CHAPTER 1: RESEARCH OVERVIEW

1.0 Introduction

Sustainable marketing practice moves close to the changing pace in environment. Firms have aware of the business environment that may influence their operation to ensure stability. For example, political, economic, technology, and environment which are the determinants affecting business. According to Fernandez (2011), the crucial factor of changing environment in hotel industry is innovation, information and technology which affect the businesses competitiveness (Fernandez & Cala, 2011). The high level of communication technology businesses holds it will enhance the firm's competitive advantage by improving the knowledge, skill and experience. The objective of this research is to provide hotel industry with the importance of the antecedents of co-creative service innovation in social network sites in Malaysia's hotel industry.

In Chapter 1, the research background will be explained and interpreted by past studies and journal published on the Internet. Next, problem statement is to identify and spot the problem behind this research. Research objective and question will delineate the center point of this research. Lastly, hypothesis and significance of the study will present in the following sub sections.

1.1 Research Background

Nowadays, businesses are focused on customer relationship management and try to engage customer becomes part of the business operation. The behave between firms and customers to create value together is called co-creation service innovation (Bettencourt, Lusch, & Vargo, 2014; Cham, Lim, Aik, & Tay, 2016; Cham, Ng, & Lima, 2017). Abundant of articles and journals have explored the antecedent of co-

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creative service innovation in social network sites around the globe (Raeisi & Meng, 2017; He & Yan, 2013; Kim & Choi, 2019). Thus, information and idea generation of customers becomes critical for firms to enhance their competitive advantage in the business environment, especially for the hotel industry (Sarmah et al., 2018).

Co-creation has become common and influential in this technology age among businesses. Once consumers take part in the service-ecosystem co-creation between business and customers is generated. Unlike the traditional business concept, cocreation is a new marketing concept which views as efficient ways to engage customers in part of the business and create value. The market will become transparency and powerful due to the consumer unique feedback and information. According to Fernandez (2011), the related technology changed ever in hotel industry such as internet and computing. To adopt precise and adequate technology to customers, hotel industry should practice co-creation service innovation to cater customer's preference and taste. Hotel always uses social network sites as an efficient platform to generate co-creative between customers (Sarmah, Kamboj, & Kandampully, 2018).

Social network sites is a web-based service that able to connect people worldwide. Social network sites view as powerful influential tools have been adopted by the hotel industry to build social networks and relations with others. Social network sites able to gather millions of people in different places with similar backgrounds, interests, language and lifestyle immediately (Cham et al., 2016; Liu & Ying, 2010). Moreover, social network sites as a communication tool which can be used by hotels to collect information, reaction and response of customers. With customer engagement, hotel industry able to improve their product quality and service quality to fulfil their customers' needs.

Moreover, hotel industry has utilized social media sites to engage the customers and generate innovation. Through these new platforms, customers able to directly communicate and interact with businesses easily compared with traditional methods. Customers are able to share their daily life in terms of photo, video, review, comment,

ANDECEDENTS OF CO-CREATIVE SERVICE INNOVATION IN SOCIAL NETWORK SITES (SNSs): EVIDENCE FROM THE HOTEL INDUSTRY OF MALAYSIA and ideas. According to Filieri (2013), the ideas produced by external factors rather than internal factors is called open innovation model. The open innovation interaction way can help to border the business ability, structure and knowledge.

The social network sites has been widely used by the hotel industry to generate social network. For example, Google, Facebook, Instagram, Twitter and so on. Travelers started using social network sites to booking and inquiry hotels rather than walk in. Other that than, travelers used social network sites to share their travel experiences with their friends, family, society and others. By this way, social network sites offer new opportunities for hotel industry to get unique ideas and useful information from their valuable customers. Hotels industry can use the information and communication technology to forecast consumer behavior and purchase service intention (Varkaris & Neuhofer, 2017). In conclusion, consumers are influenced by social network sites such as others' reference influence their initial decision and plan.

1.2 Problem Statement

In the business world, customer needs and wants are changed dramatically and unpredictable. The initial business key factor such as product uniqueness, features, technology and financial well-being is not enough to make a today firms survive in marketing (Mcfarlane, 2013). The only way for firms to survival is to respond to the change immediately and find the appropriate solution to maximize customer satisfaction and value with limited resources. Therefore, firms should wholly integrate the physical resources and human resources with a suitable strategic marketing plan to attempt efficiency and effectiveness.

In this new era, customers always demand and request a high level of personalisation in their consumption experience. Therefore, firms should reassess their business model to fulfil customer requirement. Firms should consider having collaboration with their customer in value creation in order to deliver the superior value and culture (Cham & ANDECEDENTS OF CO-CREATIVE SERVICE INNOVATION IN SOCIAL NETWORK SITES (SNSs): EVIDENCE FROM THE HOTEL INDUSTRY OF MALAYSIA Easvaralingam, 2012; Lusch, 2007). Businesses recognized customers as the source of innovation when developing new services or products (Prahalad & Ramaswamy, 2004). Although co-creation with customer is beneficial towards the firm, customers still lack agreement about how to co-creation and why co-creation. Hence, there is a need to study and investigate on antecedents of co-creation service innovation in Malaysia's hotel industry.

According to Raeisi (2007), customer interaction is a critical element to running business practice. The concept of co-create service innovation is helps firms to enhance their competitive advantage. Moreover, the level of customer engagement during the co-creation process will have varying. Once lacking concept about firm's co-creation, known as co-destruction will leads costly in the business strategy. Therefore, firms should aware of the conditions that facilitate the presence of value co-destruction.

Furthermore, the process of communication also considered the critical part to deliver and manage value co-creation. According to Gruner and Homburg (2000), stated that smart interaction is the determinants to leads product or service success. The communication channel which including direction, content, frequency, and modality has an effect on product or market success. The effective communication way prompt customer willingness to have an approach with firms (Schultz, 1995). Hence, firms should well communicate with their customer by enhancing the communication process.

In the past, there are some studies have been done to examine the co-creation intention and adoption intention in hotel industry. However, some of the findings are limited in certain areas. Based on the Sarmah's research in 2018, it has studied the customer cocreation service innovation in hotel industry, and the psychological variables affect customer to take part in co-creation. Based on the Gustafsson's research in 2012, studied the co-creation innovation by the dimension of communication, and the effect of co-creation towards market success. Co-creation also views as a multidimensional concept which including cognitive, emotional, and behavioral dimension. That context ANDECEDENTS OF CO-CREATIVE SERVICE INNOVATION IN SOCIAL NETWORK SITES (SNSs): EVIDENCE FROM THE HOTEL INDUSTRY OF MALAYSIA of the concept has an impact on co-creation and as an emotional relationship linked with firms and their customers (Raeisi, 2017).

According to Sarmah (2018), studied on antecedents of co-creative service innovation and adoption intention in Malaysia' hotel industry. The construct of this study includes customer innovativeness, attitude, subjective norms, and perceived behavioral control. However, there is a research gap between customers' perception of co-creative service innovation for Malaysia' hotel industry.

1.3 Research Objective

1.3.1 General objective

Based on this research, the objective is to identify the antecedents of co-creative service innovation in social network site from Malaysia hotel industry. It is to examine and test the variables how to influence co-creation intention. The co-creation intention will directly affect the adoption intention towards users from hotel industry. Furthermore, the variables that investigate in the research which are customer innovativeness, attitude towards co-creative service innovation, subjective norms, perceived behavioral control, system quality, information quality, service quality and co-creation intention.

1.3.2 Specific objective

Following are the specific objectives of the research:

1. To examine the relationship between customer innovativeness, attitude towards co-creative service innovation, subjective norms, perceived

behavioral control, system quality, information quality and service quality towards co-creation intention.

2. To examine the relationship between co-creation intention and adoption intention.

1.4 Research Question

Following are the research questions of this study:

- 1. What are the relationship between customer innovativeness, attitude towards co-creative service innovation, subjective norms, perceived behavioral control, system quality, information quality and service quality towards co-creation intention?
- 2. What is the relationship between co-creation intention and adoption intention?

1.5 Hypothesis of Study

H₁: There is a significant relationship between customer innovativeness and co-creation intention.

H₂: There is a significant relationship between attitude towards co-creative service innovation on social media and co-creation intention.

H₃: There is a significant relationship between subjective norms and co-creation intention.

H₄: There is a significant relationship between perceived behavioral control and cocreation intention.

 H_5 : There is a significant relationship between system quality and co-creation intention. H_6 : There is a significant relationship between information quality and co-creation intention.

H₇: There is a significant relationship between service quality and co-creation intention.

H₈: There is a significant relationship between co-creation intention and adoption intention.

1.6 Significance of the Study

This study conducted to recognize antecedents of co-creative service innovation in social network sites toward Malaysia' hotel industry. This purpose of this research is to provide a better insight of what drives intention to co-create and determined which antecedents have the most significant relationship with it. After that, study how the intention to co-create impact intention adopting in hotel industry.

Co-creation views as an effective cooperation way to firm and consumers. For an individual, this offers a great chance for the customer to collaborate with hotels in developing new services or products that meets their wants. Hence, consumers able to enjoy add-value service or product without directly interact with firms. Moreover, the personalized experience provided to consumers will gain back their loyalty to firms. In short, the higher customer engagement into the product or service, customer satisfaction will accumulate and grow high.

For hotels, co-creation service innovation is a "must" tendency in this new modern era. With the participating of customers, hotels able to formulate the most appropriate plan and marketing strategy which cater to their customer needs. The customer insight helps hotel to differentiate themselves from competitors and gain the competitive advantage which their opponents unable to imitate it in the short term. Furthermore, hotel able to provide a better quality of service to their consumer by co-creating. The unique experience a consumer has with a hotel, they will be loyal to the hotel and have a longterm relationship with hotel.

Therefore, through the research study, marketers will obtain a solid understanding of the importance of co-creative service innovation toward hotel industry in Malaysia.

1.7 Chapter Layout

Chapter 1: Research Overview

Introduction of overview context including the research backgrounds, research problems, research objectives, research questions, hypothesis and significance of the study.

Chapter 2: Literature Review

Review of literature, the theoretical model, proposed research framework, and hypothesis development on previous similar topic researches results.

Chapter 3: Methodology

Discuss on research design, sampling design, data collection method, research instrument, data processing and data analysis.

Chapter 4: Data Analysis

Analysis results such as scale measurement, descriptive analysis, and inferential analysis using SPSS.

Chapter 5: Conclusion

Summary of all analysis. Discuss on research findings, implications and recommendation.

1.8 Conclusion

In short, this first chapter served as primary understanding of the research background about co-creative service innovation. The problem statement gives readers a clear mind on the main problems to be solved. Next, research objectives are provided to show researchers' purpose to study this topic. The research question able to produce a straightforward direction of this study. Moreover, researchers have described the hypothesis of the study related to the variables. Researchers also discuss on benefits of this study in the significance sub section.

CHAPTER 2: LITERATURE REVIEW

2.0 Introduction

The literature review of this study will be discussed on how to influence the co-creation intention towards the hotel industry in Malaysia. The variables will be well defined such as customer innovativeness, attitude towards co-creative service innovation on social media, subjective norms, perceived behavioral control, system quality, information quality, service quality, co-creation intention, and adoption intention. The objective to conduct this literature review is to learn the definition, characteristics and relationship of each variable in this research topic. Then, a conceptual framework is developed formed on the relevant theoretical models related to this research study. The hypothesis development also will be proposed at the end of the chapter that clarifies the relationship among those variables.

2.1 Literature Review

2.1.1 Customer innovativeness

According to Rogers (1995), innovativeness defined as the individual innate characteristics. Furthermore, innovation recognized as an individual who creates, accept and perform new ideas, products or services (Thompson, 1965). According to (Henderson & Clark, 1990), they point out innovativeness is more focus on architectural and radical innovation that important to form the new market, management system and performance outcomes. According to Botero et al. (2011), they point out that treat users as value co-creators and source of

innovation. The ability of customer and also firms to generate collaborative innovation.

Customer innovativeness used to describe the customer who continually looks for the new technology and experience that able to initiate the mind (Hirschman, 1980; Kim & Forsythe, 2008; Lim, Cheng, Cham, Ng, & Tan, 2019; Venkatraman & Price, 1990). In the technology-based service context, customer innovativeness means the one who holds the inclination to find out and experiment with the new technology continually and do quicker among relatives (Rogers & Shoemaker, 1971). Then, consumers in high innovativeness are more likely to share the new information, in order to help others and influence them to use new technology system which specifically customized and meet their needs. Once customers enter the customization process, they create the interaction relationship between firms, which is co-creation intention. Therefore, customer innovativeness has a relationship with co-creation intention.

2.1.2 Attitude towards co-creative service innovation on social media

According to Abate (1999), stated that attitude is a settled opinion or an individual behavior reflect its attitude. Furthermore, attitude defined as a feeling that involves double site such as be positive or negative and favorable or unfavorable (Jerdan, 1993; Nelson, 1983). Moreover, attitude defined as a conscious or unconscious mental which formed by the past experience will reveal behavior (Venes, 2001). Based on the research of Hayes and Darkenwald (1990), they proposed that attitude is multidimensional constructs. Then, attitude said as social psychology which disposition towards a particular phenomenon, person or thing (Richins & Dawson, 1992).

In the new emerging dynamic of customer empowerment, firms have to hold the precious opportunity to employ social network sites to co-create with customers (Kane & Fichman, 2009). Social network sites (SNSs) gather millions of user considered as platforms that provide interaction between firms and consumers. As a strong and powerful platform, it can collect the uncountable ideas and rich content from customers' feedback (Calder, Malthouse, & Schaedel, 2009; Cheah, Ting, Cham, & Memon, 2019; Lim & Cham, 2015). Through preliminary ideas, firms are allowed to filter and identify useful ideas and considers the feasibility to implement wise ideas.

Attitude towards the use of new technology is evaluated by perceived usefulness and perceived ease of use (Cham, Low, Lim, Khin, & Raymond, 2018; Porter & Donthu, 2006)., both of them which lead the co-creation intention (Lu, Liu, Yu, & Wang, 2008). As the outcome, found that perceived usefulness is more influential than perceived ease of use. Moreover, perceived usefulness means the degree of individual' belief toward their performance and ability which improve and enhance by the new technology system. The scenario such as customers believes that through the social network sites, they will have a more beneficial insight and understanding towards the service and product. Thus, they will have a pleasant attitude towards co-creation on social network sites.

2.1.3 Subjective norms

According to Ajzen and Fishbein (1972), they named attitude as a specific behavior to perform the performance following particular circumstances. According to Ajzen (1991), the term subjective norm interpreted as the perceived social pressure force individual whether to practice the particular behavior. According to Finlay, Trafimow, and Moroi (1999) declared that subjective norm as an individual perception that including what is important or

what behavior should perform. Besides, family members, friends and other relatives have an impact on shape his or her perception and behavior (Kaushik et al., 2015). Therefore, subjective norm can conclude as under a mutual society pressure, the individual performs a particular behavior which under others desire and expect.

Subjective norms as an antecedent of co-creative service innovation which impact on the customers' intention to co-creative. Moreover, theory of reasoned action (TRA) exposed that subjective norm and attitude are the factors that affect behavioral intention (Fishbein & Ajzen, 1975). In the hotel context, the subjective norm can conclude as has an impact on customers' intention to co-creative service innovation (Sarmah et al., 2018; Venkatesh et al., 2003). If the influential person participates in the co-create, the follower will be influenced to join the co-creative service innovation.

In the media world, word of mouth is generated by customers that will influence individual' attitude and behavior intention (See-To & Ho, 2014). In the context of hotels industry, word of mouth generates based on customers' experience and evaluation regarding the products or services. Moreover, word of mouth views as a person who shared his or her opinion to others and provides reliable information which changes attitude and behavior on social network sites (SNSs). Hence, the one who has the more influential power will infect others to have the intention (Jalilvand & Samiei, 2012).

2.1.4 Perceived behavioral control

Perceived behavioral control is the measurement of easy or difficult of an individual to the particular behavior, which further refers to the self-perception control towards his or her behavior (Ajzen, 1991). Moreover, perceived behavioral control is individual perception used to evaluate the level of control

he or she has to implement an action in a particular situation (Verma & Chandra, 2017). According to Ajzen (1991), declared that perceived behavioral control is one of the factors form the individual intention and leads actual behavior from theory of planned behavior (TPB).

Perceived behavioral control views as performance of an action or behavior which impact by adequate resource and ability to control restrictions to behavior (Ajzen & Madden, 1986). The depth of intention of an individual will cause by the presence of ability and resource. With more resource and little obstacles, individual perceived behavioral control will be enhanced, and co-creation intention becomes stronger.

Once customers' perceived ease of service, less interference and able to obtain useful information on social network sites (SNSs), they tend to spend time and efforts to understand the product or service (Cheung & To, 2016). The degree of involvement is increasing by the time consumers spend on social network sites. Within the high involvement procedure, customers may utilize the chance to share the innovative ideas to enhance product and service. According to Auh et al. (2007), stated that customers express their co-creation intention when they able to control the whole entire co-creation process.

2.1.5 System quality

Based on DeLone and McLean IS model, system quality as a factor applied to examine the level of technical, semantic, and influence (Hellstén & Markova, 2006). To evaluate the effectiveness of the system quality, it concentrates on the features of information system that produced information. The measurements used to evaluate system are ease of use, convenience to access, simple navigation, recognition of user requirements, data accuracy, and usefulness of system features. Moreover, system quality has measured by flexibility, integration, response time, error recovery, language, and ease of access (Iivari, 2005). When user favors towards the system, they will have a positive attitude toward the cocreative service innovation. As DeLone and McLean model stated, usability is the critical measurement of system quality. The high standard system quality leads the behaviour such as increased visits in websites (use) and repeats purchases (user satisfaction). Hence, system quality able to help to develop users' dependability, satisfaction, and intention (Cham, Lim, Cheng, & Lee, 2016; Lai, 2016).

According to Echeverri and Skålén (2011), system view as co-creative platforms for service providers influence customer value creation. In order to archive higher level of co-creation, firm is necessary to engage and support the customer by providing the relevant information and resource during the co-creative processes (Payne et al., 2007). The preference information customers have, they will tend to respond or co-create with company (Dong et al., 2007).

2.1.6 Information quality

Social media has become a common phenomenon in the world, which connected billion of users globally via platforms (Facebook, Instagram, Twitter). The information generates and exchange process has gone through these online platforms as their daily life. Furthermore, some of the organization try to build up the relationship and share the business practice with their customer through social media (Sinclaire & Vogus, 2011). To utilize the information on social media sites, organization has to understand and comprehend information quality and its attributes. In the social media perspective, information quality view as content quality that allows users to experience high-quality content (Chai, Potdar, & Dillon, 2009).

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In the context of fitness to use, information quality in social media is highly used and user centrical, as the degree of information suitable for performing a specific task by a particular user (Huh et al., 1990). To measure information quality, researchers have created questionnaire to define its in different dimensions such as accuracy, timeliness, relevance, accessibility, ease of manipulation, security, and value-added (Kahn, Ramsey, & Brownson, 2002). According to Kahn et al. (2002), proposed an information quality (PSP) model to measure information quality. This model view information quality from two aspects, which are product quality and service quality. Product quality means tangible measurements in terms of its accuracy and error-free. Service quality refers to intangible measurements relates to its security and value-added to information.

According to Wang and Strong (1996), they discussed information quality as usefulness and usability for consumers and proposed a framework which including four dimensions intrinsic, accessibility, contextual, and representational. Intrinsic IQ indicates that high-quality information in its possess right. Contextual IQ denotes that the data quality is required to be view within the task context. While representational IQ emphasizes on the significance of the information system, and accessibility IQ ensure that the information is accessible, interpretable, and secure for information users.

2.1.7 Service quality

According to Karatepe (2011), they defined service quality as an idea that enables firms to gain competitive advantage and differentiation out of the opponents. According to Grönroos (2007), service quality is used to evaluate the experience outcome. If the service performance conforms with the customers' perception toward the service, leads to customer delight and induce the notion of service quality (Zeithaml, Parasuraman, & Berry, 1988). In service industry context, service quality is formed by reliability, responsiveness, tangible and empathy, apply by researchers to assess the effectiveness of service quality (Sangeetha & Mahalingam, 2011). The quality service enhanced the positive outcomes, which are customer satisfaction (Cham, Lim, & Aik, 2015; Cheng, Mansori, & Cham, 2014; Hameed & Amjad, 2011) and loyalty (Kitapci, Akdogan, & Dortyol, 2014).

In this modern era, customers collaborate with the firm in the co-creative service innovation is a "must" action. Thus, firms put more efforts and capacity to develop engagement platforms (websites, online communities, online store) that allow customer direct interact with firms (Ramaswamy, 2009). According to Sawhney et al. (2005), they point out that improve the quality of internet-based devices for customer interaction purpose will encourage them to engage in the co-creation process. Website design of a firm view as part of the service quality firms provide to their customers. The firm's websites considered as a navigate for consumers which use to sending the firm's first impressions. For instance, customers get useful information, effective interaction, and customer service through the firm's website. Enhance the service quality (websites design) is critical for co-create value (Fyrberg & Jüriado, 2009).

According to (Ostrom, et al., 2010), stated that technology has an impact on customer service experience through customer participation and co-creation process, which influence the evaluation of satisfaction. Furthermore, the e-service quality and its dimension have an impact on the willingness of customer participate in the co-creative process (Sheng & Liu, 2010). The characteristics of appealing appearance, clear layout, current information, and ease of navigation provide a good impression toward the consumer (Flavian, Gurrea, & Orús, 2009). The favorable of customers toward the service quality will increase the willingness to co-create. Hence, the high standard and superior quality of website design have positively impact on co-creation intention.

2.1.8 Co-creation intention

Co-creation intention defined as the collaboration between firm and customer in value creation throughout service delivery and consumption (Handrich & Heidenreich, 2013; Prahalad & Ramaswamy, 2004). Some of the literature spotted that the engagement of customers to enhance firm' service or product is crucial, which carries the influence power of adoption (Handrich & Heidenreich, 2013). According to Hoyer et al. (2010), the willingness of co-create as well as the intention to co-create which evaluate based on possible benefits compared to possible cost of the adoption (Fernandez & Bonillo, 2007). Co-creation motivated when the possible benefits surpass possible costs.

Nowadays, firms utilize social media to engage and create a relationship with potential customers. Social media considered as an efficient tool that influences individual actual behavior likes co-creation intention and purchasing behavior (Vermeulen & Seegers, 2009). Technology comes along with revolution towards the global industries. It also expands the growth of social network sites, social media, online platforms, and IT in this new century. In the service industry context, firms utilize online platforms (websites, social media, social network sites) to build interaction with customers and exchange ideas, feedback and information. Therefore, online platforms allow customer to co-create with the firms.

The primary selling point of the service industry is memorable experience (Quan & Wang, 2004). Co-creation provides a better service experience to customers. During the interaction, customers able to modify the service or product based on their needs and wants. According to Van Doorn et al. (2010), customers not only the asses and value to firm but also contribute to firm via their behavioral manifestations (co-create service innovation, voice out opinions and influence others behavior). For example, tourism might update their humor and memories by sharing photo, story, and experience via

decision influenced by the review of product or service.

2.1.9 Adoption intention

According to Ajzen (1991), attitude has a positive impact on intention. In the technology-based service era, researchers found out that positive relationship between attitude and behavioral intentions for adoption (Dabholkar & Bagozzi, 2002). The commitment of customers in co-creation to firms is the prerequisite for the adoption (Chan, Yim, & Lam, 2010). Hence, researchers able to conclude that the greater of co-creation intention, the greater of the adoption intention.

In Malaysia hotels industry, the management level desire to minimize their distribution costs hence adopt the electronic distribution channels (Bakar & Hashim, 2008). Based on the research data, product or service of travel sector ranked as the top three, which always purchased through the internet (Eric, 2016). Therefore, hoteliers utilize internet as an instrument to enhance the effectiveness and performance instead of using the traditional method of room reservation. The engagement of customers in the service provision and consumption is critical for technology-based service adoption (Chan, Yim, & Lam, 2010; Handrich & Heidenreich, 2013). Therefore, customers co-creation intention has an impact on adoption intention.

2.2 Review of Relevant Theoretical Models

2.2.1 Theory of planned behavior

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Source: Ajzen (1991)

The conceptual framework about the antecedent of intention that affects the intention behavior. In the study, researchers adopt Ajzen (1991) theory of planned behavior (TPB) in order to examine the various antecedents that can influence customer behavioral intention. The TPB model consists of three attributes, which are perceived behavioral control, subjective norm, and attitude.

2.2.2 DeLone and McLean IS model



Source: DeLone and McLean Information System model (1992)

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Source: Updated DeLone and McLean IS model (2002,2003)

In this study, researchers have adopted DeLone and McLean IS model to examine the effectiveness and implementation of information technology. The six dimensions used to evaluate the DeLone and McLean IS model are system quality, information quality, use, user satisfaction, individual impact, and organizational impact. Moreover, the dimensions used to examine the technical level, semantic level, and influence level (Hellstén & Markova, 2006). In the model, system quality used to measure technical success, information quality used to measure semantic success, and others (user satisfaction, use, individual impacts, and organizational impacts) used to measure effectiveness success. DeLone and McLean IS success model has updated due to the change in role and management of information system and shown as figure 2.3. The researchers recognized quality as three dimensions which are service quality, information quality, and system quality. Each of the qualities should be measured and will affect the use (adoption intention) and satisfaction (intention to use).

2.3 Proposed Conceptual Framework



Source: Developed for this study

The figure 2.4 shown above is the proposed theoretical framework of this study, which it can serve as the basis to evaluate the association among the variables including nine variables as well as customer innovativeness, attitude toward co-creative service innovation on social media, subjective norms, perceived behavioral control, system quality, information quality, service quality, co-creation intention, and adoption intention. This research study is involving eight hypotheses from the hypothesis development.

2.4 Hypothesis Development

According to research objectives and questions, the hypothesis has generated as below:

2.4.1: The relationship between Customer Innovativeness and Co-creation Intention.

Customer innovativeness as the individual' innate characteristics that affect individual behavioral intention. In the ever-changing business environment, customer needs and wants often changed with the trend or inspiration of the product or service. The innovativeness enable customer more likely to explore the new service or product rather than noninnovative counterparts (Hirschman, 1980). For instance, innovate customers are willing to try out the new service or product as the novelty experience. Once they decide to adopt the innovate product or service, they will unconsciously influence others to use or purchase it (Kim & Forsythe, 2008; Solomon, 2006). Therefore, innovativeness as a measurement to evaluate the individual behavioral intention (Roger, 1976).

Based on the studies of Rogers and Shoemaker (1971), revealed that innovativeness is the individual who adopting new service or product earlier than the relatives. Innovate customer considered as the first adopter who interests to the novelty experience. They inclined to commit and responsive to firm's offerings (Walczuch, 2007). Furthermore, social network sites view as an effective platform to engage customer who is innovative and willing to cocreate through technology (Zhang, Lu, & Kizildag, 2017). Hence, innovativeness has an impact on individual behavioral intention through network sites (Sarmah, Kamboj, & Kandampully, 2018).

H₁: There is a relationship between customer innovativeness and co-creation intention.

2.4.2: The relationship between Attitude toward co-create service innovation on social media and Co-creation Intention.

Attitude used to determine the individual intention to engage the particular behavior (Ajzen, 1991). Moreover, attitude recognized as a reflection of individual opinion that involves favorable or unfavorable feeling towards the behavior. According to Sarmah (2018), the favorable and positive attitude of an individual holds, the stronger intention to practice the particular behavior. They have a stronger feeling of fulfilling the co-creation process if a positive attitude has been generated.

Besides that, attitude recognized as the individual' belief towards a specific circumstance or object which conducting the individual behavior (Joshi, 2003). The attitude of customer toward the co-creation via social network sites is evaluated by perceived ease of use and perceived usefulness. Once the technology system has well designed in ease of use, customer will take part in the value creation process due to effortless and time-saving. In short, ease of use and usefulness has a positive impact on individual behavioral intention.

H₂: There is a relationship between attitude toward co-create service innovation on social media and co-creation intention.

2.4.3: The relationship between Subjective Norms and Cocreation Intention.

Subjective norms recognized as the social pressure and force individual whether to perform a behavior or not. The individual with a strong subjective norm tends to engage the particular behavior (Kim et al., 2013). Moreover, researcher found out that subjective norms as a psychological element which will influence on the individual' decision making process (Taylor & Todd, 1995). The individual with high level of identification means he/she held the high intention to create value.

Furthermore, subjective norms almost influenced by the opinion of family, friends, and peers. Individual always seek group relationship and association by performing the performance that admires by the group (McClelland, 1987). Individual tries to achieve the common goal and expectation rather than engage in conflict as relationship can be the source of supportive. Once the particular behavior is agreeable by the relation, individual tend to respond and perform it. Hence, subjective norms have an impact on individual behavioral intention (Bouwman & De Vos, 2008).

H₃: There is a relationship between subjective norms and co-creation intention.

2.4.4: The relationship between Perceived Behavioral Control and Co-creation Intention.

Perceived behavioral control as the level of authority toward the perceived behavior. Perceived ease of practice behavior is one of the considerations of perceived behavioral control. For instance, perceived the behavior is easy or difficult to implement. When customer's perceived ease of control toward the particular behavior, they tend to involve in the process and leading the final outcome (Monsuwe, Dellaert, & Ruyter, 2004). Vice versa, the complexity of the system make individual refused to adoption intention since it is waste time to understand it (Mallat, 2007).

Furthermore, perceived behavioral control influenced by the belief which deals with the resources and opportunity (Ajzen, 1991). From the past studies, show that individual assumed to perform if control belief correlation higher than difficulty belief correlation. However, customer' perceived difficulties means the small belief of control belief he/she held. For example, the customer with ability and knowledge incline to implement the particular behavior as less behavioral control leads to a stronger individual' intention.

H₄: There is a relationship between perceived behavioral control and cocreation intention.

2.4.5: The relationship between System Quality and Co-creation Intention.

System quality indicates the system that directly controls by the firm and manages the quality issue. Firms utilize system as a technical tool to control routine practice and responsibility distribution (Berggren, 2001). Therefore, firm should well design the system to fit customize practice and enhance the level of adoption. The high level of adoption indicates that the system is effectiveness and efficiency through improvement.

Moreover, firm use system to deliver culture and value to their customer in order to achieve a goal (Nilsson, 2000). The firm should plan, action, evaluate, and improve the system to ensure that the system is in the best standard. Therefore, system should focus on the features and functions provide to the users. Ease of use, simple navigation, and proper design the system have will gain satisfaction from users. The effectiveness of the system that users use, the more satisfaction and positive experience toward the firm, and leads customer intention to co-create (Lai, 2016).

H₅: There is a relationship between system quality and co-creation intention.

2.4.6: The relationship between Information Quality and Cocreation Intention.

Information quality considered as a factor that will influence customer satisfaction and intention to use. According to Neuhofer & Buhalis (2012), the travel and tourism industry has been revolutionized recently through Information and Communication Technology (ICT). This technology encourages the significance of travel experience to both service providers and consumers, while ICT empowers consumers to co-create their experience through internet from worldwide (Prahalad & Ramaswamy, 2004). Thus, the information quality will affect to consumers co-create intention.

Moreover, information system as the system to assess the value of information technology (IT) (Taylor & Todd, 1995). The better IT helps firm to manage resources and enhance its performance. As the concept of information quality, firm should provide the relative information and consistency experience to their customer, as helps individual to complete task and helpfulness in the decision making process (Fisher, 2001). While the objective of IT meet customer perception, it enables customer to perform particular intention or behavior (Nelson, Todd, & Wixom, 2005).

H₆: There is a relationship between information quality and co-creation intention.

2.4.7: The relationship between Service Quality and Co-creation Intention

Service quality defines the difference between performance and expectation (Parasuraman, 1988). Customer' perception performance means what they are experienced through the process and outcome. Moreover, customer has the mindset of what offers should provide by the firm rather than what they might obtain. Customer' perception performance influenced by the experience, worth

of mouth, and personal requirement. The outcome between perception and reality known as service quality (Gronroos, 1982).

In the service industry, online service is the usual method used the evaluate service quality. The evaluator of service quality is time needed, efforts, and benefits involve in the transaction. When firm provides the quality and reliable service to their customers, this will lead to customer satisfaction towards decision making (Cham & Easvaralingam, 2012; Cheng et al., 2014; Cronin & Taylor, 1992). Once customers generate a positive experience and feeling towards the service, they tend to construct a strong relationship and value creation toward the firm (Pura, 2005). The strong commitment of customers leads individual behavioral intention.

H₇: There is a relationship between service quality and co-creation intention.

2.4.8: The relationship between Co-creation Intention and Adoption Intention.

Co-create is the collaboration between firm and customer to co-create value. According to Handrich and Heidenreich (2013), revealed that engagement of customer carries the influence power of adoption. When the possible benefit is greater than possible cost, customer tend to perform the particular behavior (Hoyer, 2010). According to Grissemann (2012), stated that customer who co-create with the particular product or service, they might have the intention to patronage again and recommend the particular firm to others.

Co-create service innovation carry the influence of adoption on social network sites (Chan, Yim, & Lam, 2010). In this research, the engagement and interaction between customers is the only bridge to have effective communication and on-time solution to solve the current problems and requests.

The customer' desire outcome force them to co-create in order to achieve a common goal such as innovation, efficiency, and adaptation. The adoption as the end goal that enables firm and customer to create value together. In short, individual' desire move beyond the degree of adoption (Hoyer et al., 2010).

H₈: There is a relationship between co-creation intention and adoption intention.

2.5 Conclusion

This second chapter presents a literature review of the nine variables. Moreover, the hypothesis of this research had been stated and explained in different relationships. Furthermore, the conceptual framework has established to test the linear relationship among those variables. The methodology is ready to be explained in the next chapter.

CHAPTER 3: METHODOLOGY

3.0 Introduction

This chapter is discussing the research methodology applied in the research project as well as research design, sampling design, sampling size, sampling technique, and data collection procedure. Moreover, to assure the reliability of the proposed methodology, pilot text is going to study in this research. The data analysis method discussed in this chapter has aligned with the research objectives.

3.1 Research Design

Quantitative research technique is adopting by the researchers for supporting and measuring the constructs which include customer innovativeness, subjective norms, attitude toward co-creative service innovation, perceived behavioral control, service quality, system quality, and information quality.

3.2 Data Collection Methods

In quantitative research, numerical data and information are gathered to clarify and investigate the phenomena in scientific strategies (Muijs, 2004). Primary data used in the research are the first hand and real-time data collected by the researcher through a questionnaire, survey, experiments, or personal interviews (Hox & Boeije, 2005). It requires a long duration and higher incurred cost to collect primary data. Secondary data collection is the available data that collect and use for other purposes. The secondary data collected through online journals and articles. Researchers go through Google Scholar, Science direct, and Library OPAC to get useful secondary data. By

3.3 Sampling Design

3.3.1 Target Population

Target population defines as the group of individuals chosen by the researchers to help in the research findings. The target population for this research study is individual who has any hotel experience such as booking and inquiry via social network sites in Malaysia. The purpose chooses the specific group for experiment is to ensure the accuracy and validity of the research.

3.3.2 Sampling Frame and Sampling Location

According to Zikmund (2010), a sampling frame means where the sample is collected or taken. The sampling frame of this research study focused on the individual who has at least once hotel experience through social network sites in Malaysia only. The survey questionnaire will distribute online to the target respondents. Hence, the more reliable and accurate data from the respondents will be received.

3.3.3 Sampling Elements

Sampling element is the unit of analysis in a population that is being measured. In sampling element, the respondents who have at least once hotel experience through social network sites in Malaysia were selected to complete the questionnaire since they are fulfilling the requirement of this research study. The reason for targeting the specific respondents are they considered to have more capable in evaluating and analyzing the antecedents of co-creative service innovation in social network sites that will influence their intention co-creation and adoption co-creation.

3.3.4 Sampling Technique

The sampling technique used in this research is non-probability sampling techniques. According to Zikmund (2003), non-probability sampling symbolizes samples are selected based on personal judgment and convenient. Moreover, in this research non-probability will be preferred for the convenient reason. Judgment sampling method, one of the non-probability sampling techniques will be used to conduct this research. Judgmental sampling used to access the respondents who are fit to the requirement of the research. Hence, unqualified respondents have to reject from the survey. Researchers have to target the respondents who have any hotel experience via social network sites in Malaysia. Thus, the result is more relevance and validity.

3.3.5 Sample Size

According to Malhotra, Kim, and Patil (2006), they stated that the sample size is the total number of respondents who carry out in the research. A rating scale which proposed by Comrey and Lee (1992), declared that sample size in 100 is poor analysis, sample size in 200 is fair analysis, sample size in 300 is good analysis, sample size in 500 is very good analysis, and sample size in1000 or above considered as excellent analysis. According to Roscoe (1975), recommended that the sample size within 30 to 500 is most appropriate for in 300 is appropriate in the service industry. Therefore, 300 of questionnaire will be collected in the research.

3.4 Research Instrument

Researcher is using questionnaire survey for data collection. It indicates as a technique used to collect data which invited each response to the same questionnaire for a specific purpose (Saunders, Lewis, & Thornhill, 2009). The way to distribute questionnaire is through online Google form. Moreover, respondents required to read and answer the questionnaire with their experience and judgment. The reasons to apply questionnaire are a common way for data collection and low cost to reach a large number of respondents.

3.4.1 Questionnaire Design

Questionnaire was designed into 3 sections, which are section A, B, and C. Section A consists of some general information and demographic profile of respondents, includes gender, age group, occupation, education level, and household annual income. Section B collect the additional information, do respondents have any hotel experience, how frequent to visits hotel, the method of reservation, and do respondents know co-creation service innovation. The last part of the questionnaire, section C used to construct measurement.

Section A and B are adopting fixed-alternative questions, which means the respondent is given the limited alternative answer as a choice. By using fixedalternative questions, the benefit such as saving time and interview skill get through. As section C, the construct measurement is used to examine the nine which is five-point Likert Scale. Respondents are required to state their level of agreement for each statement in term of five-point likert scale range from 1 to 5, strongly disagree to strongly agree.

3.4.2 Pilot Test

Pilot test is essential to practice to ensure the reliability and accuracy of the outcome. Moreover, execute the pilot test to make sure the word, phrase and grammar of the survey have clearly understood by the respondent (Saunders et al., 2012). After some amendments have done, the revised questionnaires were sent out to 30 respondents. Researchers adopt Cronbach's alpha test in the research, and the reliability results are shown in Table 3.1.

No	Variables	Cronbach's Alpha	No. of Items	Internal Consistency
1	Customer Innovativeness	0.876	4	Very Good
2	Attitude towards Co-creative Service Innovation on Social Media	0.938	4	Excellent
3	Subjective Norms	0.951	2	Excellent
4	Perceived Behavioral Control	0.790	3	Good
5	System Quality	0.821	4	Very Good
6	Information Quality	0.912	5	Excellent
7	Service Quality	0.848	4	Very Good
8	Co-creation Intention	0.863	4	Very Good
9	Adoption Intention	0.913	7	Excellent

Table 3.1: Reliability test results of Pilot test

Table 3.1 shows the result of the reliability test, there are total of 9 variables are tested. The variable such as perceived behavioral control has the alpha value at 0.790, which is good in internal consistency. Besides, system quality ($\alpha = 0.821$), service quality ($\alpha = 0.848$), co-creation intention ($\alpha = 0.863$), and customer innovativeness ($\alpha = 0.876$) are considered very good consistency. Moreover, attitude towards co-creative service innovation ($\alpha = 0.938$), subjective norms ($\alpha = 0.951$), information quality ($\alpha = 0.912$), and adoption intention ($\alpha = 0.913$) are considered as excellent in internal consistency.

3.5 Construct Measurement

Constructs	Adapted from
Customer Innovativeness	(Botero, Karhu, & Vihavainen, 2011; Rogers E. M., 1995)
Attitude towards Co- Creative Service Innovation	(Jerdan, 1993; Nelson R. M., 1983; Porter & Donthu, 2006)
Subjective Norms	(Ajzen & Madden, 1986; Finlay, Trafimow, & Moroi, 1999; Kaushik, Agrawal, & Rahman, 2015)
Perceived Behavioral Control	(Ajzen, 1991; Verma & Chandra, 2017; Cheung & To, 2016)
System Quality	(Dong, Evans, & Zou, 2007; Hellstén & Markova, 2006; Payne, Storbacka, & Frow, 2007)
Information Quality	(Huh, Keller, Redman, & Watkins, 1990; Kahn, Ramsey, & Brownson, 2002)
Service Quality	(Hameed & Amjad, 2011; Ramaswamy, 2009; Zeithaml, Parasuraman, & Berry, 1988)
Co-creation Intention	(Hoyer, Chandy, Dorotic, Kraff, & Singh, 2010; Prahalad & Ramaswamy, 2004)
Adoption Intention	(Ajzen, 1991; Chan, Yim, & Lam, 2010)

Table 3.2: Origin of Constructs

Source: Developed for this study

3.6 Data Analysis Tool

Statistical analysis techniques are used for better understanding collected data and produce the findings for the study accurately (Taheri, 2016). The data analysis software, SPSS adopted to evaluate the questionnaire-based data in variable view. SPSS handle by researchers to analyze data and give prompt for them to generate effective data and better outcome.

3.6.1 Reliability Test

The measurement instrument used to evaluate the validity and reliability of questionnaire. Besides, reliability test used to evaluate whether all the variables are reliable or high related. Hence, the higher value of alpha implies the item has highly correlated with one another. According to Tavako (2011), stated that the alpha rules of thumbs range from 0 to 1.

Cronbach Alpha	Internal Consistency
$\alpha \ge 0.9$	Excellent
$0.9 > \alpha \ge 0.8$	Very good
$0.8 > \alpha \ge 0.7$	Good
$0.7 > \alpha \ge 0.6$	Moderate
$0.6 > \alpha \ge 0.5$	Poor

Table 3.3: Rules of Thumbs of Cronbach Alpha

<u>Source:</u> Zikmund, W.G. (2003)
3.6.2 Descriptive Analysis

Descriptive analysis refers to researcher transform the collected raw data from survey into form type. It serves to researchers for easy understanding purpose (Zikmund, 2003). The data analysis software, SPSS is utilized by the researcher to analyze questionnaire-based data in the variable view

3.6.3 Inferential Analysis

Inferential analysis technique is an instrument for the researcher to test on hypothesis (Trochim, 2006). Furthermore, it used to evaluate the acceptance of the hypothesis as well as reject or accept.

3.6.3.1 Pearson Correlation

Is a method used to analyze data fabricated by Karl Pearson in 1896, named as correlation coefficient or as r. R imply the relationship among two variables and show as linear or straight-line relationship. The r value will greater than 0 and has positive direction as outcomes when two variables have a straight-line relationship. Whereas, has a negative direction and smaller than 0 in a linear relationship (Ratner, 2009).

Table 3.4: Rule of Thumb of Pearson Correlation:

Size of Correlation	Strength of Association
+/- 0.91 to +/- 1.00	Very Strong
+/- 0.71 to +/- 0.91	High
+/- 0.41 to +/- 0.70	Moderate

+/- 0.21 to +/- 0.40	Small but definite relationship
+/- 0.00 to +/- 0.20	Slight, almost negligible
Source: Betner (2000)	

Source: Ratner (2009)

3.6.3.2 Multiple Linear Regression

It applied to determine and analyze the correlations between two or more independent and dependent variables (Uyanık & Güler, 2013). According to Uyanik (2013), multiple regressions assumes normal distribution, linear relationship, no multiple ties between all independent variables, as well as freedom from extreme values. The equation formed as below can be used to evaluate the relationship among those variables.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \cdots \beta_k X_k + e$$
"

3.7 Conclusion

In conclusion, chapter 3 has discuss the research design, data collection methods, and sampling design. Target population, sampling iframe, and location, sampling elements, and techniques are described and set clearly for survey effectiveness. Furthermore, questionnaire design, pilot test results also show in details. The origin of construct has shown as a tabular form for reader-friendly. The data analysis tool used to produce the findings of the study as well as descriptive analysis, simple linear regression, and multiple linear regression.

CHAPTER 4: ANALYSIS OF DATA

4.0 Introduction

Chapter 4 is content with several data analysis from 300 sets of survey questionnaire collected. SPSS is conducting to interpreted data and generates outcome is discussed in the following subsections. Results will be visually displayed as charts and tables.

4.1 Demographic Analysis

4.1.1 Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	221	73.7	73.7	73.7
	Male	79	26.3	26.3	100.0
	Total	300	100.0	100.0	

Table 4.1: Gender

Source: Developed for the research



The table above shows the summaries of the demographic profile of all 300 qualified respondents. From the result, 221 respondents are female (73.7%) while the rest of 79 respondents are male (26.3%).

4.1.2 Age Group

		Frequency	Percent	Valid	Cumulative
				Percent	Percent
Valid	25 years old and below	174	58.0	58.0	58.0
	26 to 35 years old	123	41.0	41.0	99.0
	36 to 45 years old	3	1.0	1.0	100.0
	Total	300	100.0	100.0	

Table 4.2: Age Group

Source: Developed for the research







Source: Developed for the research

As age group, 25 years old and below is the primary group that includes 174 respondents (58%). Besides, there are 123 respondents (41%) between 26 to 35

years old, and 3 respondents (1%) between 36 to 45 years old. However, there is no respondent between 46 to 55 years old, and between 56 years old and above.

4.1.3 Employment

			1		1
		Frequency	Percent	Valid	Cumulative
				Percent	Percent
Valid	Professional position	47	15.7	15.7	15.7
	Executive/Managerial position	50	16.7	16.7	32.3
	Production/Manufacturi ng position	35	11.7	11.7	44.0
	Clerical/Administrative/ Secretarial	50	16.7	16.7	60.7
	Business Proprietors/ Self-employed	16	5.3	5.3	66.0
	Retiree/Not in the workforce	3	1.0	1.0	67.0
	Unemployed	99	33.0	33.0	100.0
	Total	300	100.0	100.0	

Table 4.3: Employment

EMPLOYMENT

- Professional position
- Executive/Managerial position
- Production/Manufacturing position
- Clerical/Administrative/Secretarial
- Business Proprietors/Self-employed Retiree/Not in the workforce

Unemployed



Source: Developed for the research

The table above shows that most of the participants are unemployed, which is 99 respondents (33%). Then, both of the respondents who takes executive or managerial position and clerical or administrative or secretarial scores 16.7% or 50 respondents. Then, 47 respondents (15.7%) are taking professional position, 35 respondents (11.7%) are taking production or manufacturing position, 16 respondents (5.3%) are taking business proprietors or selfemployed, and 3 respondents (1%) are not in workforce.

4.1.4 Education Level

		Frequency	Percent	Valid	Cumulative
				Percent	Percent
Valid	High school or below	23	7.7	7.7	7.7
	Bachelor's degree	276	92.0	92.0	99.7
	Certificate or Diploma				

 Table 4.4: Education Level

ANDECEDENTS OF CO-CREATIVE SERVICE INNOVATION IN SOCIAL NETWORK SITES (SNSs): EVIDENCE FROM THE HOTEL INDUSTRY OF MALAYSIA

Postgraduate	1	0.3	0.3	100.0
education				
Professional				
certificate				
Total	300	100.0	100.0	
Total	500	100.0	100.0	

Source: Developed for the research

EDUCATION LEVEL



92.0

Source: Developed for the research

Among the 300 respondents, 276 of them (92%) are from bachelor's degree. Furthermore, 23 respondents (7.7%) from high school or below, while only 1 respondent (0.3%) from postgraduate education. There is no respondent from certificate or diploma and professional certificate.

4.1.5 Income Level

Table 4.5:	Income Level

		Frequency	Percent	Valid	Cumulative
				Percent	Percent
Valid	Less than RM3,000	170	56.7	56.7	56.7
	Between RM3,000 and RM4,000	96	32.0	32.0	88.7

(SNS\$): EVIDENCE FROM THE HOTEL INDUSTRY OF MALAY							
Between RM4,000 and	29	9.7	9.7	98.3			
RM5,000							
Between RM5,000 and	5	1.7	1.7	100.0			
RM6,000							
More than RM6,000							
Total	300	100.0	100.0				

ANDECEDENTS OF CO-CREATIVE SERVICE INNOVATION IN SOCIAL NETWORK SITES (SNSs): EVIDENCE FROM THE HOTEL INDUSTRY OF MALAYSIA

Source: Developed for the research

INCOME LEVEL

- Less than RM3,000
- Between RM3,000 and RM4,000
- Between RM4,000 and RM5,000 Between RM5,000 and RM6,000
- More than RM6,000



Source: Developed for the research

As income level, the majority of the respondents fall into the category of less than RM3,000 (56.7%). Meanwhile, 96 respondents (32%) fall into the category of between RM3,000 and RM4,000. Besides, 29 respondents or 9.7% fall into the category of between RM4,000 and RM5,000. Furthermore, 5 respondents (1.7%) fall into the category of between RM5,000 and RM6,000. There is no respondent fall in the category of more than RM6,000.

4.1.6 Do you have any hotel experience?

		Frequency	Percent	Valid Percent	Cumulative Percent	
	Valid	Yes	300	100.0	100.0	100.0

Table 4.6: Do you have any hotel experience?

Source: Developed for the research

DO YOU HAVE HOTEL EXPERIENCE



Source: Developed for the research

Among the 300 respondents, all of them have at least one hotel experience. All respondents have experienced hotel industry in Malaysia.

4.1.7 Number of hotel visits per year

		Frequency	Percent	Valid	Cumulative
				Percent	Percent
Valid	Once in a year	196	65.3	65.3	65.3
	2 to 3 times in a year	100	33.3	33.3	98.7
	4 to 5 times in a year	3	1.0	1.0	99.7
	More than 5 times in a year	1	0.3	0.3	100.0
	Total	300	100.0	100.0	

Table 4.7 Number of hotel visits per year





Source: Developed for the research

There are 65.3% or 196 respondents do visit hotel once in a year. Moreover, 33.3% or 100 respondents do visit hotel 2 to 3 times per year. Besides, 1% or 3 respondents do visit hotel 4 to 5 times per year, and 1 respondent (0.3%) does visit hotel more than 5 times per year.

4.1.8 Hotel reservation method

		Frequency	Percent	Valid	Cumulative
				Percent	Percent
Valid	Hotel website	134	44.7	44.7	44.7
	Travel agent	3	1.0	1.0	45.7
	Smartphone apps	105	35.0	35.0	80.7
	Relatives	58	19.3	19.3	100.0
	Total	300	100.0	100.0	

Table 4.8: Hotel Reservation Method

HOTEL RESERVATION METHOD

Hotel website Travel agent Smartphone apps Relatives



Source: Developed for the research

As hotel reservation method, 134 respondents make their hotel reservation through hotel website, 105 respondents make their hotel reservation through smartphone apps, 58 respondents make their hotel reservation through relatives, and 3 respondents make their hotel reservation through travel agent.

4.1.9 Do you know about co-creative service innovation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	300	100.0	100.0	100.0

Table 4.9: Do you know about co-creative service innovation



Source: Developed for the research

Among the 300 respondents, all of them know about co-creative service innovation on social network sites.

4.1.10 How frequent you co-create with hotels via social media

		Frequency	Percent	Valid	Cumulative
				Percent	Percent
Valid	Never				
	Sometimes	269	89.7	89.7	89.7
	Often	30	10.0	10.0	99.7
	Always	1	0.3	0.3	100.0
	Total	300	100.0	100.0	

Table 4.10: How frequent you co-create with hotels via social media

Source: Developed for the research

HOW FREQUENT YOU CO-CREATE WITH HOTELS VIA SOCIAL MEDIA



30 respondents (10%) do often co-create, and 1 respondent (0.3%) do always co-create.

4.2 Central Tendencies Measurement of Constructs

	N	Sum	Mean	Std.
				Deviation
	Statistic	Statistic	Statistic	Statistic
Customer Innovativeness	300	1002.75	3.3425	0.52606
Attitude towards Co-Creative	300	1125.75	3.7525	0.46467
Service Innovation on Social				
Media				
Subjective Norms	300	955.50	3.1850	0.72804
Perceived Behavioral Control	300	1168.67	3.8956	0.46607
System Quality	300	1221.00	4.0700	0.44385
Information Quality	300	1158.00	3.8600	0.48675
Service Quality	300	1150.00	3.8333	0.42119
Co-Create Intention	300	1133.00	3.7767	0.51617
Adoption Intention	300	1079.43	3.5981	0.46936
Valid N (list wise)	300			

Table 4.11 Descriptive Table

Source: Developed for the research

The table above presents the descriptive statistics of 300 sets of data that arranged and calculated the sum, mean, and standard deviation statistics of each variable. All variables have their mean statistics rated over 5 points, by using a 5-point-Likert scale from strongly disagree (1) to strongly agree (5).

4.3 Inferential Analysis

Simple linear regression test and multiple linear regression test are used to generated inferential analysis.

4.3.1 Multiple Linear Regression Analysis

Model	R	R Square	Adjusted R	Std. Error of the
			Square	Estimate
1	0.526 ^a	0.277	0.260	0.44411
a.	Predictors: (Constant), C	ustomer Innovativer	ess, Attitude towards
	Co-Creative	Service Inno	vation on Social Med	lia, Subjective Norms,
	Perceived Be	ehavioral Co	ntrol, System Quality	, Information Quality,
	Service Qua	lity		

Table 4.12 Model Summary

Source: Developed for this study

The table shows a model summary of the data analysis. Based on the result, R square value is 0.277 which means the 27.2% of the variances in co-create intention was influenced by the predictors. The other of 72.8% (100%-27.2%) of variations remain uninfluenced.

Table 4.13 ANOVA^a

Μ	odel	Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	22.069	7	3.153	15.985	.000 ^b
	Residual	57.593	292	.197		
	Total	79.662	299			
	a. Depende	ent Variable: Co-Ci	reation I	ntention	1	

b.	Predictors: (Constant), Customer Innovativeness, Attitude towards
	Co-Creative Service Innovation on Social Media, Subjective Norms,
	Perceived Behavioral Control, System Quality, Information Quality,
	Service Quality

Source: Developed for the research

Table 4.13 show the ANOVA result, shows that the significant value is 0.000, below the p-value of 0.05. It indicates the null hypothesis is rejected, and the alternative hypothesis is accepted.

Μ	odel	Unstan	dardized	Standardized	Т	Sig.
		Coef	ficients	Coefficients		
		В	Std.	Beta		
			Error			
1	(Constant)	1.679	.282		5.956	.000
	Customer Innovativeness	.069	.066	.064	1.039	.300
	Attitude towards Co-	.370	.070	.333	5.278	.000
	Creative Service					
	Innovation on Social					
	Media					
	Subjective Norms	.165	.046	.232	3.613	.000
	Perceived Behavioral	.133	.065	.144	2.027	.011
	Control					
	System Quality	.047	.089	.041	.532	.595
	Information Quality	.242	.086	.228	2.832	.005
	Service Quality	.159	.069	.150	2.296	.023
De	ependent Variable: Co-Creat	ion Inten	ition			

Table 4.14 Coefficients^a

Table 4.14 shows the coefficient of each variable. The most significant variable that affected co-create intention among respondents is attitude towards cocreative service innovation on social media, which scores the beta of 0.333. The second significant variable that affected co-create intention is subjective norms, which scores the beta of 0.232. The third significant variable that affected co-create intention is information quality, which scores the beta of 0.228. The fourth significant variable is service quality, which scores the beta of 0.150. Followed by perceived behavioral control, customer innovativeness and system quality score the beta of 0.144, 0.064 and 0.041 accordingly.

Regression equation:

 $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7$

Co-Create Intention = 1.679 + 0.069 (customer innovativeness) + 0.370 (attitude towards co-creative service innovation) + 0.165 (subjective norm) + 0.133 (perceived behavioral control) + 0.047 (system quality) + 0.242 (information quality) + 0.159 (service quality)

4.3.2 Simple Linear Regression Analysis

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.732 ^a	0.536	0.535	0. 32022
a	Predictor	s: (Constant), C	o-Creation Intention	

Table 4.15 Model Summary

Source: Developed for the research

The table above shows a model summary of simple linear regression between co-create intention and adoption intention. The correlation coefficient (R value) scores 0.732. The coefficient range is between 0.7 and 1.0, it indicates a high

correlation between co-create intention and adoption intention. Hence, reject the null hypothesis.

The R square value is 0.536 means that co-create intention can explain 53.6% of variations on adoption intention. The rest 46.4% (100%-53.6%) of variations are unexplained.

Μ	odel	Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	35.310	1	35.310	344.347	.000 ^b
	Residual	30.558	298	.103		
	Total	65.868	299			
	a. Dependen	t Variable: Adoptic	on Intenti	on		
	b. Predictors	: (Constant), Co-Ci	reation In	tention		

Table 4.16 ANOVA^a

Source: Developed for the research

Table 4.16 shows the ANOVA result of simple linear regression between cocreate intention and adoption intention. The significant value is 0.000 and below the p-value of 0.05. Thus, the null hypothesis is rejected, and the alternative hypothesis is accepted.

|--|

Model		Unstandardized		Standardized	t	Sig.			
		Coefficients		Coefficients					
		В	Std. Error	Beta					
1	(Constant)	1.084	.137		7.924	.000			
	Co-Create Intention	.666	.036	.732	18.557	.000			
a. Dependent Variable: Adoption Intention									

Table above shows the coefficients between co-create intention and adoption intention. The significant value is 0.000, which below the p-value of 0.05, which means co-create intention is a significant predictor to variations of adoption intention.

Regression equation:

 $Y = \beta_0 + \beta_1 X$

Adoption Intention = 1.084 + 0.666 (Co-Create Intention)

As the equation above, the parameter estimates at 0.666, which indicates that co-creation intention is a powerful variable to impact on adoption intention.

4.4 Conclusion

In a nutshell, descriptive and inferential analysis were described in this chapter in detail. The results showed that there is a positive relationship between those seven predictors towards co-creation intention. There is also a positive relationship between co-creation intention and adoption intention. Lastly, the conclusion and findings will be interpreted in next chapter.

CHAPTER 5: CONCLUSION

5.0 Introduction

The last chapter will provide an entire conclusion of the study. Moreover, researcher will provide a depth findings and summary of the results analyzed in the earlier chapter. Lastly, the researcher will provide the implication, limitation, and recommendation.

5.1 Summary of Statistical Analysis

5.1.1 Descriptive Analysis

Among 300 qualified respondents, there are 73.7% of female respondents, and fall in the group 25 years old and below (58%). Besides, most of the respondents are unemployed (33%) and own the highest education level is bachelor's degree (92%). Lastly, majority of respondents fall into the annual income level of less than RM3,000.

All of the respondents are qualified to choose as target respondents as they have at least once hotel experience and experienced co-create service innovation on social network sites. Most of the participants do hotel visit once in a year (65.3%) and reserve hotel through hotel website (44.7%). Among the 300 respondents, most of them do sometimes co-create with hotel (89.7%).

5.1.2 Inferential Analysis

5.1.2.1 Multiple Linear Regression

The result generated from multiple linear regression between the predictors (customer innovativeness, attitude towards co-creative service innovation on social media, subjective norms, perceived behavioral control, system quality, information quality, service quality) and dependent variable (co-creation intention) has a R square value of 0.277, which indicates that 27.7% of the variances in co-create intention can be explained by customer innovativeness, attitude towards co-creative service innovation on social media, subjective norms, perceived behavioral control, system quality, information quality, and service quality. Meanwhile, the result shows that attitude towards co-creative service innovation on social media (B = 0.333) has the strongest impact on customer's co-create intention, whereas system quality (B = 0.041) has the weakest impact.

5.1.2.2 Simple Linear Regression

The result of simple linear regression between co-create intention and adoption intention has a R square value of 0.536. It indicates that 53.6% of variations in adoption intention can be explained by co-create intention. Besides, this model scores a R value of 0.732 and indicates a high correlation between these two variables.

5.2 Discussions of Major Findings

H ₁ : There is a relationship between customer	Reject H_0 (p-value <	Not
innovativeness and co-creation intention.	0.05)	Supported
	p-value = 0.300	

Table 5.1: Discussion of major findings

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(SNSs): EVIDENCE FROM THE HOTEL INDUSTRY OF MALAYSIA	L

H ₂ : There is a relationship between attitude	Reject H_0 (p-value <	
towards co-creative service innovation on	0.05)	
social media and co-creation intention.	p-value = 0.000	
H ₃ : There is a relationship between subjective	Reject H_0 (p-value <	Supported
norms and co-creation intention.	0.05)	
	p-value = 0.000	
H4: There is a relationship between perceived	Reject H_0 (p-value <	Supported
behavioral control and co-creation intention.	0.05)	
	p-value = 0.011	
H ₅ : There is a relationship between system	Reject H_0 (p-value <	Not
quality and co-creation intention.	0.05)	Supported
	p-value = 0.595	
H ₆ : There is a relationship between	Reject H_0 (p-value <	Supported
information quality and co-creation intention.	0.05)	
	p-value = 0.005	
H ₇ : There is a relationship between service	Reject H_0 (p-value <	Supported
quality and co-creation intention.	0.05)	
	p-value = 0.023	
H ₈ : There is a relationship between co-creation	Reject H_0 (p-value <	Supported
intention and adoption intention.	0.05)	
	p-value = 0.000	

Source: Developed for the research

Based on the result, recommended all the variables were best fit in the proposed model that scores a good overall with the data. All the variables are significant at the 5% level of significance, where the p-value is between 0.000 and less than 0.05. In short, all the variables supported in the research but customer innovativeness and system quality.

From the result of past studies, explored that customer innovativeness is significantly affect customer's co-creation intention, as customer willing to present and involve in the service development process (Morosan, 2015; Sarmah, 2018). However, customer

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innovativeness is unsupported in this research. The probability reason is firm failure to distinguish and identify the usage of co-creation (Witell et al., 2011). According to Lusch et al. (2007), stated that the right communication process is vital to resonate customer response. Once firm failed to identify the customer preference or behavior, leads no reply and no answer from the customer (Füller et al., 2006).

According to Dumond (2000), revealed that system quality has significant impact on co-creation intention, as system able to capture customer value. The effective system enable customer to response and interact with firms. However, system quality is unsupported in this research. The researcher found out that maybe the system is lack of sympathizing. The content provided by the company' online system is lack of activities and thus generate the weak connection and creation toward respondent (Kohler, 2011). Customers refused to respond if they have the feeling such as nothing to do, and there is no plan for the company to interact.

5.3 Implications of the Study

5.3.1 Managerial Implications

Based on the research outcome proves that customers' psychological factors are significantly affected on co-creative intention and adoption intention. Therefore, hotel industry necessary to understand and develop the innovative new services and special services attributes to their customers when using co-creative service innovation. It shown that service providers should put efforts toward understanding the customers' preference and insight. For example, service providers are considered to provide the entertain and interest materials such as video, photo, 3D content to stimulate customers' inspiration and value of co-creative (Kohler, 2011). Then, service providers have to provide relevant information and resources to their customer in order to gain value and response from customers. Hence, understanding the customer insight will gain the

positive preference of customer towards the service and eventually get the support (co-creative) from them.

Moreover, service providers are necessary to ensure the service system is within the customer's control, as they can expect what is the next steps are going to be while using the company system. For example, hotel industry should well design the system in ease of use, convenience to access, simple navigation, data accuracy and so on. The success service system that able to fulfil the customer's desire for personal control and preference, they might perform better than the service providers' expectation (Andrew, Peever, & Pryor, 2009).

5.4 Limitations of the Study

The limitations subject to the research and restrict researchers to obtain accurate information and resources. First, there are poor journals and articles published on the Internet. The insufficient information and materials described to the content of co-create service innovation from the hotel industry of Malaysia. Hence, the researchers face challenging and difficult to obtain helpful information to support the theory stated in this research.

Second, target respondents are unwilling to answer the survey. The reasonable reason of them refused to answer the questionnaire is research topic not related or not interested in their life, and they have a feeling such as wasted time to fill up the questionnaire. Moreover, the unconcerned respondents do not take part in this survey because they think that no direct benefits for them if they answer the questionnaire. Thus, postpone the progress of the research.

Lastly, the age group and employment of the respondents are not equally distributed in the research. The results shown most of the participants are fall in the group 25 years old and below and are unemployed. As a fact, different age group also different of this research may only represent the aged 25 years old and below, and not in the workforce respondents' viewpoint. Therefore, the result lack of the accuracy to represent all the respondent towards the perspective of co-creative service innovation.

5.5 Recommendation for Future Study

To overcome the problem of respondents refused to answer survey, provides gift as an appreciation to the respondents for spent time to fill up the survey. The attractive rewards (token, candy, snack) will make target respondents more willing to conduct the questionnaire as keep a good mood. This approach might help to enhance the possibility of getting response from those target respondents and encourage others to take part.

Moreover, equally distributed the questionnaire to different age group and different employment of target respondents. Distributed the survey to different target respondents may cause another variance and outcome generated by the research study. The advantage of equally distribute is enhancing the consistency and accuracy of the data collection. Then, researchers may obtain a different point of view or perspective about the antecedents of co-creative service innovation affected on hotel industry of Malaysia.

5.6 Conclusion

The usage of internet in this modern era is significantly increasing and become part of their daily life to updated new information. Therefore, the research topic is strongly encouraged to investigate to provide the depth understanding and insight for other

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researchers. Based on the research, it has provided evidence to support that the variables stated in the research are important for marketers and researchers to take as a consideration when studying the related topic in future. The marketers or researchers may generate a better insight about co-creative service innovation with the variables stated in this research.

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APPENDICES Appendix 1: Questionnaires



UNIVERSITI TUNKU ABDUL RAHMAN Faculty of Accounting and Management

BACHELOR OF INTERNATIONAL BUSINESS FINAL YEAR PROJECT

TITLE OF TOPIC: Antecedents of co-creative service innovation in Social Network Sites (SNSs): Evidence from the hotel industry of Malaysia.

Survey Questionnaire

I am final year undergraduate students pursuing Bachelor of International Business (Hons) from Universiti Tunku Abdul Rahman (UTAR) Sungai Long.

The purpose of the study is to analyse the antecedents of co-creative service innovation that affect customer's co-create intention when using social network sites (SNSs) in hotel industry of Malaysia. Your participation will greatly contribute to the success of the survey. We deeply appreciate your help in this survey, and your responses will remain private and will be used strictly for academic purpose only.

Thank you.

Supervisor's Name: Dr. Cham Tat Huei

<u>Name</u> Chai Zi Ying <u>Student ID</u> 16UMB01502

Questionnaire

Section A: Demographic Profile

The following questions refer to the general information of the respondent. Please select the appropriate box to indicate your answer.

- 1. Gender:
- □ Male
- □ Female
- 2. What is your age group?
- □ 25 years old and below
- \Box 26 to 35 years old
- \Box 36 to 45 years old
- \Box 46 to 55 years old
- □ 56 years old and above
- 3. Which one of the following best describes your employment?
- □ Professional position
- □ Executive/Managerial position
- □ Production/Manufacturing position
- □ Clerical/Administrative/Secretarial
- □ Business Proprietors/Self-employed
- □ Retiree/Not in the workforce
- □ Unemployed
- □ Others (please specify)
- 4. What is your highest education level?
- □ High school or below
- □ Bachelor's degree
- □ Certificate or Diploma

- □ Postgraduate education
- □ Professional certificate
- □ Others (please specify)
- 5. Which category describes your annual household income level:
- Less than RM3,000
- Between RM3,000 and RM4,000
- Between RM4,000 and RM5,000
- □ Between RM5,000 and RM6,000
- □ More than RM6,000

Section B: Additional information of respondent

The following questions refer to the additional information of the respondent. Please select the appropriate box to indicate your answer. The following questions refer to the usage of co-creative service innovation.

- 1. Do you have any hotel experience?
- □ Yes
- 🛛 No
- 2. Number of hotel visits per year:
- \Box Once in a year
- \Box 2 to 3 times in a year
- \Box 4 to 5 times in a year
- □ More than 5 times in a year
- 3. Hotel reservation method:
- □ Hotel website
- □ Travel agent
- □ Smartphone apps
- □ Relatives
- 4. Do you know about co-creative service innovation?
- □ Yes
- 🛛 No
- 5. How frequent you co-create with hotels via social media?
- □ Never
- □ Sometimes
- □ Often
- □ Always

ANDECEDENTS OF CO-CREATIVE SERVICE INNOVATION IN SOCIAL NETWORK SITES (SNSs): EVIDENCE FROM THE HOTEL INDUSTRY OF MALAYSIA Section C: Antecedents of co-creative service innovation in Social Network Sites (SNSs). This section is seeks your opinion regarding the importance of co-creative service innovation. Respondents are required to indicate the extent to which they agree or disagree with each statement using 5 points Likert scale. Please indicate your opinion with each statement by choosing one number.

Strongly Disagree = 1, Disagree = 2, Neutral = 3, Agree = 4, Strongly Agree = 5

Questions:	Level of agreement					
	SD	D	N	А	SA	
A. Customer innovativeness						
1. If I heard about a new technology, I would look for ways to experiment with it.	1	2	3	4	5	
2. Being the first to use new high-tech services is very important to me.	1	2	3	4	5	
3. I can usually figure out new high-tech products and services without help from others.	1	2	3	4	5	
4. Among all the individual who I know, I am usually the first to explore new information technologies.	1	2	3	4	5	
B. Attitude towards co-creative service innovation on social media						

(SNSs): EVIDENCE FROM THE	HUTEL		SIKIC	F MAL	AISIA
1. I assume co-creative service innovation on social media sites is a good idea.	1	2	3	4	5
2. I believe using co-creative service innovation on social media sites is a wise idea.	1	2	3	4	5
3. I like the co-creative service innovation idea on social media sites.	1	2	3	4	5
4. I think the use of co-creative service innovation on social media sites is a pleasant idea.	1	2	3	4	5
C. Subjective norms					
1. I think users who are important to me would think that I should co- create services on social media sites.	1	2	3	4	5
2. I think users who influence my behavior would think that I should co-create services on social media sites.	1	2	3	4	5
D. Perceived behavioral control					
1. I have the resources, knowledge and the ability to co-create services on social media sites.	1	2	3	4	5
2. I would be able co-create services on social media sites.	1	2	3	4	5

	-				
3. I think co-creating services on social media sites is entirely within my control.	1	2	3	4	5
E. System quality					
1. Social media sites are convenient to access.	1	2	3	4	5
2. Social media sites are easy to use.	1	2	3	4	5
3. Social media sites provide flexibility to the users.	1	2	3	4	5
4. Social media sites provide customized information.	1	2	3	4	5
F. Information quality					
1. Social media sites provide complete information.	1	2	3	4	5
2. Social media sites provide accurate information.	1	2	3	4	5
3. Social media sites provide timely information.	1	2	3	4	5
4. Social media sites provide useful information.	1	2	3	4	5

5. The information available on social media sites are reliable.	1	2	3	4	5
G. Service quality					
1. In general, social media sites have well- organized appearance.	1	2	3	4	5
2. In general, social media sites can instills confidence in customers.	1	2	3	4	5
3. Social media sites are visually appealing.	1	2	3	4	5
4. Social media sites can give prompt service for the users.	1	2	3	4	5
H. Co-creation intention					
1. I intend to co-create services on social media sites.	1	2	3	4	5
2. I think during my trip, I will access social media sites to buy products/services to be consumed.	1	2	3	4	5
3. I think during my trip, I will access social media sites to make an online review of my current trip.	1	2	3	4	5
4. I think during my trip, I will access social media sites to provide updates about my current trip.	1	2	3	4	5

1. I usually buy products/services to be consumed during the current trip using social media sites.	1	2	3	4	5
2. I regularly make an online review of the current hotel services on social media sites.	1	2	3	4	5
3. I give updates about my current trip on social media sites.	1	2	3	4	5
4. I sometimes generate my own smart phone network within the hotel to access social media sites.	1	2	3	4	5
5. I sometimes connect to other in-room technologies to access social media sites.	1	2	3	4	5
6. I like to share information related to hotel room atmospherics on social media sites.	1	2	3	4	5
7. I try to provide information regarding accessing my room on social media sites.	1	2	3	4	5