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MASTER OF BUSINESS ADMINISTRATION

Indonesian Airlines' Electronic Ticketing Web Page: Influence of Web Page Dimensions on Customer Satisfaction Leading to Favorable Repeat Purchase Intention

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Abstract

Electronic commerce (e-commerce) has been widely adopted by companies in different industry to promote and to sell their products and services, including the airline industry. Numerous Indonesian airline companies have employed electronic ticketing (e-ticketing) website service to promote and to sell their air tickets to customers worldwide. It is important to identify if the company's website has a competitive advantage that could influence customer's intention of purchasing air ticket electronically. This research is carried out to identify the dimensions of Indonesian airlines' electronic ticketing web page that influence customer satisfaction. Six (6) dimensions of electronic ticketing web page are examined in this study, including "website design", "quality information", "consistent and accurately delivery of promises", "promptness in response", "trustworthiness" and "personalization or individualization". Questionnaire survey is employed to collect the data. The sample size was 350. Data was collected at Jakarta International Airport in Indonesia. Numerous statistical methods were employed to analyze the data collected. Findings showed that "prompt in response", "trustworthiness", "website design", "quality information", "personalization or Individualization", "consistent and accurate delivery of promises" are in the order of importance that influence customer satisfaction. Recommendations to Indonesian airline companies and future studies are also provided. The outcome of this finding provides a valuable insight to the direct impact of the six (6) dimensions that influence customer satisfaction which lead to favorable purchase intention of air tickets from Indonesian airlines' electronic ticketing web page.

Keywords: Customer Satisfaction, SERVPERF Model, Tangibility, Reliability, Responsiveness, Assurance, Empathy, Website design, Information quality, Consistent and Accurate Delivery of Promises, Prompt in Response, Trustworthiness, Personalization or Individualization, Electronic commerce (E-commerce), Electronic ticketing (E-ticketing), Indonesian Airlines'.

Chapter I

Introduction

1.0 Chapter Summary

This chapter begins with an introduction to the emergence of electronic commerce, followed by electronic ticketing. A more specific discussion on the emergence of electronic ticketing in Indonesia is included. Issues arising in constructing a website, problem statement, research questions, research objectives, significance of research, research assumptions, research limitations, scope of research, as well as structure of this dissertation are presented.

1.1 An Introduction to Electronic Commerce

The emergence and advancement of computer, information technology and the Internet have significantly impacted human lives to which it transformed individual behavior in buying products and services. Thus, it changes the way business is carried out around the world (Sulaiman *et al.*, 2008). The Internet creates electronic commerce, an opportunity to sell and buy products and services online. Electronic commerce (E-commerce) has become the interest of companies as it is considered as a valuable marketing tool in the new economy (Dignum, 2002).

Electronic commerce is defined as carrying out business online (Vacca and Loshin, 2003). Likewise, Will (2004) defines electronic commerce as using desktop or laptop to do monetary transaction via the Internet. Similarly, Rofiq and Mula (2009) describe electronic commerce as carrying out business transaction via the Internet. Electronic commerce creates opportunities for companies to approach customers (Dennis *et al.*, 2010). Electronic commerce enables unlimited purchasing and selling products or services via online (Kartiwi, 2006). Hence, electronic commerce is considered as a new way of doing business (Seyal and Rahman, 2003).

1.2 An Introduction to Electronic Ticketing

Electronic ticketing (E-ticketing) is a component of electronic commerce (Sulaiman *et al.*, 2008). Electronic ticketing provides a new method for the purchase and delivery of transport's, cinema's, and museum's tickets (Sulaiman *et al.*, 2008). In the airline industry, electronic ticketing is implemented in year 1984 by one of the low cost airlines known as United Airlines in the United States of America. Subsequently, many airline companies market and sell their services via the Internet with the intention of reducing marketing cost, in addition to responding to the changing trends and increasing number of consumers who are buying online (Sulaiman *et al.*, 2008). Hanke and Teo (2003) pointed that many airline companies promote and sell their services via their own website. Some airline companies sell their ticket online at discounted prices to encourage their customers to purchase via their website.

The adoption of electronic ticketing has many advantages to the airline companies. Firstly, airline companies are able to manage their ticketing in a more cost efficient manner (Sulaiman *et al.*, 2008). In addition, it allows airline companies to minimize the cost of paper for printing of air ticket, for instance, electronic ticketing has resulted in the saving of US\$10 to 15 millions in India (Sulaiman *et al.*, 2008). Electronic ticketing also reduces the rising costs of postage, shipping, storage, and accounting (Abeyratne, 2005). The increased utilization of electronic ticketing minimizes labour costs (Wei and Ozok, 2005). Overall, electronic ticketing helps airline companies to reduce their increasing costs (Peng, 2007).

On the other hand, electronic ticketing also creates advantages to customers. Customers are able to buy ticket at any time which does not depend on company office hours (Sulaiman *et al.*, 2008). Consequently, it reduces customers inconvenience to queue at the service counter to purchase ticket. Besides that, electronic ticketing eliminates the misplacing of air ticket by customers because the details of passengers are kept in an airline database (Sulaiman *et al.*, 2008). In addition, customers are able to compare prices and

services through electronic ticketing before making purchase decision (Sulaiman *et al.*, 2008).

1.3 The Emergence of Electronic Ticketing in Indonesia

Indonesia is known as the world's largest archipelago, stretching 5,300 kilometers from east to west which encompasses five main islands of Sumatra, Kalimantan, Java, Sulawesi, and Irian Jaya with about 17,000 islands surrounded and more than 230 million of total population (Thomas, 2009). The map of Indonesia is presented in Figure 1.0 below.

Figure 1.0 Indonesia Map



Source: The Bureau of Consular Affairs, U.S. Department of State, 2011

Table 1.0 shows that the total Internet users in Indonesia are approximately 30 million people against the total population of 243 million people in year 2010. The Internet plays a crucial role in improving economic condition, as well as connecting the population in Indonesia due to the physical distance from one destination to another destination (Brown, 2010). Likewise, air transport serves as the most important mode of transport connecting the people of Indonesia (WorldLingo Translations LLC, 2011). The numerous Indonesian airline companies which have adopted electronic ticketing is shown in Table 1.1.

Table 1.0 Indonesia Internet Usage and Population Statistics

Year	Users	Population
2000	2,000,000	206,264,595
2007	20,000,000	224,481,720
2008	25,000,000	237,512,355
2009	30,000,000	240,271,522
2010	30,000,000	242,968,342

Source: Internet World Statistics, 2010

Table 1.1 Indonesian Airlines' Electronic Ticketing Website

No	Indonesia airlines'	Websites	Sources
1	Batavia Airlines	http://www.batavia-air.com/etiket/	Batavia air, 2010
2	Citilink	http://www.citilink.co.id/	SBU Citilink PT Garuda Indonesia, 2009
3	Garuda Indonesia Airlines	http://www.garuda-indonesia.com/	PT. Garuda Indonesia, 2010
4	Indonesia AirAsia	http://www.airasia.com/id/id/home.html	AirAsia Berhad, 2010
5	Kalstar Aviation	http://www.kalstaronline.com/en/	KAL STAR Aviation, 2009
6	Kartika Airlines	http://www.kartika-airlines.com/	Kartika-Airlines, 2009
7	Lion Air	http://www2.lionair.co.id/Default.aspx	Lion Air, 2008
8	Trigana Air	http://www.trigana-air.com/html/module.php	Trigana Air Service, 2007
9	Merpati Nusantara Airlines	http://www.merpati.co.id/EN/	Merpati, 2009
10	Riau Airlines	http://www.riau-airlines.com/	riau-airlines.com, 2009
11	Sriwijaya Airlines	http://www.sriwijayaair.co.id/	Sriwijaya Air, 2010

Table 1.1 reveals that 11 Indonesian registered airline companies which have adopted electronic ticketing service. Based on International Air Transport Association (IATA), airline passengers who have accessed to Indonesian airlines' website to issue their ticket electronically in Indonesia accounted for 82 (eighty two) percent of the population (Barrie, 2007).

1.4 Issues Arising in Constructing a Website

Porter (2001) states that many companies face the challenges to use the Internet in creating a sustainable competitive advantage. Many companies have identified that constructing a website may seem easy but building a strategic website that satisfies online users is a primary challenge (Harrington, 1998). Kassim and Abdullah (2010) also stress that designing an attractive site is of primary importance to online business context. Less attractive website might have been kicked out of the game even it is extremely helpful and convenient to use (Li and Zhang, 2005).

Customer satisfaction and company website performance are interrelated to which the company's website quality has become a significant key indicator (Udo *et al.*, 2008). Satisfying and retaining online customers are more complicated as compared to traditional customers (Lee and Lin, 2005). Prior studies had identified several dimension of electronic ticketing including website design (Sam and Tahir, 2009), quality information (Dehbashi and Nahavandi, 2007; Nusair and Kandampully, 2008), consistent and accurate delivery of promises (Li and Suomi, 2009), promptness in response (Gefen, 2002), trustworthiness, personalization or individualization (Kassim and Abdullah, 2010) influence customer satisfaction. The aim of this research is to examine the dimensions of Indonesian airlines' electronic ticketing web page that influence customer satisfaction. The findings of this research will be beneficial to different groups of stakeholders.

1.5 Problem Statement

Electronic ticketing lowers the operating costs significantly for airline companies. Thus, customer satisfaction in using the web page is necessary to encourage

repeat purchase via the Internet. However, numerous Indonesian airline companies have received complaints from their customers pertaining to their electronic ticketing web page (Indonesia Matters, 2011). Customers complained that they have to retype all their details each time when they purchase air tickets from Lion Air via electronic ticketing as their system is unable to capture the previous transaction done by the particular customer. Thus, it discourages customers from purchasing air ticket via the electronic ticketing service from Lion Air. Likewise, for Batavia airlines' electronic ticketing, the booking has to be made at least two days earlier as the airline company needed time to complete the process of credit card transaction. Apart from that, Garuda Indonesia Airline has also received several complaints from customers about their electronic ticketing web page in terms of simplicity and accessibility. Consequently, it may reduce customers' intention of repurchasing air ticket via Garuda Indonesia Airline's website due to difficulty in registering and booking the flights. Accordingly, the aim of this research is to identify the dimensions of Indonesian airlines' electronic ticketing web page that influence customer satisfaction. Thus, the finding from this research will assist Indonesian airlines' to provide a better electronic ticketing service that meet the needs of their customers.

1.6 Research Questions

Research questions are formulated based on issues arising from problem statement which will be investigated in this study. This research study has three (3) research questions which include:

1. What are the dimensions of Indonesian airlines' electronic ticketing web page that influence customer satisfaction?
2. Which dimension of Indonesian airlines' electronic ticketing web page will be the most significant in influencing customer satisfaction?
3. Will customer satisfaction lead to favorable repeat purchase intention of air ticket through Indonesian airlines' electronic ticketing web page?

1.7 Research Objectives

Based on the above research questions, the following research objectives are developed for this study:

1. To identify the dimensions of Indonesian airlines' electronic ticketing web page that influence customer satisfaction.
2. To examine the dimension of Indonesian airlines' electronic ticketing web page that is the most significant in influencing customer satisfaction.
3. To find out whether favorable repeat purchase intention of air ticket through Indonesian airlines' electronic ticketing web page is influenced by customer satisfaction.

1.8 Significance of Research

The findings of this research aim to create significant value to different groups of stakeholders. Firstly, customers will be able to enjoy an improved user-friendly electronic ticketing web page which encompasses easy to book, navigate, download, and access, and the accuracy information of products and services that satisfy their needs, wants and requirements. Secondly, this research provides an insight to the Indonesian airline companies on how to design a user-friendly electronic ticketing web page that creates customer satisfaction and increases customers' repurchase intention (Dehbashi and Nahavandi, 2007; Sulaiman *et al.*, 2008).

1.9 Research Assumptions

This research encompasses two assumptions:

Firstly, this research study assumes that different dimensions of airline electronic ticketing web pages generate different levels of satisfaction to customers. In other words, some dimensions of airlines' electronic ticketing web page may make customers highly satisfy in using the service while some of the dimensions may lead to customer dissatisfaction in using the service. This assumption is similar to the study conducted by Kohli *et al.* (2004) that certain dimensions of airline electronic ticketing web page may either increase or

decrease the satisfaction level of customers. Based on this assumption, this study examines the dimension of Indonesian airlines' electronic ticketing web page that is the most significant in influencing customer satisfaction. Secondly, this research study assumes that respondents provide unbiased answers in the questionnaires during data collection and the answers truly express how they feel about the dimensions of Indonesian airlines' electronic ticketing web page that influence their satisfaction.

1.10 Research Limitations

This research has two limitations:

One of the identified limitations of this research is that there is a limited way of tracking and observing customers visits on the website's, hence, measuring the satisfaction of customers has become an issue because studies have not adapted to the electronic service context (Kim and Lim, 2001; Szymanski and Hise, 2000), as compared to traditional service context in which issue of customer satisfaction can be measured as shown in many research studies (Szymanski and Hise, 2000). In view of that, this research study has done its best to adopt sufficient methods to measure customer satisfaction that is believed to be able to represent their satisfaction as a whole in the context of electronic service.

The second limitation of this research is the time constraint in completing this research. Thus, the researcher has put in effort as much as possible to obtain sufficient number of usable questionnaires from the respondents to measure their satisfaction in the context of electronic ticketing so that the most accurate answer can be drawn at the end of this research study.

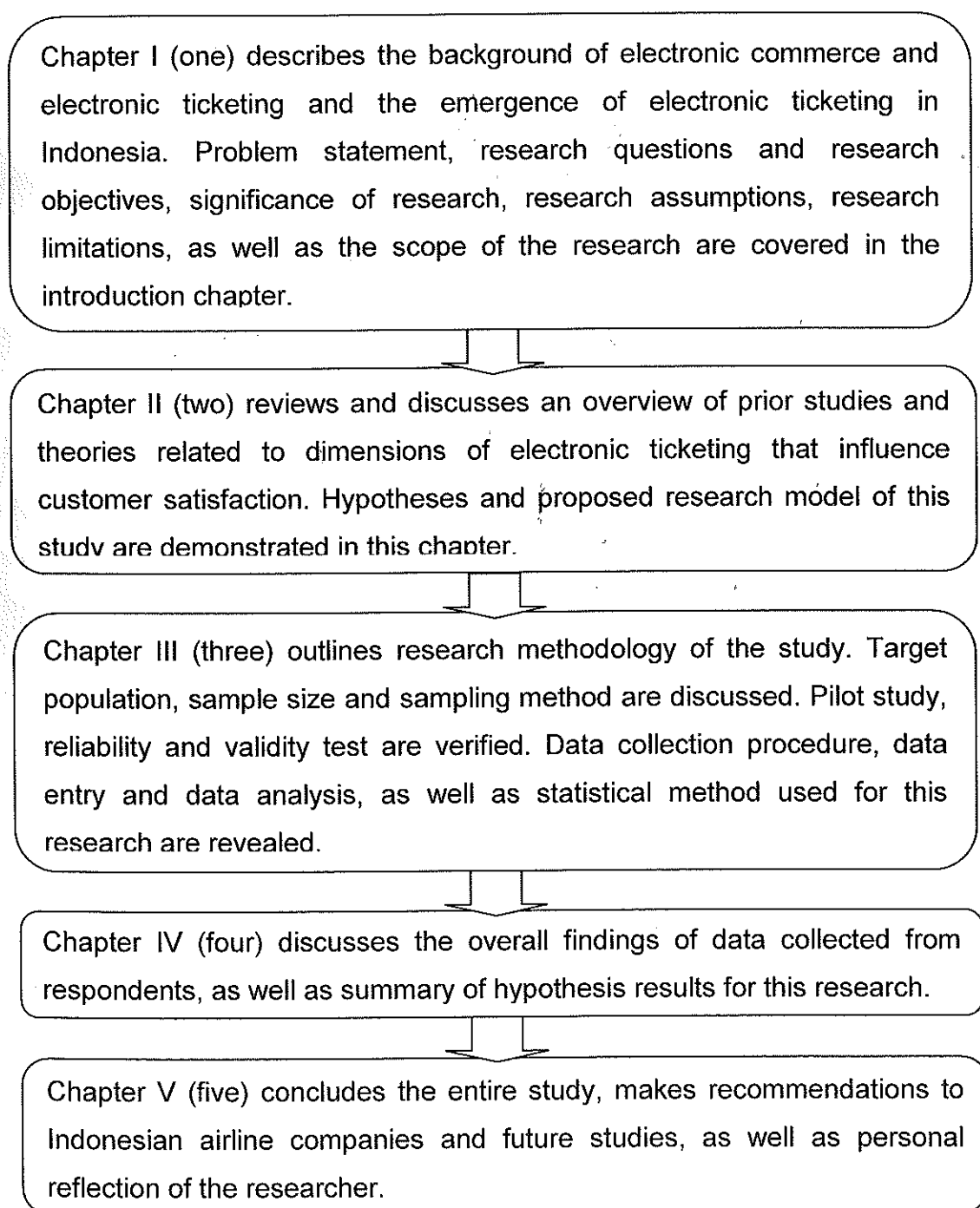
1.11 Scope of the Research

This research focuses on Indonesian airlines' electronic ticketing web page. It looks at the "dimensions of electronic ticketing web page" and "customer satisfaction". The SERVPERF model approach is adopted in this research study to measure the performance of the electronic ticketing web page.

1.12 Structure of Research

This research study comprises five (5) chapters which include chapter I Introduction, chapter II Literature review, chapter III research methodology, chapter IV findings and discussions, conclusions and recommendations, chapter V conclusions, recommendations, and personal reflection (Refer to Figure 1.1).

Figure 1.1 Structure of Each Chapter



Chapter II

Literature Review

2.0 Chapter Summary

This chapter discusses the theories and findings of previous studies on the dimensions of electronic ticketing web page influencing customer satisfaction and repeat purchase intention. This chapter also describes the six (6) dimensions of electronic ticketing including "website design", "quality information", "consistent and accurate delivery of promises", "promptness in response", "trustworthiness", "personalization or individualization" which influence customer satisfaction. Proposed hypothesis for each dimension, proposed research model and operationalization of variables are demonstrated at the end of this chapter.

2.1 Introduction to Customer Satisfaction

Purchase is likely to occur when customers are satisfied with the service rendered by a company (Udo *et al.*, 2008). Satisfied customers tend to stay with the same companies (Lee and Lin, 2005; Udo *et al.*, 2008). Satisfaction is strongly linked with the intention of repurchase (Bitner, 1990; Dabholkar and Thorpe, 1994; Fornell, 1992; Patterson, 1995). The increase in customer satisfaction will lead to increase in repurchase intention of customers (Anderson and Sullivan, 1993; Kim *et al.*, 2003).

Rust and Oliver (1994) define customer satisfaction as the response of feeling based on customer's fulfillment and emotion. Customer satisfaction is derived from the experience of using certain product and service (Woodall, 2003). Customer satisfaction is found to have positive relationship with the service performance of a service provider (Cronin and Taylor, 1992).

In the context of electronic commerce website, repurchase intention is also motivated by customer satisfaction (Bearden and Jessie, 1983; Churchill and Carol, 1982). Prior studies showed that customers repurchase via a company's website is associated with satisfied electronic service (Li and Suomi, 2009). The success of electronic service is measured by user satisfaction (Olson and Boyer, 2005). Studies reveal that website factors including "information accuracy", "ease of use", "navigation ease", and "perceived usefulness" influence user satisfaction (Davis *et al.*, 1989; Devaraj *et al.*, 2002; Reimenschneider *et al.*, 2003; Torkzadeh and Dhillon, 2002). Alford and Sherrell (1996), Chenet *et al.* (1999), Ennew and Binks (1999) have identified that customer satisfaction towards service performance of a company's website was measured by the SERVPERF model.

2.2 The SERVPERF Model

The SERVPERF model is a variant of the SERVQUAL instrument (Cronin and Taylor, 1992; Gronroos, 1990). The SERVQUAL instrument proposed by Parasuraman *et al.* (1988) measures the difference between customer expectations and perceived performance of service rendered. If the perceived service performance is higher than expected service, it implies service quality and thus leads to customer satisfaction. The SERVQUAL instrument measures service quality on five (5) dimensions including tangibility, responsiveness, reliability, assurance and empathy (Kassim and Abdullah, 2010). Many prior studies adopted the SERVQUAL instrument to evaluate customer satisfaction of online website (Barnes and Vidgen, 2002; Iwwarden *et al.*, 2004; Sullivan and Walstrom, 2001; Swaid and Wigand, 2007) by rewording, dropping or adding some items (Li *et al.*, 2002).

Numerous changes to SERVQUAL have been made by Parasuraman, Zeithaml, and Berry due to that other researchers identified the problem of SERVQUAL instrument which include inappropriateness of measuring service quality in SERVQUAL with expectations (Landrum *et al.*, 2009) and unstable dimensions of SERVQUAL where some researchers use four dimensions whereas some only use three dimensional SERVQUAL model in measuring service quality of

companies (Berry *et al.*, 1990; Carr *et al.*, 2002; Landrum and Prybutok, 2004; Nitecki, 1996).

On the other hand, the SERVPERF model does not take into consideration the expected service dimension but emphasize solely on service performance instead (Cronin and Taylor, 1994). Measurement of overall service quality is influenced by perceptions of performance levels (Bolton and Drew, 1991). Perceptions alone affect overall service quality (Boulding *et al.*, 1993). Service quality is more supported by using performance models rather than disconfirmation model (Liljander, 1994). Performance offers better predictive validity than SERVQUAL (Babakus and Boller 1992; Brady *et al.*, 2002; Cronin and Taylor, 1992; Landrum and Prybutok 2004; Landrum *et al.*, 2008). Cook and Thompson (2000) also identify that the SERVQUAL model overlapped in term of measuring dimensions during their investigation of the reliability and validity of SERVQUAL instrument in the context of library service. The SERVQUAL instrument has received serious criticism from theoretical and practical perspective which includes overlapping among the five (5) dimensions, unstable dimensionality, poor predictive and convergent validity, and the vague or unclear definition of the "expectation" construct (Babakus and Boller, 1992; Brown *et al.*, 1992; Carman, 1990; Kappelman *et al.*, 1999).

SERVPERF model empirically outperforms SERVQUAL instrument in measuring customer satisfaction across several industries (Cronin and Taylor, 1992; Cronin and Taylor, 1994). SERVPERF is seen as an improvement to the SERVQUAL instrument. The SERVQUAL instrument and SERVPERF model measure the same five (5) dimensions of service quality except that SERVPERF contains the perceived performance components only (Landrum *et al.*, 2009). Many scholars in different industries have suggested using SERVPERF model in measuring performance of company (Gilbert *et al.*, 2004; Hult *et al.*, 2004; Law *et al.*, 2004; Parasuraman *et al.*, 1994; Van Dyke *et al.*, 1997). Numerous studies have indicated that some of the most employed key dimensions of SERVPERF model for online service quality research were access, attentiveness, consumer service, content quality, content website and design website, consumer service, convenience, credibility, customization, ease

of use, empathy, enjoyment, financial security, information quality, navigability, outcome quality, perceived ease of use, perceived usefulness, perceived social presence, personalization and responsiveness, playfulness, process controllability, product information, product offering, prompt responses, reliability, trust, security, specific content and appearance, usefulness, website design (Sam and Tahir, 2009). The following Table 2.0 is the summary of arguments and discussions for SERVQUAL instrument and SERVPERF model.

Table 2.0 Summary of Similarities, Differences and Issues of SERVQUAL Instrument and SERVPERF Model

SERVQUAL and SERVPERF	
Similarities	Both SERVQUAL instrument and SERVPERF model measures service quality on five (5) dimensions including tangibility, responsiveness, reliability, assurance and empathy (Kassim and Abdullah, 2010; Landrum <i>et al.</i> , 2009).
Differences	The SERVQUAL measures the difference between customer expectations and perceived performance of service rendered (Parasuraman <i>et al.</i> , 1988), whereas SERVPERF model emphasized solely on service performance (Cronin and Taylor, 1994).
Issues	The SERVQUAL instrument has received serious criticism from theoretical and practical perspective which include "overlapping" among the five (5) dimensions, unstable dimensionality, poor predictive and convergent validity, and the vague or unclear definition of the "expectation" construct (Babakus and Boller, 1992; Brown <i>et al.</i> , 1992; Carman, 1990; Kappelman <i>et al.</i> , 1999), whereas the SERVPERF model empirically outperforms SERVQUAL instrument in measuring customer satisfaction across several industries (Cronin and Taylor, 1992; Cronin and Taylor, 1994).

Based upon these findings, the SERVPERF model is adopted in this research as the aim of this research is to identify the dimensions of Indonesian airlines'

electronic ticketing web page performance influencing customer satisfaction. Likewise, Cunningham *et al.* (2002) has also used the SERVPERF model to study customer satisfaction of the American and Korean airlines. Each dimensions of the SERVPERF model used to measure customer satisfaction of Indonesian airlines' electronic ticketing web page is discussed in the following subsections.

2.2.1 Tangibility

Tangibility refers to the company's appearance of physical facilities, personnel, equipment, and communication material (Zeithaml and Parasuraman, 2004). In the context of web page, tangibility refers to the appearance of the website design and website usability (Zeithaml *et al.*, 2000). The tangibility of a company web page can be enhanced through content, ease of navigation, fastness, looks, information updates on web page and automated order confirmations (Lehtinen, 2006). Successful web page usually encompasses attractive, fast loading and easy to understand of website home page (Reynolds, 2004). Reynolds (2004) pointed that the stylish pages on both layout and design of contents creates favorable first impression. The home page of the company website is the same as the cover of a good book which can attract visitors to look further into the site if it is valued (Reynolds, 2004). Thus, the companies are encouraged to design their web pages in such a manner that is intuitive and user friendly for their customers when visiting the web page as the website content and design are found to influence customer satisfaction and repeat purchase decisions (Reynolds, 2004). The tangibility of website can be examined from the dimension of website design explained in the following paragraphs.

2.2.1.1 Website Design

Website design is a mixture of website contents and features (Sam and Tahir, 2009). The contents of the website have been identified as a key factor motivating visitors to repeatedly visit the website (Sam and Tahir, 2009). Website contents encompass pictures, graphics, text, sound, layout, and motion which build the effective website design (Sam and Tahir, 2009). Website

content is defined as the amount of site information and functionality that represents the entire company image to publics or visitors (Udo *et al.*, 2008). Yang *et al.* (2001) state that the four (4) dimensions of electronic service are content-based include website content, attractiveness of website, content accuracy, pictures and graphics that influence customer satisfaction. Besides that, graphic styles of website content dimension can affect the overall satisfaction and intention of using the online channel (Montoya-Weiss *et al.*, 2003). Similarly, study by Nitse *et al.* (2004) has also revealed that the size and style of graphics are able to attract and retain electronic customers in addition to influencing their perceptions. Design website content should be based on the nature of business and it is encouraged to use local language in order to reduce the confusion when website is only serving the country local customers (Kartiwi, 2006).

It has been argued that an attractive web page presentation must include animated gifts, video and sound and entertainment contents (Kim and Lim, 2001). Udo *et al.* (2008) have found that website content dimensions consist of amount of information, nature of media, presentation mode, pictures, graphics, image size, and the entire appeal of the website. Valuable website content received by customers has positive impact on attitudes to continuously use the website services (Koernig, 2003). On the other hand, the availability of price lists, product features and services offered by many airlines through their electronic ticketing web page allow customers to make certain comparisons before making their purchase decision (Sulaiman *et al.*, 2008). Companies are more likely to offer discount price as an incentive when their products or services are first presented on the web (Strauss and Frost, 2009).

Website features are the other tangibility dimension of website design (Sam and Tahir, 2009). Website feature involves the navigation bars, hyperlinks and sitemaps offering flexible features for customers to browse and allow them to link with any pages of the website based on their preference (Sam and Tahir, 2009). Website design dimension is crucial in creating customer satisfaction because it is directly linked to user interface that impresses customer's eyes (Van Riel *et al.*, 2004; Wolfinbarger and Gilly, 2003; Zeithaml *et al.*, 2002).

Negative impression of customers is associated with deficiency of company's website design which may ultimately lead to termination of the process of purchase (Li and Suomi, 2009). On the other hand, the customers will have to re-learn how to access to the website if a particular company has changed its web page design and styles, as it might be difficult for every visitor to learn and remember its movements in the website. The website service providers are encouraged to design an effective web that reduces user browsing effort in completing their task because their findings revealed that website design might be one of the factors influencing online purchase intention (Sam and Tahir, 2009).

Service providers are encouraged to improve the website design, usability and information quality so as to strengthen competitiveness due to the fact that online purchase intention might be influenced by these factors (Sam and Tahir, 2009). Bai *et al.* (2006) have defined usability as easy to learn, easy to navigate, easy to operate, easy to use, as well as clear and understandable interaction of website as perceived by customers. The key factors which influence usability include the website's search function, download speed of the website and organization (Parasuraman *et al.*, 2005). Perceived ease of use is crucial for customer (Ribbink *et al.*, 2004), especially for new users (Gefen and Straub, 2000). Perceived ease of use is defined as the degree to which potential customers are likely to be free of efforts when conducting online purchase (Sam and Tahir, 2009). Smith (2004) identifies that user perception of ease of use and usefulness of a technology influences their attitude towards that particular technology and in turn this attitude influences their intention of utilizing that technology. A well-designed website which encompasses ease of use can enhance the customer confidence in usability (Swaid and Wigand, 2007). Companies are encouraged to design their websites that meet certain attributes such as attractiveness and well organization, fast downloading pace, consistent and standardized navigation, well-ordered appearance of user interface, and ease of using online transaction (Li and Suomi, 2009). Perceived usefulness in the online purchase context is defined as using Internet service that will efficiently assist the customers in their purchasing (Chiu *et al.*, 2006). Another

empirical studied by Childers *et al.* (2001) identified that usefulness is the key determinant of customer's behavioral intention of using the technology and the second determinant is enjoyment and ease of use.

The website design of the company has a positive relationship towards customer's judgment on satisfaction and loyalty (Wolfinbarger and Gilly, 2001). A study by Rosen and Purinton (2004) on how to attract visitors to websites and switch them to repeat visitors indicated that an effective website design dimension and site design characteristics lead to a high number of visitors revisiting the website.

2.2.2 Reliability

Reliability defines as the ability of companies to deliver promised service consistently and accurately (Zeithaml and Parasuraman, 2004). In the web context, reliability refers to the ability of companies in providing an appropriate function of website and deliver promised service consistently and accurately (Parasuraman *et al.*, 2005). The dimension of reliability is considered as the most important element of electronic service quality and the companies are required to convince the customers that they are able to execute their promises (Li and Suomi, 2009). The reliability of website can be examined from the dimension of "quality information" and "consistent and accurate delivery of promises" which are shown below.

2.2.2.1 Quality Information

Customers are unable to physically examine the products purchase online. Thus, adequate information becomes significant for them in making their purchase decision (Li and Suomi, 2009). Website reliability is related to the quality information which meets criteria of timeliness, accuracy, relevance and understandability (Miller, 1996). In the online shopping context, quality information refers to the amount and accuracy of information regarding the products and services presented on the website (Dehbashi and Nahavandi, 2007; Nusair and Kandampully, 2008). Quality information is defined as depth, actuality and diversity of information contents (Szymanski and Hise, 2000).

Customer satisfaction can be enhanced through offering high quality information (Lee and Lin, 2005). Quality information includes understandable information, accuracy and relevancy of information and current and timely information (Li and Suomi, 2009).

Fancy design and presentation might only attract customer attention at the first stage if without valuable content or quality information being offered. Quality information is found to be positively related to online purchase intention (Sam and Tahir, 2009). Customers who purchase online are preferred to have real-time information which encompasses quality and timeliness (Iqbal *et al.*, 2003). Thus, service providers are encouraged to provide information that is clear and can be easily understand because research has revealed that additional transparent informational environment is found to have higher retention of online shoppers (Lynch and Ariely, 2000).

2.2.2.2 Consistent and Accurate Delivery of Promises

Delivering what is promised to customers and delivering it in a timely manner is the clear definition of consistent and accurate delivery of promises (Li and Suomi, 2009). Providing an automated system to inform the customer by generating the electronic mail at each step of the way from the order is placed until it is shipped to them is one way of assuring company delivers its promise. It has been found that companies are more likely to obtain referrals from customers who are satisfied and build customer loyalty if they are able to deliver its promises in a timely manner (Strauss and Frost, 2009). A number of airlines such as Bangkok Airways, Southwest Airlines, as well as American Airlines use automated electronic mail after air ticket is purchased (Strauss and Frost, 2009).

Research found that punctuality and reliability in delivering products and information, providing customer service and superiority of products and service are key factors that influence customer satisfaction (Cronin and Taylor, 1992; Stanley and Wisner, 2001; Zeithaml *et al.*, 1998). Similarly, Young and Varble (1997) have also pointed out that reliability and responsiveness are significant factors to the success of service companies. The credibility and consistency of companies in providing electronic service can be demonstrated to customers

through the dimension of reliability which includes availability of website, accurate delivery service, accurate record of online booking, complete order service, keeping promotion promise, truthfulness of offering by company, keeping service promise, and the accuracy of online service (Li and Suomi, 2009).

2.2.3 Responsiveness

Responsiveness is referred to the willingness of companies to provide timely service to customers (Zeithaml and Parasuraman, 2004). In the context of web, responsiveness is defined as the ability of company in providing timely response to customers' problems and questions encountered in the electronic channel (Swaid and Wigand, 2007). The dimension of responsiveness measures on the ability of companies in offering timely service to customers when they have encountered problems or questions (Zeithaml *et al.*, 2002). The responsiveness of website can be examined from the dimension of promptness in response which is discussed in the following section.

2.2.3.1 Promptness in Response

Promptness in response is defined as the ability of human service provider's in responding to the customers in a prompt, accurate, error free, and helpful manner (Gefen, 2002). Quick response to customers inquiry and offering superior quality service to customers are more likely to enhance their perception of company service quality (Parasuraman *et al.*, 1988), as well as increase customer satisfaction (Lee and Lin, 2005). Customer satisfaction and trust can be developed through understanding customer requirements and enhancing the service according to the responsive feedback (Gummerus *et al.*, 2004). On the other hand, the level of trust toward the website provider is likely to decrease when the website response is slow and it may discourage customers from visiting the website (Galletta *et al.*, 2003). Studies have revealed that when page loading time takes too long, the users are likely to leave a site (Rose *et al.*, 2001). Customers can get frustrated if there is a slow response on website, which may make them look for other websites (Ranganathan and Ganapathy, 2002).

Customers receive effective and efficient service from companies through digital media when they have encountered problems and questions to which this improve the comfortable level of customers during their online purchasing (Li and Suomi, 2009). The dimensions of promptness in response can be attributed through solving the problem quickly, adequate response time, timely response to customers, adequate performance and contact information (Li and Suomi, 2009). Gefen (2002) has pointed out that some aspects of promptness in response can be addressed through offering helpful assistance when problems arise, offering prompt service, and accurately informing customers the duration of delivering products and services.

2.2.4 Assurance

Assurance refers to the company's ability to enhance customers trust and confidence (Zeithaml and Parasuraman, 2004). Customer's perceived privacy and security are addressed in the assurance dimension (Kassim and Abdullah, 2010). Perceived privacy referring to customer's information is collected with or without their authorization during the interaction with system. On the other hand, perceived security refers to the protection of information against illegal interruption (Kassim and Abdullah, 2010). The elements of security, privacy and ethics are crucial in the electronic commerce setting because the perception of users to use online service is influenced by trustworthiness of these three elements (Wang *et al.*, 2003). The assurance of website can be examined from the dimension of trustworthiness which is discussed below.

2.2.4.1 Trustworthiness

Trustworthiness is an essential element to enhance the value of assurance dimension because when customers buy online, they buy before experiencing the product or service (Kassim and Abdullah, 2010). Thus, the key issue on Internet online purchase is trust (Strauss and Frost, 2009). Kolsaker and Payne (2002) described trust as the business relationship dimension which determines the level of each party feeling in relation to promise offered by another. The relationship of reliance is defined as trust (Pun, 2008). Trust is one of the most critical variables between customer and computer relationship (Fogg and Tseng,