish to set performance goals (Spivey & McMillan, 2002). Owners of entrepreneurial businesses must emphasize value creation and help managers and employees understand how they can contribute to the value enhancement efforts of the company (Rappaport, 2006).

The concept of EL when viewed from the different disciplinary perspectives of entrepreneurship, leadership, and strategic management (Kesidou & Carter, 2014), reveals a common thread. EL is a dynamic strategy applied to a business by an individual who bears a behavioral profile that encourages initiatives via opportunity driven behavior and supports the enhancement of the business's potential for continuous value creation and forms the basis for competitive advantage as well as strategic resource management towards change, novelty and value creation (e.g. Hitt et al., 2001; Kotter, 2001; Yukl & Chavez, 2002; Covin, Green, & Slevin, 2006; Gumusluŏlu & Ilsev, 2009). Prior studies have provided empirical evidence that personalities who have characteristics of EL tend to contribute to value creation through generating a competitive advantage (Kesidou & Carter, 2014). A value creation model has been proposed to explain performance in e-business (Zaborek, Doligalski, & Sysko-Romańczuk, 2016). Meanwhile, a firm's value creation competency and the mechanism by which it influences the business performance and value creation competency is significantly related to business performance (Sullivan, Peterson, & Krishnan, 2012). Value creation involves the interdependencies between a business's competitiveness and performance (Sarkar, Echambadi, & Harrison, 2001). Also, Son, Lee, and Chung (2017) argued that value creation in social enterprises is a complete mediator between the product innovation of social enterprises and business performance.

This part now gives more detail about value creation in two dimensions, customer and business value, that relate to and influence a firm's financial performance. Therefore, to extend the empirical insights of value creation it is necessary to investigate the independent variables on business performance.

Business begins with value creation as the purpose of the organization to create and deliver value with the aim to generate profit and sustain a business (Bonini & Swartz, 2014). The value of products and services today is based increasingly more on creativity — the innovative ways whereby they take advantage of new materials, technologies, and processes (Jorgenson, 2015). Moreover, value creation is based on the economies of creativity which are: mass customization and the high value of bringing a new product or service improvement to market (e.g., Hughes, Jewson, & Unwin, 2013; Chamorro-Premuzic, 2016); the ability to find a solution to a vexing customer problem (Rick, 2015); or, the way a new product or service is sold and delivered (e.g. Amit & Zott, 2001; Da Silveira, Borenstein, & Fogliatto, 2001; Mont, 2001; Sirdeshmukh, Singh, & Sabol, 2002; Möller & Rajala, 2007). In the context of EL, it is defined as a type of "leadership that creates visionary scenarios that are used to assemble and mobilize a 'supporting cast' of participants who become committed by the vision to the discovery and exploitation of strategic value creation" (Huang et al., 2014). Moreover, the EL process favors opportunity-driven behavior and supports the enhancement and development of capabilities (e.g. Guo, 2009; Teece, 2017) through strategic resource management (Altuntas, 2014), for continuously creating value in the firm (Kesidou & Carter, 2014).

Therefore, value creation has become a crucial dimension in the literature that is used to measure and evaluate business performance. Prior studies have emphasized the significance of value creation in entrepreneurial marketing that has focused on the entrepreneurship and marketing contexts. However, such an emphasis is lacking in EL studies. However, many scholars have confirmed that value creation influences business performance. Thus, this research investigated value creation in the EL dimension and its contribution to achieved business performance. According to the many reasons that have been mentioned above, the following hypothesis was formulated:

Hypothesis 2: Value creation will positively affect business performance

The Effect of Entrepreneurial Leadership Dimensions on Business Performance

This section examines the effects of five dimensions of entrepreneurial leadership, including personal competency, managerial competency, proactive competency and technological competency on business performance as shown in Figure 1.

Business performance

Business performance is a widely-discussed issue and has become one of the most controversial points among authors (Wu, 2009). The literature broadly agrees that there is no clear approach to what constitutes an appropriate measure of performance (Barbero, Casillas, & Feldman, 2011). Most problems relate to that objective, and direct performance indicators are difficult to obtain. Schwartz and colleagues (2013) stated that business performance studied in empirical analyses often refers to innovativeness of firms by using metrics such as research and development intensity (Hughes, 1988), patent activity (Neuhäusler, Frietsch, Schubert, & Blind, 2011), research and development expenditures (Parcharidis & Varsakelis, 2007), cooperation propensity (Chaston, 1999), or firm growth measured in terms of employment (Bishop, Mason, & Robinson, 2009), sales, or profitability (Venkatraman & Ramanujam, 1986). Business performance has been measured in different studies with a variety of indicators, the most common of which are sales, profits, assets, physical output, market share, and some employees, as well as the growth rate in these indicators (Schwartz et al., 2013). There is a growing consensus that if only one

indicator is used, and the study has a cross-industry design, sales growth should be the preferred choice because it is the most general, and all commercial enterprises need sales to survive (Ardishvili, Cardozo, Harmon, & Vadakath, 1998; Wiklund, 1998). Owners are also likely to use these themselves as their primary measure of performance (Barkham, Gudgin, & Hart, 1996).

Additionally, sales often precede the other indicators; it is the increase in sales that necessitates increases in assets and employees and that results in increased profits or market share (Flamholtz, 1986). While sales may be the most universally applicable growth indicator, it is not always the best one. As Penrose (1959, p. 199) wrote, "There is no way of measuring an amount of expansion or even the size of a firm, that is not open to serious conceptual objections." Most businesses are imitative of businesses in mature industries, which serve local markets (Aldrich & Wiedenmayer, 1993; Samuelsson, 2004). As such they do not have much growth potential, but it is also important to realize that most business founders have modest growth aspirations for their firms (Human & Matthews, 2004). Using only first-year and end- year data for growth calculations has also been criticized because in such a practice model growth is treated as one giant leap (Dahlqvist, Davidsson, & Wiklund, 2000), which makes the calculation overly sensitive to stochastic variation (Weinzimmer, Nystrom, & Freeman, 1998). Because no measure is likely to be perfect, Penrose (1959) has recommended that rather than use sales merely because others have proposed it, researchers would be well advised to think seriously about which growth indicators best match their theory, their research questions, and the type of firms included in their sample.

The review of the factors related to performance shows that these factors bear a striking resemblance to the types of resources described by Barney (1991). As indicated above, organizational and human resources, which Barney identified as two critical types of resources, are associated with a firm's performance instead of financial capital resources (Madhani, 2010). Barney (1991) listed the physical resources as a third type of support but points out that, because these can be relatively easily purchased, they do not lead to sustained competitive advantages. Financial capital is a generic resource that can be used to obtain other types of resources, especially physical resources (Dollinger, 1999; Wiklund & Shepherd, 2005). Obtaining and effectively using resources leads to improved chances of success in that the survival and performance of a business depend on the capabilities and resources that it can exploit (Chandler & Hanks, 1998). For this purpose, the construct of entrepreneurial performance is used. It means that performance in this research is related to success for businesses (Simpson, Padmore, & Newman, 2012). The entrepreneurs are a significant influence on their business, as the owner is central to every business decision (Hill, 2001; Reijonen & Komppula, 2007).

Therefore, to examine the performance of a business, it is necessary to investigate the relationship between value creations that encourage developing the innovation and creativity potential to the sustainability of firms (Moore & Manring, 2009). Moreover, it is also important to look at the characteristics of the organization itself, because some personal features (e.g., EL, ability to acquire financing) translate into organizational factors, such as strategic orientation and access to physical capital (Al-Khalifah, 2014). Previous research on the business performance of businesses has been measured primarily by sales and sales growth (Vrdoljak Raguž, Krželj Čolović, & Milić Beran, 2015). The review follows Barney's (1991) categorization where the variables related to success were divided into human capital and organizational capital resources. Suryana, Mulyawan and Komaladewi (2016) found that entrepreneurship motivation positively affected value creation and value creation affected business performance; while entrepreneurship motivation became a driver to conduct innovation creation and performance of businesses that strongly depended on the success of implementing value creation as a business strategy (Soh, 2016).

However, entrepreneurs may face several issues such as input of poor-quality products, which can adversely affect competitiveness more than in larger businesses (Singh, Garg, & Deshmukh, 2009). Further, entrepreneurs may not have any clear goal or strategy before approaching the market (Jacobsson & Sörbom, 2015). Several indicators showed that many owners or leaders still have a low competitive advantage (Leitner & Güldenberg, 2010), a high mortality rate (Mulhern, 1995), and a slow pace of change from small to medium enterprises, and from medium to big enterprises (Smallbone & Welter, 2001). The all of all firms contribute significantly to value creation and development of the economy and society (Möller & Rajala, 2007). Previous empirical studies have found that leaders still play an essential role in encouraging innovation and creativity to manage competitive advantages (CA) for sustained business success (Rullani, 2002). It has been recommended that the strategy adopted by a business should emphasize competitiveness achieved through a change agent (leader) who has the necessary communication interpersonal skill (Jones, 2013). Businesses need to continue to achieve a sustainable competitive advantage over the long-term, and leaders should be focusing on their strategies (Wu & Parker, 2017). The managers should also be concentrating on competitive advantage through lowering cost production (Eniola & Ektebang, 2014).

On the other hand, the concept of value creates an alternative for business to look for a safe way to grow profitably (Walter et al., 2001). Value creation in developing countries and emerging markets represents a new source of economic development (Amit & Zott, 2001). Therefore, the government in each country endeavors to set up programs for encouraging and enhancing the performance of businesses to meet the government's expectations.

The empirical evidence that appears above has shown various problems and issues confronting business. It goes without explanation that businesses are vital to every country. Therefore, the government is seeking alternative policies to help businesses to create value and generate more competitive advantages and sustainability in the long-term. It is called "business performance." Therefore, leaders in automotive parts businesses should understand the situation they face from the internal environment (climate derived leadership style in the organization) and meanwhile seriously seek aid from the other units to control and support their business to manage issues beyond leadership capabilities. These contexts undoubtedly will show the relationship between the characteristics of EL and business performance that are mediated by value creation and able to support business performance. Hence, this study hypothesizes that:

Hypothesis 3a: Personal competency of EL will positively affect business performance

Hypothesis 3b: Managerial competency of EL will positively affect business performance

Hypothesis 3c: Proactive competency of EL will positively affect business performance

Hypothesis 3d: Technological competency of EL will positively affect business performance

The Moderating effect of Organizational Climate and Organizational Learning Among Entrepreneurial Leadership and Value Creation

This research proposes that value creation occurs from organizational climate and organizational learning. It includes four dimensions of entrepreneurial leadership. These dimensions include personal competency, managerial competency, proactive competency and technological competency. This research investigates what and how the dimensions of entrepreneurial leadership have a significant effect on value creation as shown in Figure 1 above.

Organizational Climate

The climate in an organization needs to change continually. However, leaders and entrepreneurs must realize that the time has come to develop and deploy solutions in businesses (Robertson & Swinton, 2005). In this context, another word used in the literature is "climate." Cohen (2004, p. 20) defines EL as any leadership that creates a climate of entrepreneurial behavior: "create the right climate, and you'll unleash the behavior that your organization needs to succeed today." In other words, behavior can be an element of climate, as much as that determined by the situation (Roomi & Harrison, 2011). Moreover, entrepreneurial leaders can exist at the top of an organization, or at any other level (Leitch & Volery, 2017); and how they influence climate will depend upon their position. In analyzing the concept of Cohen (2004), there is little point in prescribing what it takes to be an entrepreneurial leader without first identifying the context of climate in an organization (Tarabishy et al., 2002). The notions of climate and context connect to a related idea of leadership "style." Yang (2009) derived an understanding of this from Nahavandi (2016)-although without examining it in any detail—and connected it to the widely-used measure of EL (e.g., Young & Francis, 1991; Koene, Vogelaar, & Soeters, 2002; Skodvin & Andresen,

2006; McMurray et al., 2010; Renko et al., 2015). In the context of entrepreneurial leaders, leadership style affects value creation that is then moderated by organizational climate (Bagheri, Yarjanli, Mowlanapour, & Mahdinasab, 2016). The effect of leadership is to exert a moderating role in the development of a climate of innovation and, in turn, organizational climate influences creativity and entrepreneurial success of businesses (Sethibe & Steyn, 2016). The effect of leadership could improve organizational climate leading to improve business performance (Eustace & Martins, 2014). The organizational leaders play a critical role in establishing a value-based environment in the organization by which leaders convey the importance of value to the members (Grojean, Resick, Dickson, & Smith, 2004).

Moreover, some scholars have found an empirical, direct link between organizational climate and the performance of business (Feng Jing, Avery, & Bergsteiner, 2011). Yıldız and Özcan (2014) believed that organizational climate is a tremendous moderating variable; they studied it as a moderating variable between leadership and employees' creativity levels. Organizational climate is a good moderating variable that affects organizational processes such as decision-making, communication, and controlling (Benzer et al., 2011); it also affects psychological processes such as creating, learning, motivation, and commitment (Ekvall, 1996). EL influences value creation and business performance, which has been confirmed by the prior study of (Hamidianpour, Esmaeilpour, Alizadeh, & Dorgoee, 2015). They found that intelligence, employee creativity, organizational climate, and entrepreneurial orientation affect the relationships to business organizational leadership (Hamidianpour et al., 2015). The impact of organizational climate to effective change is influenced by interactions with others and is also shaped by leadership behavior (Iljins, Skvarciany, & Gaile-Sarkane, 2015).

The leadership helps organizations achieve their current objective more efficiently by linking business performance to valued rewards while leadership effect on organizational climate and performance (Jing & Avery, 2016). The leaders introduce and communication value through both climate and culture (Adeoye, Kolawole, Elegunde, & Jongbo, 2014). The relationship between leadership and performance via the mediating role of organizational climate also has been changed because of the impact (McMurray et al., 2010). Organizational climate is related to employees' perceptions of their workplace environment (Schulte, Ostroff, & Kinicki, 2006). It is about how it feels to work in a place and the impact on employee motivation and behavior while a high-performing workplace climate can be created by addressing the key drivers of employee engagement such as clarity, commitment, responsibility, standards, recognition and teamwork (e.g., Woon, Tan, & Nasurdin, 2017; Nanjundeswaraswamy & Swamy, 2013). The organizational climate had a positive effect on business performance and current enterprise, and leadership and performance climate had a significant impact on job success (Zhang & Liu, 2010). As a result, from the literature review above, ambiguity was found about the relationship between EL and value creation that are mediated by organizational climate (Rota, Reynolds, & Zanasi, 2012).

Therefore, in this research brought organizational climate is one of moderator because several studies that mentions above to confirm the importance of organizational climate role to support leader to catch their success. Especially, leaders in automotive parts businesses obtain various forces from inside and outside the situation. From these pressures have an impact to leader style that tries to create more benefit within inter-operability from people in the organization. Then, the climate in organization included tie with each other, strong feeling in teamwork, cooperate with each other, recognize one standard, and recognize and realize the same goal to success should be important for automotive parts business. This study has hypothesized that:

Hypothesis 4a: Organizational climate will positively moderate the effect of personal competency on value creation

Hypothesis 4b: Organizational climate will positively moderate the effect of managerial competency on value creation

Hypothesis 4c: Organizational climate will positively moderate the effect of proactive competency on value creation

Hypothesis 4d: Organizational climate will positively moderate the effect of technological competency on value creation

Organizational Learning

Organizational learning referred to the learning of all people that occur within the organization and occur when all the members become aware of the cognitive outcomes and newly shared mental models, including work processes and individual jobs. Such learning develops into organizational learning (Argyris & Schön, 1997). In this research, the concept of applied organizational learning from Argyris and Schon (1996) was used to explain learning patterns that involves people in businesses. Therefore, a learning culture in which people work together can support an organization by nurturing and sustaining a knowledge-creating system (Wang, Yang, & McLean, 2007). However, organizational learning has a variety of definitions. From a strategic perspective, according to Crossan and colleagues (1991), corporate learning strategies and company culture should be adaptable to the company environment. From a systematic perspective, Senge (1991) defined organizational learning as a dynamically balanced relationship in which organizations acquire external knowledge and further adjust activities of the organization. This relationship helps to balance the environment and organizational operation processes while the organization struggles to survive. In addition, organizational learning can be divided into individual, team and organization levels (Inkpen, 1998). From a process perspective, Dodgeson (1993) pointed out that organizational learning is a process of establishing organization knowledge and norms in an organizational culture that alters and generates organizational effectiveness by improving human skills.

Organizational learning begins with individuals and resonates throughout the organization, and therefore, is embedded in the organizational structure. Developing a culture of organizational learning requires the establishment of clear organizational goals, a culture of sharing, and a connection between organizational subsystems, structures, and cultures (Preskill & Torres, 1999). As a strategy, organizational learning can facilitate new organization methods and procedures for learning and change (Morgan, Katsikeas, & Appiah-Adu, 1998). The literature review above indicates that organizational learning is a continuous and dynamic process. Because learning strategy can cause organizations to change their actions due to the acquisition of knowledge and insights, organizations become informed (Bohmer & Edmondson,

2001). At the same time, the culture of organizational learning affects continuous learning, such that an organization's internal and external knowledge is transformed into sustainable knowledge.

The concept of organizational learning has been borrowed and developed from the individual learning process, which is commonly believed to be very sophisticated and involves all aspects of human nature and interaction with the environment (Roper & Pettit, 2002; Wang & Ahmed, 2002). Understanding the individual learning process is a good starting point to understand organizational learning, but does not constitute the whole picture (Wang & Ahmed, 2002). Learning at the organization level occurs in a more complicated context than at the individual level due to the environment (Gagnon et al., 2015). Organizational learning is not merely represent the collective results of individual learning processes (Wang & Ahmed, 2003), but involves interaction among individuals in the organization (Thursfield, 2007), and communication between organizations as an entity, and interaction between the organization and its contexts (Wang & Ahmed, 2002). This concept includes aspects that will facilitate organizations to create value, maintain business performance, and competitive advantages in their current business context (Saadat & Saadat, 2016). Empirical evidence from prior studies has indicated the existence of several influences on organizational learning arising from variables resident in the organization context (Zellmer-Bruhn & Gibson, 2006), and has been expanded to include different academic disciplines (Martínez-León & Martínez-García, 2011). Organizational learning is an important factor able to influence and support employees to become more efficient and perform more effectively in business (Škerlavaj, Štemberger, Škrinjar, & Dimovski, 2007).

Therefore, from observed empirical results the evidence indicates that organizational learning has several roles that involve both value creation and performance in businesses. This study places emphasis on the impact of organizational learning in the context of leaders who have an important role to encourage people in the organization to perform well and work together to mutually learn, to support continuous learning, to create an atmosphere of learning, exchanging information and knowledge, and to create innovation through good learning. Hence, taking all the abilities of leaders, consistent with that of a leader in automotive parts business and EL capability, this research has hypothesized that:

Hypothesis 5a: Organizational learning will positively moderate the effect of personal competency on value creation

Hypothesis 5b: Organizational learning will positively moderate the effect of managerial competency on value creation

Hypothesis 5c: Organizational learning will positively moderate the effect of proactive competency on value creation

Hypothesis 5d: Organizational learning will positively moderate the effect of technological competency on value creation

Summary

This chapter details the conceptual model of EL and automotive parts manufacturing businesses performance. Further, this chapter also includes the literature review, theories, has constructed a conceptual framework, and has proposed a set of testable hypotheses. EL is the primary concern of this research in that it is focuses on its antecedents and consequences. It also investigates the impact of value creation consisting of customer value and business value on business performance through the effect of the moderating roles of organizational climate and organizational learning while it affects the mediating role of value creation. Table 3 below presents a summary of all hypothesized relationships.

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Table 3	: Summary	of Hypothes	sized
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Hypothesis	Description of hypothesized Relationships		
H1a	Personal competency of EL will positively affect value creation		
H1b	Managerial competency of EL will positively affect value		
	creation		
H1c	Proactive competency of EL will positively affect value creation		
H1d	Technological competency of EL will positively affect value		
	creation		
H2	Value creation will positively affect business performance		
НЗа	Personal competency of EL will positively affect business		
	performance		
H3b	Managerial competency of EL will positively affect business		
	performance		
НЗс	Proactive competency of EL will positively affect business		
	performance		
H3d	Technological competency of EL will positively affect business		
	performance		
H4a	Organizational climate will positively moderate the effect of		
	personal competency on value creation		
H4b	Organizational climate will positively moderate the effect of		
	managerial competency on value creation		
H4c	Organizational climate will positively moderate the effect of		
	proactive competency on value creation		
H4d	Organizational climate will positively moderate the effects of		
12	technological competency		
H5a	Organizational learning will positively moderate the effect of		
	personal competency on value creation		

Hypothesis	Description of hypothesized Relationships
H5b	Organizational learning will positively moderate the effect of
	managerial competency on value creation
H5c	Organizational learning will positively moderate the effect of
	proactive competency on value creation
H5d	Organizational learning will positively moderate the effect of
	technological competency on value creation



CHAPTER III

RESEARCH METHODS

This chapter describes the research design used to determine the set of factors that are critical for the successful development of EL in the automotive parts industry in Thailand as well as their impact on business performance. Therefore, this chapter consists of five parts as methodology and research design, measurements, methods, statistical techniques, and summary. The first section of the chapter describes the methodology and research design, explains the source of population and sample selection, the data collection procedure, instrument and test of non-response bias of data. The subsequent sections of the chapter discuss the measurement of all constructs in the context of the dependent variable, independent variable, consequential variable and moderating variable. The third section describes the methods useful in this research included validity and reliability tests to measure the questionnaire. The fourth section explains the statistical techniques that were applied in this research, which consist of Exploratory Factor Analysis (EFA), Confirmatory Factor Analysis (CFA) and the Structural Equation Model (SEM). The final section of the chapter briefly summarizes the contents of this chapter.

The Choice of Methodology

Downey and Ireland (1979, p. 630) argue that "the most relevant of the presuppositions that determine one's research perspective is that methodological issues must always be answered within the context of a particular research setting. That is to say, methodologies are neither appropriate nor inappropriate until they are applied to a specific problem". Mintzberg (1979) also supports this view and further asserts that when choosing methodology, a researcher should realize that there is no right or wrong methodology, only that more or less useful ones exist depending on the nature of the research project. The present researcher of this study is aware in this

issue and attempts to choose methodology, which applies to the nature of this research and is able to answer the research questions of this study validly and reliably.

Weber (2004) indicates that there are two principal research philosophies: positivism and interpretivism. Positivism focuses on facts without reference to ethical judgement (Hunt, 1991; Lee, 1999). "Positivists supposedly believe that reality is separate from the individual who observes it. They apparently consider subject (the researcher) and object (the phenomena in the world that are their focus) to be two separate, independent things" (Weber, 2004, p. 5). In this paradigm, researchers supposedly try to build knowledge of a reality that exists beyond the human mind, and they apparently believe that human experience of the world reflects an objective, independent reality and that this reality provides the foundation for human knowledge (Lutz, 1989).

On the other hand, interpretivists believe that reality and the individual who observe it cannot be separated (Weber, 2004). Knowledge of the world is intentionally constituted through a person's lived experience, and the research object is interpreted in the light of meaning structure of person's (researcher's) lived experience (Laudan, 1976).

According to Deshpande (1983) and Weber (2004), positivists tend to use quantitative method as their preferred research method. They seek large amounts of empirical data that they can analyse statistically to detect underlying regularities. "Very simply, the logical positivist view of the world is synonymous with the quantitative paradigm" (Deshpande, 1983, p. 102). Interpretivists tend to use qualitative method as their favoured research method since they view the social reality as a process of continual development of knowledge and the interpretation of the real world (Morgan & Smircich, 1980).

Downey and Ireland (1979) and Mintzberg (1979) point out that the quantitative method is appropriate where the aim of the study is to determine how many, what, and where. Hence, a research which is seeking to clarify such objectives has to rely on the use of predetermined response categories by means of standardized data collection instruments such as mail survey so as to enable statistical techniques to be used to assist in the data interpretation. This research method provides a number of advantages such as enhancing the reliability of observation, facilitating more objective measurement, permitting statistical analysis of data, and generalization to large populations (Schrag, 1992). However, this research method has been citised for failing to address more complex issues and processes of the real world, and focusing on the social structure rather than the process itself (Mintzberg, 1979).

Van Maanen (1979, p. 520) describes the qualitative method as "an umbrella term covering an array of interpretive techniques which seek to describe, decode, translate, and otherwise come to terms with meaning, not the frequency, of certain more or less naturally occurring phenomena in the social world". Weber (2004) asserts that the qualitative data are often gathered by means of open-ended narrative, that is, where responses are not directed into predetermined answer categories. Therefore, this method enables researchers to undertake an in-depth investigation of specific, small-scale samples in order to discover new knowledge grounded on personal experiences (Hammersley, 1996). However, according to Miles and Huberman (1983), the qualitative method has serious weaknesses. He criticizes it on the grounds that it is primitive and subjective, effectively based on intuition, and is in general "unmanageable".

The Methodology Used in This Study

As already mentioned, the choice of research methodology will depend on the purpose or focus of the study. The quantitative method seems to be chosen where variables can be quantified and a set of their relationships are statistically analyzed. Moreover, this method generally involves a large sample that can lead to generalization of the results of the studies to the population from which the samples are drawn (Creswell, 1994). On the other hand, the qualitative method seems to be adopted if researchers want to undertake an in-depth investigation of a specific, smallscale sample in order to examine closely the specific phenomena of their studies.

Neuman (2003) too asserts that the criteria for choosing appropriate research methods are greatly dependent on the goals and objectives of the study. As regards the objectives of this study, the present researcher has investigated the set of factors that are critical for the successful development of EL dimensions in the automotive parts manufacturers in Thailand. This means there is a need to gather data of each variable to analysis the effect of EL dimensions that relate to value creation and automotive businesses performance.

Here too a method is needed which can establish a series of relationship between variables, describe the trend of relationships, and quantify a set of variables to be measured. In other words, measurable and quantifiable variables are the fundamental topics of this research.

As discussed in the previous section: the present researcher has followed the positivist/quantifiable approach because of the nature of this research and in order to fulfil the objectives identified.

The approach of this study is unlikely to build theory, or to work with qualitative data and use a variety of data collection methods in order to provide differing perspectives on phenomena. Instead, the present researcher attempts to translate theoretical concepts into measurable categories and variables (operationalization) in order to gain the accuracy needed to enable generalization to the characteristics of a wider population of the groups sampled, with the intention of testing theories. From the present researcher's point of view, the positivist/quantifiable approach can explain social phenomena in a valid, reliable, and systematic manner. Accordingly, taking account of the characteristics of the dataset and the need to fulfil the aim and objectives of this study, the method chosen for conducting this research is the quantitative method.

It needs to be acknowledged that the present researcher's approach does have limitations. Firstly, certain aspects of the phenomena under investigation are not objective but come from interpretation of social action; for example, level of opinion from respondents, leader skills, leader competencies, and so forth. Secondly, the "objective" approach, by following a rigorous and quantifiable research method such as a questionnaire, may seek to elicit opinions from which respondents are unwilling to convey. Thirdly, by following this approach, the present researcher is prevented from undertaking an in-depth investigation into EL in Thailand, which the qualitative method would enable. In this respect, the interpretivist/qualitative approach would be likely to provide deeper knowledge and understanding of certain aspects of the EL phenomenon in Thailand. However, on balance, since this study is exploratory, and given the characteristics of the data of the study (the dataset) the quantitative approach has been preferred. It is hoped that future research on this topic may employ a qualitative approach in order to get a more rounded and complete picture of EL in Thailand. This would be a valuable supplement to the knowledge resulting from the present study.

Population and Sample Selection

This research was interested in and selected the automotive parts manufacturing businesses in Thailand as the population to investigate the EL characteristics for several reasons. First, the automotive industry is a cornerstone of Thailand's economic development and represents the most reliable automotive production base (Brimble & Doner, 2007). The industry is important to this country and necessitates its continued development and the achievement of superior performance. Second, the automotive industry in Thailand earned 5.8 percent of gross domestic product (GDP) (NESDB Report, 2018). This implies that the industry has created millions of direct and indirect jobs and has become a great source of income for all people within the supply chain. Third, these manufacturers are supported and promoted by the Thai Government (Laosirihongthong, Paul, & Speece, 2003) because Thai Government wants to lead this industry to be the leader of Southeast Asia's automotive industries. Moreover, major industrial leaders of automotive companies such as Toyota, Nissan, Honda, Denso, and BMW have already operated their R&D, design and testing centers in Thailand. Hence, Thailand is a major production base for car makers.

In addition, the automotive industry has always been the target industry for investment promotion and a key contributor to the country's economic development both in terms of finance and technology transfer. Under the new investment promotion policy, the automotive industry remains a target industry and target cluster receiving strong attention from the government. Moreover, the automotive manufacturers in Thailand are affected by the Thailand 4.0 Policy. This calls for development from a traditional automotive manufacturing base to the production base for electric vehicles (EV) by starting an assembly line along with the original equipment manufacturers (OEM) leading from the battery industry to electric propulsion systems (ASEAN Briefing, 2018).

Therefore, this study focuses on collecting data from automotive providers rather than gathering data from other manufacturers. The data of this research was collected from the data-based directories of the Thai Autoparts Manufacturers Association that collects data only from the automotive parts factories in Thailand. This research gathered data from companies that are specified as innovative. They operate under conditions of radical change to the pattern of a new product creation by using all capabilities from all employees in the business to fulfill performance through innovations, creativities, technologies, sciences, researchers, and developers. Automotive businesses can build a high competitive advantage and at the same time these businesses are five core target groups of technologies and industries nominated for improvement in Thailand 4.0.

The population used in this research was aquired from the database of the Thai Autoparts Manufacturers Association (TAPMA database) (http://www.thaiautoparts.or.th/). This database is trustworthy because it is an independent organization website that provides several automotive parts manufacturers database services with complete addresses and database updates that can be used to check the existence of the firms every year. As a result, after filtering out unrelated businesses, 616 automotive parts factories in Thailand (July 7, 2018) were selected as the population. A sample size calculation method suggested by Yamane (1973) was used to estimate the number of businesses need for a reliable 5163 sample. The calculation made is given below.

$$n = \frac{N}{1 + N(e)^2}$$

$$n = \frac{616}{1 + 616 (.05)^2}$$

$$n = 242.52$$

$$n = 243$$

By	n	= calculated the sample size
	Ν	= total number of population in this research
	e	= allowable error

In this research, the allowable error can be calculated as five percent (e = .05), while 616 is the total number of members in the population (N = 616). After calculation, a sample size of 243 was determined as being sufficient for data analysis. However, it is difficult to receive a 100 percent response rate through the use of a mailed data collection method. For questionnaires that are mailed as the survey method, 20 percent of the response rate usually considered acceptable and is satisfactory for subsequent analysis (Aaker, Kumar, & Day, 2001). The calculation was made is given below.



Thus, 1,215 questionnaires are required to receive 1,215 sample sizes. However, given that the total population was only 616, therefore this research ideally should collect data from the whole population that is identified in Thai Autoparts Manufacturers Association list to test the hypotheses.

Data Collection Procedure

In this research, the main research instrument was a self-administered questionnaire which was developed in earlier studies. A questionnaire was deemed suitable for use as a research instrument because it could be sent to many firms at a lower cost when used in a mail survey (Sittimalakorn & Hart, 2004). Moreover, a mail survey tends to lower distribution bias, exerts less pressure on potential respondents and saves time, more than an on-site survey (Neuman, 2006). Additionally, the researcher undertook that all individual responses would be kept entirely confidential, and no information would be revealed or shared with any outside party without permission from the respondent. This served to reduce possible desirability bias (Eivarsen & Våland, 2014). The key respondents were the department managers, general managers, owners, and leaders of each of the automotive parts businesses in Thailand because these individuals have a significant responsibility in the management function of the organization. Consequently, these respondents were well-informed about a firm's management operation, business outcomes, overall internal activities, and external environments that influenced their performance. Thus, the results precluded firm level prescriptions because key respondents self-reported all constructs, and therefore the data became a precious source for evaluating the different variables of the firm (Baer & Frese, 2003).

The questionnaires were directly distributed to the respondents by a mail survey. Then, the completed questionnaires were directly sent back to the researcher within eight weeks by means of the prepared return envelopes, thus ensuring confidentiality. Undelivered mail and firms which were no longer in business were eradicated. Each set of questionnaires sent to each respondent contained a cover letter which described the research, a questionnaire, and a self-addressed pre-paid postage envelope for the return of the questionnaire to the researcher. The questionnaires were sent 616 in mid-of July 2018. The planned schedule was to collect the data within eight weeks. At the first stage, the questionnaires were answered and sent back to the researcher in the first three weeks after the first mailing. After three weeks, a follow-up telephone call was made to the automotive parts factories which had not yet replied, to ask the respondent to complete the questionnaire for an increased response rate. For the convenience of a follow-up mailing, each questionnaire was assigned a coded number at the left corner on the back of the last page of the questionnaire.

The data was collected from the respondents through a questionnaire arranged in seven parts. Part one included the demographics of the respondent which included gender, age, education background, working experiences in the business, average monthly income at present, and working position at present. Part two asked about the general information of the business consisting of the form of business, registered operational capital, number of employees in the business, period in operation, average business revenues per year and location of the business. Parts three to seven related to evaluating each of the constructs in the conceptual model. In addition, the last part included an open-ended question for the respondent's suggestions and opinions regarding the administrator or leader of automotive parts manufacturers in Thailand. The details of the questionnaire are attached in Appendix A (English version) and Appendix B (Thai version).

The measurement of each construct was developed by using multiple items and a five-point Likert scales ranging from 1 to 5 (1=strongly disagree, to 5=strongly agree). Most of the demographic characteristics of respondents and automotive parts businesses were recorded by using ordinal and nominal scales. However, an itemized rating scale is the most widely used scale in entrepreneurship and leadership research (Malhotra & Peterson, 2006). The data were typically treated as intervals because continual scoring regularly reflects a favorable or unfavorable response from the respondent. Thus, using interval data to govern the total score for each respondent was appropriate. As a result, a total of 241 questionnaires were returned, and 235 were usable. The data collection yielded 18 mailing that were undelivered caused by changes of address or the businesses closing. Thus, the effective response rate was approximately 38.15 percent. The rule of thumb for the minimum sample size should exceed five observations for each variable (Hair et al., 2010). Therefore, 235 automotive parts businesses were acceptable as the sample size for confirmatory factor analysis and structural equation model utilization. Also, the details of the questionnaire mailing are demonstrated in Table 4.

Table 4: Details of Questionnaire Mailing

Detail	Number
Mailed Questionnaires	616
Undelivered Questionnaires	18
Valid Questionnaires Mailed	598
Received Questionnaires	- 241
Unusable Questionnaires	6
Usable Questionnaires	235
Response Rate (235/616) x 100	38.15%

Instrument

The measurement instrument of development procedures involved multiple item development for measuring each construct in the conceptual model because all variables are latent constructs that cannot be directly measured; thus, multiple items increase the validity and reliability of the measures (Churchill, 1979). These constructs were transformed into operational variables for accurate measuring. To measure each construct in the conceptual model, all variables were developed for measuring. The leader or the owner answered a questionnaire composed of responses across a five-point Likert-type scale for all variables ranging from 1 (strongly disagree) to 5 (strongly agree). Neuman (2006) claimed that it is usually better to use four to eight categories in a response scale, but creating more differences may not be meaningful, and also respondents may be confused. Moreover, questionnaires used psychometric response scale to gain a reply or preference from the participant. Likert scales refer to a different scaling technique which only measures one trait in the surroundings. For every question, respondents are asked to show their agreement level using an ordinal scale with a statement to support their answer (Likert, 1961).

Each variable consist of the independent variable of EL consisting of four dimensions. Six items addressed personal competency, seventeen items assessed managerial competency, nine items monitored proactive competency, and ten items appeared in the technological competency section.

Moreover, the role of two moderator variables role was assessed. Ten items were used in organizational climate assessment and thirteen items assessed the impact of organizational learning. Value creation, as the mediator variable, contained ten items, and the dependent variable was business performance, which had six items. In summary, this study had eighty-one total items excluding a general data section to obtain information about the company regarding business form, registered operational capital, number of employees in the business, period in operation, average business revenue per year, and locations of business. The questionnaire was custom-designed for this research based on definitions gained from previous researchers on each of the variables studied. Table 4 highlights each variable and the researchers used as the basis for developing and adapting the items included in the questionnaire.

Variable	Researchers		
Personal Competency	Eraut (1998), Weinert (1999), Le Deist and Winterton		
	(2005), Griffin and colleagues (2002)		
Managerial Competency	Yukl (1989), Scaperlanda-Herlein (2009), Chong		
	(2013)		
Proactive Competency	Bateman and Crant (1993), Seibert and colleagues		
	(1999), <mark>G</mark> udermann (2011)		
Technology Competency	Tippins and Sohi (2003), Koltay (2011), Collin and		
	colleagues (2015), Cortoni and colleagues (2015)		
Organizational Climate	Chin and Gopal (1995), Benzer and collagues (2011)		
Organizational Learning	Brown and Duguid (2000), Hung and colleagues		
	(2011 <mark>), Imr</mark> an and colleagues (2016), Fu (2017)		
Value Creation	Lepak and colleagues (2007), Becherer and colleagues		
	(2008), Valančienė and Gimžauskienė (2012), Patel		
and colleagues (2013)			
Business Performance	Lusch and Brown (1996), Garcia and Calantone		
	(2002), Zahra and Nielsen (2002)		

Table 5: The Previous Variables Used and Adapted in the Questionnaire

Each item in the questionnaire was developed based on the definitions and theories of each of the variables measured. Details are found in the literature reviewed (see Appendix A for a copy of the questionnaire).

Test of Non-Response Bias

In social science research, a researcher's effort to produce reliable and valid techniques for measurement data to for consistent application is through generally accepted methods in the design, conduct, analysis, and reporting the survey research. This is necessary to ensure the quality of survey techniques (Ary, Jacobs, Sorensen, & Razavieh, 2010; Tuckman & Harper, 2012). Dillman (2007) stated that there are four possible sources of error in sample survey research. These are sampling error, coverage error, measurement error, and non-response error. Non-response error arises

from a difference between the respondents and non-respondents to a written questionnaire. Researchers may undertake a telephone and postcard follow-up on the survey as it is possible respondents need a little pressure or are unwilling to answer a question (Lindner, Murphy, & Briers, 2001). Miller and Smith (1983) recommended that researches could use one of five general methods for controlling nonresponse error once appropriate follow-up procedures have been carried out. These involve (1) ignore non-respondents (2) compare respondents to the population (3) compare respondents to non-respondents (4) compare early to late respondents and (5) doubledip non-respondents. In this research early and late respondents were compared.

Lindner and colleagues (2001) suggested that to test non-response bias the respondents might be grouped as early and late respondents. Afterward, the two groups can be compared on their responses to the Likert scale questions using the t-test analysis to indicate any significant differences. However, Lindner and colleagues (2001) also recommended that late respondents be defended operationally and arbitrarily as the later 50% of respondents because any other arbitrary dichotomy of more or less than 50% implied that the early and late respondent groups are not equal in size and this might reduce the statistical power of any comparison.

From the mentioned above, therefore, to test non-response bias for all 235 received questionnaires were divided into essentially two equal groups: the first 117 responses were treated as the early respondents (the first group), and last 118 responses were treated as the late respondents (the second group). The results from data analyzed showed no differences for each variable from both early and late respondents exclude proactive competency (PRC) the results showed difference between early and late respondents. The PRC difference rises from the respondent's refusal, inability, or reluctance to answer the questionnaires. Despite PRC showing the difference, there will be no effects to the final results because they are instinctual opinions and the significant value is close to .05. The results of the non-response bias test are presented in Table 6.

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	Respondent	N	Mean	S.D.	t	р
PC	Early Respondents	117	4.172	.473	1.158	.248
	Late Respondents	118	4.243	.461		
MC	Early Respondents	117	3.953	.495	.831	.407
	Late Respondents	118	4.007	.879		
PRC	Early Respondents	117	3.980	.501	2.189	.030*
	Late Respondents	118	4.122	.490		
TC	Early Respondents	117	3.875	.659	1.594	.112
	Late Respondents	118	3.736	.676		
OC	Early Respondents	117	3.874	.651	1.200	.232
	Late Respondents	118	3.970	.573		
OL	Early Respondents	117	4.080	.574	.818	.414
	Late Respondents	11 <mark>8</mark>	4.140	.536		
VC	Early Respondents	117	<mark>4</mark> .173	.580	.510	.611
	Late Respondents	118	4.210	.548		
BP	Early Respondents	117	3.658	.777	.317	.751
	Late Respondents	118	3.689	.726		

Table 6: Test of Non-Response Bias between Early and Late Respondents

Measurements

In measuring each construct in the conceptual model, multiple item measurement processes were developed. Constructs are abstractions that cannot be measured directly or observed and should be measured by using numerous items (Churchill, 1979). Moreover, using multiple items provides a fuller range of the content involving in a conceptual definition and it improvements reliability (Vitacco, Neumann, Caldwell, Leistico, & Van Rybroek, 2006). In this research, all constructs were transformed into the operational variables to gain more accuracy in measuring research constructs. All variables were derived from definitions designated in previous literature, and measured by a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). In summary, all operational definitions are described below of each construct comprising dependent and independent variables, the moderating variables, and the controlled variables

Dependent Variables Business performance

Business performance is a multidimensional construct (Wiklund & Shepherd, 2005). Previous studies often have used self-reports to gather business performance data, and these results have proven reliable (Dess, Lumpkin, & Covin, 1997; Calantone & Knight, 2000). Wiklund (1999) suggested that performance measures should include both growth and financial performance.

Furthermore, public information is unreliable because most businesses are privately held and have no legal obligation to disclose information. The respondents may be reluctant to provide actual financial data (Tse & Gong, 2009). Therefore, this study used subjective and objective, self-reported measures on five rating scales of automotive parts manufacturers performance including six items consist of return on investment, return on equity, return on assets, net profit margin, sale growth, and growth in some employees (Zahra et al., 2002). The research developed the business performance scale according to suggestions made in previous studies.

Independent Variables

This research views the four drivers of entrepreneurial leadership as consisting of four alternative perspectives consists of personal competency, managerial competency, proactive competency, and technological competency. All antecedent variables align with their definitions and are as indicated in prior literature. The measure of each variable is as follows.

Personal competency

Personal competency is the ability of leaders to apply the own capability to decision-making, reinforce one's behavior, and use self-regulation in specific situations to manage anxiety or distress (Griffin, Botvin, Scheier, Epstein, & Doyle, 2002). Personal competency (behavioral competencies, 'know how to behave') is defined as a 'relatively enduring characteristic of a person causally related to effective

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or superior performance in a job' (Le Deist & Winterton, 2005). Therefore, personal competency was measured by a five scale rating using six items that were develop from the literature reviews and previous studies.

Managerial competency

Managerial competency refers to specific skills of entrepreneurial leaders such as analytical ability, persuasiveness, speaking ability, memory for details, empathy, tact, and charm are useful in most all leadership positions (Yukl, 1989). The behavioral approach has focused mainly on two aspects of managerial effectiveness, consideration of subordinates and the ability to initiate structure on the parts of the organization where the leader is responsible (Scaperlanda-Herlein, 2009). Thus, this antecedent variable was measured by a five scale rating using seventeen items adapted from the literature reviews and previous studies.

Proactive competency

Proactive competency is defined as the skill to identify and use opportunities, to show initiative and to persist until meaningful changes are achieved (Bateman & Crant, 1993). Possession of a proactive competency is an essential variable in the effectiveness of performance and achievement for organizations and individuals (Gudermann, 2011). The proactive competency concept in proactive behavior arises from the interactionist perspective such as leaders can create their environments or leaders are viewed as being both internally and externally influenced by situations (Schneider, 1983). Proactive people can change their settings to be more effective in their work performance. Therefore, proactive competency was measured by a five scale rating and using nine items that were adapted from Seibert and colleagues (1999).

Technological competency

Technological competency is the ability of modern entrepreneurial leaders in the Thailand 4.0 context to apply the tools possessed by technology in the workplace and their organizations. Technological competency also refers to various skills that leaders must bring to use in value creation from the application of creativity and innovation arising from the use of digital tools in order to deliver more benefits for both customers and the business. These competencies have been termed digital competency or called businesses digital (Cortoni, 2015), information technology or called IT leadership (Collin et al., 2015). Technological competency was measured by using a five-rating scale and using ten items based on the literature review and previous evidence Koltay (2011). The items included skills in digital literacy, media literacy, ICT literacy, information literacy, and internet literacy.

Consequential Variables

The second category of variables arises as a consequence of entrepreneurial leadership in value creation. These variables consist of two perspectives and are customer value and business value. The measurement of this dimension conforms to its definition and is discussed in the following sections:

Value creation

Value creation is defining as the competitive advantage created when entrepreneurial leaders act as coach, encouraging intelligence generation activities, help to challenge assumptions, and understand patterns and relationship among people, organizations, and events (Slater & Narver, 2000).

Moreover, value creation can be a customer perceived preference derived from an evaluation of those products attributes, attribute performances, and consequences arising from their use that facilitates (or blocks) achieving the customer's goals and purposes in practical situations (Woodruff, 1997). On another hand, value creation also can be defined in informal terms that includes all forms of value that determine the health and well-being of the firm in the long-run and this goes beyond purely economic value (Melville, Kraemer, & Gurbaxani, 2004), also known as economic profit, economic value added, and shareholder value, and includes other forms of value such as employee value, customer value, supplier value, channel partner value, alliance partner value, managerial value, and societal value (Valančienė & Gimžauskienė, 2012; Patel et al., 2013). Therefore, this variable arises from two concept focused on customer and business value and was measured by ten items developed and adapted from Becherer and colleagues (2008). Prior studies suggested that value creation can use self-assessment by managers, who are leader in automotive
parts businesses, to enable comparison with other (e.g. London & Beatty, 1993; Bou-Raad, 2000; Hellsten & Klefsjö, 2000).

Moderating Variables

By drawing on the contingency theory, this research determined that organizational climate and organizational learning were two moderators of the relationships among each dimension of entrepreneurial leadership. Like other variables, these moderators were developed from the definition of each, as well as from the related literature. The measure of each moderating variable is discussed as follows.

Organizational climate

Organizational climate represents factors that determine the influence of organizational climate on employee's creativity and innovation which gives a competitive advantage for success and survival of organizations nowadays (Moghimi & Devi Subramaniam, 2013). The definitions of organizational climate are "a set of measurable properties of the work environment, perceived directly or indirectly by the people who live and work in this environment and assumed to influence their motivation and behavior" (Litwin & Stringer, 1968, p. 1). The measure was adapted from Chin and Gopal (1995) and included ten items assessed by a five scale rating.

Organizational learning

Organizational learning is a dynamically balanced relationship in which organizations acquire external knowledge and further adjust the organization activities (Senge, 1990). This relationship helps to balance the environment and organizational operation processes while the organization struggles to survive. Moreover, organizational learning has a variety of definitions developed from a strategic perspective, from a consideration of organizational learning strategies and company culture that should be adaptable to the company environment (Crossan, Lane, White, & Djurfeldt, 1991). Inkpen (1998) stated that organizational learning could be separated to consider the dynamics at individual, team, and organization levels. In summary, a culture of organizational learning begins with individuals and resonates throughout the organization, and is therefore embedded in the organizational structure. The literature review above indicates that organizational learning is a continuous and dynamic process. Thus, the measure was adapted from Rhodes and colleagues (2008), Watkins and Marsick (2003) and Hung and colleagues (2011) and included thirteen items.

In conclusion, this research considered eight variables in the conceptual framework and applied measurement scales to each variable as indicated in Table 7.

Construct Name	Items	Section	Questions No.	Construct Labels
Personal Competency	6	3	1-6	PC1, PC2, PC3, PC4, PC5,
reisonar competency	0	5	1-0	PC6
				MC1, MC2, MC3, MC4,
Managarial				MC5, MC6, MC7, MC8,
Competency	17	3	1-17	MC9, MC10, MC11, MC12,
Competency				MC13, MC14, MC15, MC16,
				MC17
Propotivo				PRC1, PRC2, PRC3, PRC4,
Competency	9	3	1-9	PRC5, PRC6, PRC7, PRC8,
Competency				PRC9, PRC10
Technological	10	3	1 10	TC1, TC2, TC3, TC4, TC5,
Competency	10		1-10	ТС6, ТС7, ТС8, ТС9, ТС10
Organizational	10		1-10	OC1, OC2, OC3, OC4, OC5,
Climate	10			OC6, OC7, OC8, OC9, OC10
Organizational				OL1, OL2, OL3, OL4, OL5,
Learning	13	5	1-13	OL6, OL7, OL8, OL9, OL10,
	9		50	OL11, OL12, OL13
Value Creation	10	2		VC1, VC2, VC3, VC4, VC5,
value creation	10		1-10	VC6, VC7, VC8, VC9, VC10
Business Performance	6	7	1-6	BP1, BP2, BP3, BP4, BP5,
Busiliess renormaliee	0	,	1-0	BP6

Table 7: Constructs Measured in the Questionnaire

Methods

This research collected data with the mailed survey questionnaire of which all constructs in the conceptual model have developed the scales from an intensive literature review. For creating credibility and accuracy, three academic experts reviewed and adjusted the measurement in the questionnaire for achieving the best possible scale measure. Following this further, a pre-test method was appropriately conducted to assert the validity and reliability of the questionnaires. In this research, the first thirty questionnaires were sent back from the respondent and were used to perform the pre-test to test the validity and reliability of all measures that were used in the questionnaire. Consequently, thirty questionnaires are included in the final data analysis for testing hypotheses and assumptions with confirmatory factor analysis (CFA) and structural equation model (SEM).

Validity

Validity is the level that indicates the measurement which is used in the questionnaire can accurately and appropriately measure constructs that the researcher wants (Hair et al., 2010). Thus, validity is a concern when conducting research, because the higher validity of the measure which is used in the questionnaire can lead to powerful predictors of future behaviors (Piercy & Morgan, 1994). The absence of validity occurs if there is a poor fit between the constructs a researcher uses to describe, theorize, or analyze that which occurs (Neuman, 2006). Hence, this research tests the validity of measure which is used in the questionnaire to confirm that a measure or set of measures accurately signifies the concept of the study by examining face, content, and construct validity.

Content validity

Content validity is an inspection system to reflect the content of the universe to which the instrument will be generalized. Content validity is the extent to which the items of the scales are sufficiently indicated in the interrelated theoretical domains (Green & Kolesar, 1987). According to Nunnally and Bernstein (1994), it is suggested that content validity is the scales containing items adequate to measure what is intended. It refers to the degree to which the essence of the scale represents the construct being measured (Thoumrungroje & Racela, 2013). In this case, face and content validity are improved by an extensive review of the literature questionnaires (Hair et al., 2010).

Moreover, professionals reviewed and suggested the necessary recommendations to examine the instrument to ensure that all constructs were sufficient to cover the contents of the variables. If the result of item-objective congruence (IOC) equal .64 > .50, then it is acceptable (Turner & Carlson, 2003). After the questionnaire was designed, the comments and improvements were provided; and then the experts will select the scale of measure that corresponds with the conceptual definitions.

Construct validity

Construct validity is referring to a set of measured items that reflects the latent theoretical construct that those items are designed to measure (Hair, Black, Babin, Anderson, & Tatham, 2006). This is done by testing both convergent and discriminant validity. Convergent validity refers to the degree to which two measures are designed to measure the same construct related to that convergence, and whether it is found in the two measures are highly correlated (Kwok & Sharp, 1998). Discriminant validity is the extent to which a construct is genuinely distinct from other constructs (Hair, Ringle, & Sarstedt, 2011). It is the accuracy of a scale in distinguishing itself from other scales to measure a different construct (Thoumrungroje & Racela, 2013). Construct validity was used to investigate the underlying relationships of a large number of items and to determine whether they can be reduced to a smaller set of factors. In this research, both confirmatory factor analysis (CFA), Average Variance Extracted (AVE) and Composite Reliability (CR) are used to examine the construct validity of the data in the questionnaire (Fischer, Rudick, Cutter, & Reingold, 1999). Moreover, to ensure the construct validity, the size of the factor loading must be higher than the .40 cut-off and are statistically significant (Nunnally and Bernstein, 1994)). Moreover, the average variance extracted (AVE) value must be greater than .50 (Diamantopoulos, Siguaw, & Siguaw, 2000) and composite reliability (CR) value must be greater than .70 (Fornell & Larcker, 1981).

Reliability

Reliability refers to the measurement level in the survey that is true, and observed variables don't have any errors, which elect the degree of internal consistency between the many variables (Hair et al., 2010). Once the factors were evaluated, the Cronbach's alpha coefficient was calculated for each significant construct to measure the reliability of the items about the construct, which is also known as internal consistency. The Cronbach's alpha coefficient measured the reliability of the subjects' answers concerning all items of the questionnaire, producing values that range from .00 to 1.00 (Hernández Sampieri, Fernández Collado, & Baptista Lucio, 2010). The results obtained from the Cronbach's alpha coefficient were interpreted based on the guides provided by Hernández Sampieri and colleagues (2010) to determine if the internal consistency was low (.25), average (.50), acceptable (.75), or high (.90). Therefore, this research shown thirty-first questionnaires data in Table 8 exhibited the result of Cronbach's alpha coefficients was between .785 to .936 which exceeds the acceptable cut-off score. It can be concluded that the internal consistency of the entire scale exists in this research.

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Variable	Item	Cronbach's alpha (α)
Personal Competency	6	.785
Managerial Competency	17	.917
Proactive Competency	9	.886
Technological Competency	10	.929
Organizational Climate	10	.928
Organizational Learning	13	.936
Value Creation	10	.907
Business Performance	6	.907
Overall	81	.978

Table 8: Reliability Value of Try out Questionnaire

Statistical Techniques

To answer the research questions and to prove the hypotheses presented, data collected from the questionnaire were analyzed. Data were analyzed using several statistical techniques such as Descriptive statistics (e.g. Frequency, Percentage, Mean (\bar{x}) , Standard Deviation (S.D)), Exploratory Factor Analysis (EFA), Confirmatory Factor Analysis (CFA) and Structural Equation Model (SEM). A brief description of the main methods used is presented in the subsequent sections.

Exploratory Factor Analysis

Exploratory factor analysis (EFA) is a statistical method used to uncover the underlying structure of a relatively large set of variables. EFA is a technique within factor analysis whose overarching goal is to identify the underlying relationships between measured variables. The purpose of this method is data reduction and component summarization. McDonald (2014) stated that factor analysis is a generic term for a somewhat vaguely delimited set of techniques for data processing, mainly applicable to the social and biological sciences, and explores empirical data in order to observe characteristic features and intriguing relationships without imposing a definite model on the data (Stonefield, 1999). This research further states that the method is usually used to observe and assess the latent scores of variations and covariations in observed measures. Varimax rotation was used in this study because it simplifies the expression of data and this method maximizes the sum of the variances of squared loading (squared correlation between variables and factors). Also the principle axis method has been suggested, due to the fact that it is a computational method of extraction (Cattell, 1978). To identify factorability of all items in this study, the inter-item correlation (correlation matrix are there at least several small-moderate sized correlation greater than .30, Anti-image correlation matrix diagonals greater than .50, measures of sampling adequacy (MSA) in Kaiser-Meyer-Olkin (KMO) should be greater than .50, Bartett's test of sphericity should be significant (Tabachnick & Fidell, 2001) and Eigenvalues for the correlation matrix should be greater than 1.00 (Warne & Larsen, 2014).

Confirmatory Factor Analysis

According to statistics experts' suggestions, (e.g., Norusis, 1994; Hair et al., 2006), a factor analysis was performed with the data obtained from the questionnaires administered for all variables to verify that each of the constructs measured something different and to evaluate the factors' importance. This analysis intended to confirm that each of the five questions per construct measured the construct as designed and to determine whether any of the questions fell under one of the other existing constructs or a new category.

Also, the factor analysis helped to determine the existence and the degree of relationships among the variables (Serrano, Rubio, Hernández, Muñoz, & Mujica, 2000). The information obtained from the factor analysis also helped establish whether any of the questions should be eliminated and to re-run the analysis considering only the factors found to be significant. In order to identify the significant factors that should be included in the analysis, which included those with Eigenvalues more significant than one, the orthogonal approach of the Varimax rotation was used. The principal component method of the factor analysis provided the following useful information: commonalities, the variance explained by each factor, and the total accumulated percentage of the variance explained by all factors analyzed.

In this research, the criteria of confirmatory factor analysis (CFA) to consider in reducing an item or construct consisted of insisting that the standardized factor loading should be higher than the .40 cut-off and was statistically significant (Nunnally & Bernstein, 1994), the t-value or critical ratio was more than 1.96 (p < .05) (Harrington, 2009), \mathbb{R}^2 was greater than .50 (Zikmund, 2003; Moore, Notz, & Fligner, 2013), the Composite Reliability (CR) was more than .70 (Hair, Sarstedt, Hopkins, & Kuppelwieser, 2014), and the Average Variance Extracted (AVE) was greater than .50 (Diamantopoulos et al., 2000). Moreover, other criteria were used to examine the construct validity of the data in the questionnaire. Chi-square test range values were held to be valid when between 2.00 – 5.00, RMSEA when less than .05 and GFI when greater than .95 (Diamantopoulos et al., 2000).

Univariate Normality Test

The normality test used in this study was performed to measure skewness and kurtosis along with standard error of skewness and standard error of kurtosis. Skewness is a measurement of how irregular the probability distribution is in relation to a normal distribution. Before testing a hypothesis, it must also undergo Kurtosis, which is the process to evaluate the combined distribution of data in the tails. Kline (2005) has recommended that in terms of absolute values skewness will be considered as highly expressed if it is more than 3.00. Meanwhile, the absolute values of kurtosis greater than 2.00 can be considered as problematic (George & Mallery, 2010). These statistics were used in the four dimensions of EL, value creation and business performance including two moderators are organizational climate and organizational learning conceptual framework. Additionally, skewness was used to measure the degree and direction of asymmetry. Acceptable asymmetric distribution, such as a normal distribution, has a skewness and kurtosis value not more than 1.00 (Osborne, 2002). Furthermore, if skewness and kurtosis tests encounter a problem of non-normal distribution of variables and constructs but the study has a large enough data set (N >200), the result of the concepts examined and their strength is not impacted by a nonnormal distribution. An approximating parameter in SEM was obtained through Maximum Likelihood estimation (ML). This provides appropriate solutions when the sample size is large enough (Boomsma & Hoogland, 2001).

Additionally, Kim (2013) suggested that normality test kurtosis and skewness must be calculated by a Z-test applied to excess by standard error. The sample distribution would be concluded as being non-normal if the medium-sized samples (50 < n < 300) have the absolute Z-value over 3.29. The range at which the skewness absolute variable lies in is ±1.00 and it is less than ±3.00. Furthermore, it tends to be accepted when the standard errors of skewness and kurtosis is lower than 3.29; then the data distribution is considered normal.

Moreover, to test normality, correlation analysis also was used as the basis to measure the strength of the linear dependence between two variables by using the covariance of the two variables. The values range between -1.00 and 1.00 (Cohen, Polk, & Vuolteenaho, 2003). A bivariate-correlational analysis of Pearson's correlation was conducted in this research for examining the relationships between variables and checking the occurrence of multicollinearity for the value of the correlation. Therefore, to determine whether a relationship between the constructs (entrepreneurial leadership, value creation, and business performance) existed, a Pearson correlation analysis was run. The Pearson correlation measures the linear relationship between two variables. The correlation coefficient indicates the degree and magnitude of the relation between two variables. The values range from -1.00 to 1.00. A value of 1.00 indicates the existence of a perfect positive linear relationship, a value of -1.00 shows the existence of a perfect negative linear relationship, and a value of 0 indicates no relationship between the variables (Hernández Sampieri et al., 2010).

Structural Equation Modeling

Path analysis is a form of the structural equation as a mode that was utilized to examine the model and to determine the goodness of fit of the model with its data. The measured variables are represented by the rectangular boxes in the model and they are the indicators of latent variables (Hatcher, 1996). The theoretical connections among latent variables are called structural paths and connections between a latent variable and its indicators are measurement paths. Furthermore, path diagrams represent the factor analytic models. In a path diagram, the circles represent the latent variables, squares represent the manifest variables, and the arrows represent causalities (Stevens, 2001). Path analysis is also fundamental modeling because it evaluates the relationships network among measurable items. The significant and complex relationships can be understood by the strength of path analysis. Path analysis models do not show causality because they are based on correlations, but they show by diagrams relationships among the data (Lleras, 2005). Path models are graphically showing the constructs or factors considered and specify the links among the theoretical factors.

Using Path analysis in this study enabled the researcher to assess how well the scale measured the concept in a measurement model (Hair, Anderson, Tatham, & Black, 1998). Path diagram was utilized to estimate the adequacy of the measurement model for each construct. The relevance of the model was indicated by the goodness-of-fit between the hypothesized model and the sample data. Several goodness-of-fit statistics used were Chi-square, Root Mean Square Error of Approximation (RMSEA), Normed Fit Index (NFI), Comparative Fit Index (CFI), Relative Fit Index (RFI) and Incremental Fit Index (IFI). Careful consideration shows that assessing the goodness-of-fit of a model are more a relative process than one based on absolute criteria (Hair et al., 1998).

A chi-square test results should be nonsignificant and indicates that the hypothesized model is well-fitted to the sample data. The RMSEA estimates the error of approximation in the population and indicates when values of as high as .05 are returned, this represents a reasonable data fit. A lower value than .05 is recommended (Hair, Black, Babin, Anderson, & Tatham, 2006). The NFI considers a relative comparison of the proposed model to the null model. Measures used range from .00 (no fit at all) to 1.00 (perfect fit) but the recommended level is .90 or higher (Hair et al., 1998; Hair et al., 2006).

Summary

This chapter summarizes the research methods used in the investigation of this research, from simple selection to data collecting, and to examine all constructs proposed in the conceptual model, and to answer the research questions. To be specific, there are four main parts in this chapter: (1) methodology and research design (2) measurement of variables, (3) verification of instrument, and (4) statistical techniques. The total list of 616 automotive parts manufacturers in Thailand is selected as the population and sample of this research. The key respondents completing the questionnaires are the leaders, managers, managing directors, or the persons in charge of high levels in automotive parts manufacturing businesses. Moreover, a valid and reliable questionnaire is the primary instrument of data collection. This chapter also provides the measurements of each construct in the model, which are based on the existing literature. For a statistical technique for data analysis using the computer package such as Cronbach's alpha coefficient, descriptive statistics, Exploratory Factor Analysis, Confirm Factor Analysis, Normality Test, and Structural equation model.



CHAPTER IV

RESULTS AND DISCUSSION

This chapter presents and discusses the results obtained from the statistical analysis performed to determine the set of factors that are critical for the successful development of entrepreneurial leadership among automotive parts manufacturers in Thailand and their impact on business performance. The sample profile and results are presented. The total numbers of the observed variables in this research are eighty-one. The following sections of the chapter reveal findings from the different statistical analyses performed on the data obtained from the questionnaires. The results obtained from the factor analysis conducted for the variables are presented and discussed. In addition, the results of item reliability using Cronbach's alpha coefficients for each factor are shown and reviewed. The chapter also examines the existing relationships between constructs identified by a Pearson correlation analysis. The final section of this chapter gives the results obtained from the structural equation modeling (SEM), which was used to test the hypotheses proposed in the theoretical framework model, and to determine the relationships among variables.

In the hypothesis testing, this research used the path analysis which is consisted of two variables: exogenous and endogenous variable. Exogenous variables are grouped into six constructs. They are personal competency, managerial competency, proactive competency, technological competency, organizational climate and organizational learning. Endogenous variables are grouped into two constructs which are value creation and business performance. Abbreviations of statistical values in this research are presented below. The meaning of abbreviation of exogenous and endogenous variables is shown in chapter 3. The abbreviations of all variables:

	BP	is	Business Performance
	EL	is	Entrepreneurial Leadership
	MC	is	Managerial Competency
	OC	is	Organizational Competency
	OL	is	Organizational Learning
	PC	is	Personal Competency
	PRC	is	Proactive Competency
	TC	is	Technological Competency
	VC	is	Value Creation
The at	breviations of	statistic	al symbols:
	α	is	Coefficient alpha
	AVE	is	Average Variance Extracted
	β	is	Beta
	CFI	is	Comparative Fit Index
	CR or p	is	Composite reliability
	df	is	Degree of freedom
	GFI	is	Goodness of Fit Index
	IFI	is	Incremental Fit Index
	NFI	is	Normed Fit Index
	r	is	Correlation coefficients
	p-value	is	Level of marginal significance
	R^2	is	Squared factor loading
	RFI	is	Relative Fit Index
	RMSEA	is	Root Mean Square Error of Approximation
N2	S.D.	is	Stand Deviation
9	t-value	is	t-statistics
	χ^2	is	Chi-square
	χ^2/df	is	Chi-square Mean/Degree of Freedom
	$\overline{\mathbf{x}}$	is	Mean
	γ	is	Gamma
	λ	is	Factor loading
			-

Demographic Profile and Business Profile

Respondent Characteristics

The respondent profile of the 235 respondents is illustrated in Table 9. It shows that there are more male leaders (57.7%) than their female counterparts (42.3%). In terms of age, a majority (38.3%) of the respondents were more than 50 years old followed by 31.6% in the age range between 41 years old to 50 years old. The other age groups were almost evenly distributed as follows: 30 years old to 40 years old (25.0%) and less than 30 years old (5.1%). The majority of the respondents (60.7%) were holders of a bachelor's degree or lower and 39.3% held degrees higher than a bachelor's degree.

The respondents represent various working experiences in the automotive parts businesses, with 61.2% having more than 15 years. The experiences of different working groups were as follows: 5 years to 10 years (17.9%), 11 years to 15 years (15.3%) and less than 5 years (5.6). The average monthly income of 38.8% of respondents was 50,000 Baht to 100,000 Baht. Other respondents received less than 50,000 Baht (26.0%), some more than 150,000 Baht (21.9%), and a few proportion (13.8%) received a monthly salary about 100,001 to 150,000 Baht. From the perspective of the positions held by the respondents in the organization, 41.8% were department managers, 26.0% were general managers, 13.8% were supervisors, and the remaining 18.4% held other position, such as owners, directors, members in board of director, etc.

Based on the information collected, this study can identify several key characteristics of the respondents. A majority were males of older age and with a reasonably good educational background. Almost all the respondents possessed a working experience in businesses of more than 15 years, received a high monthly income, and worked in important position. They preferred to clarify and understanding the information in the questionnaire about EL, value creation and business performance.

Variable	Scale	Total	%
Gender	Male	113	57.7
	Female	83	42.3
Age	Less than 30 years old	10	5.1
	30 – 40 years old	49	25.0
	41 – 50 years old	62	31.6
	More than 50 years old	75	38.3
Education background	Bachelor's degree or lower	119	60.7
	Higher than bachelor's	77	39.3
	degree		
Working experiences	Less than <mark>5 year</mark> s	11	5.6
	5 – 10 yea <mark>rs</mark>	35	17.9
	11 – 15 ye <mark>ars</mark>	30	15.3
	More than 15 years	120	61.2
Average monthly	Less than 50,000 Baht	51	26.0
income at present	50 <mark>,000 – 100,000 Baht</mark>	75	38.8
	100,001 – 150,000 Baht	27	13.8
	More than 150,000 Baht	43	21.9
Working position	Department Manager	82	41.8
	General Manager	51	26.0
	Supervisor	27	13.8
	Other	36	18.4
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Table 9: Demographic Profile of Respondents

Profile Characteristics of Businesses

The results of the demographic characteristics of the 235 automotive parts manufacturers surveyed indicated that the majority of respondents had registered as limited companies (88.30%). The remainders were public companies (8.2%) or limited partnership groups (7.0%). Most of the business types that responded possessed a registered operational capital of more than 20,000,000 Baht (65.80%). Fifty two businesses had a registered operational capital of approximately 5,000,000 Baht to 20,000,000 Baht (26.5%) and 15 businesses indicated a figure less than 5,000,000 Baht (7.7%). Based on the gathered data, businesses employed more than 200 in 108 businesses (55.1%), 69 automotive parts businesses have 50 to 200 employees (35.2%), and 19 businesses had less than 50 employees (9.7%). Besides, approximately 182 automotive parts businesses have been operating business more than 15 years (92.9%), seven businesses indicated they operated business between 11 years to 15 years (3.6%), six businesses specified they operated business for approximately five years to 10 years. In the section dealing with business revenues, the majority of respondents (149) identified had revenues more than 45,000,000 Baht (76.0%), 23 businesses have revenues between 25,000,001 to 45,000,000 Baht, 21 businesses reveal their revenue per year was 5,000,000 to 25,000,000 Baht, and three automotive parts businesses revealed that they received revenue less than 5,000,000 Baht. The terms of location of a business, the data showed 81 businesses were located in the central region (41.3%), 57 businesses were located in Bangkok (29.1%), 54 businesses were locate in the eastern region, three businesses occupied places in the North-Eastern region and only one business was located in the North.

Table 10 shows the business profile of leaders who work in the automotive parts industry in Thailand as key respondents in this study. From the information collected, the respondents of this study were able to identify the key business profile characteristics, namely, the majority of businesses were limited companies with a registered operational capital more than 20,000,000 Baht, had more than 200 employees, were operational for more than 15 years, and the majority of automotive parts businesses have a revenue per year greater than 45,000,000 Baht. These profiles designated that all information from each business can used as a proxy of population and be able to be used as a useful measure in this study.

Variable	Scale	Total	%
Form of business	Public Company	16	8.2
	Limited Company	173	88.3
	Limited partnership	7	3.6
Registered operational	Less than 5,000,000 Baht	15	7.7
capital	5,000,000 – <mark>2</mark> 0,000,000 Baht	52	26.5
	More than 2 <mark>0,</mark> 000,000 Baht	129	65.8
Number of employees	Less than 50 employees	19	9.7
	50 – 200 employees	69	35.2
	More than 200 employees	108	55.1
Firm age	Less than <mark>5 year</mark> s	1	.5
	5 – 10 yea <mark>rs</mark>	6	3.1
	11 – 15 y <mark>ears</mark>	7	3.6
	More than 15 years	182	92.9
Average business	Less than 5,000,000 Baht	3	1.5
revenue per year	5, <mark>000,000 – 25,000,000</mark> Baht	21	10.7
	25,000,001 – 45,000,000 Baht	23	11.7
	More than 45,000,000 Baht	149	76.0
Locations of business	Bangkok	57	29.1
	North region	1	.5
	Central region	81	41.3
	North-Eastern region	3	1.5
941	Eastern region	54	27.5
- Yili	ปณุ สุโต	2169	

Table 10: Profile of Automotive Parts Businesses

Descriptive Statistics, Reliability and Validity Test

Descriptive Analysis of the Constructs

In order to understand the overall consequence about EL characteristics of the middle to higher level management understudy, a descriptive analysis was performed. The mean, standard deviation, minimum and maximum score of each construct are listed in Table 11. Based on the value of the mean score, the level of implementation of each EL, the construct was labeled as having either a high or low degree in EL competency. Similarly, the organizational climate, organizational learning, value creation and business performance constructs adopted were labeled as either having a high or low degree in EL capabilities.

Table 11 also revealed a high mean score in the EL variable in the personal competency dimension. This was the highest recorded among four dimensions of EL and implies that the entrepreneurial leaders understudy had made the personal competency focus their top priority. They deeply appreciated the value of decision making and the need for clear, correct and efficient action in business, while interacting with stakeholders so as to continuously improve their operations. These entrepreneurial leaders would be able to produce performances and outcomes that are beyond other leaders' abilities. The minimum and maximum values of the personal performance construct are 3.00 to 5.00 accordingly with a standard deviation of .471. The mean value of technological competency ($\bar{x} = 3.853$) was the lowest among all the EL constructs, and this may imply that EL need to be more dedicated in the implementation of all of the EL abilities to manage their work within their businesses.

The organizational climate construct indicated the minimum and maximum values were 1.60 to 5.00, with a consequent standard deviation value is .654. The mean value of organizational climate ($\bar{x} = 3.881$) was at the moderate level. This may imply that leaders in the automotive parts businesses perceived climate in an organization as not important to their operation. The minimum and maximum values of organizational learning variable exhibited were 2.08 to 5.00, while the S.D. value was .578. The average value of organizational learning ($\bar{x} = 4.086$) was at the moderate level, and this may indicate that leaders who work in automotive parts

businesses recognized that leaders' learning in an organization was important for them to experience a successful business performance.

Table 11 shows the minimum and maximum values of value creation variable between 2.30 to 5.00, and a S.D. value of .576. The value creation variable exhibited a high figure, the average value was $\bar{x} = 4.165$. Therefore, these findings imply that automotive parts business leaders' know that value creation is a very important activity in business and create greater performances and better outcomes. Ultimately, the business performance construct showed minimum and maximum values of 2.00 to 5.00, respectively. The standard deviation value was .780 and the average score of business performance ($\bar{x} = 3.667$) was at the moderate level. Therefore, the result indicated that leaders in automotive parts businesses emphasized business performance less than value creation because, value creation might be a source of value added to performance that affect business outcomes and sustainability in their business.

Constructs	Mean	S.D.	Minimum	Maximum
Entrepreneurial Leadership				
Personal Competency	4.174	.471	3.00	5.00
Managerial Competency	3.954	.499	2.24	5.00
Proactive Competency	3.984	.499	2.67	5.00
Technological Competency	3.853	.685	1.90	5.00
Organizational Climate	3.881	.654	1.60	5.00
Organizational Learning	4.086	.578	2.08	5.00
Value Creation	4.165	.576	2.30	5.00
Business Performance	3.667	.780	2.00	5.00
312	น ส์	16	91	

Table 11: Descriptive Statistics of the Constructs

Reliability and Validity Test

The use of reliability methods are very important to test the data collection and instrument used, while reliability is the degree to which constructs are free from random errors (Choi & Seltzer, 2010). Normally, a reliability test measure is chosen from many methods such as test-retest method, split half method, parallel or alternate form method and Cronbach's alpha coefficient method. In this study, Cronbach's alpha coefficient method was used because this method has been used by various researchers in the field of social science compared to the other three methods. Due to its practicality, reliability in this study was measured by Cronbach's alpha, one of the most commonly used coefficient methods to assess the internal consistency within the items (Tavakol & Dennick, 2011). Hair and colleagues (1998) suggested that, as a rule of thumb, the cut-off value of Cronbach's alpha is .60 while a value of .80 is considered to be good.

In addition, to ensure construct validity in this study, EFA was first conducted on the EL characteristics to confirm the underlying latent variables. As recommended by several researchers (Morgan, Gliner, & Harmon, 2005; Choi & Seltzer, 2010) items with a factor loading below .40 should be either discarded or refined. After the identification of latent and observed variables was done and EFA, the measurement constructs were further verified using CFA to examine whether the indicators were loaded on the chosen latent variables (Choi & Seltzer, 2010).

Reliability

Reliability measures the internal consistency of a set of variables of a latent construct. High reliability of a construct demonstrates high opportunity of all variables in a construct to measure the same thing (Hair et al., 1998). Reliability has a value between .00 and 1.00. Reliability of all constructs in this study was tested by using Cronbach's alpha (α) (Cronbach, 1951). The rule of thumb is that Cronbach's alpha should be higher than .70 (Nunnally & Bernstein, 1994) to ensure internal consistency.

The results of testing reliability of all variable and constructs are shown in Table 12. For four dimensions of EL (personal competency, managerial competency, proactive competency, and technological competency), organizational climate, organizational learning, value creation, and business performance, it was found that all constructs in automotive parts manufacturers had reliability indices of .980. All constructs in the automotive parts manufacturers returned reliability in the range from .722 to .935. The results indicated high reliabilities of all constructs and can be used for analysis validity estimation in the next section.

Variable	Item	Cronbach's alpha (α)
Personal Competency	6	.722
Managerial Competency	17	.919
Proactive Competency	9	.891
Technological Competency	10	.925
Organizational Climate	10	.934
Organizational Learning	13	.935
Value Creation	10	.901
Business Performance	6	.906
Overall	81	.980

Table 12: Reliability Value of All Constructs

Exploratory factor analysis

The first method used in this study was exploratory factor analysis (EFA) to test each item of EL, organizational climate, organizational learning, value creation and business performance, because it is most effective manner to set the structure of variables (Chong, 2006). Due to the fact that the questionnaire developed in this study was adapted from prior studies, part of it was integrated with new items which were developed to describe every factor based on a comprehensive theoretical rationale. The results of EFA exhibited in five areas are summarized below.

1. Exploratory Factor Analysis for Entrepreneurial Leadership Dimensions

In Table 13 indicates the rotated factor scores. The four dimensions of EL will be discussed separately. The overall results showed four factors that appeared with high loading greater than .40 and communality values greater than .30. In this variable, forty-two items were considered, but, after analyzed by EFA, thirty-six items remained in the four dimensions of EL. Bartlett's test of sphericity chi-square was 6,042.895, df = 861 and significance was .000. The Kaiser-Meyer-Olkin test was used to measure sampling adequacy (MSA). The value obtained was .933, which gave an Anti-image Correlation value between .868 (PC2) to .962 (MC6). The communality value ranged between .316 (MC16) to .733 (TC5) and was acceptable for this study.

The detail of the findings relating to EFA and other value are addressed as follows: The first factor of EL is Personal Competency (PC). It showed a high loading weight acceptability greater than .40 (range between .738 to .514) and included PC2 (.738), PC1 (.730), PC5 (.538) and PC3 (.514). The two items deleted from this factor were PC4 (.108) and PC6 (.272) because the loading weight was below .40.

The second dimension in the EL construct is Managerial Competency (MC). As shown in Table 13, it exhibited sixteen items that had a loading weight greater than .40. The item showed high loadings in MC13 and moderate loadings in MC11 (.677), MC14 (.668), MC10 (.607), MC7 (.573), MC4 (.570), MC6 (.568), MC8 (.556), MC9 (.523), MC1 (.520), MC3 (.516), MC12 (.509), MC5 (.505), MC17 (.502), MC16 (.496) and MC15 (.483). Therefore, in the MC dimension only one item was not relevant for this study, namely, MC2 (.134).

Proactive Competency (PRC) is third dimension of EL. This dimension exhibited nine items but after measured by EFA six items remained that had loading weights greater than .40. Table 13 identified six items with different loading weight consisting of PRC8 (.641), PRC6 (.639), PRC5 (.536), PRC7 (.498), PRC2 (.463) and PRC3 (.443). On other hand, this study cut three items from proactive competency group as they showed factor loading below .40, namely, PRC4 (.177), PRC9 (.307) and PRC1 (.395). Lastly, the fourth factor in the EL dimension is Technological Competency (TC). It exhibited all of the nine items after measured by EFA. The finding showed all items had loading weights greater than .40. Table 13 identifies the

Itoms		Dimen	sions	
Items	PC	MC	PRC	TC
PC2	.738			
PC1	.73 <mark>0</mark>			
PC5	.538			
PC3	.514			
MC13		.726		
MC11		.677		
MC14		.668		
MC10		.607		
MC/		.573		
MC4		.570		
MCS		.308		
MCo		.330		
MC1		.525		
MC3		.520		
MC12		509		
MC5		.505		
MC17		.502		
MC16		.496		
MC15		.483		
PRC8			.641	
PRC6			.639	
PRC5			536	
PRC7			/198	
PPC2			.450	
DDC2			.403	
PRCS			.445	005
			4.0	.806
TC5			5160	.771
TC7 L		50		.766
TC8	นอา สา	64.		.752
TC4				.745
TC3				.731
TC2				.637
TC9				.599
TC1				.597
TC10				.586

Table 13: Exploratory Factor Analysis of EL Constructs

loading weight of each item. The range was between a high loading for TC6 (.806) to

a moderate loading for TC10 (.586).

Itoma					
Items	PC	MC	PRC	TC	
Eigenvalue	16.279	2.931	1.722	1.468	
Variance Explained	38.7 <mark>5</mark> 9	6.979	4.099	3.496	
Cummulative Variance	38.7 <mark>59</mark>	45.739	49.838	53.334	
Explained					
N = 235, Kaiser-Meyer-Olkin (KMO) <mark>st</mark> atistic = .933					
Bartlett's Test of Sphericity; $\chi^2 = 6042.895$, df = 861, Sig. = .000					

Table 13: Exploratory Factor Analysis of EL Constructs (continued)

2. Exploratory Factor Analysis for Organizational Climate, Organizational Learning, Value Creation and Business Performance Constructs

Organizational Climate

The first factor considered was organizational climate (OC). The EFA indicated a range of rotated factors scores as shown in Table 14. The results indicated the all items have high loading weights more than .40 range and were distributed between .718 (OC6) to .830 (OC3) and the communality value returned values greater than a .30 range between .515 (OC6) to .689 (OC3). In this variable, no item was discarded because the loading weight of each item was greater than .70. In addition, Bartlett's test of sphericity chi-square was 1574.749, df = 45 and significance was .000 at a level of significance .05, The Kaiser-Meyer-Olkin was used to measure sampling adequacy (MSA). The value obtained was .935, which gives an Anti-image Correlation value between .908 (OC9) to .960 (OC5). The communality value range was between .515 (OC6) to .689 (OC3) that is acceptable for this study. The details of organizational climate that finding from EFA and other value address are given in Table 14.

Organizational Learning

Organizational learning (OL) was the second factor considered. EFA rotated factors scores are shown in Table 14. The results indicated the factors with a loading weight greater than .40. Such high loading weights appeared in five items OL2 (.839), OL1 (.801), OL3 (.769), OL4 (.754), OL7 (.752), OL5 (.742). Moderate loading weights were shown in OL6 (.653) and OL8 (.618). The communality value indicated a value greater than .30 and ranged between .593 (OL8) to .749 (OL2). The OL variable had overall thirteen items, but after analyzed by EFA this was reduced by five items because the loading weight was below than.40. Meanwhile, Bartlett's test of sphericity chi-square was 2097.086, df = 78 and significance was .000 at a level of significance .05. The Kaiser-Meyer-Olkin test was used to measure sampling adequacy (MSA). The value obtained was .920, which represents an Anti-image Correlation value between .875 (OL11) to .945 (OL4). The communality value ranged between .593 (OL8) to .749 (OL2) and is acceptable for this study. Table 14 shows the details of organizational learning derived from EFA analysis.

Value Creation

Another factor considered was the value creation variable with an original ten items. Table 14 shows the results from EFA analyzed of the rotated factors scores. The results indicated the factors that appeared with loading weights greater than .40. Especially, four items showed high loading weights, such as .824 (VC9), .817 (VC10), .814 (VC7) and .742 (VC8). Moderate loading weights were shown by VC6 (.666) and VC5 (.605). Moreover, the communality value was greater than .30 and ranged between .586 (VC5) to .717 (VC9). In this variable have total item is ten items but after analyzed by EFA reduce four items because the loading weight each item not greater than .40. In addition, Bartlett's test of sphericity chi-square is 1256.645, df = 45 and significance is .000 at a level of significance .05, Kaiser-Meyer-Olkin to measure of sampling adequacy (MSA) is .920 which is the Anti-image Correlation value between .842 (VC6) to .909 (VC9). The communality value ranged between .586 (VC5) to .717 (VC9) and was acceptable for this study. Table 14 shows the details of organizational climate derived from the EFA analysis.

Business Performance

Last factor considered was the business performance (BP) variable. The results from EFA of the rotated factors scores are shown in Table 14. Factors appeared with loading weight greater than .40. Overall five of the six items have high loading weight such as .881 (BP1), .879 (BP2), .869 (BP3), .858 (BP4) and .740 (BP5). Furthermore, a communality value greater than .30 was obtained and ranged between .622 (BP5) to .832 (BP1). The original list of six items was reduce by only one item after EFA because the loading weight was not greater than .40 (BP6=.257). In addition, Bartlett's test of sphericity chi-square was 1039.308, df = 15 and significance is .000 at a level of significance .05. The Kaiser-Meyer-Olkin test gave a measure of sampling adequacy (MSA) of .889, which represents an Anti-image Correlation value between .846 (BP2) to .909 (BP5). The communality value ranged between .612 (BP5) to .832 (BP1) and was acceptable for this study. The information about the organizational climate result from EFA and other values are shown in Table 14.

Itoms		Dimer	nsions	
items	OC	OL	VC	BP
OC3	.830			
OC2	.816			
OC10	.811			
OC1	.808			
OC5	.803			
OC7	.802			
OC4	.800			
9, 0C9	.776			
OC8	.764		SILO	
OC6	.718	60		
OL2	5. 2	.839		
OL1	- 6 [[6]	.801		
OL3		.769		
OL4		.754		
OL7		.752		
OL5		.742		
OL6		.653		
OL8		.618		

Table 14: Exploratory Factor Analysis of Organizational Climate, OrganizationalLearning, Value Creation and Business Performance

.	Dimensions				
Items	OC	OL	VC	BP	
VC9			.824		
VC10			.817		
VC7			.814		
VC8			.742		
VC6			.666		
VC5			.605		
BP1				.881	
BP2				.879	
BP3				.869	
BP4				.858	
BP5				.740	
Eigenvalue	6. <mark>345</mark>	7.349	5.533	4.234	
Variance Explained	63. <mark>446</mark>	66.687	67.928	70.575	
Kaiser-Meyer-Olkin	.9 <mark>26</mark>	.907	.878	.888	
(KMO) statistic					
Bartlett's Test of Sphericity					
χ^2	1574.749	2097.086	1256.645	1039.308	
df	45	78	45	15	
Sig.	.000	.000	.000	.000	

 Table 14: Exploratory Factor Analysis of Organizational Climate, Organizational Learning,

 Value Creation and Business Performance (continued)

Confirmatory Factor Analysis

According to Anderson and Gerbing (1988) and Wong and Law (2002), the CFA model recognizes the relationship between the observed variables and the fundamental constructs with factors allowed to inter-correlate freely. In this study, the confirmatory measurement model was utilized to assess unidimensional, convergent validity and construct reliability. Therefore, this measurement model was performed on both independent and dependent variables (Wong & Law, 2002) to evaluate how good the observed variables are linked to a set of latent variables (Choi & Seltzer, 2010). In fact, all measurement models were established based on theoretical and empirical backgrounds suggested in previous studies. The goodness-of-fit of the measurement models determines how good the item is in examining the intended constructs (Choi & Seltzer, 2010). The goodness-of-fit indices that assess goodness of fit of the model encompass the normed chi-square test, a p-value that is no significant, GFI and the RMSEA. Besides that, CFA was also made to assess the convergent validity of the measurement model established under three circumstances suggested by (Fornell & Larcker, 1981) as follows: first, all indicator factor loadings (λ) should be significant. Second, the CR value is written as ρ , with the condition that composite reliability (that is the internal consistency of the indicator value) should be greater than .60 (Bagozzi & Yi, 1988). Third, the average variance extracted (AVE) for every idea should be higher than .50 according to (Kline, 2005). The criteria summarized for the confirmatory factor analysis are showed in Table 15.

:	Fit Index	Descriptions	References
-	Standardized factor	>.50	Costello and Osborne (2005)
	loading		
	t-value	p <mark>< .05 o</mark> r	Harrington (2009)
	(or Critical Ratio)	CR > 1.96	
	\mathbf{R}^2	<.30 none or very weak	Zikmund (2003), Moore and
		. <mark>3050 weak or low</mark>	colleagues (2013)
		.5070 moderate	
		> .07 strong	
-	CR	>.60	Bagozzi and Yi (1988)
	(Composite		
	Reliability or p)		
	AVE	> .50	Fornell and Larcker (1981),
	(Average variance		Henseler and colleagues
	extracted)		(2009), Hair and colleagues
	54	22.52	(2014)
-	χ^2	p > .05	Diamantopoulos and
			colleagues (2000)
-	χ^2/df	$\leq 2.00 - 5.00$	Diamantopoulos and
			colleagues (2000)

Table 15: Cut-off Criteria for Confirmatory Factor Analysis

Fit Index	Descriptions	References		
RMSEA	< .05 perfect fit	Diamantopoulos and		
(Root Mean	.0508 acceptable	colleagues (2000),		
Square Error of	.0910 poor fit	Schermelleh-Engel and		
Approximation)	X	Moosbrugger (2003), Kline		
		(2005)		
GFI	.9095 ac <mark>ce</mark> ptable or	Diamantopoulos and		
(Goodness of Fit	> .95 p <mark>erf</mark> ect fit	colleagues (2000),		
Index)		Schermelleh-Engel and		
		Moosbrugger (2003)		

Table 15: Cut-off Criteria for Confirmatory Factor Analysis (continued)

This research measured conformity to a model dealing with concepts for entrepreneurial leadership among automotive parts producers. The analysis considered four dimensions, which are managerial competency, personal competency, technological competency, and proactive competency. Furthermore, this research also measured the mediator variables, which are learning and organizational climate. Business performance is a dependent variable, and the moderator variable is value creation deduced from conceptual frameworks. This study recorded the outcomes of the test's validity of observed variables. In this study, the confirmatory factor analysis (CFA) technique was used to test for validity.

Personal Competency

The construct of Personal Competency (PC) variable has four observed variables (PC1, PC2, PC3 and PC5) remaining from the exploratory factor analysis (EFA). The results of confirmatory factor analysis (CFA) are shown in Figure 2 and Table 16. In Figure 2, parameter (PC1) is fixed at 1.00 as a reference indicator of the model. The selection of a reference indicator should be performed with the variable with highest reliability in the model (Kline, 2005). The benefit of a fixed parameter gives a more straightforward comparison of a magnitude of highest reliability between observed variables in the model. Table 16 show that Chi-Square test was not significantly different from zero at a level .05 (χ^2 /df = .809, p = .445), the root mean square error of approximation (RMSEA) was .000 and goodness of fit index (GFI) was .997. It can be implied that there was a goodness of fit between the observed data and the estimated model. Standardized factor loading of each observed variable ranged from .861 (PC1) to .479 (PC5). All standardized factor loadings had a significant impact at a level of significance of .01. The Critical Ratio: CR was greater than 1.96 (t > 1.96) for regression weight giving significant at the .05 level and also implies that its estimated path parameter was significant. The R² value is the percentage of variance of a construct explained by an observed variable. This dimension showed all R² value positive and they ranged from .741 (PC1) to .243 (PC5). However, two items indicated R² with values of .229 (PC3) and .243 (PC5), which implied that both items possessed weak predictive accuracy (.30 to .50). One item, PC2, had an R² value of .684. This is generally considered to be in the moderate prediction (.50 to .70) range and PC1 item showed an R² of .741, which has strong predictive accuracy (greater than .70).

CR and AVE methods were performed to examine the reliability of the four items in the personal competency dimension. CR values exceeded the .70 cut-off criterion that was .771 and an AVE value of personal competency variables was .474. Therefore, an AVE value below .50 did not meet with the cut-off criterion and indicated that the multi-item measurement was fairly reliable and internally consistent. However, some literature has stated that a threshold for AVE set at .40 has been recommended to reflect a sufficient degree of indicator reliability (Hulland, 1999). In addition, Fornell and Larcker (1981) stated that if an AVE value was less than .50 and the CR value was more than .60, that convergent validity of the variable is enough to acceptable. Therefore, it can be concluded that all observed variables should be included in further analyses.



Figure 2: The Results of CFA of Personal Competency (PC)

Table 16: Standardized Factor Loading, S.E., t-value, R². CR and AVE of Personal

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Item	Factor Loading			\mathbf{R}^2	CR	AVE
	Loading	S.E.	t-value	K	CK	
PC1	.861	.100	10.496***	.741	.771	.474
PC2	.827	-	H /	.684		
PC3	.493	.089	7.167***	.229		
PC5	.479	.087	6.944***	.243		

Managerial Competency

From the exploratory factor analysis (EFA), the items incorporated in the managerial competency (MC) variable eliminated only one item (MC2); meaning that sixteen remained from the seventeen items. The sixteen items of MC were subjected to confirmatory factor analysis (CFA) by fixing parameter (MC14) to 1.00 as a reference indicator of the model. The selection of a reference indicator should be

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performed using the highest reliability item in the model (Kline, 2005). The benefit of a fixed parameter gives a more straightforward comparison of a magnitude of highest reliability between items in the model.

The results of CFA indicated that one item had a standardized factor loading value below .500, viz., MC15 (.396). In addition, three items showed R^2 value below .400, namely, MC16 (.157), MC17 (.374) and MC1 (.381). Then, each item was reduced, starting with MC15, MC16, MC17 and MC1, and the standardized factors loading and R^2 were checked. The results are shown in Figure 3 and Table 17. Twelve items remain of the original MC group of seventeen items (i.e., MC1, MC3, MC4, MC5, MC6, MC7, MC8, MC9, MC10, MC11, MC12, MC13 and MC14). Table 17 shows that the Chi-Square test was not significantly different from zero at a level .05 $(\chi^2/df = .1.287, p = .094)$, the root mean square error of approximation (RMSEA) was .035 and goodness of fit index (GFI) was .964. It can be implied that there is a goodness of fit between the observed data and the estimated model. Standardized factor loading of each item ranged from .635 (MC10) to .723 (MC7). All standardized factor loadings had a significant impact at a level of significance of .01. The finding showed the t-value (or Critical Ratio: CR) was more than 1.96 (t > 1.96) interpreted that all items are significant at the .05 level. Simultaneous, Table 17 showed an R^2 value range from .403 (MC10) to .522 (MC7). Nine items showed a weak predictive accuracy between .30 to .50 included .403 (MC10), .409 (MC9), .410 (MC3), .420 (MC12), .424 (MC13), .449 (MC5), .480 (MC11), .484 (MC14), and .488 (MC4), and moderate predictive accuracy was between .50 to .70 in three items such as .505 (MC6), .514 (MC8) and .522 (MC7). Hence, this study might consider other values beyond R^2 values as being in the managerial competency dimension.

The CR and AVE values were evaluated to measure the reliability of the twelve items in the managerial competency dimension. CR values exceeded the .70 cut-off criterion that is placed at .910 and an AVE value for personal competency variables was .459. Therefore, the AVE value came below .50 and does not fit with the cut-off criterion expected of a multi-item dimension that is moderately reliable and internally consistent. Nevertheless, as Hulland (1999) stated, a threshold of AVE of .40 has been recommended to reveal an adequate amount of indicator reliability. In this case, Fornell and Larcker (1981) also confirmed that if an AVE value was below

.50 but the CR value was greater than .60, that convergent validity of the dimension is quiet acceptable. Hence, it can be decided that all items should be included in any further analysis.



Figure 3: The Results of CFA of Managerial Competency (MC)

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Table 17: Standardized Factor Loading, S.E., t-value, R², CR and AVE Managerial Competency

Easter Lording							
Item	Factor Loading			\mathbf{R}^2	CR	AVE	
	Loading	S.E.	t-value		ÖR		
MC3	.641	.101	9.126***	.410	.910	.459	
MC4	.699	.108	<mark>9.</mark> 916***	.488			
MC5	.670	.096	1 <mark>0.</mark> 277***	.449			
MC6	.711	-	-	.505			
MC7	.723	.089	11.537***	.522			
MC8	.717	.104	10.182***	.514			
MC9	.640	.123	<mark>9.12</mark> 6***	.409			
MC10	.635	.122	<mark>8.98</mark> 9***	.403			
MC11	.693	.117	<mark>9.85</mark> 1***	.480			
MC12	.648	.122	9.239***	.420			
MC13	.651	.112	9.243***	.424			
MC14	.696	.128	9.868***	.484			

Proactive Competency

According to the results from the exploratory factor analysis (EFA), the items of the proactive competency (PRC) variable cut three items (PRC1, PRC4 and PRC 9) leaving six remaining from nine items. The six items of PRC were then subjected to confirmatory factor analysis (CFA) where parameter (PRC5) was fixed to a value of 1.00 as a reference indicator of the model. The assortment of factors as a reference indicator should be done with the highest reliability items in the model (Kline, 2005). The fixed parameter benefit is a more upfront analogy of the highest reliability magnitude between variables in the model.

The findings of CFA indicated that all items of standardized factor loading value showed more than .60 but only one item appeared with an R^2 value below .40 (PRC3 to .366). Then, PRC3 was removed from the MC dimension and was checked for both standardized factors loading and R^2 . The results are shown in Figure 4 and

Table 18. The PRC items remaining were five from nine (cuts made in EFA were three items and CFA was one item). Table 18 shows that the Chi-Square test was not significantly different from zero at a level .05 ($\chi^2/df = .417$, p = .659), the root mean square error of approximation (RMSEA) was .000 and goodness of fit index (GFI) was .999. It can be implied that there is a goodness of fit between the observed data and estimated model. Standardized factor loadings of all items ranged from .635 (PRC2) to .727 (PRC7). All standardized factor loadings have a significant impact at a level of significance .01. For the critical ratio (CR) or t-value, in this study, all items had CR values greater than 1.96 (t > 1.96) that indicated that these items were significant at the .05 level and suggested that its predictable path parameter was significant. The squared multiple correlation (\mathbb{R}^2) obtained ranged from .403 (PRC2) to .529 (PRC5). These values indicated that some items ranged between .30 to .50 that implied a weak predictive accuracy (i.e., .403 (PRC2), .439 (PRC7) and .472 (PRC6), and two items showed moderate predictive accuracy as they fell between .50 to .70 (i.e., .505 (PRC8) and .529 (PRC5)). Therefore, these items might be considered with other value criteria in the proactive competency construct.

Thus, CR and AVE values were calculated to measure the consistency of the six items in the proactive competency dimension that remained from the CFA method. A CR value of .881 exceeds the cut-off criterion and the AVE value for cut-off in the proactive competency dimension was .469. This means the AVE values exhibit a multi-item dimension that was reliable and internally consistent. Hulland (1999) indicated that a threshold value for AVE of .40 represents an acceptable amount of indicator reliability. Moreover, Fornell and Larcker (1981) claimed that if AVE is less than .50 and has a composite reliability (CR) higher than .60, that the convergent validity of the construct is still adequate. This means, then, that these items should be included in the proactive competency dimension of EL and should also be appearing in the next step.



Figure 4: The Results of CFA of Proactive Competency (PRC)

Table 18: Standardized Factor Loading, S.E., t-value, R², CR and AVE of Proactive Competency

Item	F	actor Loadin	ıg	\mathbf{R}^2	CR	ΔVF	
	nem	Loading	S.E.	t-value	R	CK	
	PRC2	.635	.102	9.116***	.403	.881	.469
	PRC5	.727			.529		
	PRC6	.687	.112	8.954***	.472	5	
	PRC7	.662	.154	6.373***	.439	160	
	PRC8	.710	.163	6.627***	.505		
=							
Technological Competency

The findings from the exploratory factor analysis (EFA) indicated that the items of the technological competency (TC) variable remained at ten items. Further analysis of the ten items of TC was carried out by confirmatory factor analysis (CFA), with parameter (TC6) fixed to 1.00 as the model reference indicator. The item used as a reference indicator should be achieved with the main model reliability item (Kline, 2005). The benefit of a fixed parameter is more to the point compared to the highest reliability magnitude between the model items.

The results of CFA indicated that three items with standardized factor loading values below .60 including TC10 (.580), TC1 (.587) and TC9 (.596). Moreover, R^2 value were indicated as being below .40 in TC10 (.336), TC1 (.344) and TC9 (.356). Therefore, in this research a three item reduction is indicated, namely, TC1, TC9 and TC 10. Furthermore, a recheck of the standardized factor loading and R² values is merited. The findings are shown in Figure 5 and Table 19. Seven TC variables remained from the original ten items (not cut in EFA but cut in CFA was three items). The chi-Square test was not significantly different from zero at a level .05 ($\chi^2/df =$ 1.394, p = .184), the root mean square error of approximation (RMSEA) was .041 and goodness of fit index (GFI) was .985 (exhibited in Table 19). It can be implied that there is a goodness of fit between the observed data and the estimated model. Standardized factor loading of all items ranged from .640 (TC2) to .863 (TC5). All standardized variable loadings had a crucial effect at the significance level of .01. tvalues (or Critical Ratio: CR) for all factors was greater than 1.96 (t > 1.96) for regression weight that has the significant level at the .05. This indicated that its approximate path parameter was substantial. In addition, R² values ranged from .409 (TC2) to .744 (TC5). The results showed R^2 in one item was .409 (TC2) or with weak predictive accuracy (.30 to .50), three items indicated moderate predictive accuracy (.50 to .70) consisting of .552 (TC7), .545 (TC8) and .640 (TC3), and three items showed strong predictive accuracy (more than .70) comprise .709 (TC4), .722 (TC6) and .744 (TC5), Thus, the items that showed several level of R^2 value might be influential with other value in the proactive competency construct.

To assess convergent validity, this study tested each item by composite reliability (CR) and average variance extracted (AVE) to examine the reliability of the seven items in the technological competency construct. The finding showed CR values of .918, that exceeded the .70 cut-off criterion, and the AVE value of technological competency dimension was .617, which was greater than .50 adopted for the cut-off criterion. Thus, these results can be interpreted to mean that all items involved in technological competency of this study have high convergent validity. In conclusion, the technological competency dimension has seven items that possess consistency in this research and should be included in the technological competency dimension of EL and should thus appear in next analytical step.



Figure 5: The Results of CFA of Technological Competency (TC)

Item	Factor Loading		\mathbf{R}^2	CR	AVE	
Item	Loading	S.E.	t-value		C R	
TC2	.640	.062	10.412	.409	.918	.617
TC3	.800	.064	14.185	.640		
TC4	.842	.067	15.099	.709		
TC5	.863	.058	17.975	.744		
TC6	.849	-	- 1	.722		
TC7	.743	.057	14.323	.552		
TC8	.738	.063	12.706	.545		

Table 19: Standardized Factor Loading, S.E., t-value, R², CR and AVE of Technological Competency

Organizational Climate

From the exploratory factor analysis (EFA), all the original items of the organizational climate (OC) variable were kept. Thus, the next step should be measurement all of ten items in confirmatory factor analysis (CFA). Parameter (OC3) was fixed to 1.00 as a reference indicator of the model. In the model, the item used as a reference indicator should be calculated using the item with the most consistency value (Kline, 2005). In comparison with the magnitude of highest reliability between items of the model, a fixed parameter is more straightforward.

The confirmatory factor analysis of OC showed all items had standardized factor loading values more than .60. Meanwhile, the R² value indicated for all of item was more than .40. Hence, this research can use all items of the OC dimension to measurement the EL variable. The number of absolute goodness of fit of these items is shown in Figure 6 and Table 20. Ten items of the OC variables remained (not cut in both EFA and CFA). Table 20 shows that the Chi-Square test was not significantly different from zero at a level .05 ($\chi^2/df = 1.130$, p = .297), the root mean square error of approximation (RMSEA) was .024 and goodness of fit index (GFI) was .978. It can be implied that there is a goodness of fit between the observed data and the estimated model. Standardized factor loading of all items ranged from .633 (OC6) to .826 (OC3). The significant impact that all standardized variable loadings has is at a level

of .01. The t-value (or Critical Ratio: CR) was greater than 1.96 (t > 1.96) and the regression weight had a significance level of .05, which implies that its average path parameter was significant. The squared multiple correlations (\mathbb{R}^2) showed positive values and ranged from .401 (OC6) to .682 (OC3). From these result two groups can be separated. First, the group with a weak predictive accuracy has values between .30 to .50. Only one item was in this classification category (OC6 with a value of .409). Finally, moderate predictive accuracy is shown by values lying between .50 to .70. Nine items were included here as follows: .513 (OC8), .515 (OC9), .578 (OC5), .590 (OC10), .601 (OC2 and OC7), .628 (OC1), .652 (OC4) and .682 (OC3). Thus, these items showed \mathbb{R}^2 values that might be interacting with other values considered in this research.

Convergent validity should be measured by using the CR and AVE methods performed to investigate the reliability of the factor loading of ten items in the organizational climate variable. Such analysis showed that CR values exceeded the .70 cut-off criterion (.931 value determined) and also AVE values were greater than .50 cut-off criterion (.577 value determined). Therefore, since CR and AVE were higher than cut-off criterion, this indicated that ten items of organizational climate were highly reliable and internally consistent. Thus, these items, dealing with the organizational climate dimension, showed consistency in this research and might be included in all items in the organizational climate construct and should appear in the next step.





Item	F	actor Loadi	ng	\mathbf{R}^2	CR	AVE
Item	Loading	S.E.	t-value		CK	
OC1	.792	.062	14.065***	.628	.931	.577
OC2	.775	.066	<mark>13</mark> .351***	.601		
OC3	.826	-	-	.682		
OC4	.808	.055	<mark>14</mark> .197***	.652		
OC5	.760	.063	13.253***	.578		
OC6	.633	.061	10.334***	.401		
OC7	.781	.060	13.656***	.601		
OC8	.716	.061	12.268***	.513		
OC9	.717	.068	12.277***	.515		
OC10	.768	.063	13.386***	.590		

Table 20: Standardized Factor Loading, S.E., t-value, R², CR and AVE of Organizational Climate

Organizational Learning

The results obtained from the exploratory factor analysis (EFA) showed that six items dealing with the technological competency (OL) variable should be cut out (i.e., OL5, OL9, OL10, OL11, OL12 and OL13). Seven items remained (OL1, OL2, OL3, OL4, OL6, OL7 and OL8) from the thirteen items at the commencement. The remaining items of OL were used in confirmatory factor analysis (CFA) where parameter (OL7) was allocated a value of 1.00 as a model's reference indicator. The selection of a reference indicator should be the one that has a reliability that is the highest of items in the model (Kline, 2005). In the model, the fixed parameter is a more forthright compared to the highest reliability magnitude between items.

The results of CFA indicated that all items of standardized factor loading had values higher than .60 and R² values were more than .40. In Table 21 the Chi-Square test was not significantly different from zero at a level .05 (χ^2 /df = .983, p = .447), the root mean square error of approximation (RMSEA) was .000 and goodness of fit index (GFI) was .990. It can be implied that there is a goodness of fit between observed data and the estimated model. Standardized factor loading of all items

ranged from .697 (OL6) to .808 (OL7). All standardized factor loadings had a significant impact at a level of significance of .01. The t-value (or Critical Ratio: CR) was greater than 1.96 (t > 1.96). Its regression weight had significant at the .05 level and means that its average path parameter is important.

 R^2 values in this dimension ranged from .485 (OL6) to .652 (OL7). The findings indicated two level of predictive accuracy. Weak predictive accuracy was indicated when the R^2 value ranged between .30 to .50. Two items were in this category, namely, .485 (OL6) and .489 (OL8). Moderate predictive accuracy was shown when R^2 values lay between .50 to .70. There were five items identified with this characteristic: .545 (OL3), .588 (OL1), .613 (OL4), .634 (OL2) and .652 (OL7). Thus, most R^2 value were moderate accurate and might be used to predict the organizational learning dimension.

Moreover, the finding showed CR and AVE values could be used to examine the reliability of the seven items in the organizational learning construct. The findings showed a CR value of .903 exceeded the .70 cut-off criterion and the AVE values of .573 and greater were also higher than .50 with cut-off criterion. Thus, these results can be interpreted to indicate that the seven items can measure organizational learning and have high convergent validity. Thus, the seven items of the organizational learning construct are consistent with the direction of this study and should be included in the organizational learning dimension.





Figure 7: The Results of CFA of Organizational Learning (OL)

Table 21: Standardized Factor Loading, S.E., t-value, R², CR and AVE of Organizational Learning

Item	Factor Loading			\mathbf{R}^2	CR	AVE	
Item	Loading	S.E.	t-value		CR		
OL1	.767	.076	11.553***	.588	.903	.573	
OL2	.796	.076	12.096***	.634	313		
OL3	.738	.086	10.425***	.545	10		
OL4	.783	.076	12.339***	.613			
OL6	.697	.065	13.232***	.485			
OL7	.808	-	-	.652			
OL8	.700	.070	12.762***	.489			

Value Creation

Following the exploratory factor analysis (EFA), items of the value creation (VC) variable category were cut by four items (VC1, VC2, VC3 and VC4) leaving six items remaining (VC5, VC6, VC7, VC8, VC9 and VC10). These six remaining items of VC were subjected to confirmatory factor analysis (CFA) with VC10 set to 1.00 as a concept's reference indicator. The reference indicator that should be used is the one that has a reliability that is the highest of items in the model (Kline, 2005). The benefit of a fixed parameter is a more straightforward comparison of a magnitude of highest reliability between items in the model.

The results of CFA showed that one item of VC had a standardized factor loading value below .60 (VC6 = .459). Simultaneous, an R^2 value below .40 was indicated for VC6 (.211). Therefore, VC6 should be removed from the VC variable and the standardized factor loading and R^2 value checked. The final findings are exhibited in Figure 8 and Table 22. Five items of the VC variables remained from the original ten (EFA cut four items and CFA cut one item). Table 22 indicated that the Chi-Square test was not significantly different from zero at a level of .05 ($\chi^2/df =$ 1.042, p = .384), the root mean square error of approximation (RMSEA) was .013 and goodness of fit index (GFI) was .993. It can be implied that there was an acceptable goodness of fit between the observed data and the estimated model. The standardized factor loading of all items ranged from .655 (VC5) to .826 (VC8). The entire standardized factor loadings had a significant level of .01. The t-value (or Critical Ratio: CR) was greater than 1.96 (t > 1.96) for regression weight. This was significant at the .05 level and implied that its estimated path parameter was meaningful. The value creation dimension showed R^2 values ranging from .429 (VC5) to .682 (VC8). An R² value lower than .429 (VC5) implied a weak predictive accuracy level (.30 to .50). Other R² values showed in moderate predictive accuracy level (.50 to .70). These are included .606 (VC9), .622 (VC7), .633 (VC10) and .682 (VC8). Thus, R^2 values calculated in the value creation construct displayed moderate accuracy to predict this model. Assessment of the convergent reliability used CR and AVE to examine five items in the value creation construct. The result indicated that the CR values was .879, which was more than the .70 cut-off criterion. The AVE value was .595, which was higher than .50 cut-off criterion. Therefore, these results imply that

five items in the value creation category have high convergent validity. From this finding it can concluded that value creation was measurable by five items.



Figure 8: The Results of CFA of Value Creation (VC)

Table 22: Standardized Factor Loading, S.E., t-value, R², CR and AVE of Value

Creation

Item	Factor Loading			\mathbf{P}^2	CR	AVE	
	Loading	S.E.	t-value	A			
VC5	.655	.084	9.970***	.429	.879	.595	
VC7	.789	.074	12.214***	.622			
VC8	.826	.088	12.729***	.682			
VC9	.778	.068	14.562***	.606			
VC10	.796	-	-	.633			

Business Performance

The last variable is business performance (BP). The exploratory factor analysis (EFA) cut one item (BP6) from the list leaving five items (BP1, BP2, BP3, BP4 and BP5) to measure the business performance variable. These five items were used in confirmatory factor analysis (CFA), with the fixed parameter (BP1) set to 1.00 as a reference indicator of the concept. The item selection as a reference indicator was the most reliable item in the model (Kline, 2005). The advantage of using a fixed parameter is that it is more straightforward than the magnitude of the highest reliability between items.

The results of CFA indicated that no item in BP had a standardized factor loading value below .60 and R² values were not below .40. Therefore, this research did not eliminate any item from the BP variables. The findings are exhibited in Figure 9 and Table 23. Five items of BP variables remained (EFA cut one item and no losses occurred in CFA). Table 23 indicated that the Chi-Square test was not significantly different from zero at a level of .05 (χ^2 /df = .273, p = .845), the root mean square error of approximation (RMSEA) was .000 and goodness of fit index (GFI) was .999. It can be implied that there was a goodness of fit between observed data and the estimated model. Standardized factor loadings of all items ranged from .682 (BP5) to .922 (BP1). The standardized factor loadings have a .01 significant level. t-value, was greater than 1.96 (t > 1.96) for regression weight and gave a .05 level of significance. This implied how significant it is as an approximated path parameter.

 R^2 values in the business performance construct ranged from .464 (BP5) to .849 (BP1). These results can be divided into three level of predictive accuracy. A weak predictive accuracy for R^2 values should be in the range between .30 to .50. One item in this category was .464 (BP5). Moderate predictive accuracy R^2 values fell between .50 to .70. One item in this category was .621 (BP4). Strong predictive accuracy was shown by R^2 value greater than .70. Three items in this category were .758 (BP3), .817 (BP2) and .849 (BP1). Hence, the R^2 value of all items can predict the business performance dimension investigated in this research.

To test convergent validity, composite reliability (CR) was used and the average variance extracted (AVE) method was used to measure the reliability of the five items in the business performance variable. The finding showed a CR values of .921, which exceeded the .70 cut-off criterion. The AVE value was .702, which is greater than .50 with cut-off criterion. Thus, the five items of business performance have high convergent validity.

In summary, the five items of the business performance construct showed consistency in this research and it is concluded that the five items might be used to measure the business performance dimension and should appear in next step.



Item F		ctor Loading		\mathbf{R}^2	CR	AVE
Item	Loading	S.E.	t-value		CR	
BP1	.922	-		.849	.921	.702
BP2	.904	.050	19 <mark>.9</mark> 34***	.817		
BP3	.871	.051	18 <mark>.3</mark> 20***	.758		
BP4	.788	.058	15 <mark>.9</mark> 56***	.621		
BP5	.682	.062	12 <mark>.45</mark> 2***	.464		

 Table 23: Standardized Factor Loading, S.E., t-value, R², CR and AVE of Business

 Performance

Testing the Assumptions of Structural Equation Model

This research used SEM in Path Analysis to examine the influence of four dimensions of EL on business performance and value creation. Many scholars (e.g. Hair et al., 1998; Sit, Ooi, Lin, & Chong, 2009) have suggested the two-stage method of modeling to perform SEM, through which CFA is verified before the examination of the structural model. The SEM has three benefits. First, it offers a direct method to control relationships at the same time; hereafter it can determine statistical efficiency simultaneously. However, this is not appropriately used in multiple regression analysis. Secondly, SEM can comprehensively test the connections between the latent and observed variables (Hoyle, 1995). Consequently, factor analysis can lead to a change from exploratory to confirmatory analysis.

Finally, SEM also can suggest ideas that are not detected through these relations and can explain measurement mistakes made in the process of estimation (Kline, 2005; Prajogo & Cooper, 2010). In summary, the proposed analysis provides a more accurate and better methodological evaluation (Bollen, 1989; Jiménez-Jiménez & Martínez-Costa, 2009; Joreskog & Sorbom, 1993). SEM can perform Path Analysis for all of these are tasks. It has been recommended by many scholars (Lee, Choi, & Gorsich, 2010) but, before conducting Path analysis, the assumptions of multivariate analysis must be investigated first. This is followed by assessment of the structural model. The procedures adopted for these processes will be discussed in the following subsections.

Univariate Normality - Skewness and Kurtosis of Constructs

Before the data examination, both statistical assumptions as well as hypotheses related to the SEM sample size should be analyzed first (Fotopoulos & Psomas, 2009; Lee et al., 2010). Hair and colleagues (1998) recommended a sample size of between 100 and 200 as sufficient for the study that used SEM analysis. The sample size of this study (n = 235) was within the acceptable range and hence can be considered as adequate. Hair and friends (1998) stated that an absence of multivariate normality is mainly disturbing since it can significantly increase the chi-square statistics and produce a bias in the critical values when calculating the coefficients significance. In this research, kurtosis and skewness measures were used to perform the normality test.

Kline (2005) recommended that, in terms of absolute values, those higher than 3.00 could be considered as being much skewed. Absolute values of kurtosis can be problematic when they are greater than ± 2 (George & Mallery, 2010). Kim (2013) suggested that a z-test be used for a normality test, kurtosis, and skewness, by using units of standard error for medium-sized items (50 < n < 300). With an absolute z-value more than 3.29, it can be concluded that the sample distribution is not normal. From Table 24, most of the items are observed as being negatively skewed. The skewness absolute value for the individual variable is between + 1 which is less than 3. Additionally, if the skewness and kurtosis standard errors displayed are below 3.29, then normality tends to be accepted, but the data distribution is normal.

Therefore, the results indicated that almost all four dimensions of EL (personal competency, managerial competency, proactive competency, technological competency), value creation, and business performance including two moderators (organizational climate and organizational learning framework) do not encounter a problem of non-normal distribution of variables and, furthermore, constructs have z-score of skewness and kurtosis value that were less than 3.29. The assumption is, as confirmed by Hair and colleagues (2010), that a large enough of sample size (n > 200) needs to be used in data testing. As this research collected data from 235 respondents

the sample size is large enough. Furthermore, an approximating parameter applied in SEM through Maximum likelihood estimation (ML) is concurrence and has appropriate solutions when the sample size is large enough (Boomsma & Hoogland, 2001). Ultimately, from the test of normal distribution, it can be stated that all constructs are active and are not obstructed from a non-normal distribution. Therefore, the data testing shown in relation to personal competency, managerial competency, proactive competency, technological competency, organizational climate, organizational learning, value creation, and business performance are reliable and valid.

Construct	Skowpoor	S.E.	<mark>Z sco</mark> re	Kuntosis	S.E.	Z score
Construct	Skewness	Skewness	(Skewness)	Kurtosis	Kurtosis	(Kurtosis)
PC	452	.159	-2.849	677	.316	-2.139
MC	491	.159	-3.091	.510	.316	1.612
PRC	193	.1 <mark>5</mark> 9	-1.215	212	.316	669
TC	501	.1 <mark>59</mark>	-3.154	005	.316	016
OC	510	.159	-3.210	.756	.316	2.392
OL	505	.159	-3.179	117	.316	370
VC	479	.159	-3.018	481	.316	-1.520
BP	118	.159	743	839	.316	-2.654

Table 24: Descriptive Statistic of Four Dimensions of EL, Value Creation and Business Performance

Correlation Analysis

The Pearson correlation for bivariate analysis of each variable pair was conducted in this research. The correlation analysis results show a multicollinearity problem and explored the relationships among the variables. Correlation matrices of four dimensions of EL (personal competency, managerial competency, proactive competency, technological competency), value creation and the business performance conceptual framework are shown in Table 25. The correlation matrix displays the correlations among ten construct, which indicate the relative strength and direction of a linear relationship among constructs in the matrix. In this study, the Table shows correlation matrices gathered from data dealing with automotive part leaders in Thailand. The bivariate correlation procedure was subject to a two-tailed test and gave significant at the .01 level shown (p < .01).

	PC	MC	PRC	TC	OC	OL	VC	BP
PC	1.00							
MC	.609***	1.00						
PRC	.541***	.763***	1.00					
TC	.451***	.636***	.596***	1.00				
OC	.556***	.798***	.673***	.6 <mark>3</mark> 5***	1.00			
OL	.584***	.759***	.679***	.641***	.709***	1.00		
VC	.548***	.686***	.630** <mark>*</mark>	.61 <mark>4***</mark>	.702***	.789***	1.00	
BP	.406***	.551***	.470** <mark>*</mark>	.406***	.583***	.506***	.488***	1.00

Table 25: CorrelationMatrix of All Constructs

Note: *** significance level at .01 -

Therefore, the correlation matrix can show the correlation between the two variables and indicate multicollinearity problems by the inter-correlations among the independent variables. The results indicate no multicollinearity problems in this study. And the result is lower at .80 (Hair, Black, Babin, Anderson, & Tatham, 2006). Accordingly, the evidence suggests that there are significant relationships among the four dimensions of EL (personal competency, managerial competency, proactive competency, technological competency), value creation and business performance in relation to automotive parts manufacturers ($\mathbf{r} = .406$ to .798, $\mathbf{p} < .01$).

Hypotheses Testing and Results

This section turns to the results of the structural equation modeling analysis. Using a statistical package, the causal relationships were examined between EL, organizational climate, organizational learning, value creation, and business performance. The results also were tested for reliability and validity and the fit of the measurement model was completed. The criteria for determining goodness of fit of the model were Chi-square test, CFI, IFI, NFI, RFI, and RMSEA. The p-values of the Chi-square test should be more than .05 to not reject the null hypothesis (Diamantopoulos et al., 2000). χ 2/df should be lower than 2.00 for a goodness of fit (Diamantopoulos et al., 2000). The explanation is that the observed and estimated covariance matrixes are not different. Further, other indices, such as CFI, IFI, NFI, RFI, should have values higher than a cut-off value of .95. In addition, RMSEA should have a value lower .05. Table 26 summarizes the Fit Indices and Acceptable Threshold of Path Analysis.

The results of the model fit assessment of personal competency, managerial competency, proactive competency, technological competency and value creation based on the business performance framework are summarized in Table 26. The results show that that observed and estimated covariance matrix are not different and is accepted at the level of significance .05. Fornell and Larcker (1981) suggested that in such a study other fit indices (such as RMSEA, NFI, CFI, IFI, and RFI) should be considered rather than merely a p-value to evaluate a goodness of fit between the observed and estimated model when the sample size is large.

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Fit Index	Descriptions	References
χ^2	p > .05	Diamantopoulos and colleagues
		(2000)
χ^2/df	≤ 2.00 good fit or	Diamantopoulos and colleagues
	2.00 - 5.00 acceptable	(2000), Arbuckle (2009)
CFI	> .9 <mark>5</mark> perfect fit	Diamantopoulos and colleagues
(Comparative Fix Index)	.90 – . <mark>95</mark> acceptable	(2000)
IFI	≥.90	Bollen (1989), Arbuckle (2009)
(Incremental Fit Index)	X	
NFI	<u>≥.</u> 90	Bollen (1989), Gold and colleagues
(Normal Fit Index)		(1995)
RFI	<u>≥.</u> 90	Hu and Bentler (1999)
(Relative Fit Index)		
RMSEA	< .05 perfect fit	Schermelleh-Engel and
(Root Mean Square	.05 – .08 acceptable	Moosbrugger (2003),
Error of Approximation)	.09 – .10 poor fit	Diamantopoulos and colleagues
		(2000)

Table 26: Fit Indices and Acceptable Thresholds of Path Analysis

The Effects among Each Dimension of Entrepreneurial Leadership, and Its Consequences

Figure 10 shows the effects among entrepreneurial leadership and its consequences which are proposed in Hypotheses 1a - 1d, H2 and H3a - H3d. The effect of each hypothesis is proposed in a positive direction. These hypotheses can be transformed into the structural equation model.

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Figure 10: The Effect among Four Dimensions of EL and Consequences

1. The Structural Model of Personal Competency, Managerial Competency, Proactive Competency, Technological Competency on Value Creation and Business Performance Framework

The results of the model fit assessment of personal competency, managerial competency, proactive competency, technological competency and value creation based on the business performance framework are shown in Table 32. The results show that the observed and estimated covariance matrix is not different and can be accepted at the level of signification .05. The other fit indices showed a good fit of personal competency, managerial competency, proactive competency, technological competency and value creation based on business performance in the automotive parts manufacturers Framework. The ratio of Chi-square value to the degree of freedom is lower than 2 (29.156/21 = 1.388 < 2.00) which shows that an adequate fit of the observed data with the model.

Figure 11 shows that the fit indices, NFI (.983), CFI (.995), IFI (.995), and RFI (.964), are above the cut-off criterion (.900) and RMSEA (.041) is lower than recommended value (.05). To summarize, these indicators demonstrate a good fit. Based on the analyses made in this study, it is concluded that a structural model of the

personal competency, managerial competency, proactive competency, technological competency based on value creation and business performance framework consistent fits the empirical data.



Figure 11: Structural Model of Four Dimensions of EL, Value Creation, and Business Performance with Standardized Parameter Estimates and Statistical Significance



Constructs	Value	Creation	Business Performance			
Constructs	γ	t-value	β	t-value		
Exogenous Construct						
Personal Competency	.179	3.210**	.022	.337		
Managerial Competency	.2 <mark>8</mark> 1	3.670***	.288	3.172**		
Proactive Competency	. <mark>20</mark> 1	2.877**	.023	.283		
Technological Competency	. <mark>20</mark> 6	3.540***	.090	1.324		
Endogenous Construct						
Value Creation		-	.230	3.101**		
Note: *** significance le	ve <mark>l at .0</mark> 1					
** significance le	ve <mark>l at .0</mark> 5					

Table 27: Standardized Structural Equation Parameter Estimates and t-value of Four Dimensions of EL, Value Creation, and Business Performance Framework

* significance level at .10

 γ is a standardized parameter estimate from exogenous to endogenous construct β is a standardized parameter estimate from endogenous to endogenous construct

Testing Hypothesis 1a – 1d and the Results

Hypothesis 1a: Personal competency of EL will positively affect to value creation

Hypothesis 1a posited that the personal competency of EL is positively affected by value creation. The results shown in Table 27 support Hypothesis 1a, which states that personal competency has a positive medium effect on value creation on the automotive parts manufacturers' performance ($\gamma = .179$, p < .05). This result indicates that entrepreneurial leaders in automotive parts factories have a significant capability, in terms of personal competency, to developing and creating value in the organization. The results are consistent with Quan (2015) and Vlok (2012) who suggested that the characteristics of an EL in terms of personal competency are different from other leadership concepts that derived from integration between entrepreneurial competency and leadership ability (Li, 2009).

Moreover, Yang (2009) stated that EL competencies are crucial in the success of entrepreneurial activities. Personal competencies represent a dynamic process where a person interacts with the environment and expresses entrepreneurial abilities, attitudes, and responds to challenges leading to the creation of venture value and success (Kickul et al., 2008). In conclusion, this research summarized that the EL characteristics of leaders in the automotive parts business might have personal competency to create more value creation to their businesses. *Thus, Hypothesis 1a is supported*.

Hypothesis 1b: Managerial competency of EL will positively affect to value creation

Hypothesis 1b posited a positive relationship between managerial competencies of EL. The results in Table 27 support this hypothesis and indicate that managerial competency has a significant positive effect on value creation in automotive parts business performance ($\gamma = .281$, p < .001). The previous research indicated that the managerial competencies are utilized as measures for performance as well as for performance predictors and is the most critical competency that comes from experience (Van der Vliet, 2012). In the context of EL, managerial competency is a core competency that if a manager possesses represents a core ability enabling new opportunities to be realized and the businesses' objectives and goals to be achieved (Peterson & Van Fleet, 2004). In EL, managerial competencies relate to an aspect of skill that involves risk-taking and reduces inertia in a business (Stevenson & Gumpert, 1985). Therefore, EL should be involved in any role in a business, such as planning, organizing, commanding, coordinating, controlling, monitoring, supervising, serving employees, serving as a liaison, making corrections, acting out a role, redundant, budgeting, allocating resources, leading, culture-building and evaluating (Dunphy & Meyer, 2002). Moreover, the previous study also indicated that managerial competency is a requirement across employment levels included supervisors, managers, and executive (Naquin & Holton, 2006). Finally, the results of

this research indicated that managerial competency is one important factor that influences and supports EL skills of a leader in the automotive parts businesses that encourage them to run a functional business and that lead to success via value creation to businesses. *Thus, Hypothesis 1b is supported*.

Hypothesis 1c: Proactive competency of EL will positively affect to value creation

Hypothesis 1c predicts positive direct between proactive competency of EL and value creation. Table 27 shows that the study support this hypothesis and that proactive competency has a positive medium effect on value creation on automotive parts business performance ($\gamma = .201$, p < .05). These results are consistent with previous research. Afsarmanesh and Camarinha-Matos (2005) indicated that proactive management of competency maintains and support the members in business to respond to business opportunities. Notably, the proactive competency of EL is different from other business because EL focuses on aggressive activities, diverse ability, and seeking techniques to conduct their work (Prieto, 2010). Proactive competency appears specially adjusted to forecasting inspiration in learning circumstances than the more common Big Five factors involved in social desirability and general mental ability (Crant, 1995).

Moreover, empirical research exhibited that an EL that has proactive capability tends to improve and create a more effective strategy for the firm (Chonko & Jones, 2005), create timely innovation (Crenshaw & Yoder-Wise, 2013), and support competitive advantage practices (Ruona & Gibson, 2004). In addition, when EL has a more proactive competency, businesses tend to expand and develop the core competency within leaders who have these skills to improve innovation capabilities (Fong & Chang, 2012). Lastly, this finding mentioned that the EL characteristics of leaders in automotive parts businesses might integrate proactive competency with their ability be able to create more value creation in their businesses. *Thus, Hypothesis Ic is supported*.

Hypothesis 1d: Technological competency of EL will positively affect to value creation

Like Hypothesis 1c, Hypothesis 1d posited a positive relationship between technological competencies of EL. Table 27 shows that the technological competency element of EL in automotive parts leaders has a positive high influence on value creation ($\gamma = .206$, p < .001). The results are consistent with previous research. (Dekkers, 2000) stated that in manufacturing businesses that technology is a crucial criterion that is associated with the business environment, cost, effectiveness, and efficiency of performance. Technological competency can drive toward hi-tech manufacturing to continuous ongoing improvement and create more competitive advantages (Devece, 2013). Currently, all businesses are concerned how to integrate technology across management functions, including software, hardware, and online resources (Brinkerhoff, 2006). Eventually, the results showed that the EL abilities of leaders in automotive parts manufacturing businesses should possess technological competency in order to create value and lead them to success. *Thus, Hypothesis 1d is positively and actively supported*.

Moreover, previous research indicated that technological capability also related to opportunities for creating new businesses and makes more expertise in manufacturing facilities (Billington & Johnson, 2006). In addition, in prior research showed that technological competencies are a theoretical foundation of value creation in businesses (Eikebrokk & Olsen, 2007), the technological core competence of value is essential for the business to deliver high performance and make a significant benefit to business processes (Kothandaraman & Wilson, 2001). For other evidence such as Tipping and colleagues (1995) indicated that value creation derived from the ability to exploit technology across the unit within businesses and lead the business to profitability and growth. Moore & Manring (2009) stated that technological competency of EL could create a high benefit to business through globalization of communication and facility managers to build the relationship network beyond local to the global area (Kandampully, 2002). From all evidence showed that technological competency is the effect of valuing creation if EL can update this competency in ongoing should create more benefit to their work.

Testing Hypothesis 2 and the Results

Hypothesis 2: Value creation will positively affect business performance

Hypothesis 2 predicted a positive direct effect of value creation on business performance. The hypothesis is supported by the data. The relationship between the EL dimensions, based on value creation and business performance, has a strong and positive influence on a business' performance level ($\beta = .230$, p < .05; Table 27). Previous results confirmed that EL is an essential characteristic of leaders who can use their skills toward change, novelty and value creation (Kesidou & Carter, 2014). Value creation arise from strategic leaders in entrepreneurial firms being involved to acting and making (Yar Hamidi, 2016) and EL is claimed to inspire employees in business to become proactive and lead to value creation (Greef, 2014). Moreover, EL also influences all of the employees toward entrepreneurial behavior and can mobilize resources, indispensable to value creation (Stoffregen, 2014). Many pieces of evidence show that EL variables influence outcomes such as wealth creation and business performance (Nwachukwu, Chládková, & Žufan, 2017) and have a positive bearing on growth and firm performance (Lockett, Hayton, Ucbasaran, Mole, & Hodgkinson, 2013). In conclusion, this research showed that a value creation factor in automotive parts manufacturing businesses influences business performance. This means that value creation is an important factor to help leaders achieve business performance and superior outcomes. *Thus, Hypothesis 2 is strongly supported*.

According to Baron and Kenny (1986), partial mediation is present when paths from the independent variables to the mediator, from the mediator to the dependent variables, and from the independent variable to the dependent variable are significant. Therefore, this research showed the four dimensions of EL (personal competency, managerial competency, proactive competency and technological competency) mediated by value creation had a positive effect on automotive parts businesses. The data (n = 235) showed significant results for various sections of Hypothesis 1consist of Hypothesis 1a (personal competency \rightarrow value creation), Hypothesis 1b (managerial competency \rightarrow value creation), Hypothesis 1c (proactive competency \rightarrow value creation), Hypothesis 1d (technological competency \rightarrow value creation) and Hypothesis 2 (value creation \rightarrow business performance).

The leader perception of EL partially mediates the effect of value creation on business performance (See Table 27 and Figure 11). For a closer examination, a formal significance test of indirect effect used confirmatory factor analysis and model testing. The results demonstrated an indirect significant effect of all EL dimensions on the value creation relationship leading to improved business performance through perceived entrepreneurial competency. This finding indicates that a strong relationship exists between the EL and value creation, directly and indirectly, and influences business performance through shaping favorable leader capabilities. Thus, these results confirm previous evidence that EL is the perspective of superior leaders who can create both value and improve business performance (Baard, Rench, & Kozlowski, 2014; Lockett, Hayton, Ucbasaran, Mole, & Hodgkinson, 2013).

Testing the Hypothesis 3a – 3d and Results

Hypothesis 3a: Personal competency of EL will positively affect business performance

Hypothesis 3a posited that the personal competency of EL will positively influence business performance. The results, shown in Table 27, supported H3a in that personal competency has not significant, positive, direct effect on automotive parts business performance ($\gamma = .022$, p > .05). This result showed an effect in an opposite direction compared with a previous study (Soejono, Mendari, & Rinamurti, 2015). Kolibácová (2014) confirmed that entrepreneurial characteristics significantly influenced business performance when personal competency focused on employee features. Moreover, some prior research found that personal competency for entrepreneurs in business, such as entrepreneur technical competencies, personal effectiveness competencies, workplace competencies and academic competencies, is significantly related to entrepreneurship performance (Mokhtar, 2017). Entrepreneurial competence plays an influential role in organizational capability and affects firm performance positively (Sánchez, 2012). In addition, worker competencies may positively influence the conduct of a business (Awad, 2018). Semeijn and colleagues (2006) found that, depending on educational background, age and work experiences of leaders, they can have a steady negative effect on performance. Leaders can, however, create value through an appropriate educational background and work experience (Jung & Ejermo, 2014). These factors affect a leader's skills to create value for businesses. In conclusion, this research revealed that the personal competency of leaders in automotive parts manufacturing businesses had a positive effect on business performance. This implies that leaders should integrate other factors to conduct business if they only have personal competency. Otherwise, they will achieve success in business. *Hence, Hypothesis 3a is not supported*.

Hypothesis 3b: Managerial competency of EL will positively affect business performance

Hypothesis 3b predicted a positive relationship between managerial competencies of EL and business performance. Results given in Table 27 supported this hypothesis and indicated that managerial competency has a significant positive effect on automotive parts business performance ($\gamma = .288$, p < .05). Hypothesis 3b predicted a positive relationship between managerial competencies of EL and business performance. This result is consistent with the findings of Bhardwaj and Punia (2013) who stated that managerial competencies consist of communication skills, team-working, proactiveness, vision, self-management, result-orientation, strategic-orientation, ambition, persistence, decision making, risk taking and creativity influence on performance.

Moreover, managerial competencies that a manager possesses are very important for the organization's performance through developing the organizations operational efficiency and effectiveness. Veliu and Manxhari (2017) stated that managerial competency is an important ability (e.g., knowledge, abilities, skills, and behaviors) required for effective job performance, while managers are required these competencies to ensure that organizations achieve their objectives. Besides, they confirmed a connection between managerial competency and performance of businesses. Managerial capability also enhanced employee intelligence, business performance (Bucur, 2013), and business growth (Mohamad & Sidek, 2013). Finally, the results showed that managerial competency is one dimension of EL and has a positive effect on value creation. It implied that leaders in automotive parts manufacturing businesses should be using this managerial function or develops them to display more ability in managerial competency so as to enable the development of business effectiveness and efficiency. *Thus, Hypothesis 3b is supported*.

Hypothesis 3c: Proactive competency of EL will positively affect business performance

Hypothesis 3c predicted that no direct effect would be observed between proactive competency of EL and business performance. The result shown in Table 27 does not support this hypothesis and showed that proactive competency was not related to business performance in automotive parts businesses ($\gamma = .023$, p > .05). These findings are inconsistent with previous research that indicated proactive competency leads to positive influences on business outcomes. Seibert and colleagues (2001) found that employees who were concerned at work were less likely to demand rewards and benefits, Rather they focused on business outcomes. Wu and Wang (2011) argued that proactive leadership is a competency that leads to positive performance outcomes. García-Zambrano and friends (2014) also mentioned a positive relationship between proactive behavior (sources of core competency) and business performance.

Moreover, Bindl and Parker (2010) found that proactive behavior in businesses involved self-initiated and anticipatory action to improve work methods, proactive problem solving and proactive feedback seeking to improve performance and give a superior outcome, but they argued that proactive behavior is not necessarily linked with business success. Reactive business strategies, the opposite dimension of proactive, related negatively with the success of the business. Proactive behavior has been linked to better business performance (Bateman & Crant, 1993). And proactive leadership can support exceptional performance, and voice behavior can encourage personal initiative (Rank, 2006). Wang and colleagues (2014) found that if leaders have high proactivity it can increase the work exhaustion of subordinates with low motivation and may be negatively related to business success (i.e., performance and satisfaction). On the other hand, if the level of subordinate motivation is high, the proactive competency of a leader does not lead to exhaustion. Our present result showed that firms might not utilize proactive competency simply due to lack of resources. Lastly, this research found that proactive competency had no direct effect on business performance. The result implied that if leader have only proactive ability this is not enough skill to achieve the desired business outcome. Proactive competency should be integrated with other factors or dimensions in order to achieve business success. *Thus, Hypothesis 3c is not supported*.

Hypothesis 3d: Technological competency of EL will positively affect business performance

The results showed that Hypothesis 3d does not predict the relationship between technological competencies of EL and business performance (Table 27). Therefore, this hypothesis is not supported and technological competency of EL has no direct effects on automotive parts businesses performance ($\gamma = .090$, p > .05). These results indicate that if entrepreneurial leaders have both personal and managerial competency they can create a business performance in automotive parts manufacturer without requiring technological competency skills. For all of the results seen in Figure 11 and Table 27, these are confirmed by Youssef, Chaibi and Aoun (2015). They found no relationship between the ICT staff capacity and performance because technology needs marginal effort in matters of training and staff improvement.

Technological competency appeared to have differential effects on the performance of businesses. Businesses may be more able to gain from the implementation of other activities rather than adopt advanced technologies. These findings are inconsistent with some previous research that indicated that technological competency allowed the leader to create innovation, inprove management processes and was linked to improved IT competency (Pérez-López & Alegre, 2012). Technological ability involves distinctive competencies dealing with advanced user knowledge in technology and the use of internet tools (Bolívar-Ramos, García-Morales, & García-Sánchez, 2012). However, the present results showed and confirmed that technological competency does not influence business performance because business might not utilize innovation owing to lack of resources. Ultimately, this research showed that the technological competency dimension of leaders in automotive parts manufacturing businesses does not influence business performance. Rather it informs us that technological ability should be used together with other variables. *Thus, Hypothesis 3d is not supported*.

Table 28 summarizes the results from the nine hypotheses (Hypothesis 1a - 1d, Hypothesis 2 and Hypothesis 3a - 3d). The results of the four dimensions of EL (personal competency, managerial competency, proactive competency, and technological competency) on value creation received partial support. Meanwhile, in the group of Hypotheses 3a - 3d, only managerial competency was positively related and exerted a direct effect on value creation. Table 28 below shows a more detailed account of the relationships.

 Table 28: Result of SEM of Four Dimensions of EL to Value Creation and Business

 Performance Framework

Path Analysis	Hypotheses	Results
Personal Competency \rightarrow Value Creation	H1a	Supported
Managerial Competency \rightarrow Value Creation	Hlb	Supported
Proactive Competency \rightarrow Value Creation	H1c	Supported
Technological Competency \rightarrow Value Creation	H1d	Supported
Value Creation \rightarrow Business Performance	H2	Supported
Personal Competency \rightarrow Business Performance	H3a	Not Supported
Managerial Competency \rightarrow Business Performance	Н3ь	Supported
Proactive Competency \rightarrow Business Performance	НЗс	Not Supported
Technological Competency \rightarrow Business Performance	H3d	Not Supported

The Relationships among the Four Dimensions of Entrepreneurial Leadership and Value Creation and the Moderating Role of Organizational Climate and Learning

Figure 12 illustrates the relationships among four dimensions of EL (personal competency, managerial competency, proactive competency and technological competency) and the moderating role of organizational climate and organizational learning proposed to affect the four dimensions of EL. These proposals are presented in Hypotheses 4a - 4d and Hypotheses 5a - 5d. According to these hypotheses, the structural equation model was developed in Figure 12.



2. The Structural Model of Four Dimensions of EL Moderated by Organizational Climate and Organizational Learning on the Value Creation Framework

Before, conduct the data analyses that follow the hypothesis testing. In this research proposed that to investigate the moderated role of two moderator variables are organizational climate and organizational learning. Then, this research might be facing collinear among each dimension (Echambadi & Hess, 2007). Moreover, Echambadi and Hess (2007) claimed that mean-centering can reduce the collinear and covariance between all of dimensions included interaction terms. Therefore, this research brought mean-centering method to transform each dimension that involved to the interact effect before conduct the path analysis.

In addition, the model fit assessment of personal competency, managerial competency, proactive competency, a technological competency that was moderated by organizational climate and organizational learning based on value creation and business performance framework is shown in Table 29. The ratio of Chi-square values to the degree of freedom is less than 2.00(1.213), which shows that a good fit of a model among with the observed data. Moreover, fit indices, NFI (.996), CFI (.999), IFI (.999), and RFI (.968), are above the cut-off criteria (.95) and RMSEA (.030). RMSEA values between .05 to .80 provide a mediocre fit (MacCallum, Browne, & Sugawara, 1996). To summarize, these indicators demonstrate a good fit. From the analyzed results, obtained in this study it can be concluded that a structural model of the personal competency, managerial competency, proactive competency, and technological competency that is moderated by organizational climate to influence value creation and business performance consistent fits with the empirical data as 221 21 20 2113 shown in Table 29 and Figure 13.

4



Figure 13: Structural Model of Four Dimensions of EL Moderated by Organizational Climate and Organizational Learning Leading to Value Creation with Standardized Parameter Estimates and Statistical Significance Levels Are Given

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Table 29: Standardized Structural Equation Parameter Estimates and t-value of Four Dimensions of EL Moderated by Organizational Climate and Organizational Learning in a Value Creation Framework

Contractor	Value	Creation	Business Performance		
Constructs	γ	t-value	β	t-value	
Exogenous Construct					
Personal Competency	.148	2.902**		-	
Managerial Competency	.360	5.136***	-	-	
Proactive Competency	.163	2.583**	-	-	
Technological Competency	.197	3.724***	-	-	
Personal Competency* Organizational Climate	<mark>0</mark> 22	211		-	
Managerial Competency* Organizational Climate	357	-2.433**		-	
Proactive Competency* Organizational Climate	.028	.225		-	
Technological Competency* Organizational Climate	.027	.240		-	
Personal Competency* Organizational Learning	064	708		-	
Managerial Competency and Organizational Learning	.380	2.792**	-	-	
Proactive Competency and Organizational Learning	.038	.291		-	
Technological Competency and Organizational Learning	013	122	9.7	-	
Endogenous Construct Value Creation	ล์โ	50	.744	9.522	

significate level at .01

- ** significate level at .05
- * significate level at .10

 γ is a standardized parameter estimate from exogenous to endogenous construct

 β is a standardized parameter estimate from endogenous to endogenous construct

Testing the Hypothesis 4a – 4d and Results

Figure 13 shows the path model of EL dimensions moderated by organizational climate and organizational learning that effects value creation. The results indicated that the four dimensions of EL influence value creation as follows: personal competency ($\gamma = .148$, p < .05), managerial competency ($\gamma = .360$, p < .001), proactive competency ($\gamma = .163$, p < .05) and technological competency ($\gamma = .197$, p < .001). Thus, these results are consistent with the findings of several scholars such as (Kickul et al., 2008) who mentioned that personal ability is involved in the creation of venture value and successful businesses. Managerial competencies are a source of value creation and effect resource productivity (Holcomb et al., 2009). Proactive competency is an ability to improve and create a more effective strategy and produce innovation in a timely manner (Chonko & Jones, 2005; Crenshaw & Yoder-Wise, 2013). Mingmalairaks (2011) found that technological factors lead to successful implementation and value creation as well as to the business performance. Finally, Zubac, Hubbard, and Johnson (2010) mentioned that manager competencies aid the likelihood of value creation being realized.

The four dimensions of EL are moderated by organizational climate and showed different results, both positive and negative, on value creation of businesses. This means that Hypotheses 4a - 4d and 5a - 5b need to be addressed separately. This analysis is shown below.

Hypothesis 4a: Organizational climate will positively moderate the effect of personal competency on value creation

Hypothesis 4a posited that the personal competency of EL was moderated by organizational climate does not influence value creation. The results shown in Table 29 did not support Hypothesis 4a, which states that both personal competency and organizational climate have negative effects. The survey results showed a negative relationship on value creation on automotive parts manufacturers' performance ($\gamma = -.022$, p > .05). This result is inconsistent with previous research where organizational climate was a decisive factor that affected value creation and business performance

(Umar, Shuaibu, Saleh, Man, & Saleh, 2018). They found that performance in business was more effective if business facilitated climate change and they confirmed a relationship between climate change and performance.

Moreover, in the context of HRM, the evidence showed that competency and climate encouraged people in business to aim for high performance (Mangaleswaran & Srinivasan, 2006). Business performance is determined by the skills and motivation of people in business and competent employees are the greatest asset of any business and leaders who provide the right type of climate in the organization can help employees to give full devotion to achieving the goals of the business. Some scholars have explained that the organizational climate is comprised of a mixture of norms, values, expectations, policies, and procedures that influence work motivation, commitment, and ultimately to business performance. (Berberoglu, 2018) stated that organizational climate has two aspects: a favorable climate that encourages people, while a negative climate inhibits discretionary effort. Business "organization climate" refers to the quality of the working environment (Adeoye, Kolawole, Elegunde, & Jongbo, 2014). If people feel that they are valued and respected within the organization, they are more likely to contribute positively to the achievement of business outcomes.

Meanwhile, some evidence from the previous study showed a negative relationship between personal competencies (e.g., education) and work satisfaction (Nikolajevaite & Sabaityte, 2016). Some organizational climate dimensions are negative associated with achievement outcomes Castro and Martins (2010) and are not relate to individual achievement needed in business. Moreover, the leaders of automotive parts manufacturing businesses in Thailand who possessed high personal competency might not be concerned about the organizational climate in their business. This could be on account of their ability to deliver high value and performance through manipulating other parameters. This may have been responsible for the finding that organizational climate, as a moderator, did not impact and, in fact, had an adverse effect on value creation. *Thus, Hypothesis 4a is not supported*.
Hypothesis 4b: Organizational climate will positively moderate the effect of managerial competency on value creation

Hypothesis 4b posited a relationship between managerial competencies of EL that were moderated by organizational climate based on value creation. The results showed a negatively supported hypothesis ($\gamma = -.357$, p < .05). Managerial competency and organizational climate have an effect on value creation and on performance in the automotive parts business but in the opposite direction. A common finding is that managers are a potential source of value creation for the firm while managerial ability affects resource productivity and leads to increases in the quality of the firm resources (Holcomb et al., 2009). Moreover, managerial competencies have significant roles included transforming individual know-how into the property of a group (Pulic & Kolakovic, 2003). These constitute fundamental building blocks for the success of the business to achieve both the mission and vision in creating value and improve business performance and especially the development of their people. Value creation involves more than just knowledge and skills including abilities to managed complex scenarios. It demand drawing on and mobilizing psychosocial resources (Krajcovicova, Caganova, & Cambal, 2012). Many studies have found a significant relationship between managerial competency and value creation in various context, for example, Bucur (2013), Szczepańska-Woszczyna and Dacko-Pikiewicz, (2014) and Van Tuong and Thanh (2017).

On other hand, some have identified negative effects between managerial competency and organizational climate that have implications for value creation (Zhang & Liu, 2010). They found that if organizations encourage and develop alternative climates this can decrease the value creation dimension because more pressure is placed on all workers to reaching the corporate goals. The results obtained in the current study showed that organizational climate exerted a negative effect on value creation in automotive parts manufacturing businesses, which differed from much previous research where organizational climate positively affected value creation. This included organizational members' perceptions of observable practices and procedures that are closer to the surface of organizational life and the categorization of their practices and perceptions (Denison, 1996). A person's

perception of the organization to which their belong, and the perceived organizational support, influences their behavior (Dutton, Dukerich, & Harquail, 1994).

However, there was consistency with Haakonsson and colleagues (2008) findings. They indicated that negative performance between organizational climate and leadership style was problematic for business performance and suggested that both organizational climate and leadership style needs to change and a greater understanding of the role of leadership in creating desired organizational climates was needed. Moreover, negative effects represented the extent to which a leader feels upset or unpleasantly aroused (Watson & Tellegen, 1985) and work progress happens at a lower rate than the standard (Carver & Scheier, 1990). However, this result showed an opposite effect that implied managerial competency. Leaders might be aware of the existence and causes of negative effects if they want to encourage and develop a favorable climate in their businesses. *Thus, Hypothesis 4b is not supported.*

Hypothesis 4c: Organizational climate will positively moderate the effect of proactive competency on value creation

Hypothesis 4c predicts no direct effect. The study did not support Hypothesis 4c but rather showed that proactive competency and organizational climate do not support value creation and business performance ($\gamma = .028$, p > .05). The results (Table 29) showed that, for entrepreneurial leaders, generally only proactive competency or organizational climate are valuable in the creation of more value and performance in automotive parts organizations. This result is inconsistent with previous research where proactive competency positively affected value creation in the context of core competencies, innovation and business value (García-Zambrano, Rodríguez-Castellanos, & García-Merino, 2014). Moreover, previous research argued that an inconsistent proactive behavior may occur with people who have low job autonomy and supervisor support (Wu, Deng, & Li, 2018).

Additionally, previous results showed that if leaders with proactive competency tend to create innovation-related competency and it is a source of competitive advantage to business (Kinkel, Schemmann, & Lichtner, 2017) and empirical evidence showed proactive behavior influences outcome and performance (Bindl & Parker, 2010). However, the present result reveals the opposite effect. Therefore, this result might be interpreted to indicate that proactive competencies were correctly able to adjust to the high value in automotive parts manufacturing business. Consequently leaders were not concerned about the organizational climate. *Thus, Hypothesis 4c is not supported.*

Hypothesis 4d: Organizational climate will positively moderate the effect of technological competency on value creation

Hypothesis 4d predicted a positive correlation between technological competency that was moderated by organizational climate based on value creation. Results given in Table 29 do not supported Hypothesis 4a and indicate that technical competency had no effect on value creation on automotive parts business performance ($\gamma = .027$, p > .05). This finding is inconsistent with previous research which found that when a leader has high technological competency one might expect more value to be created and business performance to be improved. The success of value creation strongly depends on their employees' competencies to innovate and create new knowledge (Kinkel et al., 2017). Technological competence is a crucial ability to build innovativeness that is foundational to value creation involved in business performance. Moreover, the importance of technological competencies within the context of increasing digital tools and processes is a challenge that many firms currently face. Considering these facts, such innovation-related technological competencies can become critical competencies.

On the other hand, the result showed that when technological competency and organizational climate do not affect value creation, the reason may be due to the organizational climate established by the pattern of behaviour of employees (Schneider, 2000). Peek (2003) mentioned that organizational climates that exhibit characteristics such as having a high degree of autonomy, providing opportunities for employees, nurturing relationships among employees, showing interest in and concern for their employees, recognizing employees' accomplishments and holding employees in high regard result in more satisfied workers. Consequently, leaders may not be

focused on both technological competency and organizational climate at the same time. *Thus, Hypothesis 4d is not supported*.

The overall results from Hypothesis 4a - 4d posited that the four dimensions of EL (personal competency, managerial competency, proactive competency and technological competency) were moderated by organizational climate. Only one dimension of EL influenced value creation, namely organizational competency positively moderated the relationship between management competency and value creation (H4b). Meanwhile, personal competency moderated by organizational climate exerted no effect on valuing creation (H4a) and, in fact, showed a negative effect on value creation. Proactive competency and technological competency, when moderated by organizational climate, did not significantly influence value creation (H4c and H4d). The results can be interpreted to mean that if EL competencies had only three dimensions of EL (personal competency, proactive competency and technological competency) then automotive parts businesses could create more value and performance in the absence of managerial competency. Thereby, the results showed both positive and negative effect between EL dimensions moderated by organizational climate on value creation. Lastly, the leaders in automotive parts businesses should be aware of these findings if they want to apply or integrate the organizational climate factor into their business model.

Testing Hypothesis 5a – 5d and the Results

Hypothesis 5a: Organizational learning will positively moderate the effect of personal competency on value creation

Hypothesis 5a posited that personal competency of EL can be moderated by organizational learning and have a positive effect on value creation. Results given in Table 29 did not support Hypothesis 5a, which indicates that personal competency and organizational learning do not support the creation of more value in automotive parts manufacturers' performance ($\gamma = -.064$, p > .05). Previous results are consistency with this finding, such as (López-Sánchez, Santos-Vijande, & Trespalacios-Gutiérrez, 2010). They found that organizational learning exerted influences on both value

creation and business performance. Evidence exists that competency-based on people in an organization can create more value creation (Paajanen, Porkka, Paukku, & Vanharanta, 2009). On another hand, current results showed that when entrepreneurial leaders focus on both personal competency and organizational learning there is no increase in value creation in businesses. Individual or personal competency is a critical ability for innovativeness leading to value creation and this includes network competence and creative problem-solving competency (Kinkel et al., 2017).

Organizational learning had negative effects as a moderator role between personal competency and value creation. This might be interpreted to mean that some leader who lack of experience, knowledge sharing, and development of shared goals are unable to build more value into an organization. Therefore, this result might indicate that proactive competencies used in a proper manner and correctly manage can create high value in automotive parts manufacturing businesses. Consequently, leaders might be more concerned if they wish to alter the organizational climate in their businesses. *Thus, Hypothesis 5a is not supported*.

Hypothesis 5b: Organizational learning will positively moderate the effect of managerial competency on value creation

Hypothesis 5b predicted a positive relationship between managerial competencies of EL that is moderated by organizational learning. The results shown in Table 29 support this hypothesis and indicate that managerial competency and organizational learning has a positive effect and significant on value creation in the automotive parts manufacturing businesses performance ($\gamma = .380$, p < .05). This finding is consistent with previous research which found that when leaders have managerial competency they might have the capacity to create value in the future (Dunphy, Turner, & Crawford, 1997). Senge's view (1991) is similar: organizational learning is continually expanding the capacity to create value by challenging and adapting activities adopted by organizational members. (Markevičiūtė & Jucevičius, 2013) stated that individuals in the organization contribute to the ability to create value in various ways and leaders competency also support creativity in an organization. Additionally, in organizations that have leader who possess

competencies included personal competency (e.g., expanding knowledge of create the organizational process), professional competency (e.g., achieving high performance), instrumental competency (e.g., using all kind of images) and collaborative competency (e.g., fostering teamwork and collaboration) can, through attitudes expressed, resources and behaviors available to utilize, knowledge held and creativity available, actually achieve superior performances. This research identified one dimension of EL, namely managerial competency, that, when integrated with organizational learning, acts to support leaders who can create more value in the automotive parts manufacturing businesses.

Meanwhile, the findings showed a positive, significant relationship between managerial competency and value creation that was moderated by organizational learning. Some scholars have confirmed that organizational learning can have a positive effect on innovation (Yu, Zhang, & Shen, 2017). In other words, in term of leaders who promote subordinates to continue learning appeared, it might be expected that positive effects will be observed on the relationship between value creation and resources in businesses (Crook, Ketchen, Combs, & Todd, 2008). Eventually, this finding infers that the managerial competency has a direct effect on business performance. The result implies that if a leader is effective in managerial functions, then they can create more value in a business. *Thus, Hypothesis 5b is supported*.

Hypothesis 5c: Organizational learning will positively moderate the effect of proactive competency on value creation

Hypothesis 5c predicts a relationship between proactive competency of EL that is moderated by organizational learning based on value creation. The study results (Table 29) do not support this hypothesis and showed that proactive competency exerted no effect on value creation on automotive parts business performance ($\gamma = .038$, p > .05). The present results showed inconsistency with previous studies because the prior studies showed that proactive ability to adapt and develop had become an essential factor for companies in today's business environment, which is characterized by continuous change. Kelly (1997) stated that the essence of learning is an organization's ability to manage change by changing

itself and changes can be implemented in various organizations by explicitly paying attention to education and knowledge creation and competence development. All organizations must also improve their know-how and skills in a way that supports the overall goals of the organization and employees might have a unique interest in developing themselves (Paajanen et al., 2009).

Additionally, Senge (1991) mentions that a creative tension exists between a person's vision and the current reality to support the overall goals of the organization. Therefore, this result might be an interpreted to indicate that leaders who have proactive competencies do not need more factors to conduct a business satisfactorily because of their current ability to managed high value in the business. Consequently, leaders who have proactive ability may not be concerned about organizational learning because inherent proactive behavior leads to continual learning and improvement in ongoing. Thus, entrepreneurial leaders with personal competency or organizational learning can value create in the automotive parts business. These results appeared to show that one dimension possessed by entrepreneurial leaders is proactive competency. In the automotive parts business, they should have proactive competency enough to create value creation and business performance without engaging in organizational learning. Another meaning might be that if leaders in the automotive parts business possess both of proactive competency and organizational learning they cannot easily produce more value and business performance. *Thus*, Hypothesis 5c is not supported

Hypothesis 5d: Organizational learning will positively moderate the effect of technological competency on value creation

Hypothesis 5d predicts a positive relationship between technological competencies of EL that is moderated by organizational learning as measured by value creation. The results showed (Table 29) that technological competency and organizational learning in the automotive parts businesses does not affect value creation ($\gamma = -.013$, p > .05). This finding is inconsistent with previous literature. For example, López-Sánchez and colleagues (2010) found that leaders who had high technological competency might create more value for businesses. In addition,

Kinkel, Schemmann and Lichtner (2017) also found that success in value creation strongly depends on their employees' competencies to innovate and create new knowledge. Based on the studies of Real, Leal and Roldan (2006), organizational learning is viewed as a process of knowledge creation in the development of distinctive technological competencies. It positively influences technological competency and organizational learning and both concepts influence the entrepreneur's view. Moreover, Tippins and Sohi (2003) found that technical competency is a source of competitive advantage as it can create efficiencies and profitability in businesses.

On the other hand, the current results showed that technological competencies interacting with organizational learning did not affect value creation and appeared, in fact, to negatively influence it. This result was supported by previous evidence such as found by Yu and colleagues (2017). They held that to pursue organizational outcomes through organizational learning and management innovation it is necessary to understand the relationship between organizational learning and technological capacity. This may be complicated to apply in businesses. Some researchers from the area of technology have always been concerned with organizational learning, because technological systems are an essential support for different processes that entail learning at business level (e.g., dissemination of knowledge) (Canessa-Terrazas, Morales-Flores, & Maldifassi-Pohlhammer, 2017). This line of thought is supported by studies that show that technological competency in IT does not generate a competitive advantage (Powell & Dent-Micallef, 1997). In summary, this research confirmed that technological competency and organizational learning do not lead to value creation. And, if a leader emphasizes continual learning and encourages workers to develop their skills, a negative impact might be observed on value creation in businesses. If leaders in automotive parts businesses want to promote learning in business, they should be aware of the downside because their efforts may operate to decrease value creation in the organization. Thus, Hypothesis 5d is not supported.

From Hypothesis 5a – 5d indicated the four dimensions of EL ([personal competency (H5a), proactive competency (H5c) and technological competency (H5d)] are moderated by organizational learning which may have both positive and negative effects on value creation. The findings showed no significant effect on three

dimensions of EL included personal competency, proactive competency, and technological competency. The results from data analysis supported only one hypothesis, namely, that managerial competency interacts with organizational learning to deliver a significant positively effect on value creation. Therefore, leaders should be encouraged to adopt organizational learning in automotive parts businesses in Thailand because if leaders encourage learning it may lead to high value creation.

In conclusion, the results indicate that automotive parts manufacturers should be encouraged to develop managerial competencies. This is an essential group of skills of EL because it plays a significant role in developing value creation and business performance. This finding also is consistent with previous research which found that organizational learning has a moderator role on value creation. Therefore, the success of value creation strongly depends on their employees' competencies to innovate and create new knowledge (Kinkel et al., 2017). Meanwhile, the organizational climate was not related to value creation when integrated with personal competency, proactive competency and technological competency while personal and technological competency interact with organizational learning and showed negative effects on value creation. The present results thus both supported and disagreed with other empirical findings.

Table 30 shows the summary of results involving nine hypotheses (Hypothesis 4a - 4d and Hypothesis 5a – 5d). The results of four dimensions of EL (personal competency, managerial competency, proactive competency, and technological competency) that were moderated by organizational climate based on value creation indicated that only one dimension of EL was supported but its effect was negative. Meanwhile, of the four dimensions of EL moderated by organizational learning only managerial competency showed a positive relationship with value creation. Table 30 below shows more detail.

Path Analysis	Hypotheses	Results
Personal Competency \rightarrow Value Creation	H1a	Supported
Managerial Competency \rightarrow Value Creation	H1b	Supported
Proactive Competency \rightarrow Value Creation	H1c	Supported
Technological Competency \rightarrow Value Creation	H1d	Supported
Value Creation \rightarrow Business Performance	H2	Supported
Personal Competency * Organizational Climate \rightarrow Value Creation	H4a	Not Supported
Managerial Competency $*$ Organizational Climate \rightarrow Value Creation	H4b	Not Supported
Proactive Competency $*$ Organizational Climate \rightarrow Value Creation	H4c	Not Supported
Technological Competency $*$ Organizational Climate \rightarrow Value Creation	H4d	Not Supported
Personal Competency * OrganizationalLearning \rightarrow Value Creation	H5a	Not Supported
Managerial Competency $*$ Organizational Learning \rightarrow Value Creation	H5b	Supported
Proactive Competency * Organizational Learning \rightarrow Value Creation	Н5с	Not Supported
Technological Competency $*$ Organizational Learning \rightarrow Value Creation	H5d	Not Supported
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Table 30: Result of SEM of Four Dimensions of EL Moderated by OrganizationalClimate and Learning on Value Creation and Business Performance Framework

Summary

This chapter describes the results of data analysis in this research. There are four main parts. The first part indicates the demographic profile and businesses profile. Frequency and percentage data explain these characteristics in the context of demographic informants and general information of automotive parts manufacturing in Thailand. The second part involved two steps. The first step was to explain and discuss the descriptive statistics include Mean (\overline{X}), Standard Deviation (S.D.) and Minimum and Maximum of data. The second step involved reliability and validity analyses included Cronbach's Alpha, Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA). In the section, the EFA technique was used to test the validity of all items in each construct by considered the various statistics such as factor loading, KMO, Chi-square, Eigenvalue and percentage of variance. Next, confirmation of the validity of each item was undertaken. The CFA method was used to retest the validity of variables and they were considered from the perspective of model fit consist of Chi-square test, GFI, RMSEA, p-value, factor loading, t-value, R^2 , C.R. and A.V.E. The third part involved testing of the assumptions of the structural equation model (SEM) by using univariate normality test that considered Skewness and Kurtosis values. Also, correlations among all variables were analyzed and presented as a correlation matrix and were explained by using descriptive statistics.

The last section involved hypothesis testing and the giving of results. In this section Path Analysis was used and the results revealed that all values followed the criteria of assessment necessary to establish a satisfactory model fit (i.e., Chi-square test, p-value, CFI, IFI, NFI, RFI and RMSEA). Hence, the results showed the actual relationships among the four frameworks of EL, business performance and value creation following the testing of the model structural equation. Four dimensions of EL include personal competency, managerial competency, proactive competency, and technological competency are confirmed as EL constructs; and are important determinants to yield higher value creation and business performance. Also, each one of the four dimensions of EL either supported or failed to support a hypothesis while

the results also indicated both positive and negative effects between antecedent and the consequences.

Moreover, investigation involved a mediator variable in value creation and moderator variables in organizational climate and organizational learning. The result of SEM analyzes of some of dimension of EL lent support to the hypothesized conceptual framework and indicated that the EL dimensions contribute to creating high value lead to superior business performance. From the data assembled, it appears that only one dimension of EL (managerial competency) interacted with organizational climate but delivered negative effects on value creation. In addition, managerial competency interacted with organizational learning and showed a positive effect and is significant to value creation. To summarize, Hypotheses 1a, 1b, 1c, 1d, 2, 3b, 4b and 5b are significant supported; Hypotheses 1 is partially-supported; and Hypotheses 3a, 3c, 3d, 4a, 4c, 4d, 5a, 5c and 5d are not adequately supported. Table 31 provides a summary of the results of hypotheses testing.

Hypotheses	Description of hypothesized Relationships	Results	
H1a	Personal competency of EL will positively affect to value creation	Supported	
H1b	Managerial competency of EL will positively affect to value creation	Supported	
H1c	Proactive competency of EL will positively affect to value creation	Supported	
H1d	Technological competency of EL will positively affect to value creation	Supported	
H2	Value creation will positively affect business performance	Supported	
H3a	Personal competency of EL will positively affect business	Not	
	performance	Supported	

Table 31: Summary of the Results of Hypotheses Testing

Hypotheses	Description of hypothesized Relationships	Results
H3b	Managerial competency of EL will positively affect business performance	Supported
H3c	Proactive competency of EL will positively affect	
	business performance	Supported
H3d	Technological competency of EL will positively affect	Not
	business performance	Supported
H4a	Organizational climate will positively moderate the effect	Not
	of personal competency on value creation	Supported
H4b	Organizational climate will positively moderate the effect	Supported
	of managerial competency on value creation	Supported
H4c	Organizational climate will positively moderate the effect	Not
	of proactive competency on value creation	Supported
H4d	Organizational climate will positively moderate the effect	Not
	of technological competency on value creation	Supported
H5a	Organizational learning will positively moderate the	Not
	effect of personal competency on value creation	Supported
H5b	Organizational learning will positively moderate the	Supported
	effect of managerial competency on value creation	Supported
H5c	Organizational learning will positively moderate the	Not
	effect of proactive competency on value creation	Supported
H5d	Organizational learning will positively moderate the	Not
941	effect of technological competency on value creation	Supported
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Table 31: Summary of the Results of Hypotheses Testing (Continued)

CHAPTER V

CONCLUSION

The previous chapter reveals respondent characteristics, automotive parts manufacturing characteristics, descriptive statistics, test the validity of each variable and the results of hypotheses testing. Consequently, this chapter aims to designate the conclusion, the theoretical and managerial contributions, limitations and suggestions for additional research.

This research investigated the effect of entrepreneurial leadership in four dimensions that can influence value creation and business performance in the automotive parts industry in Thailand. Meanwhile, this research examined the concept that value creation operates in a mediator role between the four dimensions of EL and business performance. Besides, the study considered organizational climate and organizational learning as a moderator role between the four dimensions of EL and value creation that ultimately influence business performance.

Summary of Results

This research studied the relationships involving entrepreneurial leadership including personal competency, managerial competency, proactive competency, and technological competency and the following consequences: value creation and business performance in the automotive parts manufacturing businesses in Thailand. Further, a number of factors—management operation and context for leadership operation, managers' capabilities, managerial creators, innovative capabilities, organizational diversity, rapid technology change, and competitive environment increase—were assigned as the dimensions of entrepreneurial leadership capabilities. The mediating effect of the value creation variable was also tested as the mediator of the relationship between four dimensions of EL. Meanwhile, this research sought to investigate the organizational climate and organizational learning as moderating elements that drive the EL dimensions to create high-value and superior business performance in the automotive parts sector.

It can be stated that the critical research question is, "how do the four dimensions of EL affect value creation and business performance? In detail, there were five specific research questions as follows: 1) How does each dimension of EL (personal competency, managerial competency, proactive competency, technological competency) influence value creation? 2) How does the value creation variable affect business performance? 3) How does each dimension of EL (personal competency, managerial competency, technological competency) affect business performance? 4) How do the four dimensions of EL, when moderated by organizational climate, affect value creation? 5) How do the four dimensions of EL, when moderated by organizational learning, affect value creation?

This research used three theories to draw the conceptual model; these were the entrepreneurial leadership theory, contingency theory of leadership, and dynamic capability theory. The entrepreneurial leadership theory was used to describe the characteristics of the entrepreneurial leader influencing the relationship between entrepreneur skill and leadership competencies, including personal competency, managerial competency, proactive competency, and technological competency. On the other hand, the contingency theory of leadership was used to describe the relationship between the four dimensions of EL that are moderated by organizational climate and organizational learning affecting value creation. An EL leader has the ability to apply and adapt in order to develop a firm's organizational competitive advantage in various situations. It also possibly relates to organizational climate and learning being able to create high performance.

Lastly, the dynamic capability theory was used to explain the current situation in Thailand where all the businesses, not only automotive parts manufacturing, are faced with several pressure included environmental turbulence, competitive uncertainties, political inability, unstable of government policy and economic recession. These factors impact all leaders who must content with high risks and complexity in order to manage their business. In addition, the automotive parts manufacturer sector is faced with great changes never before seen in their history. One change of note is the trend of customers to move from a general purpose vehicle, that relies on the traditional fuel industry, into a new generation of vehicles that use renewable energy, such as an electric vehicle. Consequently, leaders in automotive parts businesses might be required to search, create and exploit this new knowledge to develop organizational capabilities for all their workers. Therefore, the dynamic capabilities theory is an appropriate orientation to illustrate the sources of organizational capabilities to create value for all the businesses and developed a competitive advantage for businesses.

For this research investigation, automotive parts manufacturing's businesses in Thailand were selected as the research population. In this industry leadership style is significant as it tends to change the behavior of the workers and employees that arises from customer needs, competitive situations, and changes in government policy as in Thailand 4.0. These phenomena affect all businesses. They need to change their approach, moving to a knowledge-based business with creative capacity and having sympathy with the green industry and the use of alternative or renewable energy, etc. Therefore, leaders in automotive parts businesses need to invent and develop new methods including encouraging workers to engage in continuous learning of new knowledge and to use this new knowledge in their work. Meanwhile, leaders should be creating a climate in the workplace designed to produce high performance and to create innovative strategies applicable to their work.

Thus, in automotive parts manufacturing businesses, it is appropriate to investigating the effect or leadership relationships, because all leaders in this industry must display characteristics consistent with respondent characteristics. They are working in the context of a technology rich industry dedicated to produce and assemble parts of vehicles that are subjected to innovation and high-rates of technological changes. Additionally, automotive parts manufacturing businesses must adjust their leadership style to enable them to lead all their employees to be comfortable with change, to be ready to adopt new process, activities and thus create more value from the advent of technology changes.

The sample of this research was obtained from the list of registered automotive parts manufacturers provided in the database of the Thai Autoparts Manufacturers Association (TAPMA). This was accessed in August 2018 and showed 618 automotive parts manufacturer businesses. After rechecking and eliminating duplicate addresses, 616 automotive parts manufacturing businesses were used as the source data employed in this research. The instrument selected was implemented from a management scholar assortment that has validity and reliability, and was checked, utilizing a pre-test approach. To examine the validity and reliability of this questionnaire, a number approaches were taken including the index of item-objective congruence (IOC) method, a try out process, non-response bias analysis, Cronbach's alpha, descriptive statistics such as the skewness and kurtosis method, correlation, exploratory factor analysis, and confirmation factor analysis. The questionnaires were directly distributed to the department manager, general manager, and leaders who were in the top level of the management team in automotive parts manufacturing. They were the key respondents and were approached via a mailed survey. The questionnaires were directly distributed to automotive parts manufacturing in Thailand; the number of successful mailings was 605, and 11 mailing were undelivered caused by changes of address or due to business closure. After eight weeks, a total of 241 responses were received. Six of the returned surveys were removed because they were incomplete. Finally, 235 questionnaires were usable. The effective response rate was approximately 38.15 percent. For statistical analysis, this research tested all the statistical assumptions included exploratory factor analysis (EFA), confirmatory factor analysis (CFA) and used the structural equation model (SEM) to analyze the data and for hypotheses testing. It can be concluded that most of the hypotheses tested were partially supported. The results of each hypothesis, according to each specific research question, are described as follows:

The validity and reliability tests were used to develop the dimensions of EL including personal competency, managerial competency, proactive competency, technological competency to value creation and business performance. The result showed that the four dimensions all have items that fit with EL characteristics.

First, personal competency had six items, and all the items can measure the first EL dimension. The usefulness of these items was confirmed by validity and reliability testing.

Second, managerial competency had seventeen items. If each item showed a fit in the context of validity and reliability, then these managerial competency items were retained in the EL construct.

Third, proactive competency consisted of nine items. Validity and reliability measures were applied and those showing item fit were retained in this EL construct.

Lastly, technological competency comprised ten items which were subjected to validity and reliability. Retained items were able to measure the technological competency as one dimension of EL.

The four dimensions of the EL construct were tested for validity and reliability in order to show that the data collected was consistent with the basic assumptions of the statistical method. The validity and reliability results showed some of the items in the EL dimensions needed to be reduced. For example, personal competency deleted two items and four items remained, managerial competency deleted five items and twelve items remained, proactive competency cut three items leaving six items and technological competency eliminated three items leaving seven items. In addition, in the conceptual model, two moderator variables were considered. These variables were organizational climate (ten items) and organizational learning (thirteen items). Here only one mediator variable was involved, namely, value creation (ten items) and one dependent variable was considered, that is, business performance (six items). All of the variables were measured by validity and reliability testing and this resulted in some items being eliminated from each variable. In conclusion, the organizational climate variable retained all items, organizational learning was reduced leaving seven items, value creation retained five items and business performance deleted only one item leaving five items. In order to be assured that all the data collected from respondents complied with the assumptions of the SEM method, the researchers introduced many confirmatory steps before using the data to answer the research objectives and questions.

First, the research objective was to examine the effect of EL dimensions (personal competency, managerial competency, proactive competency, technological competency) on value creation. The result showed all the dimensions fitted and were consistent with the EL construct in terms of value creation. The four dimensions mentioned showed consistency and measurability. Moreover, the four dimensions of EL (personal competency, managerial competency, proactive competency, and technological competency) exerted a positive effect on valuing creation and business performance. It is possible that managerial competency and technological competency exercise the highest effect in automotive parts factories while personal competency and proactive competency also influence these businesses. The empirical result showed the effect of entrepreneurial leaders in the automotive parts business in the context of technological competency and material competency. Both competencies can improve and develop competitive advantages in the automotive parts manufacturer delivering high performance. In summary, the first research objective successfully confirmed that the four dimensions of EL were positively related to value creation.

Second, the research objective was to investigate the effect of value creation construct on business performance. The findings showed a strongly significant effect between value creation and business performance. This confirmed that value creation in an organization can be sources of performance. This infers that leaders who want to improve performance should place emphasis in value creation activities because these activities engaged in by employees do lead to performance improvement in businesses.

Third, the research objective was to examine the effect of EL dimensions (personal competency, managerial competency, proactive competency, technological competency) on business performance. The results showed that the conceptual framework model was consistent with the empirical data when all of path analysis assumptions were considered. However, the findings showed strong effects from only one dimension of EL on business performance, namely, managerial competency. No significant effect was shown by the dimensions of personal competency, proactive competency and technological competency. Interestingly, personal competency, proactive competency and technological competency are not related to business performance. These findings indicate that a leader who possesses the appropriate of managerial competencies tends to create high performance in a business. This result implies that leaders in automotive parts manufacturing businesses who have only managerial competency can create credible business performance but if leaders have personal competency, proactive competency and technological competency they may be unable to produce a satisfactory business performance. In other words, leaders should integrating another competency with managerial competency in order to enable them to create a good business performance. In conclusion, the results in this

research objective indicated that the four dimensions of EL are positively related to business performance in only one dimension, namely, managerial competency. It significantly affected business performance.

Fourth, the research objective was to explore the moderating effect of organizational climate among the four dimensions of EL (personal competency, managerial competency, proactive competency, a technological competency) and value creation. The results showed that managerial competency was the one dimension that interacted with organizational climate. It exerted a negative effect on value creation whereas personal competency showed a negative effect but showed no signs to value creation. On another hand, proactive competency and the technological dimension showed positive effects, but were not significant to value creation. Surprisingly, these results can be interpreted to mean that an entrepreneurial leader who has personal competency, managerial competency, proactive competency and managerial competency has sufficient skill to create value without integrating another construct such as organizational climate. If leaders in automotive parts businesses need to encourage a different climate in the organization, they might be aware that this construct displayed a negative influence on value creation. Moreover, these results imply that, in the context of leaders who want to develop and improve their capabilities of EL, leaders with the four abilities of personal competency, managerial competency, proactive competency and technological competency have sufficient resources to create more value and performance in the business.

Finally, the last research objective was to determine the moderating effect of organizational learning among the four dimensions of EL (personal competency, managerial competency, proactive competency, a technological competency) and value creation. The results indicated that only one dimension of EL, managerial competency, might strongly affect value creation. Personal competency, proactive competency and technological competency were not effective. The empirical result confirmed that leaders who possess personal competency, proactive competency, and technological competency and brought these three competencies and integrated them with organizational learning failed to influence value creation. However, leaders who held managerial competency could combine this with organizational learning as a highly effective tool in value creation.

In the case of moderating roles, the results also showed both positive and negative effects between the four dimensions of EL and value creation on business performance. Value creation was moderated by organizational learning between the dimensions of EL. This result can be interpreted to indicate that leaders in automotive parts businesses should be careful in decisions to bring factors from this conceptual model and apply them to their business in order to create value and business performance. The results are summarized in Table 32.

Research Questions	Hypoth <mark>eses</mark>	Results	Conclusions
1. How does each	H1a – H <mark>1d</mark>	EL dimensions	Partially
dimension of EL		including personal	supported
(personal competency,		competency, managerial	
managerial competency,		competency, proactive	
proactive competency,		competency,	
technological		technological	
competency) influence		competency have effect	
value creation?		on value creation	
2. How does the value	H2	Value creation has	Supported
creation variable affect		effect on business	
business performance?		performance	
3. How does each	H3a – H3d	EL dimensions	Supported
dimension of EL		including personal	
(personal competency,		competency, managerial	
managerial competency,		competency, proactive	
proactive competency,	าญ ส์	competency,	
technological	· · ·	technological	
competency) affect		competency effects on	
business performance?		business performance.	

Table 32: Summary of Results for Research Questions and Hypothesis Testing

Research Questions	Hypotheses	Results	Conclusions
4. How do the four	H4a – H4d	One dimension is	Not supported
dimensions of EL,		managerial	
when moderated by		competency of EL that	
organizational climate,		moderated by	
affect value creation?		organizational learning	
		are negatively effect to	
	X	value creation while	
		three dimensions of EL	
		that moderated by	
		organizational learning	
		not effected to value	
		creation	
5. How do the four	H5a - H5d	One dimension is	Not supported
dimensions of EL,		managerial	
when moderated by		competency of EL that	
organizational learning,		moderated by	
affect value creation?		organizational learning	
		are strongly effect to	
		value creation while	
		three dimensions of EL	
9110		that moderated by	
1911		organizational learning	0
0-0	ปกเล	not effected to value	
		creation	

Theoretical and Managerial Contributions

Theoretical Contributions

This research attempted to expand understandings of the interactions between dimensions of EL and value creation and business performance, its new dimensions and the moderators involved. It can be stated that this research provides four unique theoretical contributions.

First, from the perspective of broader entrepreneurial leadership theory, this study has shown that there is a new application of the recently developed EL model in the new century setting. This extends the research, which has up until this time been predominantly based on several characteristics of leadership such as transformational leadership, transactional leadership, autocratic leadership, laissez-faire leadership, etc. This research also confirms that the characteristics of EL are not restricted to small and medium businesses, new venture businesses or start-up businesses, in which the original research was conducted. EL is also practiced in automotive parts manufacturing businesses where responses for this research were obtained.

The identification of four dimensions to EL provides new insights into theories of EL. Entrepreneurial leadership, which up until this time has not been a major part of the literature on leadership, was found to be an important aspect of this study. It could be viewed as a possible extension to the technological competency dimension of EL. A synergy between scholarly work and experience-based work, such as are discussed in the studies of Gartner (1990), Gupta and colleagues (2004), Fernald and friends (2005), Kuratko (2007) and Renko and associates (2015), may foster understanding of this leadership style and could be of benefit to the further development of the EL theory. Therefore, to some extent, EL could be viewed as an aspect of effective leadership that should be explored further in EL research. Special attention might be given to technological competency, from which it is derived, as an important aspect of ELs effectiveness.

One dimension of EL is technological competency. It represents a new dimension developed in this research to clarify previous works reported in the literature and will be useful for further research. According to prior research, a holistic framework and empirical study of EL concepts is lacking. This particular applies to the study in leader characteristic that current leaders must possess as they are impacted by technology's disrupting effects on automotive parts manufacturing businesses. Therefore, this research has extended the technological competency dimension of EL and confirmed the outcome from empirical evidence collected from automotive parts businesses in Thailand. Consequently, it provides an essential theoretical insight which arises from the effects noted among each dimension of EL and their outcomes. It also provides a fundamental theoretical insight which grows from the effect of the technological competency dimension. This dimension of EL showed that it effects value creation and business performance. Moreover, the results showed that the right dimension of EL can be used to measure the likely gains in value creation and business performance. The findings confirm that four dimensions of EL can lead to high-value production and business performance.

Second, the effect observed among the dimensions of EL, its consequences, antecedents, and the moderating influence of organizational climate and learning have been empirically investigated through quantitative testing from data collected from automotive parts manufacturing businesses in Thailand. Most past research has proposed these as exclusively conceptual relationships. Also, this research expanded previous knowledge and literature of EL dimensions dealing with automotive parts manufacturing in Thailand. Moreover, the scales used in the dimensions of EL are new scales that have adapted from the prior literature review. These scales were verified and displayed a high level of validity and reliability. Consequently, these items scale could be applied in various future studies. Additionally, the moderating effect of organizational climate does not affect each dimension of EL the same. Organizational climate does not affect each dimension of EL the same. Organizational climate does not affect each dimension of EL the same. by the contingency theory of leadership.

Third, another dimension that emerged in this study, such as value creation, is clearer in the existing dynamic capability theory context. Value creation is often discussed as a knowledge-based concept and is closely aligned with the element of transformation leadership. Traditional value creation, comprised of two distinct concepts (1) customer value and (2) business value, is like value creation in entrepreneurial marketing. This study showed strong evidence on how the leaders should approach value creation, such as using EL competencies to gain more benefits for all people in businesses. Hence, this research showed the effect of four dimensions of EL as mediate by value creation in the pursuit of business performance. The research outcomes arose through quantitative testing following collection of data from automotive parts manufacturing businesses in Thailand. Besides, this research also expanded previous knowledge and literature relating to the EL dimensions found in automotive parts manufacturing in Thailand.

Finally, regarding the contingency and dynamic capability theory, the results from this research confirmed the contingency and dynamic capability theory and supported the overall effects of the variables in this model. From the dynamic capability theory aspect, value creation is a factor that creates value in businesses and allows them to achieve superior performance. In the automotive parts manufacturing business in Thailand this comes about by modifying capability for the future. Improvement is on account of Government pressures to change the business context to a technological advancement perspective. This should deliver business performance benefits to the business in that the transition is from a labor-intensive process to one demanding high technological skill. Thus, dynamic capability can support and explain the effects of each dimension of EL in this research model, which has been newly developed (technological and value creation) to produce value and business performance. The dynamic capability theory potentially supports these effects. Also, the effects of the four dimensions (personal competency, managerial competency, proactive competency, and technological competency) are EL characteristics confirmed to the EL theory and contingency theory of leadership. Additionally, the moderating variables, organizational climate and organizational learning, also can affect EL in opposite directions so that both positive and negative effects are observed on some of EL dimensions. Therefore, these results are also supported by the ณ สุโต contingency theory.

Managerial Contributions

The research provides useful contributions and has implications for executives, top managers, department managers, department directors, supervisors and all the managers. They should encourage the adoption of EL characteristics into the business. EL competency is a core competency for creating higher added value, business profitability, and performance through their ability, including personal competency, managerial competency, proactive competency, and technological competency.

Leaders in automotive parts businesses should possess EL characteristics. Such leaders, who work in challenging business, can create an innovative atmosphere and higher performance by creating new values or modifying internal process through employee behaviors. Consequently, possession of EL characteristics, in the context of technological competency, is one of the most critical dimensions for creating superior performance. This is especially true with the high technology firms that must cope with technology changes. Businesses need to have many tools for creating more value or modifying business processes.

In the context of the automotive parts manufacturing sector, it has been subjected to continual development, has more complexity in the market compared to many other businesses, must cope with the new policies arising from Government, together with environmental uncertainty and fierce competition. Thus, leaders in automotive parts businesses should have different skills compared with other business leaders included core competencies to conducts business activities. Moreover, the leader in an automotive parts business needs to move up to the next level of operation. They need to contend with changing existing industrial structures, to focus on new areas that emphasize research and development and advanced technology in the production process to facilitate business, and to exploit new opportunities for enhancing a new process to produce more value to partner and stakeholders.

Moreover, all leaders in automotive parts businesses must enable the employee to develop a higher level of skill and capability by intensively use of information technology along with advanced technology in both management and production process to create high value as automotive parts to both customers and OEM and REM markets. EL characteristics suitably describe leaders who conduct businesses under the context of Thailand 4.0. Entrepreneurial leaders have the potential to support business to survive because they have several fundamentally competencies permitting them to struggle with competitors. They are able to optimize risk, innovate to take advantage of opportunities, take personal responsibility and manage change within the dynamic environment to create value and business performance. In addition, the implementations of EL competency include developing the ability in employees to self-generate, self-reflect and self-correct in their organization.

Within the context of managerial contribution, the outcomes of this study provide forward insights into the areas of focus so as to improve automotive parts manufacturer's performance and lead to sustainability. Hence, it appears crucial to promote entrepreneurial leadership and to enhance employees through changes in business conditions. A step forward in increasing business competitiveness has been through changing the country policy in Thailand. In general, the outcomes retrieved from this study can be applied to other types of business include the high technology industry, where leaders represent the core competency of business and where entrepreneurial leadership might have a significant impact on the performance of the businesses.

Further, the result of this research indicates that leaders are the most critical people for enhancing value creation, innovativeness, and business performance. Thus, executives or leaders should pay more attention to entrepreneurial activities such as assembling a committed team, communicating without limitations, making the business mission statement clear, revealing a true genuine leadership, identifying all the barriers in the workplace, a building a flexible work environment. To provide the right direction, leaders might commence by acknowledging people' talent and giving appropriate credit and motivating all of the employees who do an excellent job.

Also, top management and executives must pay attention to leader characteristics, and capabilities that support business for success. A leadership style is required that integrates both art and science skills, including psychological competency and physical competency. Psychological competent leaders demonstrate several qualities: (1) self-confidence, such leaders may be more likely to attempt to influence, to try more challenging tasks, (2) desire to improve, understand own strengths and weaknesses, show self-objectivity, (3) emotional intelligence is involved to the extent to which a person is attuned to his or her feelings and the feelings of others, (4) self-awareness, empathy, and self-regulation expressed, (5) no tendency to dwell on mistakes and instead view these events as opportunities to learn and move on, (6) demonstrate courage and are not paralyzed by fear of failure, (7) knows self by deeply understanding of one's emotions, strengths, weaknesses, needs, and drives, (8) loves expressed in what he/she does and loves doing it, (9) risk takers and are confident in taking risks, handling adverse reactions to reach an outcome and (10) encourages and engages opposing viewpoints and ideas, and not threatened by them. On another hand, the physical traits of an EL consist of the ability to communicate, ability to articulate a vision and persuade others, have and communication purpose (clear direction and meaning), have clear goals and determination to achieve them and communicates passion to all employees. Additionally, the result of this research indicates that a climate and learning process in the workplace can subsidize successfully the EL style to create more value and performance. Importantly, leaders should be careful in the introduction of a new organizational climate and advanced learning demands in their business because these factors can reduce value creation and performance.

Finally, leaders in automotive parts companies should pursue and respond to new opportunities within the globalization context that is disrupted by technological change. However, another result arising from an investigation of the four dimensions of EL in this research has indicated their influence on businesses performance. The four dimensions of EL (personal competency, managerial competency, proactive competency, and technological competency) can be utilized to improve business performance. Leaders who want to apply organizational learning along with EL to facilitate greater value creation might be encouraged. This variable, when strongly supported, will lead to gains in value creation. On the other hand, leaders should be careful when thinking of applying and integrating organizational climate into their businesses.

Limitations and Future Research Directions

Limitations

In this research, some limitations are provided as follows: First, the results of this analyzed research came from a single population as the automotive parts manufacturing businesses in Thailand not whole automotive industries. It might be insufficient to allow the generalizing of findings of this research should be study in whole automotive industries or other populations such as the high-technology sector might measure the technological competency to high validity and reliability. Moreover, this research is a first study in automotive parts manufacturing and in Thailand context. Thus, these items need to retested and restudied in other populations and samples for the generalizability of results.

Secondly, in this study encounters a low response rate (approximately 38.15%) due to a limited period of data collection. The data collection procedure and the follow-up process took approximately a month. As a result, the response rate emerges as a primary concern for this research. Even though, this study had attempted to increase the response rate as much as possible for reliability and validity of findings. Consequently, generalizability of the results beyond the scope of this study may be made limitedly.

Thirdly, the findings from this research in full path analysis (SEM) showed that some results of moderator variables were inconsistent to the previous studies. Therefore, these moderator variables (e.g. organizational climate, organizational learning) may have to be re-tested with other populations and samples to confirm the result of this study.

Fourth, the explanation and understanding of the moderating variables and their effects are still limited. The researchers may have to examine other moderators, which impact the operation in automotive parts manufacturing businesses for the better conceptual framework and fit to the context of ASEAN country of Thailand.

Finally, this research used some items developed from prior definitions in order to measure the dimension of EL and used the quantitative method to measure the results. The study might be used the qualitative research methods such as in-depth interview, focus group, or case study along with quantitative method to confirm the results of this study and attain clearer picture of EL in this sector.

Future Research Directions

According to the limitations, some suggestions for further research are provided as follows: First, future research should study other populations that are dissimilar in both characteristics and types of leadership such as computer equipment (software) manufacturing industry or electrical equipment manufacturing businesses, in order to comparing results with this research, and to increase both the research generalizability and credibility.

Secondly, future research might apply other research methodologies to investigate the conceptual framework of EL characteristic, value creation, and business performance. For instance, quantitative in-depth interviews or focus groups with executives and top manager may reflect another aspect and the reality of circumstances of the relationship of EL to value creation and business performance in Thailand. This qualitative methodology will extend the understanding of EL to a new dimension that is consistent with current leadership skills they should be confirmed new item to entirely measurement.

Finally, further research should investigate other moderating variables associated with EL characteristics and business performance. Gupta and associates (2004) and Renko and colleagues (2015) stated that EL characteristic demonstrated several competencies and later they developed and validated the construct of EL but their research audience lacked of some skills and capability that very important in the current situation. Therefore, new dimensions of EL that are mentioned in this study should be the highest priority is assessing their contribution to EL styles.



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โต ชีเว

พหูน ปณุส



APPENDIX A Cover Letter and Questionnaire: English Version



Questionnaire to the Ph.D. Dissertation Research "The Effect of Entrepreneurial Leadership on Value Creation and Performance of Small and Medium-sized Automotive Parts Businesses in Thailand"

Dear Sir,

This research is a part of doctoral dissertation of Mrs. Wanlee Putsom at the Mahasarakham Business School, Mahasarakham University, Thailand. The objective of this research is to examine automotive parts manufacturers of food in Thailand. The questionnaire is divided into 7 parts

Part 1: Demographic data of informant

- Part 2: General information of automotive parts manufacturers,
- **Part 3**: Opinion on factors that affect entrepreneurial leadership of automotive parts manufacturers in Thailand,

Part 4: Opinion on entrepreneurial leadership of automotive parts manufacturers in

Thailand,

Part 5: Opinion on value creation of automotive parts manufacturers in Thailand,

- **Part 6**: Opinion on external environmental operation of automotive industry in Thailand,
- Part 7: Opinion on business performance of automotive parts manufacturers in Thailand,

Your answer will be kept as confidentiality and your information will not be shared with any outsider party without your permission.

Do you want a summary of the results?

□ Yes, e-mail..... □ No

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If you want a summary of this research, please indicate your E-mail address or attach your business card with this questionnaire. The summary will be mailed to you as soon as the analysis is completed.

Thank you for your time answering all the questions. I have no doubt that your answer will provide valuable information for academic advancement. If you have any questions with respect to this research, please contact me directly. Cell phone: 086-129-2524 E-mail: Wanlee@apiu.edu

Sincerely yours,

(Wanlee Putsom) Ph. D. Student Mahasarakham Business School Mahasarakham University, Thailand

Part 1 Demographic data of informant

1. Gender

() Male

2. Age

() Less than 30 years old () 41 – 50 years old

3. Education background

() Bachelor's degree or lower

degree

4. Working experiences in this business

() Less than 5 years

() 11 - 15 years

5. Average monthly income at present

() Less than 50,000 Baht

) 100,001 – 150,0<mark>00 Bah</mark>t

6. Working position at present

) Division/Department Manager () General Manager

) Supervisor

() Female

() 30 – 40 years old

() More than 50 years old

() Higher than bachelor's

() 5 - 10 years

- () More than 15 years
- () 50,000 100,000 Baht
- () More than 150,000 Baht

() Other (Please specify)

() Other (Please specify).....

Part 2 General information of automotive parts manufacturers

1. Form of business

() Public Company

() Limited partnership

2. Registered operational capital

() Less than 5,000,000 Baht () 5,000,000 – 20,000,000 Baht

() More than 20,000,000 Baht

3. Number of employees in the business

() Less than 50 employees

() More than 200 employees

4. Period of time in operation

- () Less than 5 years
- () 11 15 years

- () 5 10 years
- () More than 15 years

- - (9) 50 200 employees

() Limited Company

- 5. Average business revenue per year
 - () Less than 5,000,000 Baht () 5,000,000 – 25,000,000 Baht
 - () 25,000,000 45,000,000 Baht

6. Locations of business

- () Bangkok
- () Central region

() Northern region () North-Eastern region

() More than 45,000,000 Baht

() Southern region () Eastern region

Part 3 Opinion on factors that affect EL of automotive parts manufacturers in Thailand

	Levels of agreement				
Entrepreneurial leadership	Strongly a <mark>gree</mark>	Agree	Neutral	Disagree	Strongly Disagree
Personal competency					
1. I think about the choices that					
exist clearly, correctly, and	5	4	3	2	1
efficiently, before I take any					
action					
2. I think about the possible					
consequences of each	5	4	3	2	1
alternative					
3. Past experience is one of the					
important factors helping to	5	Δ	3	2	1
make a successful decision	5	T	5	2	1
making					
4. I always reward myself after I	5	4	3	2	1
achieve my operating goals			5	_	-
5. Interaction with stakeholders					
of my organization	5	4	3	2	1
continuously improve my					
operations					
6. I clearly see the image of my					
organization in the next 10	- 5	4	3	2	1
years			5	60	
Managerial competency		50	a -		
1. Properly assessing my	ົ່ງເຄັ	N 61			
employees' potential and	5	4	3	2	1
performance can be considered					
as a success factor for my					
operations					

	Levels of agreement					
Entrepreneurial leadership	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree	
2. Organization cannot achieve the performance of the organization if it lacks of my ability to operate	5	4	3	2	1	
3. Normally, I provide guidelines and ways of working to my subordinates effectively	5	4	3	2	1	
4. Planning correctly and covering all issues leading my organization to success	5	4	3	2	1	
5. I establish priorities, visualizes all possible changes required to meet future requirements	5	4	3	2	1	
6. I effectively coordinate the activities of own staff and colleagues to achieve common goals	5	4	3	2	1	
7. I prudently allocate decision- making to others	5	4	3	2	1	
8. I effectively monitor and evaluate the results of delegated assignments or projects. Provides appropriate feedback	5	4	3	2	1	
9. I develop the skills and competences of subordinates through training and development activities related to current and future jobs	5	4	3	2	1	
10. I make effective use of organization's time and other resources	5	4	3	2	1	
11. In my unit, documents are systematically organized and data is stored and retrieved efficiently	1 45 6		3	2	1	
12. Lifelong learning is what I promote with employees in my organization and to myself	5	4	3	2	1	

Part 3 Opinion on factors that affect EL of automotive parts manufacturers in Thailand (continued)

	Levels of agreement				
Entrepreneurial leadership	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
13. My subordinates always					
obey and follow my	5	4	3	2	1
instructions and support					
14. My organizational structure					
is conducive to my operation	5	4	3	2	1
efficiently					
15. The wrong communication					
between I and the person	5	4	3	2	1
involved does not happen at all					
16. Although sometimes the					
task is to be modified several			2	2	1
times, my subordinates accept	5	4	3	2	1
my order					
17. In some cases, my					
subordinates are unlikely to					
perform as planned. I will	5	4	3	2	1
always help my subordinates to			U	_	-
do their job successfully					
Proactive competency					
1 Lam constantly on the					
lookout for new ways to	5	4	3	2	1
improve my work					
2 Wherever I have been I have					
been a powerful force for	5	4	3	2	1
constructive change	5		5	2	1
3 I have the creative thinking					
to succeed	5	4	3	2	1
A L have the ability to					
recognize the situations in a					
timely manner and can handle	5	4	3	2	1
those situations	BEN 7				
5 I always wish to seek better					
yeave of working to make my	5	1	36	20	1
operation success	5	50			1
6. If Lam graative and likely to					
succeed in the future. I will	4 %				
fight and pursue that idea	5	1	3	2	1
although it has been resisted	5	4	5	۷	1
and disliked by others					
7 Level at identifying					
opportunities	5	4	3	2	1
opportunities					

<u>Part 3</u> Opinion on factors that affect EL of automotive parts manufacturers in Thailand (continued)

	Levels of agreement				
Entrepreneurial leadership	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
8. I have the ability to predict	5	4	3	2	1
what will happen in the future	5	+	5	2	1
9. If I believe in an idea, no					
obstacle will prevent me from	5	4	3	2	1
making it happen					
10. I can spot a good					
opportunity long before others	5	4	3	2	1
can					
Technological competency					
1. I am knowledgeable when it	5	4	3	2	1
comes to computer-based-					_
systems					
2. I have the knowledge to					
develop and maintain	_	4	2	2	1
computer-based	5	4	3	2	1
communication links with our					
2. Library a library discharged in farmation					
3. I have collected information					
about my customers infougn	5	4	3	2	1
work in my organization					
4. The use of computer systems					
4. The use of computer systems					
marketing information about					
marketing information about	5	4	3	2	1
for the organization's					
operations					
5 The computer system Luse					
has access to external					
marketing resources that are	5	4	3	2	1
critical to my organization's					
decision					
6. I use computer-based system			6	60	
to analyze customer and market	5	4 (3	2	1
information	ີງ ຄໍ	V P.			
7. Computer decision support					
system is used to manage	F	4	2	2	1
customer information and other	5	4	5	2	
information					
8. I can effectively store and	5	Λ	2	n	1
process customer information	3	4	3	Z	

<u>Part 3</u> Opinion on factors that affect EL of automotive parts manufacturers in Thailand (continued)

<u>Part 3</u> Opinion on factors that affect EL of automotive parts manufacturers in Thailand (continued)

		Lev	Levels of agreement		
Entrepreneurial leadership	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
9. My organization allocates a budget for purchasing new computer systems and information technology properly and sufficiently	5	4	3	2	1
10. I create customized software applications when the need arises for my firm	5	4	3	2	1

Part 4 Opinion on organizational climate of automotive parts manufactures in Thailand

	Levels of agreement				
Organizational climate	St <mark>rongl</mark> y agree	Agree	Neutral	Disagree	Strongly Disagree
1. The followers in my					
business keep close ties with	5	4	3	2	1
each other					
2. The followers in my					
business consider other	5	4	3	2	1
members' standpoint highly					
3. The followers in my					
business have a strong feeling	5	4	3	2	1
of 'one team'					
4. The followers in my		K			
business cooperate well with	5	4	3	2	1
each other					
5. My business encourages					
suggesting ideas for new	5	4	3	2	1
opportunities					
6. My business puts much					
value on taking risks even if	-5	4	3	2	1
that turns out to be a failure			6		
7. The organization's working		50			
procedure represents a single	15 0	n b	3	2	1
standard and is recognized by	14500	Ŧ	5	2	1
all employees					
Part 4 Opinion on organizational	climate of automotive parts manufactures in				
----------------------------------	---				
Thailand (continued)					

	Levels of agreement							
Organizational climate	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree			
8. The performance appraisal								
from my supervisor is accurate								
and accepted by the	5	4	3	2	1			
subordinate that the results will								
be positive								
9. Every employee in my								
organization expresses shared								
responsibility regardless of	5	4	3	2	1			
whether the operation is								
successful or fails								
10. Employees who work in								
my organization can recognize	5	4	2	2	1			
and realize the same goal of	5	4	3	2	1			
working for success								

<u>Part 5</u> Opinion on organizational learning of automotive parts manufactures in Thailand

	Levels of agreement							
Organizational learning	Strongly agree 5	Agree 4	Neutral 3	Disagree 2	Strongly Disagree 1			
1. I show employees the pride and joy when they perform well and work together to achieve success	5	4	3	2	1			
2. I support employees when suggesting alternative perspectives	5	4	3	2	1			
3. I encourage employee learning and tolerate employee mistakes	5	4	3	2	1			
4. I trust the abilities and skills of my employees	5	4	39	620	1			
5. I make the company an atmosphere of learning that encourages employees to trust each other	4,5 Å	4	3	2	1			
6. I help and support employees to have continuous learning	5	4	3	2	1			

	Levels of agreement								
Organizational learning	Strongly agree 5	Agree 4	Neutral 3	Disagree 2	Strongly Disagree 1				
7. Teamwork enables									
employees to express their	5	4	3	2	1				
opinions and educate them									
8. Creating a good learning									
environment will allow my	5	1	3	2	1				
organization to innovate within	5	-	5	2	1				
the organization									
9. I support the continuous									
learning and it is an important	-5	4	3	2	1				
strategy for the organization									
10. My employees are									
constantly exchanging	5	4	3	2	1				
information throughout the	5		5	2	1				
organization									
11. My employees are working									
repetitively (Routine), resulting	5	4	3	2	1				
in specialized expertise									
12. The new knowledge of									
employee or subordinate arises	_				_				
from repetitive work and	5	4	3	2	1				
through interaction with people									
both inside and outside									
13. The key values of									
employees in my organization					1				
are the love of learning and the	5	4	3	2	1				
mutual learning of employees									
in the organization									

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<u>Part 5</u> Opinion on organizational learning of automotive parts manufactures in Thailand (continued)

		Lev	els of agree	ment	
Value creation	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
1. The price of my product makes the customers believe that they receive better and more useful	5	4	3	2	1
2. I take a strategy to reduce the price, keeping the original price, and giving something extra than a competitor	5	4	3	2	1
3. I use image development, branding, trust and customer loyalty strategies to create value and sustainability for my company	5	4	3	2	1
4. I make it convenient for customers to buy and pay, which is part of value creation	5	4	3	2	1
5. You focus on delivering products that easy for customers to understand and use	5	4	3	2	1
6. My business makes and keeps realistic promises on service, quality and delivery	5	4	3	2	1
7. Utilizing resources to create value for my organization follows the plan and goals set properly to bring the organization to the development	5	4	3	2	1
8. My business develops and encourages effective decision making practices by employees	5	4	3	2	1
9. My business develops organizational core competencies by investing time and money on key functions that focus on growth and success in the long run	5		3	2	1
10. My organization adds value by building capability within the organization and focus on keeping employee's reputation and well performance	ι, «Λ	4	3	2	1

Part 6 Opinion on value creation of automotive parts manufactures in Thailand

<u>Part 7</u> Opinion on business performance of automotive parts manufactures in Thailand

Levels of agreement								
Business performance	Very Satisfied	Satisfied	Neither Satisfied nor Dissatisfied	Dissatisfied	Very Dissatisfied			
How satisfied are you with the company's achievement of this goal?								
1. Return on investment	5	4	3	2	1			
2. Return on equity	5	4	3	2	1			
3. Return on assets	5	4	3	2	1			
4. Net profit margin	5	4	3	2	1			
5. Sale growth	5	4	3	2	1			
6. Growth in the number of employees	5	4	3	2	1			

Opinion and suggestions in operational of automotive parts manufactures in Thailand

	 <mark></mark>	
M9.	e	12
	609	16

Thank you very much for taking time to complete this questionnaire. Please fold the questionnaire, enclose it in the envelope provided, and return to the specific address.

APPENDIX B

Cover Letters and Questionnaire: Thai Version





ที่ ศธ 0530.10/ 441

คณะการบัญชีและการจัดการ มหาวิทยาลัยมหาสารคาม ตำบลขามเรียง อำเภอกันทรวิชัย จังหวัดมหาสารคาม 44150

27 สิงหาคม 2561

เรื่อง ขอความอนุเคราะห์กรอกแบบสอบถาม

เรียน ผู้บริหารฝ่ายการตลาด/ผู้บริหารฝ่ายผลิต/ผู้บริหารฝ่ายทรัพยากรมนุษย์/ผู้จัดการทั่วไป

ด้วย นางวัลลี พุทโสม รหัสนิสิต 58010961006 นิสิตระดับปริญญาเอก หลักสูตร ปรัชญาดุษฏีบัณฑิต (ปร.ด.) สาขาวิชาการจัดการ คณะการบัญชีและการจัดการ มหาวิทยาลัยมหาสารคาม กำลังศึกษาวิทยานิพนธ์ เรื่อง "ผลกระทบของภาวะผู้นำแบบการประกอบการที่มีต่อการสร้างคุณค่าและ ผลการดำเนินงานของผู้ผลิตชิ้นส่วนยานยนต์ในประเทศไทย" ซึ่งเป็นส่วนหนึ่งของการทำวิทยานิพนธ์หลักสูตร ปรัชญาดุษฏีบัณฑิต (ปร.ด.) และการศึกษาในครั้งนี้ได้เน้นให้นิสิตศึกษาข้อมูลด้วยตนเอง ดังนั้น เพื่อให้การจัดทำ วิทยานิพนธ์เป็นไปด้วยความเรียบร้อยและบรรลุวัตถุประสงค์ คณะการบัญชีและการจัดการ มหาวิทยาลัยมหาสารคาม จึงใคร่ขออนุญาตให้ นางวัลลี พุทโสม ศึกษาและเก็บรวบรวมในรายละเอียด ตามแบบสอบถามที่แนบมาพร้อมนี้

คณะการบัญชีและการจัดการ มหาวิทยาลัยมหาสารคาม หวังเป็นอย่างยิ่งว่าคงได้รับความอนุเคราะห์ จากท่านในการให้ข้อมูลในครั้งนี้เป็นอย่างยิ่ง และขอขอบคุณมา ณ โอกาสนี้

ขอแสดงความนับถือ

Rimer Samesful

(ผู้ช่วยศาสตราจารย์ ดร.นิติพงษ์ ส่งศรีโรจน์) คณบดีคณะการบัญชีและการจัดการ มหาวิทยาลัยมหาสารคาม

งานวิชาการระดับบัณฑิตศึกษา คณะการบัญซีและการจัดการ มหาวิทยาลัยมหาสารคาม โทรศัพท์ 0-4375-4333 ต่อ 3431 โทรสาร 0-4375-4422

แบบสอบถามเพื่อการวิจัย

เรื่อง "ผลกระทบของภาวะผู้นำแบบการประกอบการที่มีต่อการสร้างคุณค่าและผลการดำเนินงานของ ผู้ผลิตชิ้นส่วนยานยนต์ในประเทศไทย"

คำชี้แจง

้โครงการวิจัยนี้มีวัตถุประสงค์เพื่อศึกษ<mark>าวิ</mark>จัยเรื่อง"ผลกระทบของภาวะผู้นำแบบการประกอบการที่ ้มีต่อการสร้างคุณค่าและผลการดำเนินงานของผู้ผ<mark>ลิต</mark>ชิ้นส่วนยานยนต์ในประเทศไทย" เพื่อใช้เป็นข้อมูลในการ ้จัดทำวิทยานิพนธ์ในระดับปริญญาเอกของผู้วิจัยใ<mark>นห</mark>ลักสูตรปรัชญาดุษภูบัณฑิต สาขาวิชาการจัดการ คณะ การบัญชีและการจัดการ มหาวิทยาลัยมหาสารคา<mark>ม</mark> โทรศัพท์ 043-754333

้ ข้าพเจ้าใคร่ขอความอนุเคราะห์จากท่านผู้ต<mark>อ</mark>บแบบสอบถามได้โปรดตอบแบบสอบถามชุดนี้ โดย รายละเอียดของแบบสอบถามประกอบด้วยส่วนคำถาม 7 ตอน ดังนี้

ตอนที่ 1 ข้อมูลทั่วไปของผู้ตอบแบบสอ<mark>บถาม</mark>

ตอนที่ 2 ข้อมูลทั่วไปของธุรกิจชิ้นส่วนย<mark>านยนต์</mark>

ตอนที่ 3 ความคิดเห็นเกี่ยวกับภาวะผู้น<mark>ำแบบก</mark>ารประกอบการของผู้ผลิตชิ้นส่วนยานยนต์

ตอนที่ 4 ความคิดเห็นเกี่ยวกับบรรยาก<mark>าศภายใน</mark>องค์การของผู้ผลิตชิ้นส่วนยานยนต์

ตอนที่ 5 ความคิดเห็นเกี่ยวกับการเรีย<mark>นรู้ภายใน</mark>องค์การของผู้ผลิตชิ้นส่วนยานยนต์

ตอนที่ 6 ความคิดเห็นเกี่ยวกับการสร้างคุณค่าของผู้ผลิตชิ้นส่วนยานยนต์

ตอนที่ 7 ความพึงพอใจเกี่ยวกั<mark>บผลการดำเนินงานของผู้ผล</mark>ิตชิ้นส่วนยานยนต์

้คำตอบของท่านจะถูกเก็บรักษาเป็นความลับ และจะไม่มีการใช้ข้อมูลใดๆ ที่เปิดเผยเกี่ยวกับตัวท่าน ใน การรายงานข้อมูล รวมทั้งจะไม่มีการร่วมใช้ข้อมูลดังกล่าวกับบุคคลภายนอกอื่นใดโดยไม่ได้รับอนุญาต จากท่านท่านต้องการรายงานสรุปผลการวิจัยหรือไม่

) ต้องการ E - mail () ไม่ต้องการ

หากท่านต้องการรายงานสรุปผลการวิจัย โปรดระบุ E-mail Address หรือแนบนามบัตรของท่าน ผู้วิจัยขอขอบพระคุณที่ท่านได้กรุณาเสียสละเวลาในการให้ข้อมูลที่เป็นประโยชน์อย่างยิ่งต่อการวิจัยในครั้งนี้ มา ณ โอกาสนี้ หากท่านมีข้อสงสัยประการใดเกี่ยวกับแบบสอบถาม โปรดติดต่อผู้วิจัย นางวัลลี พุทโสม โทรศัพท์เคลื่อนที่ 086-129-2524 หรือ E – mail: wanlee@apiu.edu 64

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(นางวัลลี พุทโสม) นิสิตปริญญาเอก สาขาวิชาการจัดการ คณะการบัญชีและการจัดการ มหาวิทยาลัยมหาสารคาม

1. เพศ 🗌 ซาย 🗌 หญิง 2. อายุ 🔲 น้อยกว่า 30 ปี 🗌 30 ปี ถึง 40 ปี □ 41 ปี ถึง 50 ปี 🗌 มากกว่า 50 ปี 3. ระดับการศึกษา 🔲 ปริญญาตรีหรือต่ำกว่า 🗌 สูงกว่าปริญญาตรี 4. ประสบการณ์ทำงานในธุรกิจนี้ 🔲 น้อยกว่า 5 ปี □ 5 ปี ถึง 10 ปี 🔲 11 ปี ถึง 15 ปี 🗌 มากกว่า 15 ปี 5. รายได้ต่อเดือนโดยเฉลี่ย 🔲 น้อยกว่า 50,000 บาท □ 50,000 บาท ถึง 100,000 บาท 🔲 100,001 บาท ถึง 150,000 บาท 🗌 มากกว่า 150,000 บาท 6. ตำแหน่งงานในปัจจุบัน 🗌 ผู้จัดการทั่วไป 🔲 ผู้บริหารระดั<mark>บฝ่าย/แผนก</mark> 🗌 อื่นๆ 🗋 หัวหน้างาน **ตอนที่ 2** ข้อมูลทั่วไปของธุรกิจชิ้นส่วนยาน<mark>ยนต์</mark> 1. รูปแบบของการดำเนินธุรกิจ 🗌 บริษัทจำกัด 🗌 บริษัทมหาชนจำกัด 🛛 ห้างหุ้นส่วนจำกัด 🗖 ອື່ນໆ..... 2. เงินลงทุนจดทะเบียน 🗖 5 ล้านบาท ถึง 20 ล้านบาท 🔲 น้อยกว่า 5 ล้านบาท 🔲 มากกว่า 20 ล้านบาท 3. จำนวนของพนักงานทั้งหมด 🗌 น้อยกว่า 50 คน 🗌 50 คน ถึง 200 คน 🗌 มากกว่า 200 คน

4. ระยะเวลาในการดำเนินธุรกิจ	
🗌 น้อยกว่า 5 ปี	🗌 5 ปี ถึง 10 ปี
🗌 11 ปี ถึง 15 ปี	🗌 มากกว่า 15 ปี
5. รายได้ของธุรกิจเฉลี่ยต่อปี	
🗌 น้อยกว่า 5,000,000 บา	ท 🔲 5,000,000 บาท ถึง 25,000,000 บาท
🛛 25,000,001 บาทถึง 45	,000,000 บาท 🛛 มากกว่า 45,000,000 บาท
6. ที่ตั้งของธุรกิจชิ้นส่วนยานยนต์	
🔲 กรุงเทพมหานคร	🗆 ภาคเหนือ
🔲 ภาคกลาง	🗌 ภาคตะวันออกเฉียงเหนือ
🗖 ภาคใต้	🔷 🗆 ภาคตะวันออก

ตอนที่ 3 ความคิดเห็นเกี่ยวกับภาวะผู้นำแบบการ<mark>ประกอ</mark>บการของผู้ผลิตชิ้นส่วนยานยนต์

ภาวะผ้นำแบบการประกอบการ		ระดับความคิดเห็น				
	เห็นด้วยอ	อย่างยิ่ง 🗲		ไม่เห็นด้วย	อย่างยิ่ง	
<u>ความสามารถส่วนบุคคล</u>						
1. ก่อนการตัดสินใจดำเนินธุรกิจ ทางเลือกต่างๆ ทุกทางเลือกเพื่อการ	5	1	3	2	1	
ดำเนินงานได้ถูกเลือก ท่านได้พินิจพิเคราะห์ อย่างมีประสิทธิภาพ ชัดเจน	5	-	5	L	1	
และถูกต้อง						
2. ท่านตระหนักถึงผลลัพธ์ที่จะตามมาของแ <mark>ต่ละทางเลือกที่ท่านได้ตัดสินใ</mark> จ	5	4	3	2	1	
3. ประสบการณ์ในอ <mark>ดีตเป็น</mark> ปัจจัยสำคัญปัจจัยหนึ่งที่ช่วยให้การตัดสินใจใน	5	4	3	2	1	
การดำเนินงานของท่านประสบความสำเร็จ	ſ	t	5	Z	Ţ	
 เมื่อท่านบรรลุเป้าหมายในการดำเนินงานที่วางไว้ ท่านจะให้รางวัลกับ 	5	4	3	2	1	
ความสำเร็จของตนเอง		Ŧ	,	Z	Ţ	
5. การปฏิสัมพันธ์กั <mark>บผู้มีส่วนได้ส่วนเสียของอ</mark> งค์การท่าน ก่อให้เกิดการ	5	1	3	2	1	
ปรับปรุงการดำเนินงานของท่านอย่างต่อเนื่อง	A	F		2		
6. ท่านมองเห็นภาพขององค์การของท่านในอีก 10 ปีข้างหน้าได้อย่าง	5	1	3	2	1	
ชัดเจน	,	51	6		1	
<u>ความสามารถด้านการจัดการ</u>	9					
1. การประเมินศักยภาพและผลการปฏิบัติงานของพนักงานได้อย่างถูกต้อง	5	4	3	2	1	
ถือได้ว่าเป็นปัจจัยความสำเร็จของการดำเนินงานของท่าน						
2. องค์การจะไม่สามารถบรรลุผลการดำเนินงานขององค์การได้เลย ถ้าหาก	5	1	3	2	1	
ขาดความสามารถในการประกอบการของท่าน	5	4	5	Z	Ţ	

000*********	ระดับความคิดเห็น		เห็น		
ม เวะพื้น เตกกุม เวกระบดกุม เว	เห็นด้วยส	วย่างยิ่ง 🗲		ไม่เห็นด้วย	อย่างยิ่ง
 โดยปกติท่านให้แนวทางและวิธีการในการปฏิบัติงานแก่ผู้ใต้บังคับบัญชา ของท่านได้อย่างมีประสิทธิภาพ 	5	4	3	2	1
 4. การวางแผนการดำเนินงานที่ถูกต้องและครอบคลุมทุกประเด็น เป็น หน้าที่ที่จะนำพาองค์การของท่านไปสู่ความสำเร็จ 	5	4	3	2	1
 ท่านกำหนดลำดับความสำคัญของกิจกรรมที่จะต้องดำเนินงานและการ ตอบสนองอย่างเหมาะสมและทันท่วงที 	5	4	3	2	1
 6. ท่านประสานกิจกรรมของพนักงานและคนอื่นๆ อย่างมีประสิทธิภาพเพื่อ บรรลุความสำเร็จของเป้าหมายร่วมกัน 	5	4	3	2	1
7. ในการมอบหมายงานและการกระจายอำนาจในการตั <mark>ดสินใ</mark> จ ท่านได้ ดำเนินการไปด้วยความรอบคอบ	5	4	3	2	1
8. ท่านตรวจติดตามและประเมินผลลัพธ์ของงานที่มอบ <mark>หมายอ</mark> ย่างมี ประสิทธิภาพ และให้ข้อเสนอแนะอย่างเหมาะสม	5	4	3	2	1
9. ผู้ใต้บังคับบัญชาของท่านได้รับการเพิ่มพูนทักษะแล <mark>ะความส</mark> ามารถอยู่ เสมอ โดยผ่านการฝึกอบรม	5	4	3	2	1
10. เวลาและทรัพยากรอื่นๆ ในองค์การของท่านได้ถูก <mark>จัดสรรโด</mark> ยท่านอย่าง มีประสิทธิผล	5	4	3	2	1
11. ในหน่วยงานของท่าน เอกสารได้ถูกจัดท <mark>ำอย่างเป็นระบบ และมีการ</mark> จัดเก็บและเรียกใช้ข้อมูลอย่างมีประสิทธิภาพ	5	4	3	2	1
12. การเรียนรู้ตลอดชีวิต (lifelong learning) เป็นสิ่งที่ท่านส่งเสริมให้เกิด ขึ้นกับพนักงานในองค์การท่าน และตัวท่านเอง	5	4	3	2	1
13. ผู้ใต้บังคับบัญชาของท่านเชื่อฟังและปฏิบัติงานตามคำชี้นำและ สนับสนุนของด้วยดีเสมอมา	5	4	3	2	1
14. โครงสร้างองค์การของท่ <mark>านเอื้อต่อการดำเนิน</mark> งานของท่านได้เป็น <mark>อย่างดี</mark> และมีประสิทธิภาพ	5	4	3	2	1
15. การสื่อสารที่ผิดพลาดระหว่างท่านกับผู้เกี่ยวข้องแทบจะไม่เกิดขึ้นเลย	5	4	3	2	1
 ถึงแม้ในบางครั้งงานที่สั่งการไปต้องมีการแก้ไขอีกหลายๆ ครั้ง ผู้ใต้บังคับบัญชาของท่านจะยอมรับกับการสั่งการของท่าน 	5	4	3	2	1
17. ในบางกรณีผู้ใต้บังคับบัญชาของท่านมีแนวโน้มที่จะปฏิบัติงานไม่ บรรลุผลตามที่วางแผนไว้ ท่านก็จะให้ความช่วยเหลือผู้ใต้บังคับบัญชาของ ท่านปฏิบัติงานบรรลุผลด้วยดีเสมอมา	5	4	3	2	1

กาาะผู้ทำแททการประกอบการ		ระดับความคิดเห็น				
81190 W R 100 01119 0 90110 01119	เห็นด้วยส	อย่างยิ่ง 🗲		ไม่เห็นด้วย	อย่างยิ่ง	
<u>ความสามารถเซิงรุก</u> 1. โดยทั่วไปแล้วท่านมีความแน่วแน่ที่จะค้นหาวิธีการใหม่ๆ เพื่อปรับปรุง	5	4	3	2	1	
การปฏิบัติงานของท่านอยู่ตลอดเวลา 2. ไม่ว่าท่านจะปฏิบัติงานในเรื่องใด ท่านมักจะมีแรงผลักดั <mark>น</mark> ที่กล้า	5	4	3	2	1	
เปลี่ยนแปลงเพื่อพัฒนาผลการปฏิบัติงานให้ดีขึ้น	5	4	2	2	1	
 ท่านมีความสามารถรับรู้ถึงเหตุการณ์ต่างๆ ได้อย่างทันท่วงที และ สามารถรับมือกับเหตุการณ์เหล่านั้นได้ 	5	4	3	2	1	
5. ท่านแสวงหาวิธีการปฏิบัติงานที่ดีกว่าเพื่อให้การปฏิบั <mark>ติงาน</mark> ประสบ ความสำเร็จเป็นสิ่งที่ท่านปรารถนาให้เกิดขึ้นกับองค์การอยู่ตลอดเวลา	5	4	3	2	1	
6. ถ้าท่านเกิดความคิดสร้างสรรค์และมีแนวโน้มที่จะปร <mark>ะสบคว</mark> ามสำเร็จใน อนาคต ท่านจะต่อสู้และไล่ตามแนวคิดนั้น แม้ว่าจะได้รับการต่อต้านและไม่ เห็นด้วยจากคนอื่นๆ	5	4	3	2	1	
7. ท่านสามารถมองเห็นโอกาสทางธุรกิจได้เป็นอย่างดี	5	4	3	2	1	
8. ท่านมีความสามารถในการคาดการณ์สิ่งที่จะเกิดขึ้ <mark>นในอนาคต</mark> เป็น ความสามารถที่มี ถ้าท่านปฏิบัติงานในองค์การนี้	5	4	3	2	1	
 เมื่อมีความเสี่ยงเกิดขึ้นกับการปฏิบัติงาน ท่านจะสามารถจัดการกับ ความเสี่ยงที่เกิดขึ้นนั้นอย่างรอบคอบและระมัดระวัง 	5	4	3	2	1	
<u>ความสามารถด้านเทคโนโลยี</u> 1. ท่านมีความรู้และความสามารถเกี่ยวกับระบบคอมพิวเตอร์และ เทคโนโลยีสารสนเทศที่จำเป็นต่อการปฏิบัติงาน	5	4	3	2	1	
 ท่านมีความรู้และทักษะเกี่ยวกับระบบคอมพิวเตอร์ที่นำมาใช้พัฒนาและ รักษาการติดต่อสื่อสารเพื่อเชื่อมต่อกับลูกค้า 	5	4	3	2	1	
 ท่านมีการรวบรวมข้อมูลของลูกค้าผ่านแหล่งข้อมูลออนไลน์เป็นวิธีการ ปฏิบัติงานที่นำมาใช้ในองค์การของท่าน 	5	4	3	2	1	
 ทักษะในการใช้ระบบคอมพิวเตอร์เพื่อรวบรวมและวิเคราะห์ข้อมูล การตลาดเกี่ยวกับลูกค้าของท่านเป็นทักษะที่มีความสำคัญต่อการ ปฏิบัติงานขององค์การ 	9 5	24	3	2	1	
5. ระบบคอมพิวเตอร์ที่ท่านนำมาใช้สามารถเข้าถึงแหล่งข้อมูลการตลาด จากภายนอกที่มีความสำคัญต่อการตัดสินใจขององค์การ	5	4	3	2	1	
 ระบบคอมพิวเตอร์ที่นำมาใช้ในการปฏิบัติงานของท่าน เพื่อใช้วิเคราะห์ ข้อมูลของลูกค้าและข้อมูลการตลาด 	5	4	3	2	1	

กาาะยั่งงำแหนกกระไระกละเการ		ระดับความคิดเห็น					
91190 W 1990 O 1119 O 101119	เห็นด้วยอย่างยิ่ง 🗕 🔶 ไม่เห็นด้วยอย่าง				อย่างยิ่ง		
7. ระบบคอมพิวเตอร์เพื่อสนับสนุนการตัดสินใจถูกนำมาใช้จัดการข้อมูล	-	4	2	0	1		
ของลูกค้าและข้อมูลอื่นๆ เพื่อช่วยในการปฏิบัติงานของท่าน	5	4	3	2	1		
 ท่านสามารถจัดเก็บข้อมูลและประมวลผลข้อมูลลูกค้าในองค์การของ 			2	2	1		
ท่านได้อย่างมีประสิทธิภาพ	5	4	5	Z	1		
9. องค์การของท่านจัดสรรงบประมาณจัดซื้อระบบคอมพิวเต <mark>อ</mark> ร์และ	Г	1	2	2	1		
เทคโนโลยีสารสนเทศใหม่ๆ มาใช้อย่างเหมาะสมและเพียง <mark>พ</mark> อ	Э	4	3	Z	1		
10. ท่านมีการพัฒนาแ <mark>อปพลิเคชั่นใหม่ๆ มาใช้เพื่อให้การ<mark>ปฏิ</mark>บัติงานประสบ</mark>	E	4	2	2	1		
ความสำเร็จในองค์การของท่าน	5	4	5	Z	Ţ		

บรรยากาศภายในองค์การ		ระดับความคิดเห็น					
		อย่างยิ่ง 🗲	──► ไม่เห็นด้วยอย่างยิ่ง				
 พนักงานมีความรู้สึกผูกพันร่วมกันอย่างใกล้ชิดในการปฏิบัติงานเพื่อ เป้าหมายเดียวกันในองค์การของท่าน 	5	4	3	2	1		
 การให้ความสำคัญกับความคิดเห็นของสมาชิกทุกคนในองค์การเป็นสิ่งที่ ได้รับการสนับสนุนและส่งเสริมให้เกิดขึ้นอย่างสม่ำเสมอ 		4	3	2	1		
 พนักงานทุกคนในองค์การของท่านสามารถรับรู้ถึงความรู้สึกร่วมกันใน เรื่อง "การทำงานเป็นทีมเดียวกัน" อย่างแข็งแกร่ง 		4	3	2	1		
 พนักงาน ในองค์การของท่านมีความเต็มใจและตั้งใจที่จะให้ความร่วมมือ กับเพื่อนร่วมงานคนอื่นๆ ในการปฏิบัติงานเป็นอย่างดี 		4	3	2	1		
5. พนักงานที่ปฏิบัติงานในองค์การของท่านจะได้รับการส่งเสริมและ สนับสนุนให้เสนอแนวคิดใหม่ๆ ที่อาจเป็นโอกาส <mark>ที่ดีแก่องค์การ</mark>		4	3	2	1		
6. แม้ว่าจะเกิดความล้มเหลวในการปฏิบัติงาน แต่ท่านยังคงให้ความสำคัญ กับการจัดการความเสี่ยงว่าเป็นวิธีการหลีกเลี่ยงความล้มเหลวที่จะเกิดขึ้น		4	3	2	1		
7. กระบวนการปฏิบัติงานขององค์การแสดงให้เห็นถึงความเป็นมาตรฐาน เดียวและได้รับการยอมรับพนักงานจากทุกคน	5	4	3	2	1		
8. การประเมินผลการปฏิบัติงานของหัวหน้างานของท่านมีความถูกต้อง และได้รับการยอมรับจากผู้ใต้บังคับบัญชาว่าผลจะออกมาในเชิงบวก		4	3	2	1		
9. พนักงานทุกคนในองค์การของท่านแสดงออกถึงการร่วมรับผิดชอบ ร่วมกันไม่ว่าการปฏิบัติงานนั้นจะล้มเหลวหรือประสบความสำเร็จ		4	3	2	1		
 พนักงานที่ปฏิบัติงานในองค์การของท่านสามารถรับรู้ร่วมกันและ ตระหนักถึงเป้าหมายเดียวกันในการปฏิบัติงานเพื่อให้ประสบความสำเร็จ 	5	4	3	2	1		

ตอนที่ 4 ความคิดเห็นเกี่ยวกับบรรยากาศภายในองค์การของผู้ผลิตขึ้นส่วนยานยนต์

การเรียนรู้ภายในองค์การ		ระดับความคิดเห็น				
		อย่างยิ่ง🗲	➡ ไม่เห็นด้วยอย่างถึ			
1. ท่านจะแสดงให้พนักงานเห็นถึงความภาคภูมิใจและความชื่นชมยินดี	5	4	2	2	1	
เมื่อพนักงานมีผลการปฏิบัติงานที่ดีและปฏิบัติงานร่วมกันจ <mark>น</mark> บรรลุผลสำเร็จ		4	5	Z	I	
2. ท่านจะรับฟังและให้การสนับสนุน ถ้าหากพนักงานของ <mark>ท</mark> ่านได้ให้			2	2	1	
ข้อเสนอแนะที่เป็นทางเลือกที่เหมาะสมสำหรับการปฏิบัติ <mark>งา</mark> น	5	4	5			
3. การสนับสนุนให้พนักงานเรียนรู้จากความผิดพลาด แล <mark>ะอ</mark> ดทนต่อความ	F	4	4 3	2	1	
ผิดพลาดของตนเองเป็นสิ่งที่ทำให้พนักงานของท่านเกิดก <mark>ารพั</mark> ฒนา	5	4				
4. ท่านเชื่อมั่นว่าทักษะและความสามารถของพนักงานทุ <mark>กคน</mark> ที่ปฏิบัติงาน	F	4				
ในองค์การทำให้องค์การจะบรรลุผลสำเร็จ	5	4	5	Z	I	
5. ท่านส่งเสริมการสร้างบรรยากาศของการเรียนรู้ภายใน <mark>องค์</mark> การเพื่อให้	F		C	0	1	
พนักงานเกิดความไว้ใจซึ่งกันและกันมากขึ้น	5	4	3	2	1	
6. การเรียนรู้อย่างต่อเนื่องของพนักงานเกิดขึ้นจากควา <mark>มช่วยเ</mark> หลือและให้	F		3	2	1	
การสนับสนุนของท่าน	5	4				
7. การทำงานเป็นทีมช่วยให้พนักงานได้แสดงออกถึงค <mark>วามคิดเห็</mark> นของ			0			
ตนเองและทำให้เกิดการเรียนรู้กับพนักงานของท่าน	5	4	5	2	1	
8. การสร้างสภาพแวดล้อมแห่งการเรียนรู้ที่ดีจะทำให้องค์การของท่านเกิด			1		1	
การพัฒนานวัตกรรมใหม่ๆ ภายในองค์การ	5	4	3	2	1	
9. ท่านให้การสนับสนุนอย่างจริงจังในการเร <mark>ียนรู้อย่างต่อเนื่องของพนักงา</mark> น			0			
และถือว่าเป็นกลยุทธ์ที่สำคัญขององค์การ	5	4	3	Z	I	
10. พนักงานของท่านมีการแลกเปลี่ยนข้อมูลข่าว <mark>สารกันอยู่ตลอดเว</mark> ลาทั่ว	г.		0	<u></u>	1	
ทั้งองค์การ	S	4	5	Z	1	
11. พนักงานของท่านมีการทำงานซ้ำๆ (Routine) ทำให้เกิดความ			2	0	1	
เชี่ยวชาญเฉพาะทางเกิดขึ้น	5	4	5	Z	T	
12. องค์ความรู้ใหม่ของพนักงานหรือผู้ใต้บังคับบัญชาเกิดขึ้นจากการ						
ทำงานซ้ำๆ จนเชี่ยวชาญ และเกิดจากการปฏิสัมพันธ์กับผู้เกี่ยวข้องทุกๆ	5	4	3	2	1	
คนทั้งภายในและภายนอก		du	3			
13. ค่านิยมที่สำคัญของพนักงานในองค์การของท่าน คือ การรักในการ	6	2	2		1	
เรียนรู้และส่งเสริมการเรียนรู้ซึ่งกันและกันของพนักงานในองค์การ	~ 5	4	3	2	T	

ตอนที่ 5 ความคิดเห็นเกี่ยวกับการเรียนรู้ภายในองค์การของผู้ผลิตชิ้นส่วนยานยนต์

การสร้างคุณค่า		ระดับความคิดเห็น					
		เห็นด้วยอย่างยิ่ง 🗲		 ไม่เห็นด้วยอย่าง 			
1. ราคาสินค้าของท่านทำให้ลูกค้าเชื่อว่าได้รับสิ่งที่ดีและมีประโยชน์	5	4	3	2	1		
มากกว่า)		-		
 ข่านน้ำกลยุทธ์การลดราคา การรักษาราคาเดิม และการให้สิ่งที่พิเศษ 	5	4	3	2	1		
มากกว่าคู่แข่งขันเป็นกลยุทธ์ที่นำมาใช้	5		,				
 ท่านใช้กลยุทธ์การสร้างภาพลักษณ์ ตราสินค้า ความเชื่อถือ และการ 	5	4	3	2	1		
ชื่นชมจากลูกค้าเป็นสิ่งที่ส <mark>ร้า</mark> งคุณค่าและความยั่งยืนแก่ <mark>บริษั</mark> ท	5	4					
 ท่านทำให้ลูกค้าเกิดความสะดวกสบายทั้งในการซื้อและวิธีการชำระเงิน 			2	0	1		
เป็นส่วนหนึ่งในการสร้างคุณค่าจากการปฏิบัติงาน	5	4	5	Z	T		
 ท่านมุ่งเน้นการส่งมอบผลิตภัณฑ์ที่สามารถเข้าใจได้ง่าย และใช้งานได้ 	F	4	2	2	1		
จริงแก่ลูกค้า	5	4	3	2			
 6. ธุรกิจของท่านให้ความสำคัญกับการสร้างและรักษาคำสัญญาสำหรับ 	F	4	2	0	1		
บริการ คุณภาพ และการส่งมอบที่เกิดขึ้นจริงกับลูกค้ <mark>า</mark>	5	4	3	2	I		
7. การใช้ทรัพยากรเพื่อสร้างคุณค่าแก่องค์การของท่า <mark>น เป็นไปต</mark> ามวางแผน	_		-				
และเป้าหมายที่กำหนดไว้อย่างเหมาะสมเพื่อนำองค์การไปสู่การพัฒนา		4	3	2	1		
8. ธุรกิจมีการพัฒนาและให้สนับสนุนการดำเนินงา <mark>นจะดำเนินงานโ</mark> ดย		4	2	0	1		
ผ่านการตัดสินใจของพนักงานที่มีประสิทธิ <mark>ภาพ</mark>	Э	4	2	Z	1		
 5. ธุรกิจมีการพัฒนาความสามารถหลักขององค์การด้วยการลงทุนทั้งเวลา 							
และเงินในหน้าที่งานสำคัญเพื่อมุ่งเน้นการเติบโตแล <mark>ะความสำเร็จในระ</mark> ยะ		4	3	2	1		
ยาว							
10. องค์การของท่านเพิ่มคุณค่าที่มาจากการพัฒ <mark>นาความสามารถ</mark> ภายใน							
องค์การ และมุ่งเน้นที่จะรักษาพนักงาน ชื่อ <mark>เสียง และผลการปฏิบัติงานที่</mark>	5	4	3	2	1		
ดี							
	\mathbf{X}						
W9800		du	3				
14 91 5	ര	2					
นอน อก เ							

ตอนที่ 6 ความคิดเห็นเกี่ยวกับการสร้างคุณค่าของผู้ผลิตชิ้นส่วนยานยนต์

แลววรด้วเป็นเวน		ระดับความพึงพอใจ					
MEILL 1941 IPPS PA LPS	มากที	าสุด	← →	 น้อยที่ 	าสุด		
ท่านพึงพอใจต่อการบรรลุเป้าหมายของผลการดำเนินงานในประเด็นเหล่านี้ในระดับใด							
1. อัตราผลตอบแทนจากการลงทุน (ROI)	5	4	3	2	1		
2. อัตราผลตอบแทนต่อส่วนของเจ้าของ (ROE)	5	4	3	2	1		
3. อัตราผลตอบแทนต่อสินทรัพย์ (ROA)	5	4	3	2	1		
4. อัตรากำไรสุทธิ	5	4	3	2	1		
5. การเพิ่มขึ้นของยอดขาย	5	4	3	2	1		
6. การเพิ่มขึ้นของจำนวนพนักงาน	5	4	3	2	1		

ตอนที่ 7 ความพึงพอใจเกี่ยวกับผลการดำเนินงานของผู้ผลิตชิ้นส่วนยานยนต์

ข้อคิดเห็นและข้อเสนอแนะเพิ่มเติมเกี่ยวกับผู้นำแบบการประกอบการของผู้ผลิตชิ้นส่วนยานยนต์ขนาดกลางและ ขนาดย่อม

ขอขอบพระคณที่ท่านสละเวลาตอบ <mark>แบบสอบถามทกข้อ โปรดพับแ</mark> บบสอบถามนี้และนำใส่ซองที่แนบมาพร้อมทั้ง
ส่งคืนผ้าิจัยตาแทื่อยู่ที่ระบบหากท่านต้องการรายงานสรายอการวิจัยครั้งนี้ โปรดแบบบบบบบัตรของท่านบบพร้อบกับ
และ เวลา อ้างแล้วมิเสี้สังสารายาวเสราให้และการเลี้ยงการกับเสราสิ่งการกิจรางห์ตัวเล
แบบลอบเกม ซาพเง เอนต่งต่องว่ายง เนลวุบเหแก่ท่านว่า เอทองเสวงสนกาว เหตุวาตหมู่ส







ที่ ศธ 0530.10/ 1984

คณะการบัญชีและการจัดการ มหาวิทยาลัยมหาสารคาม ตำบลขามเรียง อำเภอกันทรวิชัย จังหวัดมหาสารคาม 44150

17 สิงหาคม 2561

เรื่อง ขอความอนุเคราะห์เป็นผู้เชี่ยวชาญตรวจสอบเครื่องมือวิจัย

เรียน รองศาสตราจารย์ ดร.ชลุธิศ ดาราวงษ์

ด้วย นางวัลลี พุทโสม รหัสนิสิต 58010961006 นิสิตระดับปริญญาเอก หลักสูตรปรัชญา ดุษฎีบัณฑิต (ปร.ด.) สาขาวิชาการจัดการ คณะการบัญชีและการจัดการ มหาวิทยาลัยมหาสารคาม กำลังศึกษา วิทยานิพนธ์ เรื่อง "ผลกระทบของภาวะผู้นำแบบประกอบการที่มีต่อการสร้างคุณค่าและผลการดำเนินงานของผู้ผลิต ขั้นส่วนยานยนต์ในประเทศไทย" ซึ่งเป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปรัชญาดุษฎีบัณฑิต ดังนั้น เพื่อให้ การดำเนินการเป็นไปด้วยความเรียบร้อยและบรรลุตามวัตถุประสงค์ คณะการบัญชีและการจัดการ มหาวิทยาลัย มหาสารคาม จึงใคร่ขอความอนุเคราะห์ท่านเป็นผู้เชี่ยวชาญตรวจสอบเครื่องมือวิจัย และข้อเสนอแนะเพื่อนำข้อมูล ที่ได้ไปดำเนินการทำวิทยานิพนธ์ต่อไป ตามแบบสอบถามที่แนบมาพร้อมนี้

คณะการบัญชีและการจัดการ มหาวิทยาลัยมหาสารคาม หวังเป็นอย่างยิ่งว่าคงได้รับความอนุเคราะห์ จากท่านด้วยดี และขอขอบคุณมา ณ โอกาสนี้ด้วย

> > มหาวิทยาลัยมหาสารคาม

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บันทึกข้อความ

หน่วยงาน คณะการบัญชีและการจัดการ มหาวิทยาลัยมหาสารคาม โทรศัพท์ 043-754333-3431 Fax 043- 754422 ที่ ศธ.0530.10/ วันที่ 17 สิงหาคม 2561 เรื่อง ขอเรียนเชิญเป็นผู้เชี่ยวชาญตรวจสอบเครื่องมือวิจัย

เรียน รองศาสตราจารย์ ดร.สุวรรณ หวังเจริญเดช

ด้วย นางวัลลี พุทโสม รหัสนิสิต 58010961006 นิสิตระดับปริญญาเอก หลักสูตรปรัชญา ดุษฎีบัณฑิต (ปร.ด.) สาขาวิชาการจัดการ คณะการบัญชีและการจัดการ มหาวิทยาลัยมหาสารคาม กำลังศึกษา วิทยานิพนธ์ เรื่อง "ผลกระทบของภาวะผู้นำแบบประกอบการที่มีต่อการสร้างคุณค่าและผลการดำเนินงานของผู้ผลิต ขึ้นส่วนยานยนต์ในประเทศไทย" ซึ่งเป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปรัชญาดุษฎีบัณฑิต ดังนั้น เพื่อให้ การดำเนินการเป็นไปด้วยความเรียบร้อยและบรรลุตามวัตถุประสงค์ คณะการบัญชีและการจัดการ มหาวิทยาลัย มหาสารคาม จึงใคร่ขอความอนุเคราะห์ท่านเป็นผู้เชี่ยวชาญตรวจสอบเครื่องมือวิจัย และข้อเสนอแนะเพื่อนำข้อมูล ที่ได้ไปดำเนินการทำวิทยานิพนธ์ต่อไป ตามแบบสอบถามที่แนบมาพร้อมนี

จึงเรียนมาเพื่อโปรดพิจารณา

พหาน ปณุ

Same

(ผู้ช่วยศาสตราจารย์ ดร.นิติพงษ์ ส่งศรีโรจน์) คณบดีคณะการบัญชีและการจัดการ

刻いう





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เรียน ผู้ช่วยศาสตราจารย์ ดร.ศุภพงษ์ ปิ่นเวหา

ด้วย นางวัลลี พุทโสม รหัสนิสิต 58010961006 นิสิตระดับปริญญาเอก หลักสูตรปรัชญา ดุษฎีบัณฑิต (ปร.ด.) สาขาวิชาการจัดการ คณะการบัญชีและการจัดการ มหาวิทยาลัยมหาสารคาม กำลังศึกษา วิทยานิพนธ์ เรื่อง "ผลกระทบของภาวะผู้นำแบบประกอบการที่มีต่อการสร้างคุณค่าและผลการดำเนินงานของผู้ผลิต ชิ้นส่วนยานยนต์ในประเทศไทย" ซึ่งเป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปรัชญาดุษฎีบัณฑิต ดังนั้น เพื่อให้ การดำเนินการเป็นไปด้วยความเรียบร้อยและบรรลุตามวัตถุประสงค์ คณะการบัญชีและการจัดการ มหาวิทยาลัย มหาสารคาม จึงใคร่ขอความอนุเคราะห์ท่านเป็นผู้เชี่ยวชาญตรวจสอบเครื่องมือวิจัย และข้อเสนอแนะเพื่อนำข้อมูล ที่ได้ไปดำเนินการทำวิทยานิพนธ์ต่อไป ตามแบบสอบถามที่แนบมาพร้อมนี้

จึงเรียนมาเพื่อโปรดพิจารณา

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