FACTORS AFFECTING CONSUMERS' ATTITUDE TOWARDS THE USE OF SELF-SERVICE TECHNOLOGY IN MALAYSIA

BY

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A dissertation submitted in fulfillment of the requirement for the degree of Master of Science (Marketing)

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ABSTRACT

The study attempted to examine the relationship between (Perceived Usefulness, Perceived Ease of Use, Expected Outcome Quality, and Technology Anxiety) and the dependent variable (Consumers' Attitude towards the Use of SST in Malaysia). A quantitative study design was used in this research. The study population contains of academic and administrative staff. Sample random designs were used to obtain a sample size. Three hundred and eighty-three (383) questionnaires were distributed, 358 were returned and 330 were deemed usable. The results revealed that perceived usefulness, perceived ease of use, expected outcome quality and technology anxiety comes were found to have a strong relationship with consumers' attitude towards the Use of SST in Malaysia. The analysis results confirm that a system will be adopted if it is regarded as useful therefore, the system perceived to provide direct value to the user. All the relationships that is, between the perceived usefulness, perceived ease of use, expected outcome quality and technology anxiety and consumers' attitude towards the use of SST in Malaysia, where tested and found to be strongly significant and positive as well. Perceived usefulness was found to be the strongest predictor. That is to say, what influences technology acceptance in one region or organization may not necessarily be the same in all scenarios.

ملخص البحث

حاولت الدراسة اختبار العلاقة بين المؤشرات: إدراك الفائدة وسهولة الاستخدام ونوعية النتيجة المتوقعة وتوتر التقانة، وبين المتغير التابع توجُّه المستهلك إلى استخدام تقنية الخدمة الذاتية في ماليزيا؛ من خلال المنهج الكمي، وقد تألف مجتمع الدراسة من الموظفين الأكاديميين والإداريين، واستخدمت نماذج التصاميم العشوائية للحصول على حجم العينة، فوُزِّع 383 استبانة، جُمع منها 358 عدُّ 330 منها قابلاً للاستخدام، وقد أظهرت النتائج أن لإدراك الفائدة وسهولة الاستخدام ونوعية النتائج المتوقعة وتوتر التقانة؛ علاقة متينة بتوجُّه المستهلك إلى استخدام تقنية الخدمة الذاتية في ماليزيا، وأكدت النتائج أن هذا النظام سيُعتمد في حال كان مفيدًا، فالنظر إلى النظام يُوفِّر إضافة مباشرة للمستخدم، ولا سيما أن جميع العلاقات بين إدراك الفائدة وسهولة الاستخدام ونوعية النتيجة المتوقعة وتوتر التقانة وموقف المستهلك من استخدام تقنية الخدمة الذاتية في ماليزيا؛ اختُبرت، وظهر للباحث أنها قوية إيجابية، وأن إدراك الفائدة أقوى تلك المؤشرات؛ أي إن ما يؤثر في قبول التقانة في منطقة أو منظمة ما؛ لا ضرورة لأن يكون نفسه في سائر الحالات.

APPROVAL PAGE

I certify that I have supervised and read this study and that in my opinion, it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a thesis for the degree of Master of Science (Marketing)

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I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a thesis for the degree of Master of Science (Marketing)

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DECLARATION

I hereby declare that this thesis is the result of my own investigations, except where otherwise stated. I also declare that it has not been previously or concurrently submitted as a whole for any other degrees at IIUM or other institutions.

Ibraheem Jamal Abushammalah

Signature .... Date ....

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FACTORS AFFECTING CONSUMERS' ATTITUDE TOWARDS THE USE OF SELF-SERVICE TECHNOLOGY IN MALAYSIA

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Firstly, it is my utmost pleasure to dedicate this work to my dear parents, wife and my family, who granted me the gift of their unwavering belief in my ability to accomplish this goal thank you for your support and patience.

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CHAPTER ONE

INTRODUCTION

1.1 INTRODUCTION

Chapter one aims to draw a clear overview of the research paper which would help in understanding the factors that are affecting the attitude of Malaysians towards the use of self-service technology (SST) through the use of TAM model (Technology Acceptance Model). The study is also designed to examine the relating impacts of the factors affecting Consumers' attitude towards the use of SST in Malaysia.

Hence, the study makes use of the (TAM) which is defined as "an information systems theory that provides an explanation on how users reach to accept and adopt a technology especially when the use of SST is introduced." Perceived usefulness, perceived ease of use, expected outcome quality and technology anxiety are the independent variables of the study. Attitude towards the use of SST acts as a dependent variable that is affected by the previously mentioned independent variables

Chapter One starts with the clarification regarding the research background and this sub-chapter discusses the philosophy of the present study. Problem statement is then presented and all the issues that lead to the importance of conducting this research are also elaborated. Upon presenting the problem statement, research objectives are displayed and later they are translated into the research questions. It is also important to emphasize the contributions this study may offer and therefore significance of the study is also presented. Lastly, the structure of the thesis is explained, and it is intended to give a better understanding towards the organization of the study.

1.2 RESEARCH BACKGROUND

In today's business, technology has become important to be employed and used in order to ease the delivery of services. It is worth noting that firms, nowadays, implement strategies in order to expand their service offerings, achieve their targeted satisfaction and decrease the labor costs which came to an existence when the SST was introduced (Lee & Allaway, 2002). The purpose of the research paper is to determine the factors affecting the attitude of Malaysians towards the use of SST through the use of TAM. Below, the discussion as to why SST is important and its ability to be adopted in the public services is also presented.

Self-service technology (SST) offers the ability to execute transactions or tasks without having any sort of interaction with service personnel. However, before the firms start to implement the use of SST, there is a need for some studies regarding the customer willingness to try out and adopt such form of technology that is based on self-service as without bringing this new concept to the customer attention, the SST will not fully offer its benefits. As a result, through establishing an understanding of what SST is all about, the world will be introduced to a new level of transaction and business. SST is a technology that gives the consumer the ability to execute a transaction without having any sort of interaction with the service provider and it has a requirement of having the consumer participation during the operation process. It is important to mention that SST is starting to vary and increase in numbers during consumer daily life. It also plays a huge role in the Malaysian market since 1981 all through May-bank firm as an ATM machine (Moreira, 2013).

More self-service technology applications are emerging in the marketing environment and slowly taking over the full-service option. This comprises of a variety of many service interfaces online, telephone-based technology and interactive free-free

standing kiosks so as to keep the increasing need of the marketing environment (Paluch, 2011). Although most studies have explored the dynamic and characteristic of customer's interactions with their service provider, the studies mainly discussed consumer interactions with technological interfaces. The most discussed issue regarding self-service technology focuses on the need to carry out more research on dynamics of self-service encounters into this technology-oriented perspective (Oliver, Livermore, & Sudweeks, 2009).

Self-service technology is like any other service that faces some uncertainty and it is not to assess beforehand. The majority of consumers are not willing to adopt the new technology. Many organizations, the service providers, have invested a lot of money in self-service technology, but they are not benefiting from the investment due to slow adoption of the self-service technology (Hernon & Whitman, 2001).

Self-service technology leads to increased customer attraction and satisfaction decision-making process thus it enables businesses growth effective and efficient over the long run. For example, when individuals are interacting with self-service technology interface, it allows them to carry out the task anytime and from any place (Srikanth & Padmanabhan, 2002; Dabholkar, Bobbitt, & Lee, 2003). The internet and online interface, especially, allow a user to perform the task anywhere at any time. More self-service technology applications are emerging in the marketing environment and slowly taking over the full-service option. This comprises of a variety of many service interfaces online, telephone-based technology and interactive free-free standing kiosks so as to keep the increasing need of the marketing environment (Paluch, 2011).

In the banking industry, Malaysia has long started to provide and adopt SST in the forms of cash deposit and cheque deposit machines that both offer assistance in such a major daily transaction in the banking sector. Even to a famous flight industry such as

Air Asia, it made mandatory for local flights to use SST in the form of self-check online or through airport machines (Nysveen and Pederson, 2011). Furthermore, in the launderette segment, SST is also implemented where it is seen as a growing trend. A type of SST was introduced in Malaysia 30 years ago, but it was not widely accepted by Malaysians, so it had to take a longer time than expected to be adopted by the Malaysian users. One of the major market players in the self-service laundry business is Clean Pro and the system was launched back in 2009 and later it reached 100 branches in Malaysia by the end of 2014 (Lee & Tan, 2014).

A number of these self-service technologies have been around for a while and a good number of individuals are aware of them. Consumers are always looking for concrete evidence on every transaction they do with most companies as these services are intangible. Consequently, consumers nowadays have a prior understanding self-self-service technology based on the experience they have and their attitudes. The first ever self-service technology to be introduced to consumers was automatic teller machine (ATM) in the beginning of 1980s (Scupola, 2009).

During the course of an extensive search in the SST concept field, there were many studies found under the area of information technology category. For example, a study conducted by Sandnes and Hagen (2010) aimed to study the universally designed kiosk prototype. The concept has been made on multimodal intelligent user interface which had been adjusted according to user's physical features. Moreover, there were other studies focusing on the acceptance and the factors that contribute in bringing the customer attention to use services through SST in different segments. Evidently, Bashir and Albarbarawi (2011) conducted a study on the use of smartphone and tablet computers where they have determined several factors on why consumers are not

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willing to adopt and use SST. The main factor that they have discovered was the personal behavior where culture and values play an important role.

1.3 PROBLEM STATEMENT

Based on the mentioned research background, SST is increasingly adopted and used by Malaysian market where customers and businesses start to direct their needs and desires toward the use and adoption of such concept which would bring benefits for both parties. Therefore, SST has become an important topic to be studied and discussed in order to be mastered for what is better in terms of outcomes (Chau, 1996). The spotlight of such topic is that SST not only serves as a supporting role but also it became a high selling point that needs an attention in order to attract more consumers to the offered services by different businesses and segments. The Malaysian market has proven a positive change in accepting such a concept through the years even though it was not a fast change (Fui, 2008).

On the one hand, as brought to the attention in the given background, there have been many researches designed to study SST which were mostly conducted outside the Malaysian market and made it an attraction of a study due to the fact that not much researches have been done within the Malaysian market. On the other hand, however, the overseas researches failed to give a full benefit because of the uniqueness of the Malaysians' needs and wants and they were made in a comparison context such as the consumer barometer survey that states the following results 31% of respondents use only smartphone, while 9% them used smartphone online more often than the use of computer. These findings prove behavioral differences compare with other countries such as USA and Australia in which their findings were 11% and7% on the use of smartphone only, while 16% and 14% of the respondents used smartphone online more

often than using computer (Consumer Barometer Study, 2014). This previous study proves clear differences in term of behaviors towards the use of smartphone among Asian and western respondents, therefore there is a need to perform a study in Malaysia to get a better understanding towards the uniqueness of consumers' attitude towards the use of self-service technology in Malaysia.

According to TAM, perceived usefulness is the degree to which consumers believes that utilizing a particular system will impact their attitude and at the same time have an effect on how they intent and actual use a certain technology (Davis et al., 1989). It is considered as one of the most crucial factors that affect the Attitude towards the use of SST and the actual use of SST. The more the users see the value of the SST, the more they are interested to eventually use the SST.

According to Pacheco (2013), individual perceived control is a belief that the individual is able to influence and make a difference in the event that surrounds them. The author continues to say that heartening this belief is supportive in assisting individuals to take control and deal with things that stress them in their lives. When the customers see that it is easy to use the SST, their attitude and use of SST will eventually be improved. Expected outcome quality in the context of self-service technology is the desire and adequate expectation on the outcomes that self-service technology will bring about (Zeithaml, Bitner, & Gremler, 2009). As the customers are able to see the improved quality that SST can offer, their attitude and use may increase significantly. Technology anxiety is defined as the fear and hopes that individuals feel when bearing in mind the actual use of technology (Chu et al., 2009). The fear towards the usage of technology is also believed to have a strong impact in both the use and the Attitude towards the use of SST. Attitude was defined by Eagly and Chaiken (1993) as a psychological tendency that would express self-evaluation in terms of favorable or

unfavorable towards an object in which this sort of tendency is difficult to change. While Dabholkar & Bagozzi (2002) simply described attitude as consumer's feelings towards using SST in his study. This attitude can be positive or negative based on consumers own assessment.

1.4 DEFINITION OF TERMS

There are six essential variables at this research which are attitudes, perceived usefulness, perceived ease of use, expected outcome quality and technology anxiety as independent variable while self-service technology is the dependent variable. Table 1.1 shows the operational definitions of the research variables.

Table 1.1 Conceptual Definition

Perceived usefulness	The degree to which a person believes that using a particular technology will enhance his or her job performance.
Perceived ease of use	The degree to which an individual; believes that using a particular system would be free from physical and mental effort.
Expected outcome quality	Quality index affect the attitude toward self-serve technology.
Technology anxiety	An effective, emotional response arising from the use of (or the thought of using) technology.
Attitudes	An individual's positive or negative behavior towards innovation adaption.
Self-service technology	Is technological interfaces allowing customers to produce services independent of involvement of direct service employee

1.5 RESEARCH OBJECTIVES

The general objective of this study is to test the factors affecting Malaysian's towards the use of Self-Service Technology. The specific objectives of the present study are as follow:

1. To determine the impact of perceived usefulness on Consumers' attitude towards the use of SST in Malaysia.

2. To examine the impact of perceived ease of use on Consumers' attitude towards the use of SST in Malaysia.

3. To evaluate impact of the expected outcome quality on Consumers' attitude towards the use of SST in Malaysia.

4. To analyze the impact of technology anxiety on Consumers' attitude towards the use of SST in Malaysia.

1.6 RESEARCH QUESTIONS

The research questions to the paper are as follows:

1. What is the relationship between perceived usefulness on consumers' attitude towards the use of SST in Malaysia?

2. What is the relationship between perceived ease of use on consumers' attitude towards the use of SST in Malaysia?

3. What is the relationship between expected outcome quality on consumers' attitude towards the use of SST in Malaysia?

4. What is the relationship between technology anxiety on consumers' attitude towards the use of SST in Malaysia?

1.7 SIGNIFICANCE OF THE STUDY

The study aims to provide a valuable source of information to Malaysian business firms along with the government sectors where SST is expected to be used. This research was designed to uncover the factors that affect the willingness of the technology users in Malaysia to accept and adopt SST. This information will mainly help in maximizing the governmental benefits of using such technology where the cost of labor can be minimized, and the management of services can be more efficient and more convenient to the customers.

Literature review is presented to illustrate the main factors that contribute and affect the attitude towards the use of SST of the technology users in Malaysia. An explanation will be provided and emphasized in a deeper form. It is worth to mention that these factors will help find out if there is any significant relationship that has an impact on consumers' attitude towards the use of SST in Malaysia.

Also, the significance of the paper is to use the TAM model where its results will indicate the most significant factors that affect consumers' attitude towards the use of SST in Malaysia. As a result, the outcome will reveal the proper use of SST in Malaysia. In addition, the study will also benefit the academicians, students, and scholars who are interested in SST use in the Malaysian context. Furthermore, the study will also benefit the SST providers to enhance the use of SST among the Malaysian users.

1.8 STRUCTURE OF THE THESIS

Chapter 1: Introduction

Chapter one aims to provide an overview on the factors affecting Malaysian's attitude towards the use of self-service technology and also providing a background to the research followed by problem statement, research objectives, research questions and the significance of this study.

Chapter 2: Literature Review

Chapter two begins with explaining self-service technology reviewing previous studies and findings of the studies with similar topics. The review of literature includes the factors affecting Malaysian's attitude towards the use of self-service technology along with studying the TAM model and the postulated hypotheses.

Chapter 3: Methodology

Chapter three presents methodology parts that include research design, theoretical framework, hypotheses statements, data collection method, sampling design, research instrument, constructs measurement, data processing and method of data analysis.

Chapter 4: Data Analysis

Chapter four provides the analysis results and the findings of collected data throughout the use of SPSS.

Chapter 5: Discussions Conclusion and Implication

Chapter five offers the summary of this study in terms of statistical analyses, major findings, and implication as well as limitation of the study. Suggestion and recommendation for future research are also presented.

CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTION

The present chapter highlights the review of literatures from the previous scholars on the use of self-service technology. Section 2.2 mentions the literatures on the self-service technology. Section 2.3 highlights the different types of self-service technology. Section 2.4 point out the profiling users of self-service technology. Section 2.5 discusses the advantages of using the self-service technology. The chapter ends up highlighting the review of literatures on the variables used in the present study namely: perceived usefulness, perceived ease of use, the expected outcome quality, the technology anxiety, attitude towards the use of SST.

2.2 SELF-SERVICE TECHNOLOGY

The upgrade in information technology has drastically changed the business environment in terms of marketing of goods and services. The alarming trend in the world of business is the adoption of self-service technology. According to Meuter et al. (2000), self-service technology interfaces that enable consumers to come up with a service independent of direct service employee participation. Self-service technology provides a variety of services such as customer services, self-help, and monetary transactions. Various service providers are now attracted in using of self-service technology in order to enhance the quality of their services, attract new customers and to reduce the cost of operation.

More self-service technology applications are emerging in the marketing environment and slowly taking over the full-service option. This comprises of a variety

of many service interfaces online, telephone-based technology and interactive free-free standing kiosks so as to keep the increasing need of the marketing environment (Paluch, 2011).

According to Nysveen and Pedersen (2011), self-service technology in the marketing environment has grown significantly in the past decade. Self-service technology enables retailers to standardize their interaction with a client, which attracts dependable service delivery environment independent of employee's moods and personality. Furthermore, self-service technology enables customers to be resourceful in producers who are involved in service delivery, thus allowing individuals to handle fluctuations in demand with less adjustment of employee's level. From the above researchers, it can be concluded that self-service technology is attracting a major deal of concentration from practitioners and academician as a result of recent importance and newness. More researchers have tried to understand how features of self-service technology can be designed in such a way that they improve effectiveness from customers' perspectives. Even though the previous studies of self-service technology have given out more evidence regarding positive impacts of individual design, there is still much to be done regarding the combined effect of multiple designs of self-service technology. Bobbitt and Dabholkar (2001) attempted to segment the market basing on eagerness to be involved in the delivery of services. This was among early systematic studies that were done to clearly identify and describe customers who might adopt the use of self-service technology alternative. The authors further reported individuals who participated in the adoption of self-service technology tend to have better education and younger. The authors went forward and examined attractiveness of self-service options when times saving is taken into account and finds that major group of individuals to adopt self-service technology even without time-saving benefits.