

#### THE RELATIONSHIP BETWEEN INNOVATION PERFORMANCE AND INNOVATION COMPETENCY AMONG TOURISM SMALL AND MEDIUM ENTERPRISE IN TERENGGANU

By

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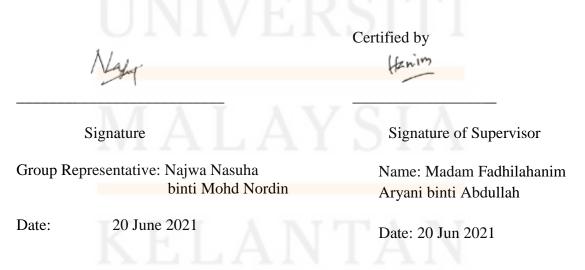
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#### LIST OF SYMBOLS AND ABBREVIATIONS

Symbols	
%	Percent
α	Alpha
2	More than or equal to
>	More than
(-)	Negative
n	Frequency
r	Pearson Correlation Coefficient
Ν	Population Size
S	Sample Size
Abbreviations	
SME	Small and Medium Enterprise
TSME	Tourism Small and Medium Enterprise
UNWTO	United Nations World Tourism Organization
DOSM	Department of Statistic Malaysia
R&D	Research and Development
CEO	Chief Executive Officer
C00	Chief Operating Officer
CFO	Chief Financial Officer
DMO	Destination Marketing Organization
HR	Human Resource
FINCODA	Framework for Innovation Competencies and Assessment

SPSS

Statistical Package for the Social Sciences

#### ABSTRACT

This study is about the relationship between innovation competency and innovation performance among TSME in Terengganu. In order to improve innovation performance, there is an emphasis on leadership competency, owner attributes competency, and networking competency. A quantitative study is used to accomplish this research. Simple random sampling is used and responses from 379 respondents are collected. To analyze all the data, descriptive analysis, reliability testing, and Pearson correlation are used. The results support all the variables. This research contributes to determinants of the relationship between innovation competency and innovation performance among TSME in Terengganu. This research and data can be used by industry stakeholders to provide a better experience by determining the association between innovation competency and innovation performance among TSME in Terengganu.

**Keywords:** Innovation performance, innovation competency, leadership, owner attributes, networking

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#### ABSTRAK

Kajian ini adalah mengenai hubungan antara kecekapan inovasi dengan prestasi inovasi di kalangan pelancongan IKS di Terengganu. Untuk meningkatkan prestasi inovasi, ada penekanan pada kompetensi kepimpinan, kompetensi sifat pemilik, dan kompetensi rangkaian.. Kajian kuantitatif digunakan untuk menyelesaikan penyelidikan ini. Persampelan rawak mudah digunakan dan tindak balas daripada 379 responden dikumpulkan. Untuk menganalisis semua data, analisis deskriptif, ujian kebolehpercayaan, dan korelasi Pearson digunakan. Hasilnya menyokong semua pemboleh ubah. Penyelidikan ini menyumbang kepada penentu hubungan antara kecekapan inovasi dan prestasi inovasi di kalangan pelancongan IKS di Terengganu. Penyelidikan dan data ini dapat digunakan oleh pihak berkepentingan industri untuk memberikan pengalaman yang lebih baik dengan menentukan hubungan antara kecekapan inovasi dan prestasi inovasi di kalangan pelancongan IKS di Terengganu.

Kata kunci: Prestasi inovasi, kecekapan inovasi, kepimpinan, sifat pemilik, rangkaian

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#### **CHAPTER 1**

#### INTRODUCTION

#### 1.1 INTRODUCTION

This chapter discussed the introduction in this research study. The purpose of this study was found out through innovation competency towards innovation performances in Tourism Small and Medium Enterprises (TSME) in Terengganu, Malaysia. This chapter contains the background of the study, problem statement, research question, research objectives, the scope of the study, definition of terms, and summary.

#### **1.2 BACKGROUND OF THE STUDY**

Based on the United Nations World Tourism Organization (2020), tourism involves taking individuals to countries or locations outside their material environment for private business or professional purposes. In the tourism sector, tourism goods cover a variety of different categories, including hotels, restaurants, transportation services, guided tours, travel agencies, cultural services, sports and recreational facilities, and retail.

Nowadays the tourism industry has grown with technology and has based its activities on attracting the attention of tourists and meeting expectations. The development of digital communication and information technology has had a huge impact on how visitors and tourist attractions interact with each other. Based on tourism platforms, Malaysia registered 4,233,425 tourist arrivals for the first half of 2020 and decreased tourist arrivals by 36.8 percent from 2020 compared to the previous year of 2019.

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Figure 1.1: International tourist arrivals, 2019 and 2020 (% change)

Source: UNWTO

Figure 1.1 showed the International tourist arrivals in 2019 and 2020. Based on UNWTO (2020), while Asia and the Pacific have the largest relative and absolute influence around -35 million arrivals, the impact in Europe, whereas lower in percentage, was quite high in magnitude -19 million of tourist arrivals.

Small and Medium Enterprise (SMEs) were important issues in the field of tourism (Thomas et al., 2011). In this field, SMEs make a significant contribution to economic growth and employment. Innovation was one of the key reasons for development (Lee et al., 2012) and new prospects were developed for SME managers for the output of their businesses to be improved. This TSME concept had to be defined as a tourism business that offers tourism services, such as hotels, transport, travel agencies, catering, night clubs, entertainment, food and beverage, souvenir shops and more.



#### Table 1.1: SME performance in 2019



Source: Department of Statistics, Malaysia (DOSM)

Table 1.1 showed the SME performance in 2019. The word "innovation" derived from the Latin "'innovation," meaning to create something new, although there are different meanings. The variety of meanings lies in the various objectives of researching this phenomenon (Johannessen et al., 2001). The effective innovation was profitable in a competitive market for a tourism business. Thus, they improved the value of the product or tourism experience. Since then, the performance of the tourism industry in Malaysia has successfully shown positive success.

In addition, Malaysian government has played a major role toward innovation in the tourism industry. Via its five-year economic plan, the government has different and ongoing tourism-specific initiatives since the second Malaysia Plan up to date. Each of these tourism policies has been developed solely to concentrate on the needs of the Malaysian government to support the success of the tourism industry based on tourism products and services.

Moreover, Ernst (2001) stated that innovation performance overarches the level of measurement from all the stages of R&D to patenting and launch of new goods. In addition, this innovation performance will be more focused on the large innovation and development of new products in the Small and Medium Enterprise (SMEs).

Based on the Department of Statistics Malaysia (2019), Terengganu recorded a total population of 1.25 million. Terengganu was located in the east of Peninsular Malaysia and bounded at Kelantan in the northwest, South China Sea in the east and Pahang in the South and Southwest. Terengganu was also a vast and interesting tourist

destination based on island and adventure. Moreover, Terengganu also has a lot of operators in Tourism Small and Medium Enterprise (TSME) to attract tourists to visit Terengganu.

According to the official website of the SME Corp. Malaysia (2019), there are 25892 of Tourism Small and Medium Enterprise (TSME) in Terengganu. Every business has its own competencies. This paper aims to explore empirically which variables describe the best innovation competencies toward innovation performance of TSMEs in Terengganu.

#### **1.3 PROBLEM STATEMENT**

To focus on tourism goods and services, the government has recognized the value of success for small and medium-sized tourism enterprises (TSMEs). While innovation plays a significant and rising role in tourism, research in capturing the complexity surrounding tourism output is still slow (Shan et al., 2016). The government of Malaysia has therefore taken a constructive approach to improve the capacity and role of TSMEs as the backbone of the tourism industry in Malaysia. Thus, the researcher was researching innovation performance and innovation competency in tourism SME Malaysia.

Employee success includes the performance of specified duties, the fulfilment of deadlines, the employee's integrity and the consistency and efficiency of work. Various organizations have required powerful models of leadership that enhance employee success. Some companies such as tractor factories encounter challenges such as slow innovation, poor efficiency and failure to reach performance goals (Iqbal N, Anwar S, & Haider N, 2015). Effect of Leadership Style on Employee Performance. This problem started due to the lack of strategic engagement in particular leadership types in various contexts, which was supposed to be an issue at hand. This problem was consistently impacting the efficiency of workers. So, leadership is very important in an organization because it can influence employees. At the same time, employees were productive and indirectly, ideas in terms of innovation improved and showed effective innovation performance.

According to the numerous researches on owner attributes, all the SMEs cannot make a good foreign entry due to a variety of limitations and constraints such as lack of funding, lack of capital, regulations, and weak managerial skills (Anwar et al., 2018; see also Hutchinson, Fleck, & LloydReason, 2009; Lin & Chaney, 2007; Lu & Beamish, 2001). According to Johanson & Vahlne (1977), as pointed out by internationalization principle, some enterprises reach into the overseas market faster than others due to the presence of enough resources and skills (Weerawardena, Mort, & Liesch, 2019) whereas everyone else have to wait even longer. In this sense, the literature has presented a number of considerations that could promote or discourage the initiatives of enterprises towards internationalization. In general, literature has indicated a good networking (Peng & Lin, 2019; Senik, Scott-Ladd, Entrekin, & Adham, 2011), enough resources (Lau, Ngo, & Yiu, 2010; Sui & Baum, 2014), powerful technology (Von Zedtwitz & Gassmann, 2002), and flexible capability (Arikan, Koparan, Arikan, & Shenkar, 2019) as encourage causes though weak help (Roy, Sekhar, & Vyas, 2016), resource deficiency (Nguyen, Huynh, Trieu, & Tran, 2019), and low innovative abilities (Filippov, 2011) are demonstrated as obstruct factors during internationalization process. Therefore, to facilitate SMEs to enter the international market, the owner attributes must play a role. For example, the wide network of owners causes the SMEs market to be more marketed. High innovative capabilities are also one of the ways to market SMEs internationally.

According to M. Anwar and S.Z. Ali Shah (2018), as many as 50% of recently established project failures in the early stage around the globe due to reasonably possibly known reasons such as liability of innovation, shortage of resources and narrowness. One approach to address these problems is to establish ties with external entities that will aid in the sharing of information and resources. Although networking is a valuable partner, this cannot protect a whole project from collapse entirely on its own. New companies will require a successful business model innovation that is perceived to be a critical factor in the development of Small and Medium Enterprises (SMEs) in the current period. This article explores the key role of networking in creating an efficient business model innovation. Data was obtained by organized questionnaires using a sample size of 311 young SMEs working in the developing market in Pakistan. Hypotheses were evaluated by Structural Equation Modeling (SEM) in reviews of a Moment Structures (AMOS).21. The findings reveal that financial networking, business networking and political networking provide an important and constructive contribution to business model

innovation. The owners and leaders of young medium-sized firms are encouraged to concentrate on establishing partnerships with strategic investors, financial government and corporate officials to develop a successful business model innovation in order to succeed in a dynamic market. Practice effects are also explored in depth. If they want profitable business, they must have high standards of networking and innovation. Training effects are also explored in depth. If they want profitable businesses, they must have high standards of networking and innovation. This is because when they have a lot of networking, they are easy to grow apart besides to have a business model of innovation to thrive.

In conclusion, before starting a business, an entrepreneur had to study every aspect to enable entrepreneurs to continue to survive in any field of business. The success factor for an entrepreneur is to adopt a high culture of innovation in running a business. Small and medium-sized tourism enterprises (TSMEs) shall instill a high level of innovation and creativity in the field of business ventures. Therefore, leadership, networking, and owner attributes play an important role in creating innovation especially among TSMEs, so that this business can grow more advanced.

#### **1.4 RESEARCH OBJECTIVE**

The key objective of this study is to provide the blueprint for organizations to build skills, defining the most important competencies that promote organizational creativity. Leadership skills, networking capacity, and characteristics are the identification and production of innovation competencies. Within the scope of this chapter, the emphasis would be on defining competency sets for the performance of innovation in tourism SMEs. The researcher also suggested some priorities to get in the right direction and outcomes, which include:

1. To study the relationship between leadership competency and innovation performances.

- 2. To study the relationship between owner attributes competency and innovation performances.
- 3. To study the relationship between networking competency and innovation performances.

#### **1.5 RESEARCH QUESTIONS**

There are important questions that have been posed towards the findings in carrying out the research to find out the innovation competency towards innovation performance. The research question asked in this research are as follow:

- 1. What is the relationship between leadership competency towards innovation performances in TSMEs?
- 2. What is the relationship between owner attributes competency towards innovation performances in TSMEs?
- 3. What is the relationship between networking competency towards innovation performances in TSMEs?

#### **1.6 SIGNIFICANCE OF THE STUDY**

The intention of all this research is to study the innovation competency towards innovation performance. This study might help people who innovate a product know the performance of an innovative product. Besides, the customer or traveler that would use the product will be satisfied with the new product that TSME creates. This study would help extract lessons on research problems that have the potential to affect innovation performance both objectively and objectively. As expected, the innovation competency could have a significant relationship with the innovation performance. Therefore, further studies could be conducted to draw on this discovery and ideally to strengthen the perception and sense of the relationships.

It is relevant to conduct this study because innovation performance is important for innovation competency because it influences leadership, networking and attributes. It is important to measure innovation performance.

#### 1.6.1 To the researcher

As researchers, they wanted to know how the performance of innovation competency. The researchers would find out the way to measure the innovation performance that influences the innovation competency. Furthermore, this research topic gives benefit to researchers by giving an idea to do their research and complete the thesis course. Then, the researcher also can apply the theoretical knowledge that has been learnt throughout this semester.

#### 1.6.2 To the Tourism Small and Medium Enterprise (TSME)

SMEs have the advantage to respond and adapt to business and technology changes more quickly due their small operating size (SME Corporation Malaysia, 2015). Recognizing the importance of innovation in the development of SME performance in 2015, the government allocated a portion of the financial expenditure focused on technology and innovation application program of 5.1 percent (SME Corporation Malaysia, 2015). This continuous effort of the government is a step to give a boost to Malaysian SMEs to intensify the application of innovation and technology in their firms in boosting growth and income. Innovation is a valuable instrument to firms to achieve competitive advantage and improve performance.



#### **1.7 DEFINITIONS OF TERMS**

#### 1.7.1 INNOVATION

The definition of competency can be characterized as the capacity to deal with problems as they occur. As Illeris finds out, the same kind of preparedness requires knowledge and social awareness mixed with instant evaluation and selection (Illeris, 2011).

Damanpour and Schneider (2009) indicate that both the features of the manager and form of innovation affect the implementation of innovation. However, they have not been able to distinguish major effects of the attributes of the boss on the relationship between the form of innovation and the implementation of innovation. The significance of innovation was already emphasized by the importance of the twentieth century by Schumpeter. Based on Schumpeter's theory the Oslo Manual describes innovation as the introduction of a new or substantially changed goods and services, or operation, a new marketing method, or a new organizational system in corporate practices, workplace organization or external relations (OECD, 2005).

#### 1.7.2 COMPETENCY

The word "competence" came into prominence following R.W. White's 1959 *Psychological Review* article, "Motivation Reconsidered: The Concept of Competence." White argues that while people are naturally driven to attain competence, providing competency templates allows organizations to reach out of our own ability to accomplish proficiency. In order to show competence, employees should be able to execute those tasks or skills with a required level of proficiency. Competency is categorized into special skills or duties.

Next, each skill or duties could be defined in terms of what seems like a particular activity at various skill levels. In order to gain competence in a specific job, a person should be able to perform different tasks or abilities at a target level of competence. Arnold et al (2012) argues that describe social competences as individuals that are able to communicate with others in such a way that their actions have a maximum positive and limited negative effect for the interactional partners. Role theory predicts that cooperation on supporter role concepts between the leader and follower has positive consequences for fulfilment and performance whereas a lack of consensus will lead to a decreased perception of effectiveness and competence (Matta et al., 2015).

#### 1.7.3 INNOVATION COMPETENCY

Awareness of creativity, and a common language for interpreting innovation is also a vital part of innovation competence. However, innovation competency cannot be developed through learning philosophy on its own; it must be developed by practical knowledge and practice. Certainly, theoretical frameworks, process tools, leadership roles and social technology may be applied, but innovation competency arises from addressing challenging problems, complicated personalities and complex circumstances in real-life environments. Innovation competency could be interpreted as consisting of two main interconnected competencies. The first is called socio-innovative competence, which is described as 'perfecting social interaction that enhances innovation' (Darsø, 2011: 176). This competency involves leadership, interaction and information sharing.

#### 1.7.4 INNOVATION PERFORMANCE

Innovation performance can be interpreted as the capability to turn innovation inputs into outputs, and therefore the capacity to develop innovation capacity and initiative into market implementation. The effect of innovative performance is the growth of the innovation market. The consequence of creative results is the growth of the innovation market. Innovation success overarches the calculator of all phases from research and development to patenting and the launch of new products. According to Shahzad, Xiu, & Shahbaz (2017) consider teamwork as an element of culture that encourages innovation performance for sustainable growth, but does not provide a stronger and more in-depth interpretation of their results about how cooperation influences corporate culture. Innovation performance is important to organizations to see the extent of growth.

#### 1.7.5 LEADERSHIP COMPETENCY

Organizational leaders are the management potential of an organization to set and meet challenging goals, to take timely and immediate action when opposed to outperform competition, and encourage others to inspire them at the highest level they can. It can be difficult to put highlights on the leadership or other qualitative elements of an organization, as compared to the quantitative metrics that are widely measured and much easier to equate between organizations. Leadership also speaks about a more systematic approach, including the sound of the executive set of an organization or the atmosphere of the company that runs it. Individuals with good leadership experience in the corporate world would also carry on managerial roles such as CEO (chief executive officer), COO (chief operating officer), CFO (chief financial officer), president, and chairman.

Leadership offers guidelines for an organization and its staff. Employees need to hear the course in which the business is going and how to be pursued in order to reach the destination. Leadership includes showing employees how to carry out their duties in an effective and consistent way to track the execution of their duties. Leadership is all about leading a good example for the workers to imitate, getting passionate about the work, being motivated to develop new stuff, and trying to do what is required in both the person and team tasks. Good leadership needs a strong character. Leaders embody reliability, honesty, truthfulness and principles. Leaders behave in line with the manner in which they speak and earn the right to be responsible for the progress of others in the business. Another element of uncertainty is the empirical redundancy formed between authentic and transformational leadership (Banks et al., 2016). According to Suddaby (2010) suggests scholars are reacting to the construction of clarification problems by creating conceptually specific construction concepts. Good leadership needs continuous communication skills. Leaders speak to and listen to team members, respond to concerns, complaints and emphatic. Leaders use good leadership skills to move the business forward to achieve new heights of success. Real leader is where the organization is heading and preparing the steps it has to take to get there. Leaders are all supposed to imagine what possible, track developments in the business is and use the opportunity to grow the business. Effective leadership is constructive and gives staff good inspiration. Good leaders are caring and profoundly care for the well-being of others. Leaders will find answers to the challenges and reassure and inspire the workers when things go wrong. Leaders find the ways for workers to collaborate together to deliver optimal performance in a constructive and efficient manner.

#### 1.7.6 OWNER ATTRIBUTES COMPETENCY

An attribute is defined as the qualities or characteristics of a person, position or object. True life people and fictional characters have varying characteristics. The owner was identified as a person or association that has a rightful title that owns something. Business owner is the legal owner of the business. According to Alan Coetzer, Andreas Wallo & Henrick Cock (2017), there are a few studies that have examined the owners role as a facilitator of employee learning in small business. The owner plays the important role in teaching employees about the business, so that business runs successfully. Individuals as the owner play a major role in the small business in order to grow to be more established and more firms (Kontraktor et al., 2019; Foss dan Lindenberg, 2013; Foss and Pedersen, 2016; Gavetti, 2012). Attributes are defined as a characteristic some people have, especially when they inherit the important skill of their own. Real life personal characteristics and fictional characteristics possess their various attributes (Mills CP, 2016).

1.7.7 NETWORKING COMPETENCY

A personal network is a series of human connections known to an identified through which the individual plans to connect at intervals to help a defined range of activities. In other words, a personal network is a group of loving, devoted individuals who are committed to establish a relationship with individuals in order to encourage a given series of activities. Getting a good personal network means being connected to a network of tools for shared advancement and development. Personal networks should be able to understand what the researchers are looking for.

Personal networks are structured to be mutually supportive, expanding the idea of cooperation beyond the immediate peer circle. The concept is typically used in the workplace, but it could refer similarly to other out of work behaviors. Personal networking is a method of creating and sustaining a personal network, which is typically conducted over a prolonged period of time. Personal networking is also encouraged by major organizations in the expectation of improving efficiency, and so there are a range of resources available to facilitate network management. Going to invest in innovation by SMEs themselves could be difficult, exposed to those beyond the range of networking, and diversifying the investment risk would favor small scale businesses like SMEs (National Innovation Agency (NIA), 2019). Network types are often categorized into two types: social and business, or informal and formal according to SW Jeong (2016). Formal networks are the extended relationship between all of a firm's employees, whereas informal networks are the relationships with all individuals that an entrepreneur can meet.

#### 1.8 SUMMARY

This study explored the innovation competencies towards innovation performances in Tourism Small and Medium Enterprises (TSME) in Terengganu. The findings of the study showed that technology focuses on innovation in the tourism sector in small and medium enterprises (SMEs). Innovation has played an increased involvement in the tourism sector and is particularly important for small and medium sized enterprises as well as travel agencies. The researcher found that research in capturing the complexity surrounding tourism output is still slow. Because of these, the researcher needs to do research regarding innovation performance in TSME Terengganu, Malaysia. Leadership is very important in an organization because it can influence employees.

At the same time, employees were productive and indirectly, ideas in terms of innovation improved and showed effective innovation performance to facilitate TSMEs to enter the international market, the owner attributes must play a role. For example, the wide network of owners causes the TSMEs market to be more marketed. High innovative capabilities are also one of the ways to market TSMEs internationally. To make a successful business especially in TSME in Terengganu, they had to have high networking and also innovation. This is because when they have a lot of networking, they are easy to grow apart besides to have a business model of innovation to thrive. To conclude this, there is a correlation between leadership, owner attributes and networking in terms of innovation competency.

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#### **CHAPTER 2**

#### LITERATURE REVIEW

#### 2.1 INTRODUCTION

This chapter described the associated literature to establish a theoretical context for this study and to illustrate the gap that will be discussed later in the research question. According to Hodgkinson & Ford (2014), the most popular category of literature review is the narrative review, described as a basic arrangement of critical literature reviews in the form of narrative evaluation. The dependent variable was a variable effect that the researcher can predict and explain. It can be measured in the research and the dependent variable responds to the independent variable. The dependent variable in this research is innovation performance in the tourism industry. The independent variable was a specific cause that can be assumed to be correlated with or described by the variance. The independent variable is innovation competency.

Next was about the relationship between independent variable and dependent variable. This chapter will describe the conceptual framework and hypothesis of the study. This research examined the efficiency of innovation in TSMEs in Terengganu. Tourism small and medium-sized enterprises (TSMEs) were closely incentivized to adopt the innovation management model as a systemic area of research and development activities to broaden science and technology (Sci-Tech) networks, especially in Malaysia. The researchers were only focused on tourism small and medium enterprises (TSMEs) at Terengganu for the research.

#### 2.2 INNOVATION PERFORMANCE

Innovation performance is the creativity or ideas that will enhance goods, systems, and processes. This improvement can be of increased importance, usefulness, and efficiency. This article examined the tendency of individuals to evolve in working contexts by reflecting on the unique competency profile of a person that plays a part in the integration of items, technical and information advances at the workplace. The research expanded on economic and managerial studies on creativity, imaginative actions, and expertise to fully understand the relationship between both the mechanism of learning skills and creative behavior in the working world. Estimated findings provide proof of the important marginal impacts of competencies on the chances of persons functioning as inventors at the workplace. Competency is attentiveness to potential possibilities, the ability to develop goods, proposals or statements, the ability to organize the capacity of another opportunity to come up with creative ideas and strategies with the capacity to use technology. While the Internet tends to have a greater negligible effect on the probability of creativity and thus spring up as crucial competencies in describing the tendency of the person.

According to previous research, there is a correlation between company performance and innovation performance (Calantone et al., 2002; Yalcinkaya, Calantone, & Griffith, 2007). Jones (2018) states that business capability at innovation performance mediates the effect of company resources like Big Data on business performance, according to organisational learning theory. Big data may play a key role in offering enterprises huge opportunities for learning, improving their innovation skills and eventually boosting their performances. Jones (2018) argues that if new knowledge is the cornerstone for organisational learning, big data offers organizations a huge chance to learn and, as a result, to improve their performance. Firms can swiftly utilize fresh information to produce and implement new ideas with a big volume of new data and improved tools to process (Ghasemaghaei, 2018b, 2019a; Sivarajah, Kamal, Irani, & Weerakkody, 2017).

This study explores the relationship between innovation competency and innovation performance of TSMEs and based on the results, it was developed that organizations need to adopt comprehensive and effective organizational sustainability initiatives to produce great value innovation outcomes in the performance of TSME. Innovation was carried out by all kinds of organizations in terms of scale because it has been proved that organizations had better profitability and market share (Prajogo and Ahmed 2006).

#### 2.3 INNOVATION COMPETENCY

Innovation competency was developing practical concepts that are new, great, or more interesting. It provided new ways of looking at problems. It could introduce a different idea and bring it into effect. It embraced a range of viewpoints to foster or cultivate creativity. Innovation competency can be brought and developed new and improved opportunities for the company to be effective. Adapting to transition and investing in lifelong learning and strategic thinking to facilitate the success of people and organizations.

The findings showed that the ability to pursue or leverage opportunities, such as technical and core technology capacities, was especially essential for firm innovation in a highly competitive setting, whereas the dedication to current technology constraints innovation, particularly in such an environment. In addition, diverse types of competitive markets need different forms of technical competence to improve firm productivity. This paper added to the current hypothesis by analyzing the combined influence of technical expertise and the competitive climate on the innovation of an organization.

This competency was to explore how network expertise, information sharing, and partnership quality have an impact on service innovation results. Both business network expertise and information exchange have a distinctly positive effect on TSMEs. The sharing of information partially mediates the influence of the expertise of the network on TSME. Relationship productively positively lowers the impacts of network experience on sharing of the information and the impact of knowledge transfer on TSME. The relationship continuity does not greatly minimize the influence of network expertise on TSME in Terengganu.

Some research in knowledge management studies, the link between technology and firm performance may be influenced by learning skills or competence (Tippins and Sohi, 2003; Tanriverdi, 2006). These educational competencies with innovation have also been categorized as internal and external. While internal learning competency speaks to new information produced by a firm's existing accumulated observation using its very own assets, external learning competency applied to the new information developed and incorporated within such a firm through contact with the surrounding and other companies (Chang, 2003; Bapuji and Crossan, 2004; Alegre et al., 2011).

This research examined the efficiency of innovation in TSMEs in Terengganu. The efficiency of this innovation was measured through the owner, namely leadership, networking, and attributes. Owner's innovation competencies were measured based on their leadership, attributes, and networking ability. This owner's innovation competency would be analyzed at TSME.

#### 2.3.1 LEADERSHIP COMPETENCY

Leadership is a concept that encourages a community of people to come along with a mutual purpose. These may have involved senior management and associates with a plan to meet the demands of the business in a corporate environment. Here's what the researcher needed to know about leadership, and a few ideas of how business will profit. According to Vlok (2012), leadership was a central element in the growth of TSME developments. A retrospective already reviewed reveals that TSME leadership has taken developments to the industry through the introduction of dreams of modern business models. Correlating to the concept of leadership as a framework in which individuals strive to be leaders in a certain manner, all members, but in general representatives of associations, need to be even more entrepreneurial and display a desire to collaborate and mediate in the context of common ideals and priorities within the destination.

Today, creativity was structured as a management mechanism which can be continuously established. The platform for the discovery process for the creation of the build environment must be a systemic network and not just a geographic network without leadership. Leadership was also a thing to design an exciting strategic destination. In order to be creative and remain successful in the future, the players of the location must collaborate in addition to being able to recognize prospects within the location, exchange capital and skills or devise plans to direct the production of marketable goods services. The method of creativity would only be achieved if the next steps and possible discovery of new technologies were included.

Decent leaders have five basic competencies, namely epistemological competence, heuristic competence, relational competence, integrity competence and, ultimately, multidisciplinary competence. These five competencies were important for the effective management of the innovation system as an inter-organizational system and collaboration process within a destination. Leadership is a catalyst to inspire, guide, set examples, create an environment of trust and respect, create a creative culture, create a vision, listen, learn, teach and share information (Holsapple and Singh, 2001). Thus, we see supervision as a way to create a creative culture within an organization.

Berraies and Zine El Abidine (2019) stated that expectations of innovation are probably impossible for knowledge workers managed by transactional leadership alone. For example, a manager that disregards transformational leadership traits and only its transactional leadership characteristics can limit their subordinates' independence, hindering their innovation (Si and Wei, 2012). Zhang and Guo (2019) stated that leadership based on knowledge is acknowledged as a kind of leadership that meets the demands of knowledge-intensive sectors. In this context, firms with excellent organizational performance can achieve a higher relationship with organizational performance through more production of innovative goods (Curado et al., 2018).

Tittle	Journal	Year	Location	Author	Respondent	Method
A leadership competency profile for innovation leaders in a science-based research and	Procedia - Social and Behavioral Sciences	2012	South Africa	Awie Vlok	Leaders with formal responsibility for innovation in science-based research and	Qualitative

Table 2.1: List of Journals Related to Leadership.

innovation organization in South Africa					innovation organizations	
Collaboration for Innovation in Tourism Organizations: Leadership Support, Innovation Formality, and Communication	Journal of Hospitality & Tourism	2013	United States	Florian Zac h	American destination marketing organizations (DMOs) with less than 10 employees	Quantitative
Leadership and Innovation Processes— Development of Products and Services Based on Core Competencies	Journal of Quality Assurance in Hospitality & Tourism	2008	ER	Harald Pechlaner, Elisabeth Fischer, Eva-Maria Hammann	The local stone processing industry, tourism organizations, service providers in the cultural sector (arts, museums, etc.), restaurants, and other service providers along the tourism value chain	Qualitative
Recruiting and Selecting Leaders for Innovation: How to Find the Right Leader	Advances in Developing Human Resources	2011	United State	Tiffany M. Greene- Shortridge, Lauren E. McEntire	Human resource (HR) management	Qualitative
Effect of Leadership Style	Arabian Journal of Business and	2015	Pakistan	Iqbal N, Anwar S, Haider N.	Employee and organization in Pakistan	Qualitative

on Employee Management Performance Review

#### 2.3.2 OWNER ATTRIBUTES COMPETENCY

The attributes should be considered as excellent qualities and actions of owners for them to be effective TSME entrepreneurs. As a result, these represent the suitability of qualities as one of the metrics for the invention skill of the owner. The business climate in Hong Kong has been considered as conducive to growth in the productivity of entrepreneurship (Siu and Martin, 1992; Tam and Redding, 1993; Yu, 2000). Malaysia also has their own company and entrepreneurship who succeed. As a result, a significant number of tourism small and medium-sized enterprises (TSMEs) and their owners/leaders have established several different characteristics.

Most specifically, as detailed in the next segment, it was noted that these entrepreneurial personalities have remained key to the owners/leaders of small and medium-sized companies in Malaysia during the last few decades, considering shifts in the industrial system of Malaysia and the latest global downturn. Most of these elements, as discussed later, were more profoundly embedded in socio-cultural influences, whereas others were influenced or strengthened by industrial aspects by experience or work, schooling, and skills. The use of competencies could also play a role in determining the corresponding influences of socio-cultural variables and industrial considerations on the business climate in the determination of entrepreneurial intention.

Tittle	Journal	Year	Location	Author	Respondents	Method
The context of entrepreneurship in	Journal of Small Business	2005	Hong Kong	Thomas W.Y.	153 SME owner/managers	Qualitative

Table 2.2: List of Journals Related to Owner Attributes.

	nd Enterprise			3.4		
				Man,	in the wholesale	
investigation D	Development			Theresa	trade and IT	
through the patterns				Lau	services	
of entrepreneurial					industries	
competencies in						
contrasting						
industrial						
environments						
Top Managers M	Managerial and	2020	China-	Syed	Pakistani energy	Quantitative
Attributes, D	Decision		Pakistan	Zulfiqar	sector SMEs	
Innovation, and The E	Economics			Ali Shah,		
Participation in				Muhamm		
Pakistan Economic				ad Anwar		
Corridor: A study of				& Ch.		
energy sector and				Mazhar		
small medium-sized				Hussain		
enterprises.						
Identification of the T	Cechnological	2019	Spain	M.	336 reviews	Qualitative
unique attribu <mark>tes F</mark> o	Forecasting and			Olde <mark>dilla,</mark>		
and topics within Second	ocial Change			H. Se <mark>nd,</mark>		
SmartThings Open				S.L. Toral		
Innovation						
Communities.						

#### 2.3.3 NETWORKING COMPETENCY

Networking was the exchanging of skills and information among people with the same profession or a particular interest, usually in an unofficial social environment. An example of networking was the exchange and retrieval of knowledge between different departments of the same organization to share information and solve business problems.

An example of networking was connecting the entire computer system to a print server to allow each workspace to print documents.

Investing in innovation by tourism small and medium enterprises (TSMEs) themselves could be painful, exposed to those beyond the range of networking, and diversifying risk of investing would be beneficial to small-scale businesses like TSMEs (National Innovation Agency (NIA), 2019). There were all sorts of antecedents for success in innovation, such as tradition, strategy, features, people, structure, capital, and networking (Jong, Dolfsma, Bruins & Meijaard, 2002). According to Barney and Arikan (2001), the resource-based view of strategic advantage operates on the ideas that firms were heterogeneous in terms of their control of important strategic capital, and that resources were not completely mobile between firms.

Tittle	Journal	Year	Location	Author	Respondent	Method
Networking and	International	2005	United	Luke	-	Quantitative
innovation: a	Journal of		Kingdom	Pittawa <mark>y,</mark>		
systematic review	Management			Maxine		
of the evidence	Review			Robertson,		
				Kamal		
				Munir,		
				David		
				Denyer and		
				Andy Neely		
Networks, Trust,	World	2002	Tanzania	James T	Manufacturing	Quantitative
and Innovation in	Development			Murphy	firms	
Tanzania's	1					
Manufacturing						
Sector						
Networking and	International	2018	Pakistan	Muhammad	319 newly	Quantitative
New Venture's	Journal of			Anwar, Atiq	established	
Performance:				Ur Rehman,		

#### Table 2.3: List of Journals Related to Networking.

Mediating Role of Competitive	Emerging Markets			Syed Zulfiqar Ali	venture in Pakistan	
Advantage				Shah		
Internal	European	2020	Spain	Daineli <mark>s</mark>	249 directors of	Quantitative
networking and	Management			Cabeza-	Spanish public	
innovation	Journal			Pulles,	university	
ambidexterity:				Virgini <mark>a</mark>	research	
The mediating				Fernandez-		
role of				Perez, Maria		
knowledge				Isabel		
management				Roldan-		
process in				Bravo		
university						
research.						

#### 2.4 HYPOTHESIS

2.4.1 There was a significant relationship between leadership competency and innovation performances.

This study also aimed to clarify the relationship between leadership and innovation performances. To achieve a good performance in organization, they needed good leadership to provide guidance for the teams. Leadership was characterized either based on personal characteristics and attitudes, relationships with the followers and reactions with other shareholders, managerial roles, or expectations of everyone else (Nusair et al., 2012). Since leadership typically tends to vary and was subject to several factors, such as purpose, there was no common concept for leadership. New leader methods such as transformational leadership, inspirational and innovative concentrate on the leader's role in developing and affecting organizational culture by inspiring members

of the organization, sharing leadership tasks among them, and encouraging them to enhance their performance. Leadership has several other aspects such as moral stimulation. Based on the paragraph above, there is a connection between leadership and innovation performance.

The leadership initiatives seek to improve the capacity of individuals, communities and organizations through learning experiences that have served as a catalyst for growth (Rabin, 2014; Van Velsor et al., 2010). Leadership development programs served as a platform for social capital development because they provided a framework for the establishment of relationships that could have contributed to confidence building, good trust. Competency in leadership means a capacity to encourage the entire organization to match employee activities with the organization's vision, purpose and goals. It was about developing a culture guided by results, where leaders have collaboration, collective decision-making, and representation. Leadership ability allowed all, despite struggling with adversity, to work for a common purpose to achieve a positive result. Small and medium-sized tourism entrepreneurs (TSMEs) with leadership skills could lead their workers towards unique objectives.

It was obvious that leadership typically played a key role in the growth and commitment of corporate innovation. However, the presence of different types of leadership makes it harder to evaluate the essence of the interaction for each type and organizational creativity, and the optimal style for promoting innovation at the organizational level. In fact, several of the previous studies demonstrate the need to further explore and realize more the relationship between leadership style and innovation in specific or general. For example, Ayranci and Ayranci (2015), who investigated how leadership characteristics and behaviors among small to medium enterprise (SME) founders were driving their business innovativeness, argued that the correlation between innovation and leadership was not clearly established and was also uncertain in terms of the relationship between various leadership styles and innovativeness.

2.4.2 There was a significant relationship between owner attributes competency and innovation performances.

There were also valuable attributes that small business owners have in common. It's a question that provokes a lot of thoughts, but there are attributes that a great leader should have no matter what. The decision to make the company a reality. It takes a lot of effort to make a dream into a company. Owners needed a lot of tenacity to brush off all the losses and patience to deal with the occasional bumps on the lane. So, it's going to be worth it in the end. Owners needed the confidence to take chances because successful small business owners have the courage to start everything out of nothing. The owner cannot let panic discourage the work from taking on the kinds of risks that will potentially make the company expand and to manage a small company that was not only about taking chances, but also about handling them. The owner should ensure that the company was covered by the right small business insurance was one way to avoid curveballs from stopping their path. Part of becoming a good small business owner was being able to see outside the box. The owner must be innovative to satisfy the needs of the consumers.

According to Gassmann et al. (2010) then it defines user innovation as a component of the innovation process and mentions the intensive research work being conducted in this field. All research areas interacted with customers, but open innovation was a firm-centered approach that tackles the firm's strategic and operational potential. However, user innovation is user-centered and more obsessed with the opportunities and demands of users (Piller and West, 2014). Special attributes relate to any characteristics related with a single product or company when that product or brand was contrasted with those of its rivals (Toral et al., 2017). In the field of innovations, certain special characteristics reflect future innovations that were not found in competitive goods.

The fact that designers' perceptions of safety management were mostly subjectively, especially in the lack of appropriate knowledge and techniques (i.e. know-how) (Hinze and Wiegand, 1992; Che Ibrahim and Belayutham, 2020), of this kind attributes might serve as a point of guideline that can further develop and inspire the protective heritage among design professions.

2.4.3 There was a significant relationship between networking competency and innovation performances.

Networking was defined as an individual level construct to identify interrelated behaviors that can be regularly and consistently expressed by individuals (Wolff et al., 2008). Networking was an especially useful competency in the leadership sense, as it provided the means for a person to increase the number and diversity of relationships in their social network. The relationship was built and sustained by networking, which is a useful activity for growth, since it can extend the social network of a person and increase the capacity of social capital (Kilpatrick et al., 2003; Uhl-Bien, 2006; Wolff & Moser, 2010). There was also an increasing awareness that developing networks will enhance the effectiveness of individuals in leadership roles (Cullen-Lester et al., 2017). Thus, in this research, the relationship between networking and innovation competencies played an important role.

In addition, networking in the field of working contacts will give rise to competencies (Bird, 1995; Ahmad et al., 2010). Network was essential for the organization to connect the employee to the client. Unfortunately, networking will solve the competitive environment and various requirements of entrepreneurship. Networking has a huge effect on the start-up, development, and advancement stages of an enterprise (Anderson et al., 2010). In other terms, networking was a particular skill that defined firm performance. For example, successful networking offered expertise to entrepreneurs and multiple types of encouragement for improving the firm efficiency (Ahmad et al., 2010). Innovation competency was tied to networking to evaluate a firms or organization's productivity.

For example, previous research found that knowledge transfer (KT) needed members of the community to share their information and at the same time to gain information from any people to change and recreate that information (Chen & Hung, 2010). In this context, the transmission of knowledge was carried out by the advisory group, depending on the research with which the partners cooperate (García-Sanchez et al., 2019). In order to accomplish knowledge sharing, internal research networks were set up to promote improve connectivity and deeper ties between researchers, as these networks allowed knowledge transfer faster and more regular (Ming-Chao et al., 2018; García-Sanchez et al., 2019) and discouraged researchers from operating on their own (De Saá-Pérez et al., 2017). Based on the paragraph above, there was a relationship between networking and innovation competency. With terms to the relationship between networking and the transmission of innovations, the current study emphasizes the importance of entities and most precisely, the significance of social and casual connectivity for the innovations.

#### 2.5 THEORETICAL FRAMEWORK

The theoretical framework was the structure that really can help or support the theory of a research analysis. The theoretical framework introduced and pointed out the hypothesis that explains whether there was a research topic under study. The theoretical framework served as a reference point for the systematic recognition of the rational, specifically defined relationship between variables. It specified which important elements influence the phenomena under studied and therefore which variable to estimate and the justification for the relationship between the variables. The theoretical framework was shown in Figure 2.1 that is FINCODA Model of Innovation Competency.

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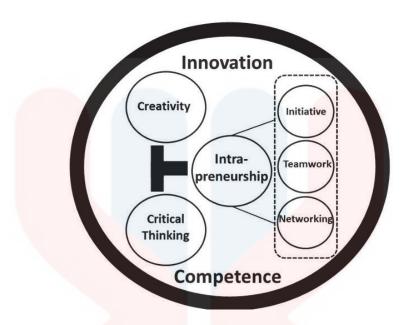


Figure 2.1: Innovation Competence

Source: FINCODA Model of Innovation Competency.

The FINCODA Model of Innovation Competence was based on three dimensions or constructs: Creativity, Critical Thinking, and Innovation Management, which was a cluster of dimensions that included the sub dimensions of Initiative, Teamwork and Networking.

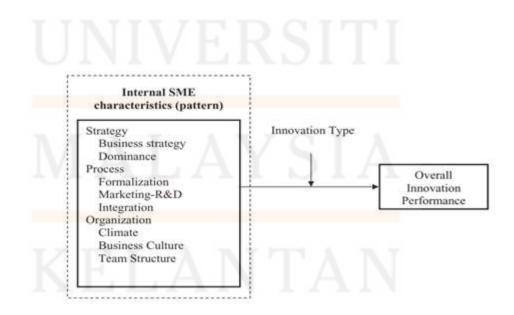


Figure 2.2: Internal SME Characteristics

This figure 2.2 represents the relationship between the internal SME characteristics (pattern) and overall innovation performance. It was related to strategy, process, and organization. Internal characteristics were significant to the innovation performance of the organization. Those concepts in the figure 2.2 that can be described by independent variables that describe the variable and had explained the relationship between the internal SME characteristics and overall innovation performance (Ernst, 2002; Cooper et al, 2004; Katnet al, 2006).

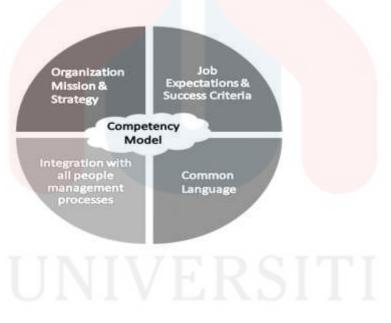


Figure 2.3: Model of Competency

Source: Centranum Competency Management Systems, 2020

Figure 2.3 indicated a competence model or competency framework which was a collection of success competencies that could be applied to those employees in the organizations, a level of leadership, a job position, a business unit and more (Centranum, 2021). A competence was described as the capacity to successfully perform "essential

work functions" or activities in a given context using a collection of applicable knowledge, skills, and abilities.

A competency was the ability to effectively execute functions or activities in a given work environment by applying a collection of similar expertise, skills, and abilities. Competencies were often used as the foundation for ability levels that determine the level of experience, talents, and abilities required for achievement, as well as possible assessment metrics for evaluating competency attainment.

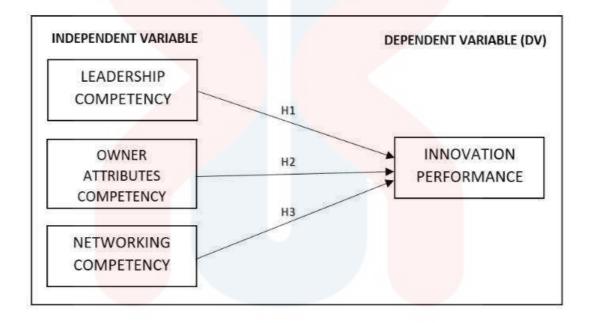
The development of an industry competency model was focused on an examination and synthesis of current national and state competence levels, professional curriculum, and industry certifications. This move should be carried out in conjunction with industry or subject matter experts (SMEs) who are familiar with the industry's terms, procedures, and skills.

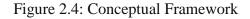
#### 2.6 CONCEPTUAL FRAMEWORK

The conceptual framework was an empiric approach with several variations and contexts. It can be applied to various types of work where the final picture is required. It was used to make reasonable comparisons and to organize principles. The philosophical structure explained what the researcher wanted to discover in your studies. It has described the related variables for your analysis and maps how they might contribute to each other. Before starting to gather the data, the researcher created a logical structure. It was also displayed in a graphic way. In this section, a systematic research model was developed based on a variety of literature reviews. Focused on the research framework, the hypothesis was founded to explain and demonstrate the relationship among leadership skills, networking ability and attributes. The research framework was shown in Figure 2.3.

Figure 2.3 indicated the independent variables (IV) and dependent variables (DV) of this research. The independent variable was the factor which could have affected the innovation performances in the tourism industry. From the other hand, the dependent

variable was the innovation competency toward innovation performances in the tourism industry. There were three factors of innovation competencies that have been measured which are leadership, networking ability and attributes to the industry. This figure showed the relationship between leadership, networking, and attributes of innovation competencies toward innovation performances.





#### 2.7 SUMMARY

In chapter two, an overview of the research was variables. Variables was an attribute or characteristic that was stated in a specific or an applied way. This variable was dependent variable (DV) and independent variable (IV) on research.

Innovation was about much more than coming up with good ideas. It was the method of making them realistic. Tourism small and medium-sized enterprises (TSMEs)

were preferred by mobilizing expertise, technical capabilities, and experience to develop new goods, systems and services. The dependent variable was innovation performance and the independent variable was innovation competency. The researcher finds the underinnovation competency was leadership, networking, and attributes.

By setting the dependent variable and independent variables, the researcher found that innovation performance was related to innovation competency towards TSME in Terengganu. In fact, all the variables were related as any of them might change the innovation on TSME.



#### **CHAPTER 3**

#### METHODOLOGY

#### 3.1 INTRODUCTION

Methodology was the design framework for the execution of study or the creation of a protocol which is not in itself an instrument or method or technique for doing things. The research methodology was a basic technique or method that is used to classify, choose, process and interpret knowledge on the subject. In a research paper, the review section allowed the reader to independently access the overall viability and reliability of the report. This chapter obviously defined the research method to complete this study. Besides, this study was considered as a survey research with regard to the generalization of its findings. These methods consisted of research design, target population, sample size, sampling method, data collection, research instrument, and data analysis.

This research has selected a quantitative research method, case study approach for this research, and these principles are explained in depth. In addition, this chapter describes and discusses the population, survey, analysis techniques and data collection methodology of the study. In fact, this chapter gives an outline of how and why the data will be viewed and discusses the reliability and accuracy of the data as it relates to the analysis. This section begins with a summary of the chapter

# 3.2 RESEARCH DESIGN

Research design was a starting point for the conduct of a research project. After the research issue has been found, the design of the research must be established. It was the long-term plan that specified the process and procedure for gathering and analyzing the necessary details (Zikmund, 2003). In other words, it can be defined as a big strategy of the procedures and methods that will be used to retrieve and interpret the data needed by the decision-maker. The research architecture was an explicitly designed arrangement of the requirements for the study and processing of data in a way that attempts to balance the importance of the study purpose also with the economic process.

There were two styles of research design which was qualitative data and quantitative data. This design was important to carry out research on the basis of research design, as it is the context within which the research action plan has been applied. The analysis must be well prepared to ensure that the information gathered is sufficient for a specific research project. Qualitative data defined the consistency of features of the data. It was obtained by means of questionnaires, interviews, or findings and mostly appears in narrative form. Quantitative data are data that express a certain quantity, total amount, or collection. Typically, there are data-associated measuring units. It makes sense to set the boundary limits for such data and also makes sense to enforce the data.

The research design was a quantitative method. Quantitative research designs prioritize objectivity in calculation and explanation of the phenomena (McMillan & Schumacher, 2010). The concept of factorial research investigated the innovation performance towards innovation competency at TSME in Malaysia. Though this report focused on tourism small and medium-sized enterprises, the definitions of tourism small and medium-sized enterprises established by the Small and Medium Industries Development Corporation (SME Corp Malaysia, 2014) have been utilized to select suitable enterprises for conducting the research. The data collection was established by implementing the elements of previous literature that are appropriate and efficient to determine the relationship between innovation performance and innovation competence.

# **3.3 TARGET POPULATION**

The word "target population" was an informal term used frequently in epidemiology. It was often characterized as a category or group of items about which the researcher wished to learn more. Almost always, the terms "targeted population" and "population" were interchangeable. The target population was important for three main motives that can set a clear direction for the goals and intent of the analysis and data forms. Identifies the characteristics of the individuals who are eligible for the analysis. Generates a part of the entire population or the group for the measurement of the sample size. Frequently, the accessible anthropometric data came from groups that are significantly different from the target populations (Parkinson and Reed, 2010).

A population can be described as involving any person or object with a feature that one wishes to learn. The population for these studies was closely related to TSME in Terengganu. From the definition, the population can be understood as the targeted workers in TSME Terengganu. This research was conducted in Tourism Small and Medium Enterprise (TSME) in Terengganu because the researchers want to know how their innovation competency and innovation performances in TSME. A population was characterized as a group of populations, with at minimum one shared feature which distinguishes that category from other individuals (Best & Kahn, 2006). Except perhaps in the sense of research approach, it was not possible to measure the employees properly at TSME in Terengganu.

#### 3.4 SAMPLE SIZE

Sample size was the number of findings selected from the population for research purposes. According to Krejcie and Morgan (1970), it was used to determine the required number of study respondents. This study was conducted by taking information from respondents using a questionnaire. For the research, the population from which samples were obtained the innovation competency towards innovation performances. The sample that was used for TSME Terengganu by the researcher is 379. Table 3.1 shows the sample size based on the given total population.



Source: Krejcie and Morgan (1970)

N	S	N	S	N	S
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	1000000	384

Note.—N is population size.

S is sample size.

## 3.5 SAMPLING METHOD

Sampling selection attempts to choose a sample in a manner that is impartial and represents the population from an area. The selection of a sample influences the ease of

access to the potential respondents. Therefore, the method of choosing a several from a bigger group as the basis for assessing or anticipating the presence of an unknown piece of information, situation or circumstance for a bigger group. Sampling advantage were to conserve time, save cost and funds and request fewer human resources (Kumar, 2014)

The sampling method was separated into probability sampling and nonprobability sampling. The researcher would use a purposive sampling because it includes the researcher using their expertise to select a sample that will be more beneficial to the study objectives. The purposive sampling was a non-probability sampling. As a result, the purposive sampling method is the appropriate methodology to use (Sekaran and Bougie, 2010). According to Etikan et al. (2016), purposive sampling allows researchers to identify what needs to be known and then seeks out people who can and are willing to supply the information based on their expertise or experience. Clearly, this method is also utilized in quantitative research to find and pick the most information-rich samples in order to make the most use of existing resources (Olsen, Vogt and Andereck, 2018).

#### **3.6 DATA COLLECTION**

Data collection was defined as the method for gathering, measuring, and interpreting reliable insights into research using conventional validated techniques. The researcher would verify their hypothesis based on the data collected. In some situations, data collection was the first and most essential step in the analysis depending on the area of research. The method of data collection was different for different fields of knowledge, based on the data required. Based on Kumar (2014), there were a total of two major methods which were quantitative and qualitative to collect the information about a person, situation, phenomenon and problem. During the research study, the information was collected by the researchers but, sometimes the information that was being sought is already available and only needs to be extracted.

The method or techniques that were being seen for this research are quantitative research methods. The quantitative research method was to survey and collect the data required. This research would be used in the questionnaire to measure innovation performance, leadership, owner attributes and networking in innovation competency. According to Barriera, Viruet, Sobeih, Daraiseh, and Salem (2006) suggest that selfadministered questionnaires could gave benefits to respondents: (1) Questionnaires were common to most people and usually do not make people apprehensive; (2) Questionnaires were very cost effective when studies requiring large sample sizes and large geographical areas; and (3) Any lack of authenticity was adjusted by a higher survey size and statistical strength.

Convenience sampling was one of the non-probability sampling methods. This sampling is easy to reach and commonly used in any research. The convenience sample uses voluntary involvement, which increases the chances of researchers to recruit certain people who are deeply concerned about the problem in question and could benefit from those results (Moore, 2001). This will be focused on tourism SMEs Terengganu.

#### 3.6.1 PILOT STUDY

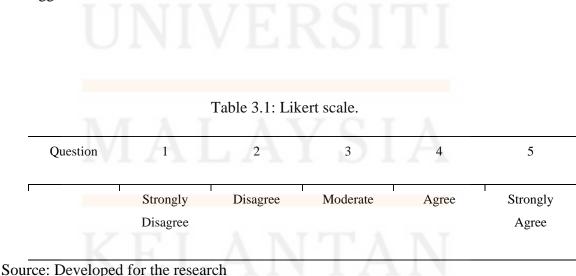
Pilot study was a significant step in a research project because it identified possible problem areas and weaknesses in the research instruments and prepared statements to complete the research. The researcher performed a pilot study prior to the dissemination of questionnaires. This pilot study was performed at Universiti Malaysia Kelantan with 30 respondents from any student to determine the reliability of the data instrument.

#### 3.7 RESEARCH INSTRUMENT

Research instruments are tools that measure things such as questionnaires or scales used to collect data from research subjects. The research instrument was a method used to collect, measure and analyze data related to our research interests. There were two instruments only in this research, namely background questionnaires to collect data on the background of respondents. As Descombe (2007) states the case study approach to analysis suggested a number of approaches that can be used in the processing of data. In this study, the researchers have preferred to use questionnaires, review of records and semi-structured interviews. Using the questionnaire helps me to obtain a high percentage of available responses from a large survey.

The questionnaire in this research was separated into three sections where it was Section A, Section B and section C. Section A discusses the business profile. Business profile was included in demographic segmentation. Demographic segmentation was defined as market segmentation such as income, workplace, state, etc. Section B focused on the dependent variable and section C focused on all the independent variables which were provided by the researchers such as leadership, owner attributes and networking. It would discuss the innovation competency and innovation performances in TSME Terengganu.

To receive the details on the respondent interpretation, a Likert scale approach applied and identified the level of agreeing or disagreeing. A Likert scale was a onedimensional scale used by researchers to gather the thoughts and perceptions of respondents. The Likert scale was one of the most basic and commonly used psychometric tools in educational and social science research. The researcher will use a five-point ranging from strongly disagree (1), disagree (2), neutral (3), agree (4), and strongly agree (5). This research instrument will be distributed to the TSME in Terengganu.



		SOURCES	RELIABILITY AND VALIDITY
DV	Innovation Performance	1.Farzaneh,Mandana;Ghasemzadeh,Peivand;Nazari,JamalA.;Mehralian,Gholamhossein (2020)2.Joaquín Alegre;Ricardo Chiva	0.7
		(2008), OECD-Eurostat (1997), Alegre et al. (2006)	0.9
IV	Leadership	<ol> <li>Busola Oluwafemi, T., Mitchelmore, S., &amp; Nikolopoulos, K. (2019).</li> </ol>	0.8
		2. Bruce Avolio & Bernard Bass (2020).	0.7
	Owner Attributes	<ol> <li>Vidal, G. G., Campdesuñer, R. P., Rodríguez, A. S., &amp; Vivar, R. M. (2017).</li> </ol>	0.7
		<ol> <li>Gelei, Andrea; Losonci, Dávid; Matyusz, Zsolt (2015).</li> </ol>	0.8
	Networking	1. Atalay, Murat; Anafarta, Nilgün;	0.7
		Sarvan, Fulya (2013). 2. Anwar, Muhammad; Ali Shah, Syed Zulfiqar (2018).	0.6

#### 3.8 DATA ANALYSIS

Data analysis was the method of systematically applying statistical and logical tools to characterize, recapping and interpreting data. The accurate and adequate analysis of the findings of research is a vital component of ensuring data integrity. Data analysis was how analysts shift from a mass of data to concrete observations. There were several common types of data processing, depending on the scope of study. It had basic benefits, it was also the essential distinction with quantitative research, as it provided a thorough explanation and analysis of a study issue without restricting the finding of the research and the essence of the reaction of research respondents (Collis & Hussey, 2003).

When the data is prepared for study, analysts are free to use various techniques of study and data processing to gain useful perspectives. For sure, mathematical methods were the best suited for the study of numerical results. The approach was again split into two classes. First, descriptive statistics were used to explain the results. Second, inferential statistics which allow us to compare the results.

For descriptive statistics, this approach was used to define the specific features of flexible data types in science. It frames the data in such a logical manner that the trend in the data continues to make sense. However, the descriptive review should not go beyond drawing conclusions. The assumptions were again based on the premise that the researchers have formulated thus far.

While, inferential statistics were used to formulate hypotheses for a broader population following study and analysis of the population representative sample. Inferential statistics were one of the two major branches of statistics. Inferential statistics used a random collection of demographic data to identify and draw inferences about the larger population.

At the conclusion of the studies, researchers used the Social Sciences Statistical Program (SSPS) to analyze the data collected. Statistical Package for Social Sciences (SPSS) was a software program designed for interactive or batch statistical analysis. This system was one of the most popular statistical structures that may be very difficult to control and analyze with a simple method. In the meanwhile, this was a user-friendly application. Statistical Package for Social Sciences (SPSS) could gather virtually every folder to develop tabulated files, including maps and distribution plots.

### 3.8.1 **DESCRIPTIVE STATISTIC**

Descriptive analysis was an approach to interpreting the data when the data represents the whole population or a subset that can be explained and the data in a concise and substantive manner in order to promote a clearer understanding of the data. Calculation of descriptive statistics was a crucial first step in analysis and could thus emerge before rendering inferential statistical comparisons (Kaur P, Stoltzfus J, Yellapu V, 2018). These data analyses shall be applied to the research questions and the research design chosen for this study.

The questionnaire generates information based on the respondent's selected general information. TSME in Terengganu being respondents were included in the study. Items selected for general information in this study include how the performance innovation in TSME. Then, it was about innovation competency related to leadership, owner attributes, and networking in TSME. Since the tourism industry performance in Malaysia has successfully shown positive achievement, the researcher wanted to know how they are going with innovation around TSME Terengganu.

# 3.8.2 RELIABILITY TEST

Test reliability refers to the extent of which the test is reliable and stable in the calculation of what it is supposed to assess. Most importantly, a test is accurate if it is

effective on its own and over time. Reliability was a measure of whether or not anything is accurate by making repeats and seeing how identical findings are obtained.

Next, the intraclass correlation coefficient was used to assess self-reporting reliability that uses a Likert scale or steps taken to correct identified errors (Bartko, 1966). Analysis of the confirmatory element will be carried out by the researcher to determine if the innovation performance is related to leadership, owner attributes, and networking in innovation competencies. Table 3.2 below is the rule of thumb Cronbach's Alpha on reliability test.

Cronbach Alpha	Internal Consistency
$\alpha \ge 0.9$	Excellent
$0.9 > \alpha \ge 0.8$	Good
$0.8 > \alpha \ge 0.7$	Acceptable
$0.7 > \alpha \ge 0.6$	Questionable
$0.6 > \alpha \ge 0.5$	Poor
0.5 > α	Unacceptable

Table 3.3:	Rule of T	humb Cron	bach's	s Alpha
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Source: Stephanie Glen (2014)

The questionnaire's reliability was assessed using reliability analysis. The pilot test was conducted with 30 respondents before being spread to 379 respondents using an online survey method.

**3.8.2.1 Pilot test** 

A pilot test will be conducted to identify potential errors in the questionnaire, such as unclear and confusing before performing the final questionnaire. It allows researchers to discover and address a wide variety of possible issues that could arise when planning the questionnaire and resolve them before the final questionnaire is performed.

In this research, 30 questionnaires were given to students of Universiti Malaysia Kelantan with the feedback received being used to increase the specificity of the questions. Next by following the collection of the questionnaire, the reliability test was carried out using application of SPSS Statistic 26. Cronbach's Alpha is the most often used method of reliability measurement to analyze the intrinsic accuracy of a scale. Cronbach's Alpha is the cumulative reliability coefficient value derived from standardized items in a specific research. Table 4.3.1 shows the result of the reliability of Cronbach's Alpha for the variables.

Variables	Cronbach's Alpha	Number of Items	Ν
Innovation Performance	0.939	7	30
Innovation Competency of Leadership	0.932	7	30
Innovation Competency of Owner Attributes	0.898	7	30
Innovation Competency of Networking	0.902	7	30
Overall Variable	0.975	7	30

Table 3.4: Results of reliability Cronbach's Alpha for the variables.

Table 3.4 shows Cronbach's Alpha values of the questionnaire were in a good and excellent internal consistency which is (0.8) to (0.9). A total of a number of variables has been tested using Cronbach's Alpha reliability. First is the dependent variable which is Innovation Performance found to be excellent (7 items;  $\alpha = 0.9$ ). Next is independent variables. The independent variables which are Innovation Competency of Leadership and Networking are found to be excellent (7 items;  $\alpha = 0.9$ ). The last independent variable is Innovation Competency of Owner Attributes found to be good with (7 items;  $\alpha = 0.8$ ).

All the variables have seven (7) items as the current Cronbach's Alpha result is already above the acceptable level.

#### **3.8.2.2 Actual** Reliability Test

Following the pilot test in the reliability test, the next step is to proceed with the real reliability test. The questionnaire has been sent to 379 qualifying respondents for the final reliability test. Based on Table 3.5, it is possible to state that all four variables were greater than 0.6. As a result, the questionnaire has been approved. There are 7 questions used in measuring the determinants factors of innovation competency on leadership that influence the innovation performance in TSME Terengganu. The Cronbach's Alpha result for this section was 0.787 that resulted as acceptable.

Next, to measure the innovation competency of owner attributes that influence the innovation performance in TSME Terengganu. The Cronbach's Alpha result for owner attributes was 0.804 that resulted as good. Then, to measure the innovation competency of networking that influences the innovation performance in TSME Terengganu. The Cronbach's Alpha result for owner attributes was 0.833 that resulted as good. Lastly, in measuring the innovation performance of TSME Terengganu, 7 questions were used. The Cronbach's Alpha result for this section was 0.805 indicating good internal consistency.

Variables	Cronbach's Alpha	Number of Items	Ν
Innovation Performance	0.805	7	379
Innovation Competency of Leadership	0.787	7	379
Innovation Competency of Owner Attributes	0.804	7	379

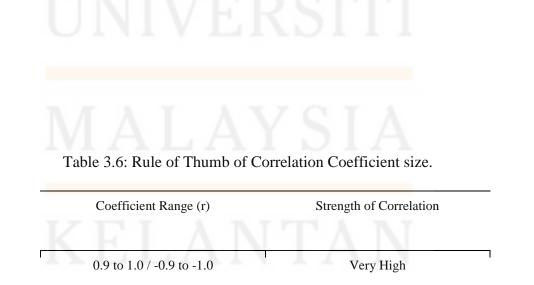
Table 3.5: Reliability Test for Each Section of the Questionnaire..

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## 3.8.3 PEARSON CORRELATION

The Spearman correlation coefficient enabled us to measure the ranked values for some attribute apart from the raw data (Spearman, 1904). The Pearson coefficient was a type of correlation coefficient which defined the relationship between the two variables measured at the same range or scale of the ratio. The Pearson coefficient was a measure of the intensity of the interaction of two continuous variables. The study hypothesis would be that one outcome impacts the other in the appropriate direction.

In this research, Pearson Correlation coefficient analysis was used to determine the relationship between innovation performance and innovation competency under leadership, owner attributes and networking in TSME Terengganu. A correlation of -1 showed a perfect negative correlation, while the correlation of 1 showed a perfect positive correlation. A correlation of 0 indicates no relationship between the movements of the motion of the two variables. The table 3.3 showed the Pearson Correlation Coefficient size.



	0.7 to 0.9 / -0.7 to -0.9	High
	0.5 to 0.7 / -0.5 to -0.7	Moderate
ſ	0.3 to 0.5 / -0.3 to -0.5	Low
r	0.0 to 0.3 / -0.0 to -0.3	Little, if any

Source: Hinkle, Wiersma and Jurs (2003)

#### 3.9 SUMMARY

This chapter covered the methodology to collect the data. Based on data gathered in this chapter, the researcher concentrated on research design, target population, sample size, sampling method, data collection, research instrument, and data analysis. It starts with an introduction and then explains the analysis design used in this report. Before discussing the research technique utilized to conduct this research, population and survey analyses were often presented. The data collection and the questionnaire were included. For the questionnaire, a quantitative method was chosen in company of TSME at Terengganu, Malaysia were involved in the research procedure. The data obtained will then be evaluated and the findings will be shown.

This chapter also specifies the procedure of research methodology used to gather and analyze the information needed to resolve research problems and to test the relationship theory established in this report based on innovation competency and innovation performance. This chapter starts with a debate on the implementation of testing, followed by an overview of the data that would be obtained by surveys by respondents. The chapter then continued with the descriptive statistics of the questionnaire and the form of the respondent. At the end of this chapter, hopefully all the parts in this research can be used in future research. In addition, the researchers started to plan on the survey regarding the study by completing this chapter.



#### **CHAPTER 4**

#### **RESULTS AND DISCUSSION**

#### 4.1 INTRODUCTION

This chapter is dedicated to data analysis, which includes descriptive analysis, reliability test, inferential analysis, and discussion based on research objectives. The study's findings were derived from 379 respondents. The Statistical Package for the Social Sciences (SPSS) version 26 has been used to analyze the data in this study after it was collected.

#### 4.2 **RESULTS OF DESCRIPTIVE ANALYSIS**

Descriptive statistics has been used to explain the fundamental features of the data in a study. It is also described as a summary statistic that quantitatively explains or summarizes the main features of a collection of data. Based on the data obtained from the 379 respondents on Section A for background information summaries in respondents' demographic profiles, a descriptive analysis was performed.

# 4.2.1 Area

Table 4.1 presents the area distribution of a total of 379 respondents collected from the data collection.

Area	Frequency (n)	Percent (%)
Besut	37	9.8
Setiu	35	9.2
Kua <mark>la Nerus</mark>	38	10.0
Kuala Terengganu	137	36.1
Hulu Ter <mark>engganu</mark>	33	8.7
Marang	32	8.4
Dungun	33	8.7
Kemaman	34	9.0
Total	379	100

Table 4.1: The Area of Respondents.

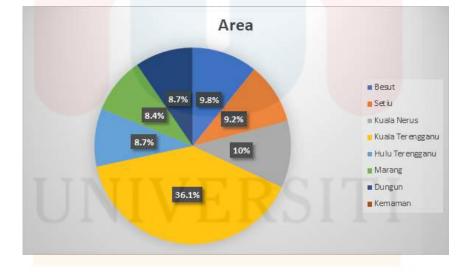


Figure 4.1: The Percentage of Area.

Based on Figure 4.1 above, the pie chart shows the area distribution of a total of 379 respondents. The pie chart clearly shows that the highest number of respondents were Kuala Terengganu with 36.1 percent (n=137). The second highest number of respondents was Kuala Nerus with 10.0 percent (n=38). The third highest number of respondents area was Besut with 9.8 percent (n=38) following with 9.2 percent (n=35) respondents from

Setiu, Kemaman with 9.0 percent (n=34), Hulu Terengganu and Dungun respondents each was 8.7 percent (n=33). Marang is the lowest respondent with 84 percent (n=32).

The reason why Kuala Terengganu were more than others because Kuala Terengganu are more willing to answer and also Kuala Terengganu more worker TSME in Terengganu such as tour operator, accommodation services, transportation services, travel agencies services, tourism guides services and others.

#### 4.2.2 Registration Status of Business

Table 4.2 presents the registration status of business distribution of a total of 379 respondents collected from the data collection.

Business	Frequency (n)	Percent (%)
Sole Proprietorship	99	26.1
Private Limited Company	117	30.9
Partnership	79	20.8
mited Liability Partnership	51	13.5
Not Registered with the Companies Commission of Malaysia (SSM)	33	8.7
Total	379	100.0

 Table 4.2:
 The Registration Status Business of Respondents.



Figure 4.2: The Percentage Registration Status of Business

Figure 4.2 shows the registration status of business distribution of 379 respondents. Among these five registration status of business groups, the highest number of respondents were from private limited companies with 30.9 percent (n=117). The second highest number of respondents was from sole proprietorship with 26.1 percent (n=99). Following with 20.8 percent (n=79) respondents from the registration status business of partnership. Next is respondents from limited liability partnership with 13.5 percent (n=51). While the lowest number of respondents were from not registered with the Companies Commission of Malaysia (SSM).

The reasons why respondents registered business status from private limited company had the highest number because most of TSME tourism in Terengganu has many small businesses and it can register with a minimum of 2 people. Registration business status from not registered with the Companies Commission of Malaysia (SSM) were the least number of respondents because they did not know how to register their business to SSM.

4.2.3 Number of Employees

Table 4.3 presents the number of employee's distribution of a total of 379 respondents collected from the data collection.

Employees	Frequency (n)	Percent (%)
Less than 5	103	27.2
5 until 20	191	50.4
21 until 50	82	21.6
51 until 200	3	0.8
Total	379	100.0

Table 4.3: The Number of Employees.

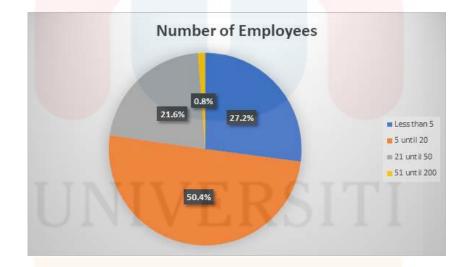


Figure 4.3: The Percentage Number of Employees

Figure 4.3 above shows the percentage of number employees among the respondents. The highest number of employees is 5 until 20 with 50.4 percent (n=191). The second highest number of employees group is less than 5 with 27.2 percent (n=103) following with 21 until 50 number of employees with 21.6 percent (n=82). The least number of employees is 51 until 200 with 0.8 percent (n=3).

The reason why group number employees 5 until 20 is the highest is because of the respondents that took this survey mostly are people who run the business such as food attractions, transportation services and others in Terengganu. The group number of employees 51 until 200 is the least because there are not many big companies for TSME in Terengganu.

## 4.2.4 Company's Main Activity

Table 4.4 presents the company main activity 1 distribution of a total of 379 respondents collected from the data collection.

Main Activity 1	Frequency (n)	Percent (%)
Yes	86	22.7
No	293	77.3
Total	379	100.0

Table 4.4: The Company's Main Activity 1 of Respondents.



Figure 4.4: The Percentage Company's Main Activity 1

Based on Figure 4.4 above, the pie chart shows the company's main activity 1. The company's main activity 1 is accommodation such as hotels, resorts, motels, and homestay. The frequency that runs this business is 22.7 percent (n=86) while respondents that do not run for this business are 77.3 percent (n=293). Accommodation activities are the third highest after travel agencies and transportation.

Table 4.5 presents the company main activity 2 distribution of a total of 379 respondents collected from the data collection.

Main Activity 2	Frequency (n)	Percent (%)
Yes	87	23.0
No	292	77.0
Total	379	100.0

Table 4.5: The Company's Main Activity 2 of Respondents.

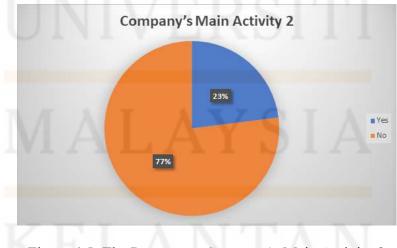


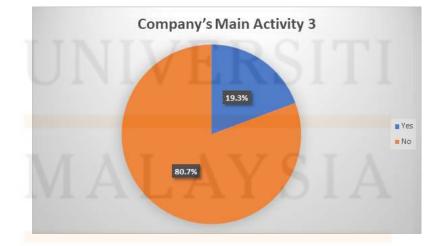
Figure 4.5: The Percentage Company's Main Activity 2

Based on Figure 4.5 above, the pie chart shows company's main activity 2. The company's main activity 2 is transportation such as rental cars, rental vans and e-hailing. The frequency that runs this business is 23.0 percent (n=87) while respondents that do not run for this business are 77.0 percent (n=292). Transportation activity is the second highest after travel agencies.

Table 4.6 presents the company main activity 3 distribution of a total of 379 respondents collected from the data collection.

Main Activity 3	Frequency (n)	Percent (%)
Yes	73	19.3
No	306	80.7
Total	379	100.0

Table 4.6: The Company's Main Activity 3 of Respondents.



#### Figure 4.6: The Percentage Company's Main Activity 3

Based on Figure 4.6 above, the pie chart shows the company's main activity 3. The company's main activity 3 is food beverages such as keropok lekor that is famous in Terengganu, restaurants, viral food places and stalls near places that people always visit such as near the beach. The frequency that runs this business is 19.3 percent (n=73) while respondents that do not run for this business are 80.7 percent (n=306). Food and beverage activity are the second lowest after craft.

Table 4.7 presents the company main activity 4 distribution of a total of 379 respondents collected from the data collection.

Main Activity 4	Frequency (n)	Percent (%)
Yes	31	8.2
No	348	91.8
Total	379	100.0

Table 4.7: The Company's Main Activity 4 of Respondents.



Figure 4.7: The Percentage Company's Main Activity 4

Based on Figure 4.7 above, the pie chart shows the company's main activity 4. The company's main activity 4 is crafts such as batik printing, songket weaving, wau making (kite), and keris making. The frequency that runs this business is 8.2 percent (n=31) while respondents that do not run for this business are 91.8 percent (n=348). Craft activity is the lowest activity than accommodation, transportation, food beverage, and travel agencies because not many people are interested in doing craft business.

Table 4.8 presents the company main activity 5 distribution of a total of 379 respondents collected from the data collection.

Main Activity 5	Frequency (n)	Percent (%)
Yes	113	29.8
No	266	70.2
Total	379	100.0

Table 4.8: The Company's Main Activity 5 of Respondents.

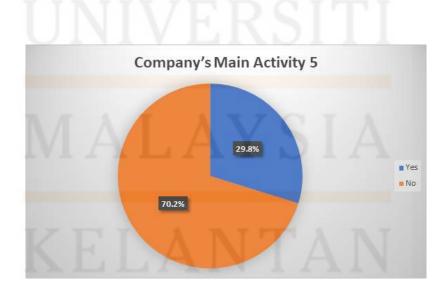


Figure 4.8: The Percentage Company's Main Activity 5

Based on Figure 4.8 above, the pie chart shows the company's main activity 5. The company's main activity 5 is travel agencies. The frequency that runs this business is 29.8 percent (n=113) while respondents that do not run for this business are 70.2 percent (n=266). Travel agencies' activities are higher than others. Travel agencies are higher than accommodation, transportation, food beverage and craft because many people are interested in travel even with travel agencies.

#### 4.2.5 Company's Total Revenue

Table 4.9 presents the company total revenue distribution of a total of 379 respondents collected from the data collection.

Total Revenue	Frequency (n)	Percent (%)
RM 0 - RM 20,000	128	33.8
RM 20,001 - RM 100,000	99	26.1
RM 100,001 - RM 300,000	84	22.2
RM 300,001 - RM 500,000	63	16.6
RM 500,001 - RM 1 000, 000	2	0.5
RM 1 000,000 - RM 10 000,000	3	0.8
Total	379	100.0

 Table 4.9: The Company's Total Revenue of Respondents.

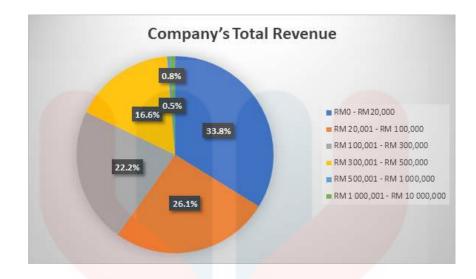


Figure 4.9: The Percentage Company's Total Revenue

Figure 4.9 above shows the percentage of the company's total revenue among the respondents. The highest number of the company's total revenue group is RM 0 – RM 20,000 with 33.8 percent (n=128). The second highest number of the company's total revenue group is RM 20,001 – RM 100,000 with 26.1 percent (n=99) followed by RM 100,001 – RM 300,000 company's total revenue with 22.2 percent (n=84). Next is RM 300,001 – RM 500,000 with 16.6 percent (n=63) and followed by RM 1 000,001 - RM 100,001 - RM 1 000,000 with 0.8 percent (n=3). The least company's total revenue is RM 500,001 - RM 1 000,000 with 0.5 percent (n=2).

#### 4.2.6 Agree on using Digital Innovation

 Table 4.10 presents an agreement on using digital innovation distribution of a total of

 379 respondents collected from the data collection.

Table 4.10: The Agree on Using Digital Innovation of Respondents.

Using Digital	Frequency (n)	Percent (%)
Yes	375	98.9
No	4	1.1
Total	379	100.0

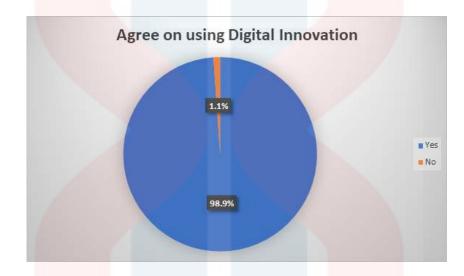


Figure 4.10: The Percentage Agree on using Digital Innovation

Based on Figure 4.10 above, the pie chart shows that people agree using digital innovation with 98.9 percent (n=375) while people that disagree use digital innovation with 1.1 percent (n=4). People are using digital platforms to promote their business because nowadays, technology is being used every day by many people in the world.



Table 4.11 presents type of digital innovation 1 distribution of a total of 379respondents collected from the data collection.

Type Digital 1	Frequency (n)	Percent (%)
Yes	216	57.0
No	163	43.0
Total	379	100.0

 Table 4.11: The Type of Digital Innovation 1 of Respondents.

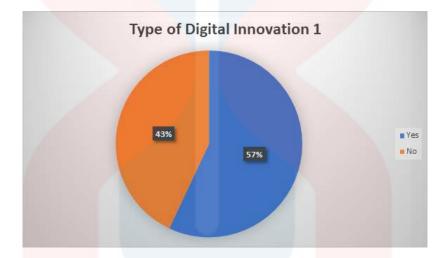


Figure 4.11: The Percentage Type of Digital Innovation 1

Based on Figure 4.11 above, the pie chart shows type of digital innovation 1. The type of digital innovation 1 is social media such as Twitter, Facebook, Instagram and YouTube. The frequency that uses this digital is 57.0 percent (n=216) while respondents that do not use this digital are 43.0 percent (n=163). Social media is the highest because nowadays many people are using this digital platform.

Table 4.12 presents a type of digital innovation 2 distribution of a total of 379 respondents collected from the data collection.

Table 4.12: The Type of Digital Innovation 2 of Respondents.

Type Digital 2	Frequency (n)	Percent (%)
Yes	183	48.3
No	196	51.7
Total	379	100.0

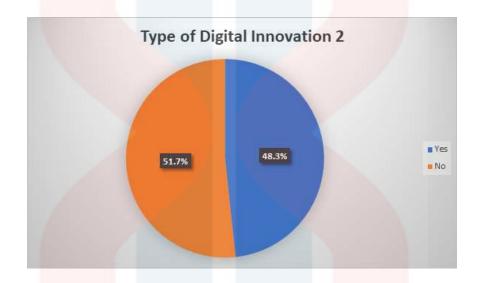


Figure 4.12: The Percentage Type of Digital Innovation 2

Based on Figure 4.12 above, the pie chart shows type of digital innovation 2. The type of digital innovation 2 is websites such as Trivago, Agoda, Traveloka and many more. The frequency that uses this digital is 48.3 percent (n=183) while respondents that do not use this digital are 51.7 percent (n=196). Websites are the second highest after social media.

Table 4.13 presents a type of digital innovation 3 distribution of a total of 379 respondents collected from the data collection.

Table 4.13: The Type of Digital Innovation 3 of Respondents.

Type Digital 3	Frequency (n)	Percent (%)
Yes	21	5.5
No	358	94.5
Total	379	100.0

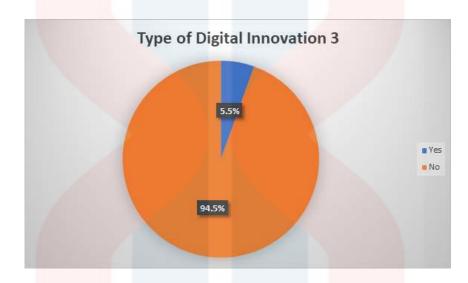


Figure 4.13: The Percentage Type of Digital Innovation 3

Based on Figure 4.13 above, the pie chart shows type of digital innovation 3. The type of digital innovation 3 is Gateway such as PayPal, Apple Pay, Square and Stripe. The frequency that uses this digital is 5.5 percent (n=21) while respondents that do not use this digital are 94.5 percent (n=358). Payment Gateway is the lowest because not many people are using this digital platform.

 Table 4.14 presents type of digital innovation 4 distribution of a total of 379

 respondents collected from the data collection.

Table 4.14: The Type of Digital Innovation 4 of Respondents.

Type Digital 3	Frequency (n)	Percent (%)
Yes	40	10.6
No	339	89.4
Total	379	100.0

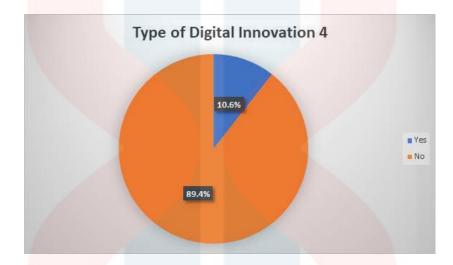


Figure 4.14: The Percentage Type of Digital Innovation 4

Based on Figure 4.14 above, the pie chart shows type of digital innovation 4. The type of digital innovation 4 is marketplace such as Facebook and Mudah.my. The frequency that uses this digital is 10.6 percent (n=40) while respondents that do not use this digital are 89.4 percent (n=339). Market Place is the second lowest after Payment Gateway.

#### 4.3 **RESULTS OF INFERENTIAL ANALYSIS**

#### 4.3.1 Univariate analysis

The findings of the univariate analysis are described in this section that performed on the items for each variable, which are recorded as a frequency distribution, mean, and standard deviation. All the Independent Variable items were measured by using a five (5) Likert scale which values: Strongly Disagree (SD), Disagree (D), Moderate (M), Agree (A), and Strongly Agree (SA). This study has analysed the mean and standard deviation for section B and C of the questionnaires.

#### 4.3.1.1 Innovation Performance

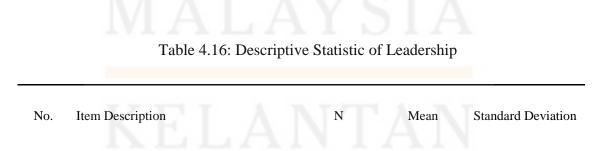
No.	Item Description	N	Mean	Standard Deviation
1	Encouraging creativity and innovation	379	4.76	.511
2	The company has continuously used innovative technology to improve the quality and speed of production and services to our customers.	379	4.42	.570
3	Our organizational structure innovation is more flexible than that of our competitors.	379	4.52	.592
4	R&D has improved production innovation skills.	379	4.44	.603

#### Table 4.15: Descriptive Statistic of Innovation Performance

5	Extension of product range within main product field through new products	379	4.48	.614
6	Emphasizing teamwork and	379	4.54	.587
	responsibility among all departments			
7	Valuing effectiveness over adherence to rules and procedures	379	4.54	.622

Table 4.15 shows the mean and standard deviation analysis on the independent variable which is innovation performance. Based on the table, the highest mean value is item 1 which was 4.76, whereby respondents agreed that encouraging creativity and innovation to the tourism SMEs at Terengganu. The lowest mean value is item 2 which is 4.42 where the respondent slightly agreed the company has always used advanced technologies to increase the efficiency and pace of manufacturing as well as the services provided to the customers. For the data set from 379 respondents with the standard deviation most of the values lower than 1, it indicated the values close to mean.

#### 4.3.1.2 Innovation Competency of Leadership



1	My organization has a variety of approaches for problem solving.	379	4.67	.599
2	My organization has set-up goal and vision for innovation in the company.	379	4.46	.578
3	My organization empowers employees or staff for innovation development.	379	4.46	.631
4	My organization scans the market for real needs rather than based on intuition.	379	4.45	.591
5	My company prefers to innovate in small steps.	379	4.46	.698
6	My organization expresses confidence that goals will be achieved.	379	4.52	.606
7	UNIVE	379	4.56	.616
	My organization work with others in a satisfactory way			
	MALA	YS	A	

Table 4.16 shows the mean and standard deviation analysis on the independent variable which is leadership. Based on the table, the highest mean value is item 1 which was 4.67, whereby respondents agreed that the organization has a variety of approaches for problem solving. The lowest mean value is item 4 which is 4.45 where the respondent slightly agreed the organization scans the market for real needs rather than based on

intuition. For the data set from 379 respondents with the standard deviation most of the values lower than 1, it indicated the values close to mean.

#### 4.3.1.3 Innovation Competency of Owner Attributes

No.	Item Description	Ν	Mean	Standard Deviation
1	Employees in my organization have expert knowledge of the innovation needs in the company	379	4.46	.573
2	The calculation of risk in innovating a company is always taken seriously.	379	4.52	.606
3	My organization makes innovation a passion to achieve company goals.	379	4.45	.621
4	My organization is open to any opinion and suggestion to innovate my company.	379	4.53	.588

#### Table 4.17: Descriptive Statistic of Owner Attributes

5	The organization is willing to make	379	4.57	.579
	changes towards innovation.			
6	The innovation process will be negotiated before innovation action is taken.	379	4.54	.578
7	The organization supports highly resilient innovation.	379	4.52	.597

Table 4.17 shows the mean and standard deviation analysis of respondents on the independent variable which is owner attributes. Based on the table, item 5 scores the highest mean value, which was 4.57, where the respondents agreed the organization is willing to make changes towards innovation The lowest mean item 3, with the mean value of 4.45, where the respondent somewhat agreed that organization makes innovation a passion to achieve company goals. From the data set from 379 respondents with the standard deviation most of the values which were lower than 1, indicated the values close to mean.

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#### 4.3.1.4 Innovation Competency of Networking

Table 4.18: Descriptive Statistic of Networking

n	

No.	Item Description	Ν	Mean	Standard Deviation
1	My company engages its suppliers and customers in its innovations.	379	4.54	.622
2	My company systematically surveys the market's demand for innovation.	379	4.44	.603
3	My company outsources innovation activities rather than building up the required competences themselves.	379	4.47	.647
4	My company has external partners involved in its innovation development, for example from universities.	379	4.44	.704
5	My company is buying and testing innovations from competitors and other industries to innovate.	379	4.48	.695
6	Organizations contribute a lot of effort to build relationships with buyers, suppliers, and competitors.	379	4.49	.627
7	Our business model attracts a lot of new suppliers and partners.	379	4.58	.656
	KELAI	NТ	AN	

Table 4.18 shows the mean and standard deviation analysis on the independent variable which is networking. According to the table, the highest mean value is item 7 which was 4.58, whereby respondents agreed that the business strategy encourages a bunch of new customers and suppliers. The lowest mean value are item 2 and item 4 which is 4.44, where the respondent slightly agreed that company systematically surveys the market's demand for innovation and company has external partners involved in its innovation development for example from universities. For the data set from 379 respondents with the standard deviation most of the values lower than 1, it indicated the values close to mean.

#### 4.3.2 Pearson Correlation Analysis

The Pearson Correlation Coefficient analysis is one of the important analyses which measures the strength of linear relationship between independent variables (IV) and the dependent variables (DV). This analysis is to identify whether the correlation exists between the independent variables (innovation competency: leadership, owner attributes, and networking) and dependent variables (innovation performance). If a correlation exists, the researchers must determine the frequency and orientation of the relationship between the variables. Thus, the level of strength of the association determines whether it is acceptable with the relationship.

Size of Correlation	Interpretation	
0.90 to 1.0 (-0.90 to 1.0)	Very high positive (negative) correlation	
0.70 to 0.90 (-0.70 to -0.90)	High positive (negative) correlation	
0.50 to 0.70 (-0.50 to -0.70)	Moderate positive (negative) correlation	
0.30 to 0.50 (-0.30 to -0.50)	Low positive (negative) correlation	

Table 4.19: Strength Interval of Correlation Coefficient

Negligible correlation

Source: Agunbiade and Oqunyika, (2013)

### 4.3.2.1 The relationship between leadership competency towards innovation performances

H1: There was a significant relationship between leadership competency and innovation performances.

		Leadership Competenc <mark>y</mark>	Innovation Performance
Leadership Competency	Pearson Correlation	1	.784**
	Sig. (2-tailed)		.000
- T I	N	379	379
Innovation Performance	Pearson Correlation	.784**	1
1. /	Sig. (2-tailed)	.000	A
IVI	N	379	379

### Table 4.20: Correlation coefficient for leadership competency and innovation performance

Table 4.20 Pearson correlation coefficient, significant value and the number of respondents which is 379 are all shown. The p-value is 0.000, which indicates it is smaller than the significant level of 0.01. The correlation coefficient value is 0.784 indicating a

high positive correlation between innovation leadership competency and innovation performance. The respondents agreed that leadership is good. Hence, the hypothesis is accepted.

The first objective is to study the relationship between competency leadership and innovation performances among SMEs Tourism in Terengganu. Thus, the result on the relationship between independent variables and dependent variables is reflected by Hypothesis 1. Most respondents agree that their organization has a variety of approaches for problem solving. Other than that, their organization works with others in a satisfactory way.

## 4.3.2.2 The relationship between owner attributes competency towards innovation performances

H2: There was a significant relationship between owner attributes competency and innovation performances.

		Owner Attributes Competency	Performance
Owner Attributes Competency	Pearson Correlation	YSI	.778*
	Sig. (2-tailed)		.000
	N	379	379
Innovation Performance	Pearson Correlation	.778**	1
	Sig. (2-tailed)	.000	

Table 4.21: Correlation coefficient for competency owner attributes and innovation

performance

Ν

379

Table 4.21 Pearson correlation coefficient, significant value and the number of respondents which is 379 are all given. The p-value is 0.000, which means it is smaller than the significant level of 0.01. The correlation coefficient value is 0.778 indicating a high positive correlation between innovation owner attributes competency and innovation performance. The respondents agreed that owner attributes are good. Hence, the hypothesis is accepted.

The second objective is to study the relationship between owner attributes competency and innovation performances among SMEs Tourism in Terengganu. Thus the result on the relationship between independent variables and dependent variables reflected by Hypothesis 2. Most respondents agree that the organization is willing to make changes towards innovation. Other than that, the innovation process will be negotiated before innovation action is taken.

### 4.3.2.3 The relationship between networking competency towards innovation performances

H3: There was a significant relationship between networking competency and innovation performances.

 Table 4.22: Correlation coefficient for networking competency and innovation

 performance

Networking Competency Innovation Performance

Networking Competency	Pearson Correlation	1	.664**
	Sig. (2-tailed)		.000
	N	379	379
Innovation Performance	Pearson Correlation	.664**	1
	Sig. (2-tailed)	.000	
	N	379	379

Table 4.22 Pearson correlation coefficient, significant value and the number of respondents which is 379 are all shown. The p-value is 0.000, which indicates it is smaller than the significant level of 0.01. The correlation coefficient value is 0.664 which indicates a moderate positive correlation between innovation networking competency and innovation performance. The respondents agreed that networking is good. Hence, the hypothesis is accepted.

The third objective is to study the relationship between networking competency and innovation performances among SMEs Tourism in Terengganu. Thus, the result on the relationship between independent variables and dependent variables reflected by Hypothesis 3. Most respondents agree that their business strategy encourages a bunch of new customers and suppliers. Other than that, most of the respondents said that their company involves its customers and suppliers through its innovation.

#### 4.5 SUMMARY BASED ON RESEARCH OBJECTIVES

Table 4.23: Summary for hypothesis testing.

Hypothesis

Pearson's Correlation Results

H1	A positive relationship exists between competency	r= 0.784,	Supported
	leadership and innovation performances.	p < 0.01	
H2	The competency owner attributes have a positive	r= 0.778,	Supported
	impact between innovation performances.	p < 0.01	
H3	There is a positive relationship between competency	r= 0.6 <mark>64</mark> ,	Supported
	networking and innovation performances.	p < 0.01	

Based on Table 4.23, Pearson's correlation analysis was used in testing the relationship between hypotheses on a significant relationship such as leadership, owner attributes and networking with innovation performances. The result showed all hypotheses were accepted at 0.01 significance level.

#### 4.6 SUMMARY

In a nutshell, this chapter discussed the result of descriptive analysis, result of reliability test, result of inferential analysis, and discussion based on research objectives. Discussion and conclusion of this research are covered in the following chapter.



#### **CHAPTER 5**

#### CONCLUSION

#### **5.1 INTRODUCTION**

This chapter talked about a recapitulation of study, the findings and discussion about the relationship between innovation performance and innovation competency toward SMEs tourism in Terengganu. Researchers also have discussed the hypothesis test whether the research hypothesis was accepted or rejected. Furthermore, this chapter also deliberated the limitations of the research and suggested several recommendations for the future study.

#### **5.2 RECAPITULATION OF THE FINDINGS**

This research summarizes the main findings. The aim of this research has been stated in the previous chapter. Below is the recapitulation of the findings according to the objectives of the research.

#### 5.2.1 Discussion on Objective 1

Research Objectives 1: To study the relationship between competency leadership and innovation performances.

Research Question 1: What is the relationship between competency leadership towards innovation performances in TSMEs?

Hypothesis 1: There was a significant relationship between competency leadership and innovation performances.

Based on this study, the results revealed that most of the respondents agree that competency leadership and innovation performance can be characterized by approaches for problem solving with. It was the highest mean value, 4.67. Other than that, the respondents agree to set-up goals and vision, empower employees for innovation development, express confidence and work with others in a satisfactory way. It is supported by the previous study as stated that leaders who give 100 percent commitment, they would bring their teammates to the fresh innovations and indirectly show the innovation performance. When the leader gives commitment, the teammates also will be excited to do their innovations and the performance shows good indications on role modelling and training (Sarros et al., 2011). It is also supported by Prajogo and Ahmed (2006), who agree that innovation was carried out by all kinds of firms, irrespective of scale because it has been demonstrated that innovative firms had a better profitability and market share. According to Astuty and Udin (2020), perceived organizational commitment and leadership effectiveness have a significant influence on employee performance and achievement. The results have shown that competency leadership is highly correlated with innovation performance which is 78.4%. It shows that the performance of innovation depends on the head of the organization TSME being responsible and having an approach to solving a problem.

#### 5.2.2 Discussion on Objective 2

Research Objectives 2: To study the relationship between competency owner attributes and innovation performances.

Research Question 2: What is the relationship between competency owner attributes towards innovation performances in TSMEs?

Hypothesis 2: There was a significant relationship between competency owner attributes and innovation performances.

Based on this Objective 2, almost all the respondents agree that competency owner attributes and innovation performance can be described by an organization willing to make changes towards innovation with the highest mean value 4.57 and the process being negotiated before taking the action on innovation is the second highest value 4.54. Other than that, respondents agree that the organization should be open to any opinion and suggestion to innovate the company, and that the calculation of risk in innovating should be taken seriously and the organization supports highly resilient innovation. As supported by previous study Toral et al.,2017 cites, special attributes relate to any characteristics connected with a single product or company when that product or brand was contrasted with those of its rivals. The attributes should be considered as excellent qualities and actions of owners for them to be effective TSME entrepreneurs. Despite theoretical talks on value perspectives, according to Le and Suh (2019), practitioners are more concerned in what kind of explicit qualities are offered: economy, efficiency, speed, customization, community, emotion, and trust. This collection of qualities may be expanded and categorized into categories known as value dimensions.

#### 5.2.3 Discussion on Objectives 3

Research Objectives 3: To study the relationship between competency networking and innovation performances.

Research Question 3: What is the relationship between competency networking towards innovation performances in TSMEs?

Hypothesis 3: There was a significant relationship between competency networking and innovation performances.

According to the findings of this report, the majority of respondents believe that competency networking and innovation performance can be characterized by a business model that attracts a lot of new suppliers and partners with the highest mean value 4.58, and the second highest mean value, 4.54 that engages the suppliers and customers in company innovation. Other than that, organizations contribute a lot of effort to build relationships with buyers, suppliers and competitors. This relationship is to share the benefits of innovation in other organizations. With competency networking, some of the company is buying and testing the innovations through networks from competitors and other industries to innovate. Based on the previous study, it was supported that networking in the field of working contacts will give rise to competencies (Bird, 1995; Ahmad et

al., 2010). Network was essential for the organization to connect the employee to the client. Unfortunately, networking will solve the competitive environment and various requirements of entrepreneurship. Networking has a huge effect on the start-up, development, and advancement stages of an enterprise (Anderson et al., 2010). Feranita et al. (2017) used family business as a research object in their study. They thought that collaborative innovation might successfully assist firms in overcoming resource restrictions and making better use of financial resources, technology, and information from all stakeholders in society, therefore increasing corporate performance.

#### **5.3 LIMITATIONS**

This research discussed the relationship between competency leadership and innovation performances, the relationship between competency owner attributes and innovation performances and the relationship between competency networking and innovation performances. This research was based on the quantitative method and the data was collected by using questionnaires, which is more useable to Tourism Small and Medium Enterprise in Terengganu.

There were a few limitations that were faced by researchers in this research during the distribution of questionnaires. The first limitation is that the researcher does not get much information about Small and Medium Enterprise Tourism. Among the sectors conducted by Tourism SMEs such as transportation, travel agencies, accommodation and others are difficult to find. This is because all the information placed on websites such as email and phone numbers is incomplete and not updated. In addition, the information for each sector does not have detailed information such as the estimated number of SMEs Tourism in Terengganu.

The second limitation is respondent cooperation. Respondents did not cooperate when the questionnaires were distributed. Data was slow to be collected due to waiting at a long rate for respondents to fill out questionnaires. This makes the time to collect data lengthy and takes a long time to complete. The time and week target that the researcher set was for 2 weeks but it became 4 weeks because the respondents lacked cooperation.

The last limitation is the time frame. The time given to conduct this study was very short. Researchers cannot do this study very well. Furthermore, researchers are also less fully cooperative due to having health problems. The time given makes the researcher unable to manage time well with the assignment obtained.

#### **5.4 RECOMMENDATIONS**

#### 5.4.1 THEORETICAL RECOMMENDATIONS FOR FUTURE RESEARCH

The research examines the determinants factor of innovation competency toward innovation performance among TSME in Terengganu. This research had shown that variables which are innovation performance (dependent variables) and innovation competency of leadership, owner attributes and networking (independent variables) were significantly correlated with the dependent variable and have a highly positive correlation relationship. As for recommendations, future research can use other variables such as technology and marketing as their independent variables.

As leadership competency had been recommended as an antecedent variable, this value has an important amount of earlier studies that have sustained directly or indirectly significant influence toward innovation performance. Thus, the respondents should answer the questionnaire in the section of the independent variables, they must based on the truth and cannot be biased for the data.

#### 5.42 METHODOLOGICAL RECOMMENDATIONS FOR FUTURE RESEARCH

It is strongly advised that future study on this issue utilize quantitative approaches rather than qualitative ones to obtain data from respondents. For this research, the data was collected through a questionnaire on the google form. As a result, future study should employ this approach since the results can be clearly demonstrated by the data obtained. Meanwhile, the findings would be more relevant, trustworthy, and generalizable to a wider population.

In addition, future research can be conducted by using mixed methods. The researcher collects data that mixes qualitative (open-ended) and quantitative (closedended) questions, and both forms of data are combined and analyzed. Thus, the result and the data that get will be more accurate. As Malaysia is so fascinating with its diversity, Malaysian generate a distant aspect that other nations lack. When the outsiders get the info toward tourism in Malaysia, it might help to invest in Malaysia.

#### 5.4.3 PRACTICAL RECOMMENDATION FOR FUTURE RESEARCH

Finally, the time that is used for collecting data should be shortened. As known, Malaysia starting Movement Control Order (MCO) started March 2020. This brings many difficulties to students in collecting data for the research. They needed to avoid the crowd. Thus, they just can use the online system to collect the data from social media like Facebook, WhatsApp, Instagram, Twitter and so on. Hence, when the questionnaire needed to finish in a short time. At the same time, it means that students also needed to rush the respondent to answer the questionnaire in a short period. This will totally have a chance of collecting the less accurate data.

#### 5.5 SUMMARY

In conclusion, this research has been carried out to explore the determinants factor innovation competency toward innovation performance among TSMEs in Terengganu. Based on the result, it's shown that leadership, owner attributes and networking have a relationship toward innovation performance among TSMEs in Terengganu. Additionally, the limitation of this study can be used as a reference to produce a better study. In addition, the research framework was developed and supported according to literature that had been viewed. Meanwhile, the Google Form was used by 379 respondents to participate in this research. The data were collected and analyzed by SPSS software version 26 supported reliability test, descriptive analysis, univariate analysis, and correlation analysis. In this research, data were collected using the quantitative method. Therefore, the results shown were reliable and it was accepted during this study. Finally, all the variables are related to each other that will interest innovation performance in Malaysia. Thus, it is hoped that all the information relating throughout this research will help related parties to generate income and profit which in turn will boost Tourism Malaysia's economy.

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#### APPENDICES

	ALITY REPORT				
	6%	9% INTERNET SOURCES	8% PUBLICATIONS	8% STUDENT P	PAPERS
PRIMAR					
1	www.ta	ndfonline.com			1 %
2	Submitt Student Pape	ed to Universiti	i Teknologi M	ARA	1%
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5					

#### SECTION A: DEMOGRAPHIC PROFILE

Please tick  $(\checkmark)$  in the answer below.

- 1. In which area do you currently work?
- Besut
- Setiu
- Kuala Nerus
- Kuala Terengganu
- Hulu Terengganu
- Marang
- Dungun
- Kemaman
- 2. What is the Registration Status of Your Owned Business?
  - Sole Proprietorship
  - Private Limited company
  - Partnership
  - Limited Liability Partnership
  - Not Registered with the Companies Commission of Malaysia (SSM)

3. What is your company's approximate number of employees?

- Less than 5
- 5 until 20
- 21 until 50
- 51 until 200
- More than 200

4. What is your company's main activity?

- Accommodation
- Transportation
- Food & beverage
- Craft
- Travel agencies
- Others \_\_\_\_

5. What was your company's approximate total revenue?

- RM0 RM20,000
- RM 20,001 RM 100,000
- RM 100,001 RM 300,000
- RM 300,001 RM 500,000
- RM 500,001 RM 1 000,000

- RM 1 000,001 RM 10 000,000
- RM 10 000,001 RM 20 000,000
- More than 20 million

6. Do you agree on using digital innovation that can improve your business performance? / Adakah anda bersetuju menggunakan inovasi digital yang dapat meningkatkan prestasi perniagaan anda?

- Yes
- No

7. What type of digital innovation you are use in improving your business performance? / Apakah jenis inovasi digital yang anda gunakan dalam meningkatkan prestasi perniagaan anda?

- Social Media
- Website
- Gateway Payment
- Market place
- Other \_\_\_\_\_

#### **SECTION B: INNOVATION PERFORMANCE (DV)**

#### Scale - 1: Strongly disagree

#### Scale - 5: strongly agree

1. Encouraging creativity and innovation / (Menggalakkan kreativiti dan inovasi).

2. The company has continuously used innovative technology to improve the quality and speed of production and services to our customers / (Menggunakan teknologi inovatif untuk meningkatkan kualiti dan kelajuan pengeluaran dan perkhidmatan kepada pelanggan).

3. Our organizational structure innovation is more flexible than that of our competitors / (Inovasi struktur organisasi syarikat lebih banyak fleksibel daripada pesaing).

4. R&D has improved production innovation skills / (R&D telah meningkatkan kemahiran inovasi pengeluaran).

5. Extension of product range within the main product field through new products / (Perluasan rangkaian produk dalam bidang produk utama melalui produk baru).

6. Emphasizing teamwork and responsibility among all departments / (Menekankan kerja berpasukan dan tanggungjawab di antara semua jabatan).

7. Valuing effectiveness over adherence to rules and procedures / (Menilai keberkesanan kerana mematuhi peraturan dan prosedur).

#### SECTION C: INNOVATION COMPETENCY (IV)

Scale - 1: Strongly disagree Scale - 5: strongly agree

#### **LEADERSHIP**

1. My organization has a variety of approaches for problem solving / (Organisasi saya mempunyai pelbagai pendekatan untuk penyelesaian masalah).

2. My organization has set-up goal and vision for innovation in company / (Organisasi saya telah menetapkan matlamat dan visi kepada inovasi dalam syarikat saya).

3. My organization empowers my employees of staff for innovation development / (Organisasi saya memberi kuasa kepada pekerja atau kakitangan untuk pembangunan inovasi).

4. My organization scans the market for real needs rather than based on intuition / (Organisasi saya mengimbas pasaran untuk keperluan sebenar dan bukannya berdasarkan kepada gerak hati.).

5. My company organization prefers to innovate in small steps / (Organisasi syarikat saya lebih suka melakukan inovasi dalam langkah-langkah kecil).

6. My organization expresses confidence that goals will be achieved / (Organisasi saya menyatakan keyakinan bahawa matlamat akan tercapai).

7. My organization works with others in a satisfactory way / (Organisasi saya bekerjasama dengan orang lain dengan cara yang memuaskan).

#### **ATTRIBUTES**

1. Employees in my organization have expert knowledge of the innovation needs in the company / (Pekerja dalam organisasi saya mempunyai pengetahuan pakar kepada keperluan inovasi dalam syarikat).

2. The calculation of risk in innovating to a company is always taken seriously. / (Pengiraan risiko dalam melakukan inovasi kepada syarikat selalu diambil kira).

3. My organization makes innovation a passion to achieve company goals. / (Organisasi menjadikan inovasi sebagai semangat untuk mencapai matlamat syarikat).

4. My organization is open to any opinion and suggestion to innovate my company / (Organisasi saya terbuka kepada mana-mana pendapat dan cadangan untuk melakukan inovasi dalam syarikat).

5. The organization is willing to make changes towards innovation / (Organisasi bersedia melakukan perubahan kearah inovasi).

6. The innovation process will be negotiated before innovation action is taken. / (Proses inovasi akan dirunding kira sebelum tindakan inovasi diambil).

7. The organization supports highly resilient innovation. / (Organisasi menyokong inovasi yang berdaya tahan tinggi).

#### **NETWORKING**

1. My company engages its suppliers and customers in its innovations / (Syarikat saya melibatkan pembekal dan pelanggan dalam inovasi).

My company systematically surveys the market's demand for innovation / (Syarikat saya meninjau secara sistematik terhadap permintaan pasaran untuk melakukan inovasi).
 My company outsources innovation activities rather than building up the required competencies themselves / (Syarikat saya mengambil sumber luar untuk aktiviti inovasi dan bukan membina kecekapan yang diperlukan sendiri).

4. My company has external partners involved in its innovation development for example universities. / (Syarikat saya mempunyai rakan kongsi luar yang terlibat dalam pembangunan inovasi contohnya daripada universiti.)

5. My company is buying and testing innovations from competitors and other industries to innovate / (Syarikat saya membeli dan menguji inovasi daripada pesaing dan industri-industri lain untuk melakukan inovasi).

6. Organizations contribute a lot of effort to build relationships with buyers, suppliers and competitors. / (Organisasi menyumbang banyak usaha untuk menjalin hubungan dengan pembeli, pembekal dan pesaing)

7. Our business model attracts a lot of new suppliers and partners / (Model perniagaan kami menarik banyak pembekal dan rakan kongsi baru).

