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Factors Influencing Indonesian Consumers to Use e-Services in Indonesian Airline Companies

Dekar Urumsah

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Declaration

To the best of my knowledge and belief, this dissertation contains no material previously published by any other person except where due acknowledgment has been made.

This dissertation contains no material which has been accepted for the award of any other degree or diploma in any university.

Dekar Urumsah
30 July 2012

Dedication

This work is especially dedicated to my loving family

        wife   : Tifa Nurmaya

        children : Bintang Arigo Kautsar Urumsah, Tsania Aqila Urumsah, Faiq Atha Urumsah

as well as, with love and respect,

        late parents   : Abdurrahman Saat Simaha and Sumartini

        parents-in-law : Ircham Machfoedz and Afwana

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Abstract

The concept and practice of e-Services has become essential in business transactions. Yet there are still many organizations that have not developed e-Services optimally. This is especially relevant in the context of Indonesian Airline companies. Therefore, many airline customers in Indonesia are still in doubt about it, or even do not use it. To fill this gap, this study attempts to develop a model for e-Services adoption and empirically examines the factors influencing the airlines customers in Indonesia in using e-Services offered by the Indonesian airline companies.

Taking six Indonesian airline companies as a case example, the study investigated the antecedents of e-Services usage of Indonesian airlines. This study further examined the impacts of motivation on customers in using e-Services in the Indonesian context. Another important aim of this study was to investigate how ages, experiences, and geographical areas moderate effects of e-Services usage.

The study adopted the positivist research paradigm with a two-phase sequential mixed method design involving qualitative and quantitative approaches. An initial research model was first developed based on an extensive literature review, by combining acceptance and use of information technology theories, expectancy theory, and the inter-organizational system motivation models. A qualitative field study via semi-structured interviews was then conducted to explore the present state among fifteen respondents. The results of the interviews were analysed using content analysis yielding the final model of e-Services usage. Eighteen antecedent factors hypotheses and three moderating factors hypotheses and 52-item questionnaire were developed. A focus group discussion of five respondents and a pilot study of 59 respondents resulted in final version of the questionnaire.

In the second phase, the main survey was conducted nationally to collect the research data among Indonesian airline customers who had already used Indonesian airline e-Services. A total of 819 valid questionnaires was obtained. The data was then analysed using a Partial Least Square (PLS) based Structural Equation Modelling (SEM) technique to produce the contributions of links in the e-Services model (22% of all the variances in e-Services usage, 37.8% in intention to use, 46.6% in

motivation, 39.2% in outcome expectancy, and 37.7% in effort expectancy). Meanwhile, path coefficients and t-values demonstrated various different influences of antecedent factors toward e-Services usage. Additionally, a multi-group analysis based on PLS is employed with mixed results. In the final findings, 14 hypotheses were supported and 7 hypotheses were not supported.

The major findings of this study have confirmed that motivation has the strongest contribution in e-Services usage. In addition, motivation affects e-Services usage both directly and indirectly through intention to use.

This study provides contributions to the existing knowledge of e-Services models, and practical applications of IT usage. Most importantly, an understanding of antecedents of e-Services adoption will provide guidelines for stakeholders in developing better e-Services and strategies in order to promote and encourage more customers to use e-Services. Finally, the accomplishment of this study can be expanded through possible adaptations in other industries and other geographical contexts.

Table of Contents

Chapter 3 Research Methodology

Chapter 4 The Field Study Analysis and Final Research Model

Chapter 5 Hypotheses Development, Questionnaire Development, and Pilot Test

Chapter 8 Conclusions, Limitations and Future Directions

List of Tables

List of Figures

Chapter 1 Introduction

1.1 Background of Research

Electronic-Services (e-Services) are becoming increasingly important in business-to-consumer (B2C) e-Commerce and portal sites. E-Services are the services that are produced, provided for and consumed, over electronic networks like the Internet, ATM, wireless and mobile devices (Chevrin, Derycke and Rouillard 2004; Scupola 2008b). Although not all services can be traded via electronic means, on-going innovations within the Internet have expanded the opportunities for trade services. For businesses, it assists in managing consumer relations, reducing labour-intensive activities and enhances sales; while, for consumers, it enhances their online shopping experience, as well as enabling e-payment and other online supports. However, despite sustained growth in e-Services, many organizations may not have developed their e-Services optimally to improve their competitive capabilities.

1.1.1 Existing References

Since e-Commerce is a new way of doing business for both consumers and online trades, scholarly literature on e-Services that supports B2C e-Commerce is limited. There are a few studies available, focusing on five specific aspects of e-Services: 1) e-Service functions that support online shoppers (Kalakota and Whinston 1997; Voss 2000; Turban et al. 2002); 2) consumer satisfaction with e-Services (Lankton and Wilson 2007); 3) quality of e-Services (Singh 2002; Surjadjaya, HGhosh and Anthony 2003; Douglas, Muir and Meehan 2003); 4) e-Service systems design and implementation (Sahai, Machiraju and Wurster 2001; Chevrin, Derycke and Rouillard 2004); and 5) factors affecting organizational and consumer decisions to use e-Services (Singh 2002; Scupola 2008b). Although previous researchers had

studied consumers' adoption of e-Services (Ruyter, Wetzels and Kleijnen 2001; Gefen and Straub 2003; Dinev and Hart 2006b; Featherman, Miyazaki and Sprott 2010), they applied the adoption intention as an independent variable (see Table 2.1). Very little (if any) attention has been applied to understanding the actual behaviour of adopting e-Services, as a dependent variable. Riel et al. (2001) also argued that e-Services research was in its early stages and there were no generally accepted e-Service models. With these facts in mind, this present study has utilised the relevant sources of literature to discover the factors that will possibly influence consumers in their e-Services usage.

It is evident from the existing literature that scholars have examined the use of e-Services and, in particular, the behavioural aspects of the users of those services in different country settings. (For example, see Featherman and Pavlou (2003) in the USA; Scupola (2008a) in Denmark). For this, the application models of the behavioural literature are usually used. These models have addressed all possible explanatory factors applied to the use of e-Services. However, it is important to note that other important and potential explanatory factors, such as motivation, have not been included in these models. It is believed that motivation potentially affects the use of e-Services, especially in a situation where people are still reluctant to use the Internet for online transactions. People will use e-Services if they have a strong motivation. Thus, the current study will help to fill the empirical research gap in the literature concerning the role of motivation in the adoption of e-Services.

1.1.2 Adoption and Use by Individuals or Organizations

Various models have been proposed in previous studies to explain the adoption and usage of technology by individuals or organizations. Venkatesh et al. (2003) proposed the Unified Theory of Acceptance and Use of Technology (UTAUT) by integrating elements across eight major user acceptance models. According to UTAUT, four key constructs determine technology usage intention and behaviour: performance expectancy; effort expectancy; social influence; and facilitating conditions. Also, individual level factors (e.g., gender, age, experience and voluntariness of use) are posited to moderate the impact of the key constructs on usage intention and behaviour. UTAUT was able to account for 70% of technology

acceptance behaviour, whereas the original eight models explained between 17% and 53% of behavioural intention to use. Thus, UTAUT is a classic model providing a foundation to guide future research in the area of Information Systems adoption (Venkatesh et al. 2003).

Hung et al. (2007) used UTAUT model to investigate the acceptance of e-Services. They validated UTAUT results. Additionally, in another study by Schaper and Pervan (2007), UTAUT model was modified with three dimensions of technology acceptance (individual, technology and implementation). The findings suggested that effort expectancy and compatibility had an effect on intention to use, but social influence and performance expectancy had no effects. These findings were not consistent with previous research showing performance expectancy and social influence to be determinant factors of intention to use (Venkatesh et al. 2003; Hung, Wang and Chou 2007). In contrast, Al-Gahtani, Hubona and Wang (2007), who adapted the original UTAUT model by replacing the concept of social influence with the concept of subjective norms, found that both performance expectancy and subjective norms had a positive influence on the intention to use desktop computer applications, while effort expectancy and facilitating conditions had no significant effects.

1.1.3 Call for Further Exploration

Such conflicting results call for further research in this particular area. The existing research gap will be explored by the present study, which will expand UTAUT model in order to assess the factors that influence customers to use e-Services. Consistently, this research pursues the guidance of UTAUT as the basis for developing the initial research model. The model captures several constructs of UTAUT: *actual behaviour* (e-Services usage); *behavioural intention* (intention to use e-Services); *effort expectancy* (learning cost to enable use of e-Services), *social influence* (individual support when using e-Services); and *facilitating conditions* (organizational infrastructure for e-Services usage).

Based on wider empirical literature regarding Internet applications, the most important factors that lead customers to quit online businesses are privacy concerns and trustworthiness (Lohse, Bellman and Johnson 2000). Privacy concerns or

unwillingness to disclose personal information are due to threatening attitudes implicit in particular Internet transactions. (Culnan and Armstrong 1999). There are some contradictory findings. For example, Dinev and Hurt (2006a) found that privacy concerns have a negative impact on intention to use e-Services. On the other hand, Xu and Gupta (2009) reveal that privacy concerns do not have a direct impact on intention to use location-based services. In addition, Culnan and Armstrong (1999) found that customers were more motivated to continue a relationship with a firm when fair practice information has been demonstrated. This calls for further exploration of the effect of privacy concerns upon intention and motivation to use e-Services.

Trustworthiness is defined as perception of confidence in the electronic marketer's reliability and integrity (Belanger, Hiller and Smith 2002). Previous studies have found that trustworthiness is a significant predictor of behavioural intention in information technology (IT) adoption (Belanger, Hiller and Smith 2002; Gefen, Karahanna and Straub 2003; Slyke, Belanger and Comunale 2004; Carter and Belanger 2005). Other related studies reveal that trustworthiness, as an intermediary, increases perceived ease of use and perceived usefulness (Chircu and Kauffman 2000; Pavlou 2003; Gefen 2004; Gefen et al. 2005). On the other hand, perceived ease of use significantly affects trustworthiness (Gefen, Karahanna and Straub 2003; Wu and Chen 2005). Meanwhile, previous researchers in the domain of psychology have demonstrated the positive effect of trustworthiness on motivation (Dirks 1999; Falk and Kosfeld 2004). Zolin, Fruchter and Hinds (2003) showed that trustworthiness moderated the effects of motivation on performance. Although previous studies have emphasized the influence of trustworthiness on perceived ease of use, perceived usefulness, motivation and intention to use, very few have investigated, empirically, the relationship between trustworthiness and motivation, especially within the IT domain. Thus, the present study expects to fill the existing gap in the literature.

According to Bandura (1997), outcome expectancy is a person's estimate that certain behaviour will produce a particular outcome. Outcome expectancy is a belief about the consequences of behaviour. People who anticipate the outcomes mostly depend on their judgments of how well they will be able to perform in a given situation.

If a customer expects that he or she will succeed in using e-Services, and subsequently become conscious of the outcomes, this customer is more likely to have the intention to remain using e-Services. The work of Landry (2003) revealed that outcome expectancy was a determinant of behavioural intention. In relation to motivation, the model posited by expectancy theories suggests that the level of motivational force acting on a person is determined by multiplying the model's valence and expectancy variables (Vroom 1964). Understandably, this implies that increases in expectancy result in proportional increases in motivation (Harrell and Stahl 1986; Miller and Grush 1988; Elding, Tobias and Walker 2006). Thus, based on prior research, the effect of outcome expectancy will be examined further in this study, particularly in terms of the influence of outcome expectancy on motivation and behavioural intention to use e-Services.

In addition, prior studies often have utilized demographic characteristics to explore consumers' behaviour related to the adoption and use of IT. For example, age (Venkatesh et al. 2003; Al-Gahtani, Hubona and Wang 2007), experience (Venkatesh et al. 2003; Boschma and Weterings 2005; Al-Gahtani, Hubona and Wang 2007), and geographical area (Mooy and Robben 2002; Landry 2003; Levenburg, Magal and Kosalge 2006) are accepted as moderating variables in IT Adoption, including e-Services. However, previous studies have shown that demographics alone have not been able to explain IT adoption and usage on a consistent basis (Meuter et al. 2003). Therefore, there is need for further investigation of the influence of demographic backgrounds (age, experience and geographical area) on e-Services usage.

1.2 Research Problem

E-Services usage is continuously being expanded in general commercial services such as travel agencies, banking, health services, education and airline industries. Considering the benefits and convenience of e-Services, the airline companies are increasingly becoming dependent upon it.

1.2.1 The Practices of E-Services Worldwide

To acquire the potential benefits of e-Services, some airline companies have already adopted full-fledged e-Services. This means that the airline companies no longer

provide manual services. However, some airline companies have adopted partial e-Services. These services include both physical contacts and online services. In terms of advantages, e-Services can be implemented without any physical contact and, hence, offer a faster service that also reduces costs. Therefore, e-Services can create faster services and cheaper fares.

The rise of the Internet in the late 1990s offered airlines the opportunity to sell tickets directly to the public (Buhalis and O'Connor 2006). Most airlines concentrated on driving consumers towards self-service on Internet-based channels (Werthner and Klein 1999). Due to this Internet-based business development, it is necessary for airline companies to have a long-term competitive advantage, global competitiveness and high levels of customer satisfaction, as well as to enhance their marketing and managerial efficiency (Tsai, Huang, and Lin 2005).

In developed countries, most airlines have highly successful e-Services. For example, in the United States, JetBlue and Southwest Airlines sell up to 90% of their tickets directly through their own websites (Orlov 2006). Similar trends are being reported for some European carriers, such as Ryanair and easyJet. However, in developing countries, such as Indonesia, although most airline companies have developed e-Services, they have not implemented full service innovations via their portal sites to gain competitive advantages. Many consumers of these airlines are, therefore, more comfortable buying airline tickets via travel agents. They are still unwilling to use airlines' portal sites for buying tickets. Therefore, the usage of e-Services and their associated technologies by consumers of Indonesian airlines has become an issue that needs to be addressed. In addition, most past studies of e-Services adoption have been conducted in developed countries (Gefen and Straub 2003; Featherman and Pavlou 2003; Dinev and Hart 2006b; Hung, Wang, and Chou 2007; Lankton and Wilson 2007; Scupola 2008a).

1.2.2 The Practices of E-Services in Indonesia

In Indonesia, airline websites have been steadily improving the provision of virtual services, such as schedule information and both booking and purchasing airline tickets online. The 2007 Nielsen Global Online Survey (NGOS) revealed that airline e-Services topped the list in Indonesia with 40% of respondents having purchased a

ticket online, followed by the purchasing of books, electronics equipment and clothes. The result is different from Asia Pacific in general, where purchasing books topped the list at 46% (Agustina 2008).

The International Air Transport Association (IATA) has had a role to play in Indonesia's e-ticketing growth in recent times. IATA emphasized the contribution of e-ticketing to safety and the environment, while also simplifying the business and financial process. IATA also pushed for 100% e-ticketing penetration to simplify the billing and settlement process and implemented a program to eliminate remaining paper documents by developing an electronic multi-purposed document (IATA 2007). Thus, to respond to the request from IATA, most Indonesian airlines have started to implement e-ticketing in order to make swift and easier booking and check-in for customers. However, despite the growth in e-ticketing, the overall adoption of e-Services by Indonesian airlines remains patchy.

1.3 Research Questions

As discussed in the study background above, theoretical and empirical studies have established the antecedent factors that influence e-Services adoption. Moderating effects of e-Services adoption, such as age, experience and geographical area, have been identified as well. However, the issue of how these factors influence e-Services adoption has not been examined. As an attempt to provide a solution to this problem, three research questions are proposed. They are formulated as follows:

RQ1 : What are the main factors that influence Indonesian airlines in their intention to use e-Services?

RQ2 : What are the impacts of these companies using e-Services on their customers?

RQ3 : How do factors of age, experience and geographical area moderate e-Services adoption?

1.4 Research Objectives

Based on the research questions, three primary objectives have been developed for the study. These objectives are concerned with factors influencing intention to use

e-Services, the role of customers' motivation in using e-Services, and moderating factors in the use of e-Services. The three research objectives are:

1. To identify the antecedent factors that influence the intention of Indonesian airline companies to use e-Services.

2. To investigate the role of motivation on intention to use e-Services within Indonesian airline companies.

3. To examine the moderating influence of the factors of age, experience and geographical area on the use of e-Services.

1.5 Significance of the Research

This study is expected to contribute to both the theory and practice of IT adoption. On the theoretical side, the current study will provide insights into adoption of e-Services by customers in their business transactions, for example with the Indonesian airline industry. This study also evaluates the existing theory as proposed in the e-Services literature. In an attempt to investigate individual e-Services adoption, the current study develops an initial research model that is derived from several sources: user acceptance, motivation and expectancy theory literature. In terms of the antecedents of e-Services, the role of individual motivation has yet to be explored deeply. Some existing studies use a similar notion, but they do not distinguish the real factors faced by individuals, such as customers, from those faced by external organizations. This study will focus on individual motivation in the context of business and social interaction. In order to address this issue, the current model carefully considers the e-Services adoption constructs based on previous theories and research in e-Services literature. As a result, the antecedent factors, specifically effort expectancy, social influence, facilitating conditions, outcome expectancy, privacy concerns, trustworthiness and motivation, are proposed as the factors that influence customers in their adoption of e-Services. In addition, individual factors (age, experience and geographical area) are posited to moderate the impact of the key factors on e-Services adoption. In particular, the relationships between motivation and the factors of effort expectancy, social influence, facilitating conditions, outcome expectancy, privacy concerns and trustworthiness will be identified. Since the existing research has used only particular components in

isolation to explain e-Services adoption, the investigation of the relationship between the components will clarify the complexities of e-Services adoption.

On the practical side, a better understanding of the determinant factors of e-Services usage by customers will provide guidelines to assist Indonesian airlines to successfully implement e-Services for their customers. This study also will provide benefits to business organizations in general by explicating ways to improve e-Services adoption and, since it will occur in Indonesia, it will make a significant contribution to the Indonesian business community, especially in the Indonesian airline industry. This study will show how customers feel towards Indonesian airline e-Services and what should be done, to improve their services, generally, via e-Services. Additionally, the study will motivate organizations in emerging countries to work towards implementing newer and better quality IT practices.

1.6 Structure of the Thesis

This thesis is organized and presented in eight chapters. Table 1.1 shows the organization of this thesis according to the chapters.

Table 1.1 Structure of Thesis

Structure	Description	Output
Chapter 1	Research background • Identify research problem • Determine the focus of research	Research questions and objectives
Chapter 2	Literature review • Present the theoretical background • Discuss the existing research gap	Initial research model
Chapter 3	Methodology • Discuss the research methodology and design of the study	Research Process
Chapter 4	Field Study • Present the detailed qualitative field study • Discuss the data of the interviews by using content analysis	Final research model

Table 1.1 Continued

Structure	Description	Output
Chapter 5	Hypothesis and questionnaire development • Present the hypotheses of the study • Detail the questionnaire development • Provide focus group discussion topics and pilot study	Hypotheses and questionnaire items
Chapter 6	Data Analysis • Develop a national survey • Analyse data using Partial Least Square (PLS)	Results of hypotheses testings
Chapter 7	Discussion and Interpretation • Discuss and interpret the results of the study	Implications of the study
Chapter 8	Conclusions, Limitations and Future Directions • Draw summary of key findings • Provide possible contributions • Discuss the limitations and future research	Contributions of the research

Chapter One discusses the research background, providing the importance of the study and identifying the research problems. The discussion is to determine the focus of the study that leads to the research questions and objectives. This is followed by statements of potential contributions.

Chapter Two presents a review of relevant literature and theoretical backgrounds focusing on e-Services adoption and antecedent factors of e-Services. Along with the discussion, attention is also given to the existing research gap. By synthesizing prior theories and empirical research, the initial research model is proposed.

Chapter Three discusses the methodology and design of the research study. This chapter covers the paradigm of the research and the method of the data collection. A detailed description of the research process also is presented.

Chapter Four describes the nature of the qualitative study. The field study comprises a series of interviews conducted among customers of Indonesian airlines. Content analysis is used to analyse the data of the interviews. Based on the findings from the field study and the literature review, a final research model of e-Services is developed.

Chapter Five presents the hypotheses of the study. This chapter also provides the detail of the questionnaire development for the survey. This is followed by focus group discussion and pilot testing.

Chapter Six presents the quantitative approach for the research method through a main survey. The survey is conducted by 'drop-off survey' and 'e-mail'. Partial least square (PLS) based structural equal modelling (SEM) is used to analyse the data. Confirmation of the research hypotheses is provided based on the results of the analysis.

Chapter Seven deals with the discussion and interpretation of the findings of the PLS results. This is followed by the implications of the research findings.

Chapter Eight considers the findings discussed in the previous chapters, makes a summary of key findings, presents the possible contributions, discusses the research limitations, indicates possibilities for future research directions in the subject area of this study, and culminates in a conclusion.

1.7 Summary

This chapter aimed to present the background of the related issues and topics in order to clarify and emphasize the importance of the research. Based on the existing literature, research gaps in the area of e-Services adoption by individuals from an external perspective (customers) were addressed. This was followed by discussion of research problems, questions and objectives. Next, the potential for theoretical and practical contributions by this study were presented. Finally, the last section of this chapter provided an overview of the structure of the thesis in order to clarify this research.

Chapter 2 Research Foundation: Literature Review

2.1 Introduction

This chapter presents a review of relevant theories and prior research relating to the area of the study in order to establish the theoretical background of the research topic. Firstly, the themes related to e-Services are discussed, followed by the theory underpinning e-Services usage. Next, a literature review of the antecedent factors is conducted, along with a critical analysis of the factors to determine the gaps in existing literature, based on the research objective of this study. With the aim of filling the gap, an initial model of e-Services adoption is developed by synthesizing prior theories and studies. The illustration of the model, in Figure 2.2, describes the relationships among the factors, as well as the complexities of the components, in e-Services usage. More specifically, e-Services usage in Indonesia is presented.

2.2 Electronic Services (e-Services)

Today, the Internet story is about the evolution of e-Business and e-Commerce into e-Services-modular, intelligent IT assets that complete a task or solve a problem and, in doing so, move beyond today's Internet models. An e-Service is an inevitable development of information and communication technology (ICT) networks. For example, the Internet and mobile networking in particular have a major effect on how services are innovated, designed, produced and distributed (Scupola 2008a). These networks have created the basis for the development of new types of services, and have changed the way users experience service functions. An example of this development, in the case of university services, is where "relational times" (student-staff or staff-staff relations) are increasingly being replaced by "technical times",

where people are moved from technical systems to other systems. In this case, ICT-networks emerge as an accelerator to a renewed use of e-Services (Scupola 2008b).

The network-based electronic environment calls for a customer-centric approach in order to become more efficient and effective, thereby both meeting market needs and remaining competitive. According to Rust and Kannan (2002), technology focus alone cannot put a business on the path to success in e-Services. Simultaneously, firms or organizations have to focus on customers. Customers should be more involved in the delivery process; therefore, the service consumption is driven by customer interaction via the ICT-networks. In other words, the company provides its services based on the level of customer interaction. This development can lead to a self-service society. Innovation may come from customer demands, business drivers and technology. Thus, governmental organizations, manufacturing and service companies may face new challenges and may introduce new business models for the production and provision of e-Services.

2.2.1 Definition of E-Services

E-Services comprise applications, computing resources, services, processes and information. They permit a user to conduct a transaction, complete a task or solve a problem. They are used by people, applications and businesses (Salameh 2000). Ruyter et al. (2001) stated that the outlook for an organization operating in the virtual marketplace involves e-Services, which are defined as an interactive, content-centred and Internet-based customer service, driven by customers and integrated with related organizational customer support processes and technologies, with the goal of strengthening the customer-service relationships.

According to Rust and Kannan (2002), e-Services can be viewed as the role of services in cyberspace. They defined e-Services as the provision of services over electronics networks. However, Surjadjaja, HGhosh and Anthony (2003) described e-Services as an interaction between the service provider and the customer through the Internet.

Douglas, Muir and Meehan (2003) further classified e-Services as "hard" and "soft" e-Services. They define hard e-Services as being concerned with providing the goods

and services to the customer; for which on-time delivery and response time are important. Soft e-Services deal with web site design, data information readiness and transactions. For soft e-Services, Web content, security, accessibility and reliability are the centre of attention.

In addition, Hoffman (2003) and Stafford (Stafford 2003) defined e-Services in two similar ways. Hoffman defined e-Services as online functionality provided for rent to customers, in the marketing sense, that helps people to solve problems and meet their needs. Thus, e-Services are the machine-to-machine provision of software functionality, in the IT sense, potentially provided outside of human interaction. Stafford defined e-Services as the natural extension of e-Commerce, based on a marketing view, while technology experts see e-Services as Web-based functionality. Finally, the work of Scopula (2008b) defined e-Services as services that are produced, provided or consumed through the use of ICT networks, such as Internet-based systems and mobile solutions. They can be produced by consumers, businesses and government bodies, and can be accessed via a wide range of information appliances (Hoffman 2003).

It can be seen from the above that there is no internationally-accepted definition of e-Services. However, there is a general agreement that e-Services are interactive services that are produced and delivered using the advanced ICT networks.

2.2.2 Characteristics and Types of E-Services

Traditionally, the production, provision or consumption of a service requires interaction between the service provider and the user of the service. This has been based on personal interactions, mostly face-to-face interactions. In e-Services, the production, provision or consumption of services takes place through the Internet and mobile networks. According to Hoffman (2003), traditional service marketers moving to e-Services find fewer obstacles and more revenue opportunities in the process.

The work of Hofacker et al. (2007) stated that there are three prototypes of e-Services, namely:

a. E-Services as complements for existing offline services and goods; for example, online seat reservations offered by airlines.

b. E-Services as substitutes for existing offline services; for example, e-newspapers or online auctions.

c. E-Services as uniquely new core e-Services; for example, online computer games or search engines.

Based on the discussions above, four main characteristics of e-Services can be conceptualized (Salameh 2000; Scupola 2008b):

- The service is accessible via the Internet or mobile networks.
- The service can be in the form of applications, computing resources, services, processes or information.
- The service is used by people, applications and businesses.
- There might be a fee that the customer pays the provider for using the e-Services, excluding some free e-Services offered by the government.

The applications of e-Services are quite familiar, such as online banking, online retailing (amazon.com), online auction (e-bay.com) or online travel booking (expedia.com). Other types of e-Services are: e-government, such as online tax information; e-Learning, such as courses offered online; e-libraries providing electronic accesses to journal articles or book chapters; and e-health, such as medical advice (Yee 2006). Consequently, there are four types of e-Service (Scupola 2008a) as illustrated in Table 2.1. This table summarizes the four types of e-Service and describes the focus of each, with examples.

Table 2.1 A Summary of E-Services

Type of e-Service	Focus	Example
B2B (business to business)	Collaboration and relationship building	Supply chain management or e-Procurement
B2C (business to customer)	Selling to, and retaining, the customer	e-Shopping, e-Banking, e-Ticketing
G2B or G2C (government to public)	User empowerment	e-Tax, e-Voting
C2C (customer to customer)	Peer to peer value creation	Online auctions, Online gaming

(Scupola, Henten and Nicolajsen 2010)

2.2.3 E-Services, E-Business and E-Commerce

This section is an attempt to present differences and similarities between e-Services, e-Business and e-Commerce, as defined in selected previous literature, and is summarized in Table 2.2. To compare the differences and similarities of those applications, it considers several aspects, namely: definition, components, history, path of electronic terms, object transaction and illustration.

Table 2.2 Review of E-Services, E-Business, and E-Commerce

Aspect	E-Services	E-Business	E-Commerce
Definitions	• Services that are produced, provided or consumed through the use of ICT-networks, such as Internet-based systems and mobile solutions (Scupola 2008b). • As natural extension of e-Commerce, based on a marketing view, while technology experts see e-Services as Web-based functionality (Stafford 2003). • The provision of services over electronic networks (Rust and Kannan 2002)	• A way of performing supply chain activities over portal value chain networks by means of Internet-based Information Technologies (Nachtigal 2011) • Business activities conducted using electronic data transmission via the Internet and World Wide Web (Schneider and Perry 2000). • Buying and selling of goods and services, as well as collaboration and intrabusiness activities on the Internet (Turban and Volonino 2010)	• Referring only to the activities of selling and buying products electronically (Nachtigal 2011). • The process of buying, selling, transferring, serving or exchanging products, services or information via computer networks, including the Internet (Turban and Volonino 2010).
		• Prior researchers used the two terms interchangeably, meaning that the broadest meaning of e-Commerce is basically equivalent to e-Business (Damanpour 2001; Turban and Volonino 2010)	
Components	The Internet and other electronic networks (Scupola, 2008a)	The Internet and World Wide Web (Schneider and Perry 2000).	Computer networks, including the Internet (Turban and Volonino 2010).
History	E-Services concept has been used since 2000 (Rust and Kannan 2003)	E-Business application was initiated by IBM's marketing and Internet teams in 1996 (Amor 1999)	E-Commerce application began in the early 1970s, commencing with electronic transfer of funds (EFT), and followed by electronic data interchange (EDI) (Turban and Volonino 2010).

Table 2.2 Continued

Aspect	E-Services	E-Business	E-Commerce
Path	Enhanced service operations → improved customer satisfaction and retention → increased revenue → increased profit (Rust and Kannan 2003)	Automated service operations → increased efficiency and productivity → reduced costs → increased profit (Rust and Kannan 2003)	
Object transaction	Services and Goods	Services and Goods	
Illustration	Physical goods that can be delivered by e-mail (for example: hotel voucher, movie ticket, airline ticket, e-Book, on-line newspaper, e-Invoice, e-Receipt) or transported on digital networks (software).	As for e-Services but including hand-delivered physical goods, such as household items, paper books or CDs.	

Based on the discussion above, it can be concluded that an e-Service is a transaction of services and/or goods that can be entered on digital media and transported via digital networks. Therefore, goods and services that are marketed and sold on the Internet but that cannot be delivered via digital networks are excluded from the concept of e-Services (Henten 2009).

2.2.4 Research in E-Services

As mentioned in Section 2.2.2, e-Services can involve a number of different relations, such as B2B, B2C, G2B, G2C or C2C. This study focuses on B2C e-Commerce. Since e-Commerce is a new way of doing business for both customers and online traders, scholarly literature on e-Services that supports B2C e-Commerce is limited. The literature review suggests five specific aspects of e-Services:

- Function of e-Services as support for online shoppers (Kalakota and Whinston 1997; Turban et al. 2002)

- Customer satisfaction with e-Services (Lankton and Wilson 2007)

- Quality of e-Services (Singh 2002; Douglas, Muir and Meehan 2003; Surjadjaya, HGhosh and Anthony 2003)

- E-Service systems design and implementation (Sahai and Machiraju 2001; Chevrin, Derycke and Rouillard 2005)

- Factors affecting decisions of organizations and customers to use e-Services (Singh 2002; Scupola 2008b)

Table 2.3 presents a summary of selected studies related to e-Services adoption. As discussed before in Section 1.1, there have been several researchers that have studied the adoption of e-Services (Ruyter, Wetzels and Kleijnen 2001; Featherman and Fuller 2003; Featherman and Pavlou 2003; Gefen and Straub 2003; Featherman and Wells 2004; Wu and Chen 2005; Dinev and Hart 2006b; Lankton and Wilson 2007; Lin, Shih and Sher 2007; Featherman, Miyazaki and Sprott 2010; Udo, Bagchi and Kirs 2010). All of these studies employed behavioural intention as a dependent variable, but very few research models have adopted "actual use" behaviour as the dependent variable.

Table 2.3 Summary of Selected Studies Related to E-Services Adoption

No.	Authors	Application	Approach	Independent variable	Dependent variable	Sample
1.	Singh (2002)	E-Service role in B2C e-Commerce	Qualitative study with semi-structured interview	-	-	20 enterprises and 35 customers in Australia
2	Douglas. et al. (2003)	E-Service provision of legal practices	Quantitative approach-survey questionnaire – using SPSS v.10	-	-	Private legal practices in the UK
3	Anckar, B. (2003)	Consumer intention in terms of Electronic Travel Distribution	Quantitative – descriptive			Finland
4	Javalgi, et al. (2004)	Determinants influencing the diffusion and export of e-Services across borders (developed & developing countries)	Case study	-	-	Developed countries (The US, UK, Germany, France and Japan); Developing countries (Hong Kong, China, South Korea, Singapore, Turkey and India).
5	Scupola (2008a)	E-Services adoption & assimilation in SMES	Case study – Qualitative study (semi-structured interview)	-	-	Companies and customers in Denmark
6	Leeuwen and Nijkamp (2010)	E-Services in cultural heritage tourism	Quantitative (empirical descriptive)	-	-	Tourism objects in Amsterdam

Table 2.3 Continued

No.	Authors	Application	Approach	Independent variable	Dependent variable	Sample
7	Ruyter et al. (2001)	Consumer adoption of e-Service	Experimental study	• Perceived quality • Trust • Perceived risk • Organizational reputation • Relative advantage	Intention to use	202 respondents in the US
8	Featherman and Pavlou (2003)	E-Services adoption	Quantitative – SEM Amos	• Ease of use • Perceived usefulness • Perceived risk • Performance risk	Adoption intention	University students in the US
9	Featherman and Fuller (2003)	E-Services adoption	Quantitative – computer lab experiments – using SPSS	• Ease of use • Perceived usefulness • Subjective norm • Brand related perceived risk	Adoption intention	Business undergraduate population of two large universities in the US
10	Gefen and Straub (2003)	B2C e-Services – flight booking services	Quantitative – SEM PLS	• Social Presence • Trust • Ease of use • Perceived usefulness	Purchase intention	MBA students in the US
11	Featherman and Wells (2004)	The intangibles of e-Services	Quantitative – SEM Amos v 4.0	• Perceived usefulness • Perceived risk • Perceived artificiality • Generality • Physical intangibility • Mental intangibility	Adoption intention	Business undergraduate students of large universities in the US

Table 2.3 Continued

No.	Authors	Application	Approach	Independent variable	Dependent variable	Sample
12	Wu and Chen (2005)	On-line tax	Quantitative - AMOS	• Perceived usefulness • Perceived ease of use • Trust • Attitude • Perceived control • Subjective norm	Intention	1032 respondents in Taiwan
13	Dinev and Hart (2006b)	E-Services use	Quantitative – SEM Lisrel	• PC – Information findings • PC – Information abuse	Intended e-Services use on level of information exchange	Students and retail-services business employees in the US
14	Lin et al. (2007)	E-Services systems (Online stock trading systems)	Quantitative – SPSS	• Technology readiness • Perceived usefulness • Perceived ease of use	Intention to use	406 respondents in Taiwan
15	Lankton and Wilson (2007)	E-Health services	Quantitative – SEM PLS Graph	• Performance • Expectations • Self-efficacy • Knowledge • Participation • Internet experience • Enjoyment • Prior satisfaction	Satisfaction	Consumers of health services in the US

Table 2.3 Continued

No.	Authors	Application	Approach	Independent variable	Dependent variable	Sample
16	Featherman, Miyazaki and Sprott (2010)	E-Service adoption – Internet banking	Quantitative – SEM Amos	• Ease of use (corporate credibility) • Perceived usefulness • Privacy risks • Security & reliability concerns	Intention to use	Business undergraduate students of two large universities in the US
17	Udo, Bagchi and Kirs (2010)	Online shopping	Quantitative - AMOS	• Perceived risk • Website content • Service convenience • PC skills • Web service quality • Satisfaction	Behavioural intention	211 senior students at a large public university in the US

As can be seen in the table on the previous pages, research in e-Services has been greatly varied. Applications have included a large variety of services such as e-Health services, Internet banking, online shopping, etc. Similarly, approaches have varied from case studies to quantitative and qualitative methods. In the case of variables, a variety of variables have been used as either independent or dependent variables. In the same way, the numbers of samples also varied from 20 to 1032 samples. The studies shown in the table are also worldwide, including countries such as Taiwan, Finland and the US.

2.3 E-Services Adoption

The utilization of e-Services is necessary for deriving benefits. E-Services usage by customers has a notable practical value for managers interested in evaluating the impact of e-Services. It is, therefore, a requisite to understand the use of e-Services that have been introduced by airline companies. As such, this study has consulted relevant sources of texts to discover factors that will possibly influence customers in using e-Services. An analysis of the literature streams in social psychology, innovation and IT implementation identifies a total of five core theoretical frameworks: Theory Reason Action (TRA) (Ajzen and Fishbein 1975); Technology Acceptance Model (TAM) (Davis 1989); Theory Planned Behaviour (TPB) (Ajzen 1991); UTAUT (Venkatesh et al. 2003); and expectancy theory (Vroom 1964). These frameworks include a variety of key factors that can potentially influence users to use IT applications.

2.3.1 Consumers and Information Technology Acceptance

The expansive growth and use of the Internet among consumers suggests that the Internet serves as an essential source of consumers' information that has become increasingly more user-friendly and more accessible while, at the same time, cheaper (Bonn, Furr and Susskind 1999). Saeed, Hwang and Yi (2003) suggested that online sellers are making successful efforts to increase consumer usage of their websites. Prior research studies have indicated that there is an increase in consumers accessing websites (e-Commerce, e-Tailing, e-Shopping, e-Banking, e-Government, e-Health)

to browse and gather information, but not all of them make purchases. One study, for example, found that 81% of those who browse the Internet for goods and services do not actually make online purchases or transactions (Gupta 1996), while another study found that, of those who initiated an online purchase transaction, only 25% followed through with the purchase (Pastore 1999). Another study in the UK also found that nearly a third of those smartphone owners surveyed (extrapolated a total of 11 million) already use their phone to explore and analyse goods and services, whilst only 20% of the total have continued on to make an actual purchase with their mobile (PRWeb 2010). Furthermore, Peacock (2012) reported that most smartphone users access websites and 33% make purchases. She also found that more than 70% of companies have not yet optimized their websites for mobile access. Among the variables found that affect whether or not consumers were engaged in adopting and using online transactions were: individual; environmental; product/service; medium; online merchants; and intermediary characteristics (Cheung et al. 2003).

The finding of Cheung et al. (2003) proposes that TRA and its family of theories, including TAM, TPB and UTAUT, are the dominant theories in online consumer behaviour research. Their findings also state that Expectation-Confirmation Theory (ECT) and Innovation Diffusion Theory (IDT) have been repeatedly tested in the study of online consumer behaviour. Table 2.4, below, summarizes the selected online consumer behaviour studies related to technology acceptance theory.

Table 2.4   Selected Online Consumer Behaviour Studies Related to Technology Acceptance Theory

No.	IT investigated	Study	Theory/model used
1	e-Banking	Tan and Teo (2000)	TPB+IDT
		Suh and Han (2003)	TRA+TAM
		Kolodinsky et al. (2004)	TAM+IDT
		Shih and Fang (2004)	TPB+DTPB+TRA
		Guriting and Ndubisi (2006)	TAM
		Hernandez & Mazzon (2007)	TAM+IDT
		Yeow et al. (2008)	UTAUT
2	e-Government	Carter and Belanger (2005)	TAM+IDT
		Wu and Chen (2005)	TAM+TPB
		Hung, Chou and Wang (2007)	UTAUT
		Wang & Shih (2009)	UTAUT

Table 2.4   Continued

No.	IT investigated	Study	Theory/model used
3	e-Commerce	Jarvenpaa et al. (2000)	TRA+TPB
		Slyke et al. (2004)	IDT
		Nysveen et al. (2005)	TAM
		Pavlou and Fygenson (2006)	TRA+TAM+TPB
		Castaneda et al. (2007)	TAM+UTAUT
		Dinev et al. (2008)	TRA+TPB
		Lee (2010)	TAM
4	e-Shopping / Online Auctions	Childers et al. (2001)	TAM
		Gefen et al. (2003a)	TAM
		Quaddus et al. (2005)	TPB+IDT
		Lennon et al. (2007)	IDT
		Chiu et al. (2010)	TRA+UTAUT
5	Mobile Technology	Hsu et al. (2007)	IDT
		Xu and Gupta (2009)	UTAUT
		Kim and Garrison (2009)	TAM
6	e-Learning	Yang et al. (2007)	TRA
		Liao and Lu (2008)	TAM+IDT
		Chen (2011)	TRA+UTAUT

Early studies in online consumer behaviour largely sought to explore how consumers adopt and use online transactions. Specifically, the emphasis was on the antecedents of consumer online intention and adoption. The literature revealed that no prior study attempted to link the three key concepts of motivation, intention and adoption. By integrating the model from the TRA family (TRA, TAM, TPB and UTAUT) with the inter-organisational systems motivation model (Rahim et al. 2007), this study attempts to link the three elements together and form a base model – Model of Motivation, Intention and Adoption (as depicted in Figure 2.1).
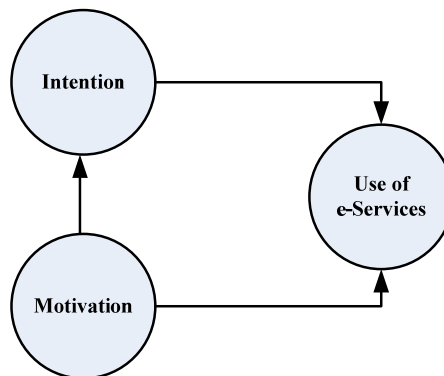
Figure 2.1 Base Model of E-Services

The following section describes the factors that could possibly influence Indonesian customers in using Indonesian airline e-Services, including their motivations and intentions.

2.4 Antecedent Factors of E-Service Usage

Table 2.5 shows the potential antecedents which are drawn from the core theoretical frameworks. The discussion of these factors will be presented in the section following the table.

Table 2.5 Factors Affecting E-Services Usage

Factors Affecting e-Services Usage	References
Effort expectancy	Davis (1989); Davis, Bagozzi and Warshaw (1989); Moore and Benbasat (1991); Venkatesh et al. (2003)
Social influence	Davis, Bagozzi and Warshaw (1989); Ajzen (1991); Mathieson (1991); Thompson, Higgins and Howell (1991); Moore and Benbasat (1991); Taylor and Todd (1995); Venkatesh et al. (2003)
Facilitating conditions	Ajzen (1991); Thompson, Higgins and Howell (1991); Taylor and Todd (1995); Venkatesh et al. (2003); Venkatesh et al. (2008)
Privacy concerns	Dinev and Hurt (2004, 2006a, 2006b).
Trustworthiness	Jarvenpaa, Tractinsky and Vitale (2000); Belanger, Hiller and Smith (2002); Pavlou (2003); Gefen and Straub (2003)
Outcome expectancy	VRoom (1964); Miller and Grush (1988); Compeau, Higgins and Huff (1999)
Motivation	Suri, Long and Monroe (2003); Smith et al. (2007b)
Intention to use	Ajzen and Fishbein (1975); Davis (1989); Ajzen (1991); Venkatesh et al. (2003); Shih and Fang (2004); Pavlou and Fygenson (2006); Venkatesh et al. (2008)
Moderating factors: age, experience, geographical area	Venkatesh et al. (2003); Schaper and Pervan (2007); Al-Gahtani, Hubona and Wang (2007)
e-Services usage	Davis (1989); Ajzen (1991); Venkatesh et al. (2003); Venkatesh et al. (2008)

2.4.1 Effort Expectancy

Effort expectancy is defined as the degree of ease associated with the use of the system (Venkatesh et al. 2003). According to TAM, it pertains to perceived ease of use (Davis 1989; Davis, Bagozzi and Warshaw 1989). It captures the belief that IT

will be easy to learn and operate. An e-Services website that is perceived to be easier to use is more likely to persuade behavioural intention. Support for the role of effort expectancy in behavioural intention is provided by previous empirical study (Carter and Belanger 2005; Schaper and Pervan 2007; Hung, Wang and Chou 2007; Gupta, Dasgupta and Gupta 2008). Perceived ease of use has been shown to positively influence behavioural intention in the context of online shopping (Gefen, Karahanna and Straub 2003a; Pavlou 2003).

The findings of Featherman and Pavlou (2003) demonstrated the contrary. They conducted a study by integrating perceived risk with TAM for predicting e-Services adoption. They surveyed university students in the US (N=214) who were younger, more computer literate and more comfortable with Internet-based transactions. They state that perceived ease of use has no significant effect on intention of e-Services adoption. This finding is supported by Featherman, Miyazaki and Sprott (2010) who investigated the influence of perceived ease of use and corporate credibility regarding reduction of online privacy risks to facilitate Internet banking adoption. They too surveyed US university students (N=409). In addition, Al-Gahtani, Hubona and Wang (2007), in a study of Saudi Arabian knowledge workers (N=1190), concluded that effort expectancy does not have a positive influence on behavioural intention to use computers.

The findings above show inconsistencies. These results then require further empirical study to validate the relationship between effort expectancy and intention to use. This will be done in the context of Indonesian airline e-Services.

A study by Lee, Wong and Fung (2010) reported that ease of usage in the desktop Virtual Reality-based learning environment helps to motivate the students. They surveyed students at secondary school (N=232). A learning system that is easy to use makes it possible for individuals to devote their attention to the learning material (Sun et al. 2008) and, thus, they are more motivated to learn with the system provided. There are only a limited number of studies that examine the relationship between effort expectancy and motivation. This current study, therefore, will further explore the influence of effort expectancy on motivation to use Indonesian airline e-Services among Indonesian airlines customers.

2.4.2 Social Influence

Social influence, as defined by Venkatesh et al. (2003), is the degree to which an individual perceives how much others believe she or he should use a technology. The more favourable the social influence with respect to behaviour, the stronger should be an individual's intention to perform the behaviour under consideration (Ajzen 1991). The direct effect of social influence on behavioural intention has been shown in the technology acceptance model (Davis 1989; Davis, Bagozzi and Warshaw 1989). The significant effect of social influence on user technology acceptance or adoption decisions has been reported by many prior studies, including Hung, Wang and Chou (2007); Tung and Rieck (2005); and Wang and Shih (2009).

Prior studies indicated that there were two levels of analysis commonly found in social influence research: the individual and organizational levels of analysis. While some studies focused on the individual level (Hung, Wang and Chou 2007; Carter and Schaupp 2009; Wang and Shih 2009), others addressed social influence perceptions at the organizational level (Gupta, Dasgupta and Gupta 2008; Aboelmaged 2010).

All the studies above have demonstrated the significant role of social influence as an information technology adoption predictor. The findings of Schaper and Pervan (2007) demonstrate the contrary. They investigated the role of technical, social, individual and organizational issues on the process of individual acceptance and use of ICT. They surveyed Australian occupational therapists (N=600). The results of the study showed that social influence was insignificant in their decisions to use ICT. Chau and Hu (2002) also found that their theorization of a direct link between social influence and intention to use telemedicine was not proven. In addition, Eckhardt, Laumer and Weitzel (2009) reported that customers' social influences do not have a direct, positive effect on adopters' and non-adopters' intention to use IT. Hence, based on these findings, a further study to assess and validate the psychometric properties of the social influence construct will be worthwhile.

According to Deci (1992), in the field of educational psychology, socially supportive relationships directly promote motivation and subsequent engagement in classroom activities. A study by Wentzel (1998) supported the role of social influence on

motivation. He reported that students' perceptions of support from interpersonal relationships have significant influence on school motivation. He surveyed 167 middle school students in the US. In the information systems area, there are no studies that empirically test the effect of social influence on motivation. Thus, the present study expects to fill the existing gap in the literature.

2.4.3 Facilitating Conditions

According to Venkatesh et al. (2003), facilitating conditions are defined as the degree to which an individual believes that an organisational and technical infrastructure exists to support the use of the system. The construct of "facilitating conditions" is derived from both perceived behavioural control (from combined TAM and TPB) and compatibility (from IDT) and is considered to be an important determinant of use of a system. Prior study has support for the role of facilitating conditions on behavioural intention (Tan and Teo 2000).

Referring to previous empirical studies, the existing facilitating condition contributes significantly to a user's IT usage (Hung, Wang and Chou 2007; Hong and Kang 2007; Wang and Shih 2009). Gupta, Dasgupta and Gupta (2008), for example, utilized UTAUT to examine adoption of ICT among employees in an e-Government setting in India (N=102). They found that facilitating conditions positively impact use of ICT. The increasing level of facilitating conditions, such as appropriate hardware, software, training and support, will serve to reduce discomforting levels of uncertainty or ambiguity with IT applications.

However, Yeow and Loo (2009) reported that facilitating conditions were not a predictor of Smart Card ATM usage in Malaysia (N=500). They measured facilitating conditions in relation to the objective factors (e.g. campaign, infrastructure and recognition). This finding is also supported by Al-Gahtani, Hubona and Wang (2007). In their study, the weak influence of facilitating conditions on the use of IT was not statistically significant. They surveyed 722 knowledge workers using desktop computer applications on a voluntary basis in Saudi Arabia.

In association with effort expectancy, the work of Kim et al. (2006) finds that, in groupware usage, technical support had a significant effect on ease of use. This finding is supported by other studies (Ngai, Poon and Chan 2007; Mazman and Usluel 2009; Sanchez and Hueros 2010). For instance, Mazman and Usluel (2009) noted, in their study of social network use, that users' perceptions of ease of use are influenced by support from friends, the help menu or other support services to solve problems when they face difficulties.

In summary, these findings on the relationship between facilitating conditions and actual usage show inconsistencies. These results then call for further empirical study to validate the role of facilitating conditions in the context of this current study. The effects of facilitating conditions as an antecedent factor on e-Services usage will then be examined; as well as the relationship between facilitating conditions and effort expectancy, which needs further validation in the context of e-Services.

2.4.4 Privacy Concerns

Privacy concerns are defined as customers' concerns about possible losses of privacy resulting from a voluntary private information disclosure to a business-to-consumer (B2C) e-Services site (Dinev and Hart 2004). Privacy concerns are a potential threat to transacting through the Internet. The potential threat to privacy occurs when large organizations, government agencies, financial institutions and marketers use these technologies to collect personal information for their own purposes without the knowledge or authorization of customers or citizens (Culnan and Armstrong 1999). Moreover, Hurwitz (2011) stated that two thirds of the individuals who accessed online shopping procedures did not complete the transaction primarily because of an unwillingness to submit personal information. In addition, many consumers do not register at a web site, essentially due to privacy concerns; 70% avoid using web sites requiring personal data and 38% provide false information. Thus, privacy concerns are one of the most important issues for online users.

A number of empirical studies have given evidence of consumers' increasing privacy concerns with regard to e-Commerce. In a sample of 320 customers, Korgaonkar and Wolin (1999) found that non-transactional privacy concerns, such as detesting junk email, were significantly and negatively associated with the percentage of business

web use. Their study also indicated that transaction-based security and privacy concerns were negatively related to web purchases. In another survey of 422 respondents, Dinev and Hart (2006a) focused on Internet literacy and social awareness as the antecedents of privacy concerns and intention to conduct online transactions. One of their findings revealed that privacy concerns were negatively related with intention to transact online.

Furthermore, Bush, Bush and Harris (1998) surveyed 1,123 advertising agencies and client organization decision-makers. They found that privacy concerns are the most important obstacles to utilizing the Internet as a marketing tool. This finding is also supported by Herschel and Andrews (1997) who found that many users are unwilling to purchase products using the Internet because of uncertainty regarding the privacy of the information provided. In addition, Wirtz, Lwin and William (2007) conducted an online survey of 182 net shoppers. They found that an increase in privacy concerns resulted in an increase in refusals to purchase.

In contrast, a study by Xu and Gupta (2009) reported that privacy concerns did not have any significant effect on intention to use location-based services. They conducted a web-based survey of 176 undergraduate students at a large university in Singapore. This finding is also supported by Yang et al. (2008), who found that the effect of privacy concerns on transaction intention is not significant. They surveyed 157 university students as being representative of online users in China. Their average Internet experience was 5.52 years and 74.5% of respondents had more than one e-mail address. Nearly 50% of the respondents had experience of purchasing online.

In relation to motivation, Culnan and Armstrong (1999) investigated the antecedents of privacy concerns such as fairness. They found that customers would be more motivated to continue their relationship with a firm when fair practice regarding information was observed. Customers then allow a firm to benefit from the collection and use of personal information resulting from the relationship.

It is observed from the above, that privacy concerns are an important factor that influences motivation and behavioural intention. Accordingly, this study examines the construct of privacy concerns as a determinant factor of motivation and intention

to use e-Services. Although privacy concerns have been studied extensively in information systems (Malhotra, Kim and Agarwal 2004; Dinev and Hart 2006b; Yang, Wang and Wang 2008; Xu and Gupta 2009), the role as a motivation factor has not been investigated. Thus, this study will attempt to fill this gap. The relationship between privacy concerns and intention needs further validation in a different context.

2.4.5   Trustworthiness

The term "trustworthiness" is often interchangeable with the term "trust". According to Doney and Cannon (1997), some researchers have combined these two conceptualizations into one construct. Other researchers have split the two conceptualizations, declaring the specific beliefs as antecedents to the general belief (Mayer, Davis and Schoorman 1995), sometimes naming the specific process belief as trustworthiness (Jarvenpaa, Tractinsky and Saarinen 1999; Gefen 2000) and sometimes conceptualizing the specific belief as the antecedent of trust intentions (McKnight, Cummings and Chervany 1998).

Firstly, trust is defined as a willingness to be vulnerable to the actions of another person or people (Mayer, Davis and Schoorman 1995). In customer-based e-Services, customers (users) are the trustors and online firms are the trustees, since users provide sensitive personal information to these firms and are hence vulnerable to firm behaviour. Users have limited capability to monitor or control firms' use of their private information. Therefore, trust has to be present. Trust is vital in many business relationships (Fukuyama 1995), including in online transactions (Gefen 1997, 2000; Reichheld and Schefter 2000; Gefen, Karahanna and Straub 2003a) that have uncertainty, anonymity, lack of control and potential opportunism (Hoffman, Novak and Peralta 1999). Online transactions often need sharing of personal information (such as an e-mail address) and financial information (such as credit card number) between the transaction parties.

Gefen (2000) and Gefen, Karahanna and Straub (2003a) described previous research examining trust, conceptualized as follows: (1) a set of specific beliefs dealing with the integrity, benevolence and ability of another party (Giffin 1967; Doney and Cannon 1997); (2) a set of general beliefs that another party can be trusted (Zucker

1986), sometimes also called trusting intentions (McKnight, Cummings and Chervany 1998) or 'the willingness of a party to be vulnerable to the actions of another' (Mayer, Davis and Schoorman 1995); (3) the effect reflected in 'feelings of confidence and security in the caring response' of the other party (Rempel, Holmes and Zanna 1985); or (4) a combination of these elements.

Secondly, trustworthiness is defined as perception of confidence in the electronic marketer's reliability and integrity (Belanger, Hiller and Smith 2002). Lack of trustworthiness is one of the most frequently cited reasons for consumers not purchasing from an Internet shop (Lee and Turban 2001). Therefore, trustworthiness has been identified as one of the key factors for the continued growth of online transactions via the Internet (Ba 2001; Houston 2001; Jarvenpaa, Tractinsky and Vitale 2000). Thus, it is essential to investigate the role of the concept of trustworthiness within e-Services in any research endeavour aiming to increase electronic consumer trust.

According to Mayer, Davis and Schoorman (1995) and related empirical research (Jarvenpaa, Knoll and Leidner 1998; Mayer and Davis 1999), overall trust is the product of a set of trustworthiness beliefs. These beliefs are primarily beliefs about the ability, integrity and benevolence of the trusted party. As discussed above, many researchers have treated these beliefs themselves as trust (Giffin 1967), while other researchers treated these beliefs as dimensions of trustworthiness that lead to trust, and where the effect on the outcome variables is the product of trust, while yet other researchers have built measures that combine some of these beliefs with overall trust.

Carter and Belanger (2005) studied the utilization of e-government services. They found that higher levels of trustworthiness are positively related to citizens' intentions to use an e-government service. These findings are consistent with those of past studies (Gefen, Karahanna and Straub 2003a; Gefen and Straub 2003; Slyke, Belanger and Comunale 2004).

Other related studies have revealed that trustworthiness, as an intermediary, increases perceived ease of use and perceived usefulness (Chircu, Davis and Kauffman 2000; Pavlou 2003; Gefen 2004; Gefen et al. 2005). On the other hand, perceived ease of

use significantly affects trustworthiness (Gefen, Karahanna and Straub 2003a; Wu and Chen 2005).

Meanwhile, previous researchers in the domain of psychology have exemplified the positive effect of trustworthiness on motivation (Dirks 1999; Falk and Kosfeld 2004). Zolin, Fructher and Hinds (2003) demonstrated that trustworthiness moderated the effects of motivation on performance.

Although previous studies have emphasized the influence of trustworthiness on perceived ease of use, perceived usefulness, and motivation and intention to use, none of the past research studies, especially in the IT domain, have investigated the relationship between trustworthiness and motivation. Thus, the present study expects to fill this gap in the literature.

2.4.6 Outcome Expectancy

Outcome expectancy is a person's estimate that a particular behaviour will produce a resulting outcome (Bandura 1997). It is a belief about the consequences of behaviours. Outcomes comprise not only payoffs and benefits but also competence, self-worth, social relationships and participation (Johnson and Gill 1993). The concept of outcome expectancy is derived from expectancy-value theories, which state that behaviour is a joint function of people's expectancies of obtaining a particular outcome by performing that behaviour, and the extent to which they value those outcomes (Schunk 1991). In addition, expectancy theory has been recognized as one of the best conceptualizations of individual motivation (Ferris 1977). Many researchers have proposed that expectancy theories can provide an appropriate theoretical framework for research examining user acceptance of new information systems (Robey 1979; DeScantis 1983; Burton et al. 1992).

The work of Landry (2003) revealed that outcome expectancy was a determinant of behavioural intention. Benbunan and Arbaugh (2006) supported this finding in their study, revealing that outcome expectancy is the internal force of the individual that initiates an online discussion forum.

In addition, a study by Yang et al. (2007) decomposed outcome expectancy into social, hedonic and utilitarian outcomes. The result suggested a significant influence of hedonic and utilitarian outcome expectancy on intention of students to participate in an online discussion forum.

In relation to motivation, the model posited by expectancy theories suggests that the level of motivational force acting on a person is determined by multiplying the model's valence and expectancy variables (Vroom 1964). Logically, this implies that increases in expectancy result in proportional increases in motivation (Elding, Tobias and Walker 2006). Turney (1974) proposed that activity outcome expectancy is a predictor for several motivation indexes for technical professionals.

Thus, based on prior researchers, the effect of outcome expectancy will be examined further in this study, particularly in terms of the influence of outcome expectancy on motivation and behavioural intention to use e-Services. In addition, the role of outcome expectancy in motivation has not been studied yet in Information Systems. Therefore, the study will fill this gap. The relationship between outcome expectancy and intention needs further validation in different contexts.

2.4.7 Motivation

Motivation is fundamental to cognition, behaviour and communication (Hall 1961). Obviously, the role of motivation has been systematically researched across disciplines (Hall 1961; Bigge and Hunt 1980), including within the IT domain. Motivation shapes subsequent activities that are intended to achieve objectives or satisfy needs (Smith et al. 2007b). For example, in studies investigating the factors that influence e-Service usage, a consumer's motivation for using e-Services needs to be considered. Customers who have strong motivation to use e-Services will also have a strong intention to use them. Conversely, customers who have a strong intention to use e-Services are also strongly motivated. Therefore, finding consumers' motivation is fundamental to innovation of IT adoption requirements (Qualasvirta 2005), such as e-Services.

Motivation, which is a basic concept regarding human behaviour, is the driving force within an individual that moves them to take a particular action (Evans, Kairam and

Pirolli 2009). In the case of Indonesia, motivation can be contextualized with two main aspects: the objective need for practicality in doing business and the subjective desire to improve one's societal image by being able to apply high technology for business (Smith et al. 2007a). For business practicality, people need to acquire efficiency in using resources with low costs, while taking the shortest time to conclude business. When dealing with buying tickects, for example, a customer wishes to get information about prices and flights without wasting too much time queuing at the travel agency with its limited receptionists.

In the social interaction context of motivation, image building is somewhat important for certain persons in a particular group, including business circles. One tends to feel greater confidence in his or her colleagues when he or she is able to conduct transactions via online services. This is to say that there is a peculiar category of individuals that need to improve their image through applications of technology (Hsu, Lu and Hsu 2007).

Past researchers have used motivation as a key determinant in the IT area, not only at the individual level, but also at the organizational level. At the individual level, key factors representing consumer motivations for the use of online activities have been identified as searching, cognition, new and unique activities, passing time, socialization, convenience, relaxation and entertainment (Ferguson and Perse 2000; Papacharissi and Rubin 2000; Stafford and Stafford 2001; Johnson and Kaye 2003). Luo, Remus and Chea (2006) posited that behavioural intention and entertainment motivation are determinant factors for behavioural usage in Internet-based services.
At the organizational level, Rahim (2004) and Smith et al. (2007a) found another role of motivation in inter-organizational system adoption processes. Moreover, Rahim et al. (2007) explained the differences in inter-organizational systems (IOS) adoption processes in terms of the differences in organizations' adoption motivations for any given IOS project. Peffers, Santos and Thurner (1998) found that cost saving, faster delivery and improving logistics are adoption motivations, internal to the firms, that are pushed onto customers in adopting electronic data interchange (EDI).

Chen and Klay (1994) also examined motivation in the IT area at both individual and organizational levels. They revealed that advancement opportunities, new skill development, career building, future job loss and computer anxiety give an employee

motivation to use the technology. They also found cost containment, service quality, work environment and better control as management motives to adopt new computer technology.

Unlike previous studies, this proposed study specifically examines the influence of motivation on e-Service usage, directly or indirectly, through intention. As shown in the literature, most previous studies in the area of IT innovation adoption focused on a user's motivation from perspectives internal to the firm, such as employees. There are limited studies that focus on external perspectives, such as a customers' motivation, especially for business practicality and social interaction, as mentioned above.

2.4.8 Intention to Use and Usage

Intention to use a technology is a central factor in TAM (Davis 1989; Davis, Bagozzi and Warshaw 1989) and UTAUT (Venkatesh et al. 2003). Intention to use the technology can also be used to predict a user's actual technology usage. This intention has been studied in the TRA, which indicates that people are willing to try and make an effort to perform an individual's actual behaviour (Ajzen and Fishbein 1975). The theory of planned behaviour (TPB) suggests that behavioural intention is the most influential predictor of behaviour (Ajzen and Fishbein 1980). Therefore, intention to use has been used as the dependent construct by many adoption literatures. However, this present study has gone one step beyond, by adopting behavioural usage as the dependent construct. Moreover, the goal of any new IT system is to generate usage of that system. Therefore, to place actual behaviour as the final step is essential in determining whether or not a system is successful in its implementation.

In most frameworks, there is one fundamental relationship between behavioural intention and actual usage at the individual level. It is that the key factors that influence an individual intention in an actual behaviour are similarly related to that individual's actual action in that particular behaviour. In the context of e-Services, although an individual may have strong intention to use e-Services, some factors could control him/her to terminate actual system usage. For instance, an individual may have strong intention to use e-Services; however, because of distrust, privacy

concerns, the individual's expectations of the outcome and/or lack of motivation, the intention may not be transferred into actual usage. Therefore, uncertainty regarding consumer intention to use e-Services is fundamental in predicting e-Services usage.

2.4.9   Moderating Effects of Demographics

Demographic characteristics have often been used as a means of explaining customers' reactions to innovations. Previous studies have used demographic characteristics as the basis for adopting and using technologies (Bateson 1985; Zeithaml and Gilly 1987; Dabholkar 1992; Venkatesh et al. 2003). However, findings on the role of demographics in new technology adoption and innovation have not been consistent. Meuter et al. (2003) found that, while demographic variables in general had some impact on usage of self-service technologies, their impact was not definitive. Thus, this study intends to further investigate this in the context of Indonesian airlines' e-Services. Three demographic factors, age, experience and geographical area, will be tested as moderating variables in this study.

2.4.9.1 Age

Age has been incorporated in various new IT adoption and usage studies. In general, young users easily accept new technology. Atkin, Jeffres and Neuendrof (1998) verified this notion and found that young people are more adventurous when it comes to trying new technologies. In another study by Rhee and Kim (2004), younger people have a higher level of Internet commitment than older people. In addition, Hsu and Hsu (2007) found that young users would very likely become the most active mobile Internet users and the most influential consumers in the mobile application field.

Despite the significant effect of age in acceptance of new technologies, a meta-analysis investigating age and adoption of innovations found that about half of the 228 studies established no relationships (Meuter et al. 2003). Furthermore, even studies that did find significant relationships often gave conflicting results. For instance, studies have found both younger and older respondents to be more likely adopters of innovations (Rogers 1995). Meuter et al. (2003) found that usage of self-

service technologies increases with age. Additionally, Borghans and Weel (2002) found virtually no impact of age on individual computer use when applying it as a control for tasks. Thus, the insignificant and mixed findings of the role of age in new IT adoption behaviour demonstrate the need for further investigation.

2.4.9.2 Internet Experience

Internet experience is defined as general experience with internet usage, such as information from web sites. Studies undertaken in organisational contexts indicate that education and training in using IT have positive effects on users' attitudes to information systems and performance (Cheney, Mann and Amoroso 1986). This suggests that increasing user experience makes users more capable of taking advantage of IT innovations. DeLone (1988) proposed that experience is supposed to increase users' confidence in their ability to master and use computers, supporting their task performance. Venkatesh et al. (Venkatesh et al. 2003) suggested that experience has a significant moderating influence on the behaviour of the use of information technology.

Prior studies have highlighted the influence of experience in customer behaviour in using new IT. Gefen, Karahanna and Straub (2003b), for example, emphasised that experience influences the degree and impact of trust, perceived usefulness and perceived ease of use in online store usage among customers. Similarly, Shim et al. (2001) explained that past online purchase experiences have an impact on future web-shopping intentions. Furthermore, Bruner and Kumar (2000) found empirical support for the positive effects of general internet experience on users' attitudes to the websites.

However, a study by Agarwald, Prasad and Zanino (1996) argued that the effect of experience may not be universal. Zhou, Dai and Zhang (2007) also stated that there were mixed results for the effects of internet experience on online shopping intention. Nyseen, Pedersen and Thorbjornsen (2005) indicated that general Internet experience did not have a major effect on customers' perceptions in using a company website offering various interactive applications. Additionally, So, Wong and Sculli (2005) reported that there was an insignificant relationship between past web-shopping experience and web-shopping intention.

In summary, the results from the above studies indicate that Internet experience is important in understanding customers' perceptions and behaviour within the online environment. There are also interesting findings on the role of experience in the usage of new IT applications.

2.4.9.3 Geographical Area

People in different regions or cities may potentially have different behaviours in utilizing transactions via the Internet. This is possibly due to the capability of the Internet infrastructure, or geographic distribution of shopping opportunities, in the cities or areas where people live. A study by Farag, Krizek and Dijst (2006) attempted to examine the impact of geographic factors on e-Shopping in Utrecht, Netherlands. Their findings show that people who live in non-urbanized areas make online purchases more frequently, which would support the innovation-diffusion hypothesis when the urban area is taken as the innovation centre of the Internet. In addition, their findings also provide support to the efficiency hypothesis, as people tend to buy more over the Internet when they have low accessibility to local stores.

Furthermore, Ren and Kwan (2007) stated that saving time and money, and eliminating travel, are the most important reasons for customers choosing to buy online. Online transactions allow people more freedom in scheduling their virtual activities as no physical travel is required when the activities are performed through the Internet. Lennon et al. (2007) suggested that the Internet is beginning to play a role in influencing rural consumers' online apparel shopping adoption.

Additionally, accessibility to non-daily shopping opportunities plays a role in shaping peoples' e-Shopping behaviour (Ren and Kwan 2009). For example, the availability of shopping opportunities within short distances from one's home tends to reduce the need for online shopping. As shop accessibility decreases, e-Shopping is more likely to be adopted, since the Internet can enhance the efficiency of shopping by providing more products and by eliminating the need for travel. This notion is supported in a study by Farag et al. (2007). Their studies found that both the urban context and access to non-daily shopping opportunities have impacts on peoples' e-Shopping behaviour.

2.5 Preliminary Research Model Proposed for the Study

2.5.1 The Preliminary Research Model of E-Services Usage

By synthesizing previous theories (Vroom 1964; Ajzen and Fishbein 1975; Davis 1989; Davis, Bagozzi and Warshaw 1989; Ajzen 1991), major models (Venkatesh et al. 2003; Smith et al. 2007a; Smith et al. 2007b), and empirical studies (as discussed in section 2.4), this current study proposes to explore the effect of effort expectancy, social influence, facilitating conditions, privacy concerns, trustworthiness, outcome expectancy, motivation and intention on e-Services usage by moderation of age, experience and geographical area. This study aims to explore the antecedent factors of e-Services usage by the individual from an external perspective (as explained in section 1.1). Figure 2.2 on the next page is presented to provide a clear picture of the preliminary research model proposed for the current study.

The literature suggests that the use of e-Services is mainly driven by an intention to use (Gefen and Straub 2003). It is true that consumers generally have the intention to use because the Internet is easily accessible and commonly used in many areas, particularly in developed countries. However, the situation is different in developing countries like Indonesia. The Internet infrastructure in Indonesia is still poor and the level of Internet usage is low. The national level of Internet use in Indonesia in 2007 was only 5.54% of total population (CIA 2008). This is where motivation comes into play. In Indonesia, e-Services will be used only if people have strong motivation. In the context of this study, motivation is considered as one primary component, besides intention, that drives customers to use airline e-Services.
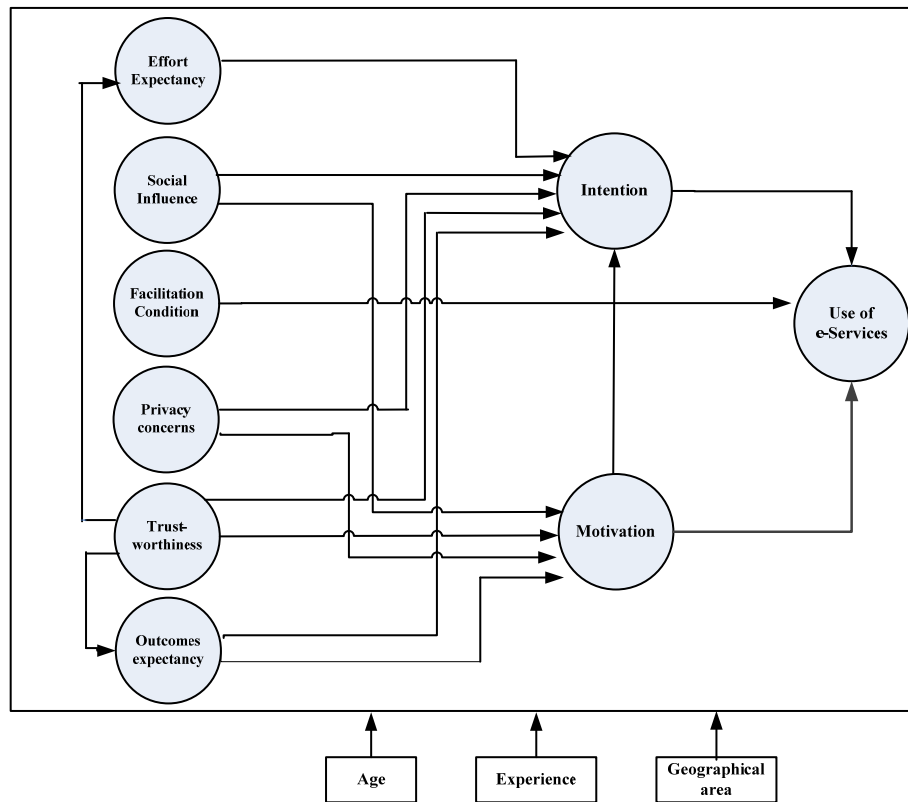
Figure 2.2 Preliminary Research Model of E-Services Usage

In the context of e-Services, although an individual may have a strong intention to use e-Services, some factors are apt to control him or her to terminate the actual system usage. For example, a consumer's intention to use e-Services may be weakened by uncertainty. In order to better understand the role of intention in the proposed e-Services usage model (Figure 2.2), the constructs of effort expectancy, social influence, facilitating conditions, privacy concerns, trustworthiness and outcome expectancy, as well as motivation, are put forward as fundamental factors to predict e-Services usage. Additionally, motivation is also expected to be affected significantly by effort expectancy, social influence, privacy concerns, trustworthiness and outcome expectancy. Furthermore, trustworthiness is expected to have an effect in effort expectancy and outcome expectancy.

In addition, individual behaviour usage is also associated with age, experience and geographical area. Thus, significant differences can be expected in individual behaviour regarding e-Services usage according to age, experience and geographical area.

Although prior studies have examined the influence of these factors (e.g. effort expectancy, social influence, facilitating conditions, etc.) on the individual behaviour involved in IT usage, to the best of the researcher's knowledge no study has examined the influence of motivation on e-Services usage. There are also limited studies in the field of technology acceptance, especially in e-Services, where usage behaviour could be used as an important dependent variable. Thus, the current study examines how the factors of effort expectancy, social influence, facilitating conditions, privacy concerns, trustworthiness and outcome expectancy influence the usage of e-Services through intention and motivation. In addition, in this study the effects of age, experience and geographical area also will be explored as moderating variables in the context of e-Services usage.

2.5.2 Definition of Terms Used in the Model

Effort expectancy (EE) is the degree of ease associated with the use e-Services (Venkatesh et al. 2003).

Social influence (SI) is the degree to which a customer perceives how important it is that others believe he or she should use the e-Services (Venkatesh et al. 2003).

Facilitating conditions (FC) are the degree to which a customer believes that an organizational and technical infrastructure exists to support use of the e-Services (Venkatesh et al. 2003).

Privacy concerns (PC) are customers' caution about possible losses of privacy resulting from a voluntary or surreptitious information disclosure to a business-to-consumer (B2C) e-Services site (Dinev and Hart 2006a).

Trustworthiness is the perception of a customers' trust in the enterprise providing the services and technology through electronic transactions via the Internet (Lee and Turban 2001; Carter and Belanger 2005).

Outcome expectancy is the customers' perception that expended effort leads to desired outcomes (Compeau, Higgins and Huff 1999; Elding, Tobias and Walker 2006; Shih 2008).

Motivation is the degree to which a customer is motivated to be engaged in e-Services (Suri, Long and Monroe 2003).

Intention to use is the strength of the consumers' intent to be engaged in e-Services (Davis 1989; Davis, Bagozzi and Warshaw 1989; Venkatesh et al. 2003).

E-Services usage is defined as the consumers' engagement in e-Services (Igbaria 1990; Legris, Ingham and Collerette 2003).

2.6 Summary

This chapter has presented a review of related literature to provide the theoretical background for the current study. The primary theories supporting the current study were discussed to provide the justification of selected constructs. In summary, this chapter has addressed the adoption of e-Services. A discussion was presented on the antecedent factors of e-Service adoption: effort expectancy, social influence, facilitating conditions, privacy concerns, trustworthiness, motivation, intention, age, experience and geographical area. An analysis was provided in each section to point out the gaps in the existing literature. In the final section, the proposed research model was presented. The model illustrated the relationship among the factors affecting e-Service adoption and presented a functional behavioural model that explains those factors and how customers of Indonesian airlines could be influenced to adopt e-Services.

Chapter 3 Research Methodology

3.1 Introduction

This study is based on the investigation of three research questions. Literature reviews have been conducted to provide basic concepts and principles that will be used in proposing answers to the research questions. The study integrates both qualitative and quantitative approaches (Cook and Reichardt 1979). Details of a two-phase study method using a qualitative field study and a quantitative survey are described, including a pilot study. Sample selection, data collection and analysis techniques for each phase are presented. Finally, other issues relating to the research methodology involved in this study are discussed.

3.2 Research Paradigm

The researcher uses Guba and Lincoln's (1994) research paradigm which provides a conceptual framework to "view the world in a particular way" (Burrell and Morgan 1979, p.24). The researcher determines three inquiry paradigms as follows. The first is ontological, which determines the form and the nature of the reality or makes a claim about what is knowledge (Cresswell 2003). The second is epistemological, which addresses the nature of the knowledge to be studied and the relationship between the researcher and the knowledge being sought. The third is methodological questioning, which determines the research process or how the researcher goes about the research. Cresswell (2003) further added the concept of axiology that highlights the role of values, together with the concept of the rhetorics of research that emphasizes language style of the research (informal and formal language).

According to Tashakkori and Teddlie (2003), paradigms are viewed as social constructions and thereby considered as highly mutable and dynamic in a complex modern world. Goles and Hirscheim (1999) stated specific research may link two or more paradigms to conduct more relevant research. Their findings show that by conducting study utilising more than one paradigm, researchers may gain the advantage of cross-fertilization by bringing contributions from studies in one paradigm into the theoretical framework of another. Therefore, results of research are more reliable when different research methods are combined, due to this multidimensional nature (Mingers 2001). In addition, using multiple methods increases the robustness of results because findings can be strengthened through triangulation (Kaplan and Duchon 1988). Thus, for example, some researchers have combined interpretivist and positivist approaches for their research (Gable 1994; Kelly 2000; Lee 1991).

In general, there are three main paradigms for conducting a research project, namely; positivist, interpretivist and critical (Chua 1986; Orlikowski and Baroudi 1991; Myers and Klein 2011). The positivist paradigm assumes that reality is apprehendable and, therefore, a scientific concept or a research idea can be objectively measured and observed (Hessler 1992). The interpretivist paradigm understands social realities within a given context (Klein and Myer 1999) and researchers have to fall into the participant's mind by feeling, hearing and observing how the participant interprets what is happening in the context of the particular act (Schwandt 1994). The critical paradigm addresses social realities enveloped in from historical perspective (Myers and Klein 2011) and researchers critically evaluate and transform the social reality to expose hidden contradictions between the social reality and external structures (Richardson and Robinson 2007). Hence, the critical research paradigm differs from the positivist and interpretivist, both of which are content to predict or explain social reality in the given current context (Orlikowski and Baroudi 1991).

In this study, the researcher uses positivism as the primary paradigm, complemented by interpretivism as a supporting paradigm. There are two reasons for this. Firstly, previous studies in Information Systems predominantly use positivist perspectives (Kaplan and Duchon 1988). Mingers (2003) found that 75% of the IS research

employed a positivist approach, 17% were interpretivist and only 5% could be classified as critical research. Secondly, the constructs and variables in this study can be observed and measured. However, the interpretivist approach is embedded in this study in order to increase the reliability of the positivist paradigm.

3.3 Research Method

As mentioned above, this study applies a mixed method approach to research. For data collection and analysis, the researcher uses the sequential phases approach (Tashakkori and Teddlie 2003). Morgan (1998) suggested a matrix approach for linking qualitative and quantitative research at the data collection level, where the classification is based on two types of decision: priority and sequence. Table 3.1 shows the priority-sequential matrix model.

Table 3.1 The Priority-Sequential Matrix Model

| | | Priority Decision (Principle Method) | |
		Quantitative	Qualitative
Sequence Decision (Complementary Method)	**Preliminary**	*1. Qualitative Preliminary* **Purpose:** Smaller qualitative study helps guide the data collection in a principally quantitative study • Can generate hypotheses; develop content for questionnaires and interventions, etc.	*2. Quantitative Preliminary* **Purpose:** Smaller quantitative study helps guide the data collection in a principally qualitative study • Can guide purposive sampling; establish preliminary results to pursue in depth, etc.
	Follow-up	*3. Qualitative Follow-up* **Purpose:** Smaller qualitative study helps guide the data collection in a principally quantitative study • Can provide interpretations for poorly understood results; help explain outliers, etc.	*4. Quantitative Follow-up* **Purpose:** Smaller quantitative study helps guide the data collection in a principally qualitative study • Can generate results to different samples; test elements of emergent theories, etc.

Source: Morgan (1998)

As can be seen from the table, the priority decision is which method will be the principal and which will be the subordinate, whereas the sequence decision addresses the complementary is chosen in that context. Therefore, there are four choices

resulting from the priority-sequential matrix. The present study adopted one matrix (quadrant 1) and started by developing a proposed research model (Figure 2.2). This was then followed by an embedded qualitative field study via an interview to fine-tune the proposed research model and develop the combined research model. Finally, the quantitative phase was conducted via the pilot test and the main survey to eventually measure and test the proposed hypotheses.

The decision to apply the mixed approach, matrix one, in this study is based on the following arguments (Johnson, Onwuegbuzie and Turner 2007):

1. At the research design stage, qualitative data can provide quantitative components with conceptual as well as instrumental development. This study attempts to explore the particular factors that affect Indonesian consumers in using Indonesian airline e-Services and to verify the theory generation. Therefore, a qualitative field study was designed to provide more appropriate factors and variables for the combined research model before testing the model empirically in Indonesia.

2. At the data collection stage, qualitative data can make it easier to assess later quantitative data and provide a new perspective on findings. Therefore, collecting data by different methods from different sources provides a wider range of coverage, leading to a fuller picture of the unit under study (Bonoma 1985).

3. At the data analysis stage, qualitative data could play an important role in interpreting, clarifying, describing and validating quantitative results, in addition to grounding and modifying the theoretical perspective. Thus, applying multiple methods increases the robustness of results because findings can be strengthened through triangulation of the cross-validation achieved when different kinds and sources of data converge and are found to be congruent (Bonoma 1985).

3.4 Research Process

In the current study, the research process has undergone three sequential phases, as illustrated in Figure 3.1. Each phase is described in the following figure.
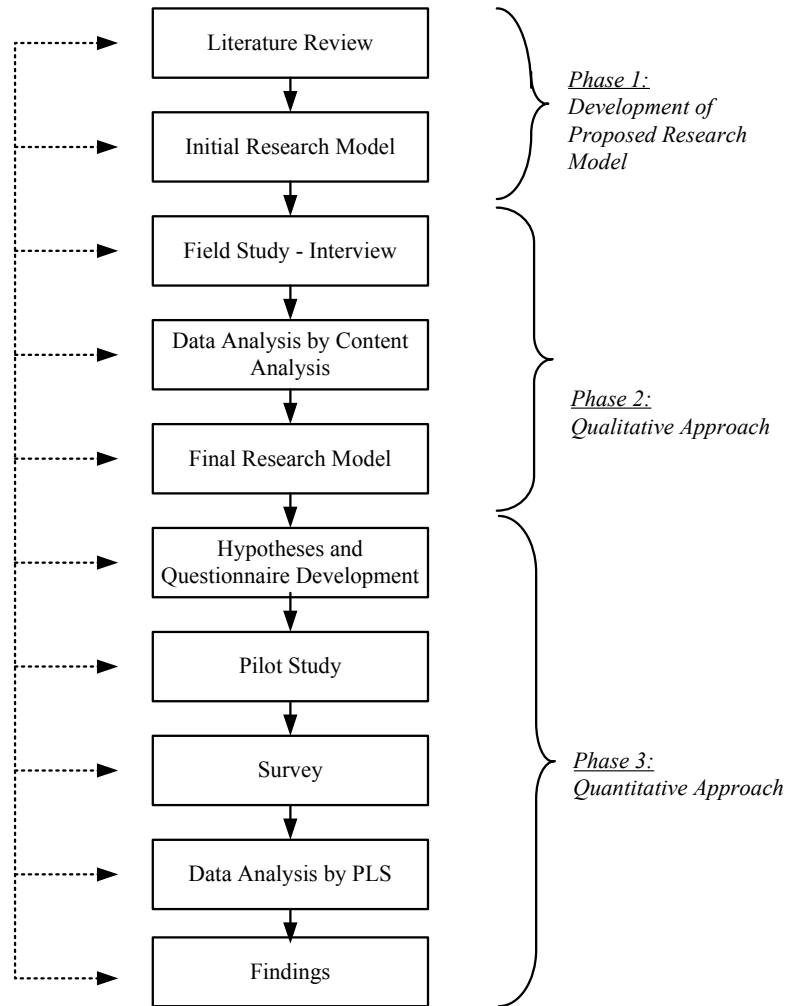
Figure 3.1 Mixed Method Research Process

3.4.1 Development of Preliminary Research Model

The first phase consisted of a literature review and the proposal of an initial research model. Here, the preliminary e-Services model was developed, as outlined in Chapter 2 (Figure 2.2).

3.4.1.1 Literature Review

The study started with a rigorous literature review for the purpose of: (1) identifying potential key variables in this area of e-Services; (2) identifying possible relationships to be investigated; and (3) creating relevant content categories (Hilty 1967). The purpose of this effort was to identify the concepts pertinent to current e-Services issues and to determine various antecedents of e-Services and the

relationships among these antecedents. This step included proposing the research questions and objectives. The sources used were journals, books, seminar proceedings, working papers and others.

3.4.1.2 Initial Research Model Construction

The preliminary research model was first constructed by synthesizing all the sources, as illustrated in Figure 2.2 in Chapter 2. The model was later refined with the support of more literature and the results of the field study.

3.4.2 Qualitative Approach

The second phase was the qualitative approach. This phase consisted of a field study via interview, data analysis by content analysis, and refinement of the research model. This phase aimed to explore the phenomena of e-Service usage among Indonesian customers of Indonesian Airlines; as well as to validate and enhance the factors and variables identified as part of the comprehensive literature review. Since the intent of this study was to explore real customers' adoption in the specific context of Indonesian airline e-Services, the qualitative method was considered as the most appropriate. According to Kaplan and Maxwell (1994), the goal of understanding a phenomenon from the point of view of the participants and its particular social and institutional context is difficult to achieve when textual data are quantified. It was therefore believed that a qualitative study of a small number of participants would meet the objective of this phase.

3.4.2.1 Qualitative Field Study

A field study has been adopted as the research method for the qualitative phase (Zikmund and Babin 2007). The details of the field study are presented below.

3.4.2.1.1 Sample Selection

A combination of convenient, purposive and snowball sampling techniques (Henry 1990) was used in this study to select participants. The combination of these techniques was more efficient for collecting information because the scope of the study was considered to be Indonesian customers who had used Indonesian airline e-Services. Convenience sampling was conducted to find potential respondents who

were available and willing to participate. Purposive sampling was conducted to select respondents who were already users of Indonesian airline e-Services (considering that these respondents were expected to have already adopted Indonesian airline e-Services). Snowball sampling was conducted to find further respondents who had already used Indonesian airline e-Services by them being recommended by previous respondents. A similar method had been used in the IS field, such as a study by Stephen et al. (2008). This current study was conducted as a preliminary investigation to ensure whether or not a respondent had already used Indonesian airline e-Services. Prior studies in technology acceptance have categorized their samples as adopters and users (Hsu, Lu and Hsu 2007; Feng 2009). There are differences between self-reported intention to adopt and actual adoption. However, several studies have established that there is strong correlation between self-reported behavioural intention to use and actual system usage (Davis, Bagozzi and Warshaw 1989; Szajna 1996). By capturing perceptions of e-Service users, this study could provide new insights to consumers' e-Service usage.

3.4.2.1.2 Data Collection

This study performed a series of semi-structured interviews for collecting the data because the interview method was useful in exploring the perspectives and perceptions of various respondents within the specific context (Daymon and Holloway 2001). Prior to conducting the field study, an interview protocol was developed from the initial research model. The semi-structured interview questions focused on the factors and variables influencing the adoption of e-Services by Indonesian customers of Indonesian airlines. The interview protocol provided the structure for the data collection and focused on exploring the following key areas: (a) the general perception of Indonesian airlines e-Services , (b) the adoption process of e-Services, (c) the reason to change from travel agents to online orders when purchasing tickets, (d) the main factors that influence the adoption of e-Services and the link between those factors, and (e) the role of motivation and intention on e-Service adoptions. Prior to the interviews, potential interviewees were contacted via e-mail and phone in order to explain the background and objective of the research.

3.4.2.2 Qualitative Data Analysis

The interview transcripts were analysed using a content analysis approach (Holsti 1969). The reason for using this approach was mainly that the prime objectives of this study were more exploratory than confirmatory in nature (Berg 2004; Meyer, Becker and Vandenberghe 2004). The data collected from interviews were transformed into text units and denoted by meaningful sentences. Those sentences were considered to be the important factors and variables that might have significant influence on the customers' adoption of e-Services. Data analysis was conducted manually in a two-stage process that combined inductive and deductive approaches to categorise the factors and variables (Berg 2004; Quaddus and Xu 2005).

3.4.2.3 Model Refinement and Final Research Model

The final research model was developed based on the results of the field study as well as the related literature reviews. In order to refine the initial research model, a comprehensive combined field research model was developed. This was obtained by combining the individual field research models into one single comprehensive model. By comparing factors and variables in terms of their similarities and differences, as well as determining the links between factors in the initial research model and further literature, a new comprehensive research model was developed.

3.4.3 Quantitative Approach

The third phase used a quantitative approach. This phase aimed to find the important factors and variables affecting e-Service usage, which was reflected in the final research model developed from the previous phase. Twenty-one hypotheses were developed and subjected to empirical testing (Anderson 1983).

This phase consisted of questionnaire development, a pilot test, a survey, data analysis by PLS and interpretation of findings. The details of the quantitative approach are presented below.

3.4.3.1 Hypotheses and Questionnaire Development

The twenty-one hypotheses were developed based on the final research model, which was itself developed from theories and their applications found in the literature. Hypotheses were formulated for justifying the relationships among the factors in the final research model. There are nine antecedent factors (effort expectancy, social influence, facilitating conditions, privacy concerns, trustworthiness, outcome expectancy, motivation, intention to use and e-Service usage) and three moderating factors (age, experience and geographical area). A draft questionnaire was designed, based on the hypotheses, including demographic information of the respondents. Selected items were based on previous theories and studies referred to by researchers and practitioners. A Likert scale using six levels of response (from *strongly disagree* to *strongly agree*) was used to measure all the factors. As the current study was conducted in Indonesia and the original instruments were written in English, a decentring process (Brislin 1976) of translation was conducted so that it could be used in any Indonesian location. The detailed discussion of the hypotheses and questionnaire development are presented in Sections 5.2 and 5.4, respectively.

3.4.3.2 Pilot Study and Questionnaire Refinement

Once the questionnaire development was completed, approval from the University Ethics Committee was obtained before the questionnaire was administered to the respondents. Prior to conducting the main survey, a focus group discussion was held to identify problems with the survey instruments. Some wording revisions of the draft questionnaire were made after the focus group discussion. Next, the pilot test was conducted to test the validity and reliability of the research instruments before their actual use in the main survey. The details of this stage are presented in Section 5.5.

3.4.3.2.1 Sample Selection

The draft questionnaire for the focus group discussion and pilot test was distributed to other researchers and potential respondents. The reason for distributing the questionnaire to other researchers was to get some responses in terms of the research perspective, especially concerning the format of the questionnaire. In general, respondents provided valuable inputs in terms of the applicability of the items and

suggested that the draft questionnaire was easily understood. As mentioned before, a combination of convenience, purposive and snowball sampling was adopted to select the potential respondents in the pilot test (Henry 1990).

3.4.3.2.2 Data Analysis

The data analysis in the pilot study was conducted using simple descriptive statistics; in this case, percentages. It allowed evaluation of the draft questionnaire and improvement in its quality; for example, the items in the questionnaire became more readable for the respondents. Necessary changes were made to the questionnaire based on the feedback from respondents and the results of the pilot study. From these steps, the final form of the questionnaire was obtained and ready to be used for data collection in the main survey. A more complete description of the questionnaire is given in Section 5.4.

3.4.3.3 Conducting the Main Survey

At the completion of the qualitative phase, a survey was conducted as the main data collection method for the quantitative phase (Zikmund and Babin 2007). The details of the survey are presented below.

3.4.3.3.1 Sample Selection

The study focused on factors that influence Indonesian consumers to use e-Services. Therefore, respondents were Indonesian consumers who had used Indonesian airline e-Services. A non-probability sampling design was adopted to select the respondents; namely convenience, purposive and snowball sampling techniques (Henry 1990). The three sampling techniques were used in two modes of data collection in this study, namely: paper-based and web-based questionnaires. For the paper-based questionnaire, potential respondents were selected using convenience and purposive sampling, based on the judgment of the contact persons. Snowball sampling, then, was used to find the next respondents. The contact persons asked the respondents to give recommendations of other potential respondents who had already used Indonesia airlines' e-Services. For the web-based questionnaire, the potential respondents were selected using convenience and purposive sampling. The respondents were provided by the Consulate General of the Republic of Indonesia in Western Australia. Then, snowball sampling was employed. The respondents who

had completed the questionnaire were then asked to recommend other respondents who met the requirements of the study.

3.4.3.3.2 Data Collection

The data were gathered using questionnaires that were distributed to respondents via paper-based and web-based media (Yun and Trumbo 2000). In the paper-based mode, the researcher nominated contact people who lived in different cities in Indonesia to assist with the administering of the questionnaire. The contact persons then distributed the questionnaires to the respondents in their cities. The survey was carried out in airports, organizations and private residences. Furthermore, the contact persons were responsible for collecting the completed questionnaires. In the web-based mode, the researcher sent e-mails to potential respondents for completing the questionnaire online via http://dekar.uii.net.id (valid as of July – August 2010). In the e-mail, the researcher also requested the potential respondents to forward the e-mail to his or her friends or relatives who had used Indonesian airline e-Services. In this way, multiple contacts were used to increase the number of respondents (Yun and Trumbo 2000).

3.4.3.4 Data Analysis Using PLS

There were two components of data analysis in this study. The first was the analysis of the influence of the antecedent factors of e-Service usage. The second was the multi-group analysis examining the moderating effects based on demographic factors. The analysis was conducted using SEM based on PLS (Chin 1998b). The use of the PLS approach was most suited to this study as it supported both confirmatory and exploratory research. With its emphasis on identifying the variance and relationships between constructs and/or variables, PLS allowed exploration of the data and was well suited to accommodate the complex theoretical and measurement models (Barclay, Higgins and Thompson 1995; Chin 1998b). The details of the analysis are provided in Chapter 6.

3.4.3.5 Interpretation of Findings

The final stage of the research was the interpretation of the results. Findings were interpreted based on the results acquired through the data analysis processes, from

both qualitative and quantitative approaches, as well as the literature review. The details of findings are presented in Chapter 7.

3.5 Quantitative Data Analysis using SEM

This study applied the SEM approach for data analysis in the quantitative phase, which followed the analysis process outlined by influential authors of SEM theory and application, such as Barclay, Thompson and Higgins (1995), Chin (1998a) and Gefen, Straub and Boudreau (2000). Use of this approach was based on the following reasons. Firstly, SEM is widely known as a powerful second-generation multivariate analysis technique to test the proposed relations among the variables in a model (Fornell 1982). Secondly, SEM is superior to first generation methods, such as traditional regression and factor analysis, due to the fact that the measurement model is assessed within the context of the theoretical structural model (Fornell 1982). Thirdly, SEM is more suitable for the mathematical modelling of complex processes to serve both theory and practice (Gefen, Straub and Boudreau 2000).

In addition, use of the Partial Least Square (PLS) was based on the following reasons. Firstly, compared with the covariance-based technique that only deals with reflective observed variables, PLS deals with both formative and reflective observed variables (Hulland, Chow and Lam 1996; Chin 1998a). Formative observed variables can be referred to as indicators that cause the latent variables and the construct to be a function of formative measures (Thompson, Barclay and Higgins 1995). Meanwhile, reflective observed variables reflect the latent variables as representational of the construct and should be unidimensional and correlated (Gerbing and Anderson 1988). Secondly, PLS is most suitable since the objective of the research is theory building. The primary research objective of this study is the explanation of the model variance for some constructs and theory building. Furthermore, PLS does not aim to fit a theorized model to the data, but instead examines the strength of both direct and indirect relationships among constructs. PLS, therefore, is a more suitable technique for this study since it is suitable for assessing the strength of the relationships among the constructs in the model, and not the overall fit of the data with the model (Gefen, Straub and Boudreau 2000). Thirdly, the reliability and validity of the measures of the theoretical constructs in

PLS can be assessed simultaneously, and the relationships among these constructs can be predicted (Barclay, Higgins and Thompson 1995). In particular, the PLS technique can assess all dependent variables and map them on paths to analyse them simultaneously (Gefen, Straub and Boudreau 2000). Fourthly, PLS is also more suitable for application on observable measurement variables (items) that are not well established and are used within a new measurement context (Barclay, Higgins and Thompson 1995). Fifthly, PLS deals with a small sample size and non-normal conditions of latent constructs; which makes it more popular among researchers in recent years (Compeau and Higgins 1995; Chin 1998a).

For the above reasons, the PLS technique was considered to be suitable for analysing the data of the current study. Data from the national survey were analysed using PLS-Graph version 3.0 (www.plsgraph.com), which was developed by Chin (2003). Two sequential stages are involved in the data analysis using PLS, namely assessment of the measurement model and assessment of the structural model (Barclay, Higgins and Thompson 1995; Hair et al. 1998). Figure 3.2 illustrates the two-step PLS analysis approach.

Step 1: Analysing Measurement Model	Step 1a: Convergent validity test for item reliability
	Step 1b: Convergent validity test for internal consistency
	Step 1c: Test for Discriminant validity

Step 2: Analysing Structural Model	Step 2a: Test each construct for variance (R^2)
	Step 2b: Test path coefficient (β)
	Step 2c: Test statistical significance of t-value
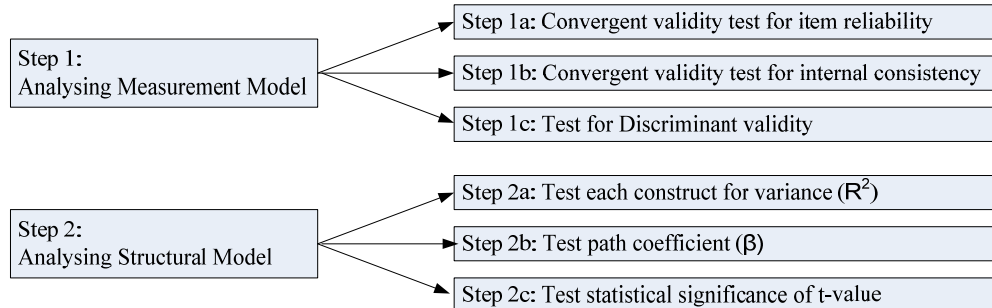
Figure 3.2 The Two-step PLS Analysis Approach

As can be seen from the figure above, the first step was used for measuring the validity and reliability of the instruments of the study, while the second was used for analysing the data of the study. A more detailed description of these two models is presented below.

3.5.1 Assessment of the Measurement Model

The measurement model focuses on the relationships among the observed variables and constructs in this study: effort expectancy, social influence, facilitating

conditions, privacy concerns, trustworthiness, outcome expectancy, motivation, intention and e-Service usage (Igbaria, Guimaraes and Davis 1995). There are two steps to assess the measurement model, namely: (a) convergent validity; and (b) discriminant validity. Convergent validity evaluates the degree to which items of the constructs are really related to the constructs. The convergent validity can be assessed by individual item reliability and internal consistency. Meanwhile, discriminant validity evaluates the degree to which constructs differ from each other.

The measurement model followed the PLS procedure, and can be assessed by examining the item reliability, internal consistency and discriminant validity, as illustrated in Figure 3.2 (Barclay, Higgins and Thompson 1995; Quaddus 2004; Santosa, Wei and Chan 2005). The following section will discuss, in detail, the procedure of the assessment of the measurement model.

3.5.1.1 Item Reliability of the Questionnaire

Previous researchers have assessed item reliability by examining loadings, or simple correlations, of the measures with their respective constructs. In PLS, item reliability can be assessed by evaluating: (1) the loading score for reflective items, or (2) weight score for the formative items.

Researchers have different opinions on the assessment of an item loading's strength. According to Carmines and Zeller (1979), a rule of thumb is to accept items with loadings equal to or greater than 0.707, which therefore explains at least 50% of the variance in a construct (Nunnally 1978). Hair et al. (1998) recommend three types of significance levels for item loadings; (i) item loadings greater than 0.3 are considered significant, (ii) item loadings greater than 0.4 are considered more significant, and (iii) loading in excess of 0.5 are considered very significant. In addition, Igbaria, Guimaraes and Davis (1995) suggested that an item loading equal to or greater than 0.4 was an acceptable reliability limit. The results of the item reliability analysis can be seen in Chapter 6.

3.5.1.2 Internal Consistency

Internal consistency was used to establish the convergent validity and to assure that there were correlations among the items for a construct. Many quantitative

researchers have used Cronbach's alpha as a measure of internal consistency. Fornell and Larcker (1981) suggested two types of measurement for evaluating internal consistency, namely: composite reliability (CR) and average variance extracted (AVE). These two types will be discussed separately.

Firstly, CR is used to measure internal consistency. The value of CR can be calculated using the following formula (Fornell and Larcker 1981; Barclay, Higgins and Thompson 1995; Chin 1998b).

$$CR = \frac{(\Sigma \lambda_{yi})^2}{(\Sigma \lambda_{yi})^2 + \Sigma_i \, Var(\varepsilon_i)} \qquad \textit{Equation 1}$$

where λ = component loading to an indicator; y=construct; i = item; $Var(\varepsilon_i) = 1 - (\lambda_{yi})^2$.

CR is considered superior to Cronbach's alpha since it practices the item loading estimation within the casual model (Fornell and Larcker 1981). Nunally and Bernstein (1994) suggested that an alpha of 0.7 indicates applicable internal consistency and could be set as a benchmark to establish convergent validity of the measurement model (Barclay, Higgins and Thompson 1995).

Secondly, AVE was used to measure the reliability coefficients of each construct. This measurement reflects the amount of variance of the construct explained by its items (Fornell and Larcker 1981). The following formula was used to calculate AVE.

$$AVE = \frac{\Sigma \lambda_{yi}^2}{\Sigma \lambda_{yi}^2 + \Sigma_i \, Var(\varepsilon_i)} \qquad \textit{Equation 2}$$

where λ = component loading to an indicator; y=construct; i = item; $Var(\varepsilon_i) = 1 - (\lambda_{yi})^2$.

Although AVE is not a measure of convergent validity, Fornell and Larcker (1981) suggested that AVE should be at least 0.5 for a construct to achieve adequate reliability. The results of the internal consistency analysis can be seen in Chapter 6.

3.5.1.3 Discriminant Validity

Discriminant validity was used to assess the degree of variance among items and constructs in the model (Barclay, Higgins and Thompson 1995). Discriminant validity assessment is essential to assure that there are no overlaps among different constructs. The work of Fornell and Larcker (1981) suggests that discriminant validity is considered adequate when AVE for one's construct is greater than constructs shared variance.

According to Barclay, Higgins and Thompson (1995), discriminant validity can be established by comparing the square root of the AVE to the inter-construct correlations. For each construct, the square root of the AVE for that construct should be larger than the variance shared between one construct and another in the model. Moreover, the diagonal value (the square root of the AVE) should be greater than the off-diagonal value (the correlation between constructs in the corresponding column and rows) in the correlation matrix (Hulland 1999) as illustrated in Table 6.18 in Chapter 6.

3.5.2 Assessment of the Structural Model

Structural model assessment was conducted in order to analyse the relationships among the constructs as hypothesised in the final research model. To establish the structural model assessment, the amount of variance was explained and the statistical significance was tested, based on three components of the information, namely: (i) amount of variance or R square (R^2); (ii) path coefficient (β); and (iii) statistical significance of t-value, as illustrated in Figure 3.2. In PLS, the structural model was assessed by using the bootstrapping method. This method was used to calculate the statistical significance of the t-values and path coefficients as well as R square values. The bootstrapping procedure is a non-parametric approach (Chin 1998b). The reason for using a non-parametric approach was due to the fact that the data are not assumed to be multivariately normal in PLS (Barclay, Higgins and Thompson 1995; Hair, Ringle and Sarstedt 2010).

3.5.2.1 Amount of Variance Explained

Amount of variance explained (R^2) determines the explanatory power of the components of the model by indicating the amount of variance in the construct, which is explained by its corresponding independent constructs. In the PLS analysis, interpreting the values of R^2 is the same as that of the R^2 value produced by multiple regression analysis (Barclay, Higgins and Thompson 1995). The R^2 value is derived from the bootstrapping procedure, as mentioned above. Thus, the predictive power of the research model can be assessed by obtaining the R^2 values (Barclay, Higgins and Thompson 1995; Santosa, Wei and Chan 2005).

3.5.2.2 Path Coefficient and Statistical Significance

The next test was to evaluate the relationships among the constructs, as predicted in the hypotheses based on the final research model. More specifically, it was a statistical analysis conducted by evaluating the path coefficient (β) and t-value. The β and t-value were produced from the bootstrapping procedure of the PLS.

3.6 Overview of the Research Procedures

Figure 3.3 flowcharts the research process that has been undertaken from the beginning to the end of the procedures in completion of the study.

Heading	Literature Review		Qualitative Field Study	Hypotheses and questionnaire development, pilot test	Quantitative Survey	Discussion and Interpretation	Summary of Key Findings
Action	Research Background	Identify a theoretical background	Develop semi-structured interview guide	Establish research hypotheses	Conduct National Survey	Implications	Contributions
		Initial research model development	Conduct the interview with selected customers	Design draft questionnaire			Limitations and Future research directions
Environment - Technique - Sample - Analysis			15 respondents	Conduct Focus Group Discussion	819 respondents		Conclusion
			Analyse interview data via content analysis	Revise draft questionnaire	Analyse using PLS		
			Findings	Conduct pilot test	Study Findings		
				59 respondents			
Outcome	Research question and objective	Initial research model (Figure 2.2)	Final research model (Figure 4.2)	21 Hypotheses	14 hypotheses supported 7 hypotheses not supported (Table 6.25 and 6.26)	13 points of implication	12 points of contribution; 3 points of limitation; 4 points of direction
				Final questionnaire (App. E)			
Chapter	Chapter 1	Chapter 2	Chapter 4	Chapter 5	Chapter 6	Chapter 7	Chapter 8

Figure 3.3 Flowchart of the Research Procedures

The study began with the identification of the research background which motivated the research to conduct a study on the antecedent factors of e-Service usage by Indonesian airline customers. This background identification produced the problems and objectives of the study. A rigorous search of materials and references was conducted among existing literature on e-Service usage to propose a research model that would provide a basis for methods used throughout the study. The product of this literature search was an initial structural model of e-Service usage.

The next step was validating the initial model. This was done through a field study using interviews. Developed from the initial research model, an interview guide was used to interview 15 selected customers of Indonesian airlines as the respondents. Data were content-analysed. Using the results of the content analysis, the initial research model was revised to produce the final structural model of the research.

Based on the final research model, 18 structural hypotheses and 3 demographic hypotheses were formulated and 52 questionnaire items were developed. Through a back-translation procedure, the questionnaire was translated into Bahasa Indonesian. A focus group discussion (FGD) was conducted to look at the face validity of the questionnaire, involving 5 Indonesian Ph.D. students who were studying in Western Australia. Based on the results of the FGD, the questionnaire was revised. A pilot test followed, to determine the validity and reliability of the model and the questionnaire, involving 59 respondents and resulting in the main survey instrument of the study.

The next step was the conducting of the national survey. A total of 819 respondents returned the questionnaires. Data were analysed using PLS.

Results of the data analysis were interpreted and discussed to yield the research findings. Based only the results of hypothesis testing, implications were suggested for each of the structural and demographic factors. Implications were related to Indonesian contexts and situations.

At the completion of the study, a summary of the key findings was drawn together with contributions, limitations, further directions and conclusions.

3.7 Summary

This chapter discussed the research methodology used in this study. Research paradigms and the issues related to the chosen method (qualitative-quantitative) were presented in the first section, as well as the justification for using this mixed-method approach. The next section described the research processes and data collection via field study-interview, pilot-test and main survey. The details of how each method was implemented will be presented in Chapters 4 and 6. A description of quantitative data analysis using SEM was then presented, including the procedure of research data analysis via the PLS approach. In the last section, an overview of the research process was provided to clarify the approach. The details of how the PLS procedure was conducted will be described in Chapter 6.

Chapter 4 Field Study Analysis and Final Research Model*

4.1 Introduction

This chapter reports the findings and analyses of the field study and presents the final research model. The focus of the field study was to both verify and enhance the factors and variables used in the preliminary research model as illustrated in Figure 2.2. Depictions are given of the relations among the constructs and their associated items. In addition, the relationships among the constructs were examined during the field study.

4.2 The Process of Field Study

The object of the field study was to interview 15 respondents to enable validation of the initial research model and formulation of questionnaire items. Data were transcribed to be subjected to content analysis.

4.2.1 The Interview Guide Development

As described in Section 3.4.2.1.2, the interview questionnaire was developed based on constructs and theories from the previous literature and studies. The complete interview questionnaire is presented in Appendix A. A fluent bilingual speaker of Bahasa Indonesia and English translated the English version of the semi-structured questions into Bahasa Indonesia. The complete interview questionnaire in the Bahasa

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* Part of this chapter was presented at a conference via the following paper:
> Urumsah, D., M. Quaddus, and J. Galbreath. 2010. Factors Influencing the Adoption of e-Services in Indonesian Airlines: A Field Study Approach. In *The 15th International Business Information Management Association (IBIMA) Conference*, Cairo, Egypt, 6-7 November.

Indonesia version is presented in Appendix B. The questionnaire was administered to the research respondents to obtain the research data. Data collection, data analysis, and results and interpretation are reported below.

4.2.2 Sample

In accordance with the topic of this study, the research subjects were Indonesian consumers of the airline industry in Indonesia who already had adopted the e-Services. In terms of the airline company being included in the study, e-Services must have been provided for consumers, encompassing online flight schedule information, booking and purchasing facilities. These requirements became the basis for choosing the respondents. As mentioned in Section 3.4.2.1.1, a combination of convenient, purposive and snowball sampling techniques was used to collect the data. Moreover, the researcher conducted a preliminary investigation to discover whether a respondent had already adopted e-Services or not. All participants took part in this study on a voluntary basis. The resulting participants, fifteen persons, were quite different demographically and demonstrated a range of experience, gender and age.

Table 4.1 Background Information of Participants

Consumers	Occupation	Gender	Age group	Computer usage	Education level	Domicile
A	Lecturer	Male	30+ to 40	High	Doctoral	Surabaya
B	Lecturer	Female	40+ to 50	High	Master	Solo
C	Manager	Male	30+ to 40	High	Master	Jakarta
D	Lecturer	Male	40+ to 50	High	Doctoral	Bandung
E	Owner	Male	30+ to 40	High	Bachelor	Yogyakarta
F	Owner	Male	30+ to 40	High	Bachelor	Jakarta
G	Programmer	Male	20+ to 30	High	Bachelor	Yogyakarta
H	Staff	Female	30+ to 40	Medium	Diploma	Solo
I	Staff	Female	20+ to 30	Medium	Bachelor	Yogyakarta
J	Staff	Female	20+ to 30	Medium	Diploma	Surabaya
K	Student	Male	20+ to 30	High	Master	Bandung
L	Lecturer	Male	30+ to 40	High	Doctoral	Jakarta
M	Student	Female	20+ to 30	High	Bachelor	Yogyakarta
N	Staff	Female	20+ to 30	Medium	Diploma	Jakarta
O	Manager	Female	30+ to 40	Medium	Bachelor	Yogyakarta

As can be seen in Table 4.1 on the previous page, there were 8 males and 7 females with 7 persons (47%) between 31 and 40 years old, 6 persons (40%) between 21 and 30 years old, and 2 persons (13%) between 40 and 50 years old. Of the 15 participants, 3 persons (20%) were holders of doctoral degrees, 3 persons (20%) were holders of Master degrees, 6 persons (40%) were holders of Bachelor degrees, and 3 persons (20%) were holders of diploma degrees. The interviewees' occupations were varied: university lecturers (4), university students (2), general staff (4), managers (2), business owners (2) and IT programmer (1). All of the respondents had been using computers at a medium level (33%) or a high level (67%). Therefore, it can be assumed that all of the respondents were quite familiar with computers and the Internet. In terms of domiciles, 5 persons lived in Yogyakarta (city of the study), 4 persons lived in Jakarta (about 600 kms from Yogyakarta), 4 persons lived in Bandung (400 kms from Yogyakarta), 2 persons lived in Surabaya (370 kms from Yogyakarta) and 2 persons lived in Solo (70 kms from Yogyakarta) which represented wide-ranging examples of Internet infrastructures in Java, Indonesia.

4.2.3 Data Collection

As mentioned in Section 3.4.2.1.2, this study used a semi-structured interview to collect the research data. The interview guide was proofread by a colleague, a customer of a big Indonesian airline and holder of a doctoral degree, who also became the first respondent of the interview. Minor corrections were identified based on the constructive feedback from the proofreading and interview.

The participants were 15 people, seven consumers of public Indonesian airlines and eight consumers of private Indonesian airlines. The interviews were recorded using audio tapes and supplemented with handwritten records. The recorded audio sessions were saved as mp3 files. The recorded interviews were replayed and transcribed. Transcription was conducted carefully by listening to the tapes as many times as needed to avoid errors. The interview transcripts were then translated into English. A sample of an interview transcript is provided in Appendix C (Indonesian Version) and Appendix D (English Version).

4.2.4 Transcription Process

As most of the interviews were conducted in the Indonesian language, transcriptions underwent the following steps to achieve optimum outputs. Firstly, the researcher selected three research associates (RAs) who had bilingual competence (Indonesian-English). Secondly, the researcher made an example of interview transcript from a respondent. Thirdly, one of the RAs was asked to translate the transcripts into English.

The following steps were followed by the research associates (RAs):

1. RAs were instructed to listen to the audio recording for each interview at least three times. In between, they wrote down the first drafts of their transcriptions. While listening to the audio materials, they made revisions of their transcriptions by looking at the similarities and dissimilarities between their transcriptions and the audio materials.

2. RAs were instructed to produce the Indonesian transcripts individually. This step was conducted based on the first step above. In this case, they finalised their transcriptions by improving the Indonesian used in the interviews.

3. RAs were instructed to translate the final transcriptions into English. Translation was expected to be more communicative rather than a word-to-word literal translation. For specific terms and concepts, RAs resourced to the researcher for consistency among the translations.

4. One of the RAs was asked to crosscheck the three individual transcriptions and translations to note consistencies and inconsistencies among these scripts. The other RAs were, then, required to revise their transcriptions and translations as needed.

5. Finally, all RAs were asked to submit all transcriptions and translations to the researcher, including the raw materials they had written since the beginning of the process.

Transcriptions and translations took place over approximately three months. At the completion of the RAs' work, verification was conducted by the researcher. The following steps took place:

1. All transcriptions and translations were checked manually to look for any inconsistencies in the texts. The researcher read the texts carefully to ascertain that terms and concepts in the texts were congruent with those in the research contexts.
2. The researcher listened to the audio recordings while reading the transcriptions to verify whether RAs had included all relevant information in the interview transcripts. Necessary information that the RAs may have missed was then captured.
3. The researcher checked and rechecked to be sure that all constructs and items had been extracted from the interviews into the relevant transcriptions and translations. During this process, one new construct was found from the interviews.
4. Finally, the researcher revised the transcriptions and translations for further use in data analysis.

4.3 Data Analysis via Content Analysis Approach

The interview transcripts were analysed using the content analysis approach (Holsti 1969). In this process, the data collected from the fifteen interviews were transformed from classical texts into text units; i.e., paragraphs containing words or terms that are related to the research constructs and items. These text units were then subjected to the first and second stages of content analysis: inductive and deductive approaches to categorise the constructs and items, as revealed by Quaddus and Xu (2005). The first stage was for the researcher to conduct the analysis of a single interview by:

1. Reading the interview transcripts and noting down key themes or patterns of constructs.
2. Determining grounded categories for these key themes or phrases.
3. Refining the grounded categories into systematic categories, based on the literature and careful selection of the systematic categories.
4. Integrating the interview transcripts into the systematic categories in accordance with the systematic selection criteria and the discovered relationships.
5. Developing a raw table of constructs, items and their links, for each interview.

The second stage of the analysis was distributed mainly across interviews to integrate the constructs and items from each interview and their links. This stage produced a combined model of constructs and items. The process was carried out by:

1. Re-reading the interview transcripts and the table of systematic categories, focusing on the constructs, items and links developed in the first stage.
2. Identifying similarities and differences among the items in each construct.
3. Grouping similar items into one category and giving the category a common name.
4. Comparing and contrasting the individual models of the fifteen respondents, based on the integrated constructs and items.
5. Developing integrated relationships among constructs, items and links for all respondents and making adjustments to include elements from previous studies as identified in the literature.
6. Developing a combined model of constructs and items to clarify airline consumers' motivation and intention to adopt e-Services.

4.4 Results and Interpretations

The purpose of the field study was to refine the instruments as well as the proposed research model. Fifteen respondents were interviewed using the first draft of the interview guide. Data was analysed using content analysis. This section of the chapter presents the results of that data analysis and the ensuing interpretations.

4.4.1 Demographic Characteristics of Field Study

As can be seen in Table 4.1, the fifteen respondents of the field study varied in gender, occupations, education level, domicile and computer usage level. There were 8 males and 7 females with 7 persons between 31 and 40 years old, 6 persons between 21 and 30 years old and 2 persons between 40 and   50 years old. Three persons were holders of doctoral degrees, 3 were holders of Master degrees, 6 were holders of Bachelor degrees, and 3 were holders of Diploma degrees. Four respondents were university lecturers, 2 were university students, 4 were general staff, 2 were company managers, 2 were business owners and 1 was an IT programmer. Skill level of computer use ranged from 33% (5 respondents) at

medium and 67% (10 respondents) at high. Domiciles ranged from 70 kilometers away from Yogyakarta (Solo) to 600 kilometers away from Yogyakarta (Jakarta).

4.4.2 Constructs and Items of E-Services

Using content analysis, the complete list of constructs and items related to e-Services adoption in Indonesia, as generated from different consumers' responses, is illustrated in Table 4.2. This table shows the responses of each respondent to the constructs and items in the content analysis. The check mark (√) shows that the respondents mentioned the term. The dash (-) shows that the respondents did not mention it. Items identified in each construct, as well as the number of times the items were mentioned by different interview respondents, are listed. The new construct and items are shown by italicized texts.

Interesting observations can be identified from the data analysis results. Firstly, the process of analysis maintained a consistent pattern between the interview data and the initial research model. However, the field study results showed that some of the identified items were different from the literature, as they were intended to represent the responses of the respondents in the particular context of Indonesian airline e-Services adoption.

Secondly, with regard to the chosen level of importance, most of the respondents emphasized seven constructs as the most important in this study. These included effort expectancy, facilitating conditions, trustworthiness, outcome expectancy, motivation, intention to use and actual e-Services adoption. A new construct emerged, which was 'ethics', suggested by one of the respondents. However, it was omitted. Meanwhile, in terms of items, all the respondents confirmed seven out of the fifty-two items. They were ease of use, technical infrastructure, persuasion by others to use, shift from travel agent to online ticket purchasing, total number of times used, and frequency of usage.

Table 4.2 Constructs and Items of E-Services Usage

Construct	Item	Consumers															Frequency
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	
Effort Expectancy	Ease of use	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	15
	Clarity and understandability	√	√	√	√	√	√	√	√	√	√	–	√	√	√	√	14
	Ease for consumer to learn	–	√	√	√	√	√	√	√	√	–	√	√	√	√	√	13
	Ease to access the information exactly	–	–	–	–	√	–	–	–	–	–	–	–	–	–	–	1
	Usefulness to consumers	–	–	–	–	–	–	√	–	–	–	–	–	–	–	–	1
	Simple language	–	√	–	–	–	–	–	–	–	–	–	–	–	–	–	1
	Clear stages or instructions	√	√	–	–	–	–	–	√	√	–	–	–	–	–	–	4
Social Influence	Persuasion by colleagues	√	–	–	–	–	–	–	√	√	√	–	–	–	–	–	4
	Supervisor/boss support	–	–	–	–	–	–	–	√	√	√	–	–	–	–	–	3
	Friends' encouragement/influence	√	–	–	√	√	–	–	√	√	–	√	–	–	–	–	6
	More prestige	–	√	–	–	√	–	–	–	–	√	√	–	–	–	–	4
	Somebody's influence	–	√	–	–	–	–	–	–	–	–	–	–	–	–	–	1
	More exclusiveness	–	–	–	√	–	–	–	–	–	–	–	–	–	–	–	1
Privacy Concerns	Misuse of personal information	√	√	–	–	–	√	√	√	–	–	–	–	√	√	–	7
	Ability to find personal information	–	√	–	–	–	–	–	√	√	√	√	–	–	–	–	5
	Ability to track and monitor	–	–	–	–	√	–	–	√	–	√	–	–	–	–	–	3
	Private information	√	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1

Table 4.2 Continued

Construct	Item	Consumers															Frequency
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	
Trustworthiness	Trust in the e-Services	√	√	√	√	√	–	√	√	√	√	√	√	√	√	√	14
	Trust in the company	√	√	√	√	√	–	–	√	√	√	√	√	√	√	√	13
	Trustworthiness	√	√	√	–	√	√	√	–	–	√	√	√	√	√	√	12
	Guarantee security of data	√	–	–	√	–	–	√	–	–	–	–	–	–	–	–	3
	Guarantee of data validity	–	–	√	–	–	√	–	–	–	–	–	–	–	–	–	2
	No issues about tracking records of the company	√	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
Facilitating Condition	Technical infrastructure provided	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	15
	Resource available for tutorial and technical support	√	√	√	–	√	–	√	√	√	√	√	√	√	√	√	13
	Specific person or groups available for assistance, *such as Call Centre or Chat facilities.*	√	√	√	√	√	√	√	√	√	–	√	√	√	–	√	14
	Clear interface and user friendliness	–	–	–	–	–	–	√	–	–	–	–	–	–	–	–	1
	Availability of clear steps	–	–	–	–	–	–	–	√	–	–	–	–	–	–	–	1
	Clear instructions	–	–	–	–	–	–	–	–	√	–	–	–	–	–	–	1
	Systematic display on the screen	–	–	–	–	–	–	–	–	–	–	–	√	–	–	–	1

Table 4.2 Continued

Construct	Item	Consumers															Frequency
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	
Outcome Expectancy	More suitable flight schedule and price	√	√	√	√	√	√	√	√	√	√	√	√	√	–	√	14
	More efficiency in buying ticket	√	√		√	√	√	–	-	√	–	√	–	√	–	√	9
	Increase of status among your colleagues	–	√	√	–	–	–	–	–	–	–	√	–	–	–	–	3
	Increased chance of efficiency and effectiveness	–	–	–	–	√	–	–	–	√	√	√	–	–	–	–	4
	Customer's loyalty	√	–	–	–	–	–	–	–	–	–	√	–	–	–	–	2
	Ease of payment	–	√	–	–	–	–	–	√	–	–	–	–	–	–	–	2
	More comfort	–	–	√	√	√	–	√	–	√	–	–	–	√	√	√	8
	Access to priority offers via e-mail, such as promo ticket, gift or voucher	–	–	√	–	–		–	–	–	–	√		–		–	2
	Valid information	–	–	–	–	√	–	–	–	–	–	–	–	–	–	–	1
	More flexibility for payment	–	–	–	–	√	–	–	–	–	–	–	–	–	–	–	1
	More flexible choice of time	–	–	–	–	–	–	–	–	–	–	–	–	–	–	√	1
	Access to easier and cheaper tickets	–	–	–	–	–	–	–	√	√	–	–	–	–	–	√	3
	Guaranteed security of data	–	–	–	–	–	–	–	√	–	–	–	–	–	–	–	1
	Access to quick seat availability	–	–	–	–	–	–	–	–	√	–	–	√	–	–	–	2
	Booking without downpayment	–	√	–	–	–	–	–	–	–	–	–	–	–	√	–	2
	More transparency	–	–	–	–	–	–	–	–	–	–	–	–	–	√	–	1
	Affiliation with hotels and car rentals	–	–	–	–	–	–	–	–	–	–	–	√	–	–	–	1
	Access to immediate information	–	–	–	–	–	–	–	–	√	–	–	–	–	–	–	1

Table 4.2 Continued

Construct	Item	Consumers															Frequency
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	
Motivation	Motivation to use	√	√	√	√	√	√	√	–	√	√	√	√	√	√	√	14
	Interest to continue using	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	15
	Persuasion to use	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	15
	Commitment to use	–	√	–	–	√	–	√	–	–	–	–	–	–	√	√	5
Ethics	–	–	–	–	–	–	–	√	–	–	–	–	–	–	–	–	1
Intention to Use E-Services	Shift from travel agents to online ticket purchasing	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	15
E-Services Adoption	Number of use	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	15
	Frequency of use	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	15

Thirdly, the greatest number of items mentioned by the respondents were 28 by respondent E, 27 by respondent B and 26 by respondent I. It was not surprising that these respondents mentioned more items than other respondents, since their computer usage was high. For example, respondent B would normally access e-Services in her daily activities, not only via local networks but also via her mobile. As she said:

I have used e-Services so many times, because I am an active user. In addition, I travel once a week, so I often use the e-Services. I also have been using the e-Services since the first time e-Services emerged.

If there is no hot spot to access Internet, I use mobile …. CDMA-Star One. I am an active user of internet. Therefore, I access information and news for a few hours every day.

It should be noted that respondent H, who worked as general staff and had a medium level of computer usage, mentioned more variables than respondents F and L who mentioned the lowest number of items; even though they had an educational background in IT and were familiar with IT applications, such as e-Services. This could be explained because those who were familiar with IT would have a different perspective when using an application, such as e-Services, compared with common users. For example, the respondents who had sufficient IT backgrounds may be less concerned about social influence factors. They had used airline e-Services, mostly because they received information from advertising in newspapers, magazines or websites. They then tried to familiarise themselves with the airline e-Services. Thus, items such as colleagues' persuasion, supervisors' support, friends' influence, and reasons that were concerned with prestige would not be important for those respondents.

Fourthly, linkages were observed. In looking at the data, the researcher found linkages among constructs that may be significant for the study. An example is in the following extract from the interview transcript from respondent A.

> *"Privacy also becomes my concern - how does the airline company guarantee my information privacy. In addition, there is another privacy concern that becomes my concern that is my own neighborhood. If I buy an online ticket, my relatives and neighbours are not supposed to know where I am going. If I go to a travel agent, other parties know about my activities such as my destination and flight information."*

The respondent signalled that there was a linkage between privacy concerns and usage. He mentioned that his privacy was more secure when he used the online ticket purchases. Going to the travel agents would make the possibility higher that friends or neighbours would know about his travel plans.

4.4.3 Observed Linkages among the Constructs

Table 4.3 presents observed linkages among the constructs of e-Services adoption. The information regarding the perceived links was sought during the interview process and was extracted from the interview scripts through the content analysis approaches, as previously described. For instance, the linkage between effort expectancy and e-Services usage was identified in all of the respondents' statements. For example, respondent D mentioned, "*I think e-Services are very easy to use*". Column 1 of Table 4.3 contains the pairs of constructs and corresponding linkages. For example, row 1 of the table shows that effort expectancy has impacts on e-Services usage via intention to use, and this linkage has been identified by all respondents. New links among each pair of constructs are shown by italicized texts.

Table 4.3 Observed Links among the Constructs

Links Between Constructs	Consumers														
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
Effort expectancy and e-Services usage via intention to use	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Effort expectancy and outcome expectancy		√		√			√	√							
Effort expectancy and motivation		√		√		√	√							√	√
Social influence and e-Services usage via intention to use	√	√		√	√			√	√	√	√				
Privacy concerns and e-Services usage via intention to use	√	√		√		√	√	√	√	√	√	√		√	√
Trustworthiness and e-Services usage via intention to use	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√

Table 4.3 Continued

Links Between Constructs	Consumers														
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
Outcomes expectancy and e-Services usage via intention to use	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Social influence and motivation	√	√		√	√			√	√	√	√				
Privacy concerns and motivation	√	√	√	√				√	√	√	√	√	√		
Trustworthiness and motivation	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Outcomes expectancy and motivation	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Facilitating conditions and e-Services usage	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Facilitating conditions and effort expectancy	√	√			√			√	√				√	√	√
Facilitating conditions and outcome expectancy	√	√					√	√		√		√			
Facilitating conditions and motivation	√	√										√		√	
Trustworthiness and effort expectancy	√	√	√	√	√	√	√	√		√	√	√	√	√	√
Trustworthiness and outcome expectancy	√	√	√	√	√	√	√	√		√	√	√	√	√	√
Motivation and intention to use	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Motivation and e-Services usage	√	√	√	√	√	√	√		√	√	√	√	√	√	√
Intention to use and e-Services usage	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Ethics and trustworthiness							√								
Ethics and privacy concerns							√								

Furthermore, it was identified that not all respondents mentioned the following links: social influence to motivation and e-Services usage, privacy concerns to motivation and e-Services usage, and trustworthiness to effort expectancy and outcome expectancy. In contrast to the initial research model, respondents C, F, G, L, M, N and O mentioned that social influence would not have a direct impact on motivation

and intention to use. However, respondent E mentioned that privacy concerns would not influence motivation and intention to use e-Services.

At this stage of the study, links were tentative and a summary of these links is given in the following model.
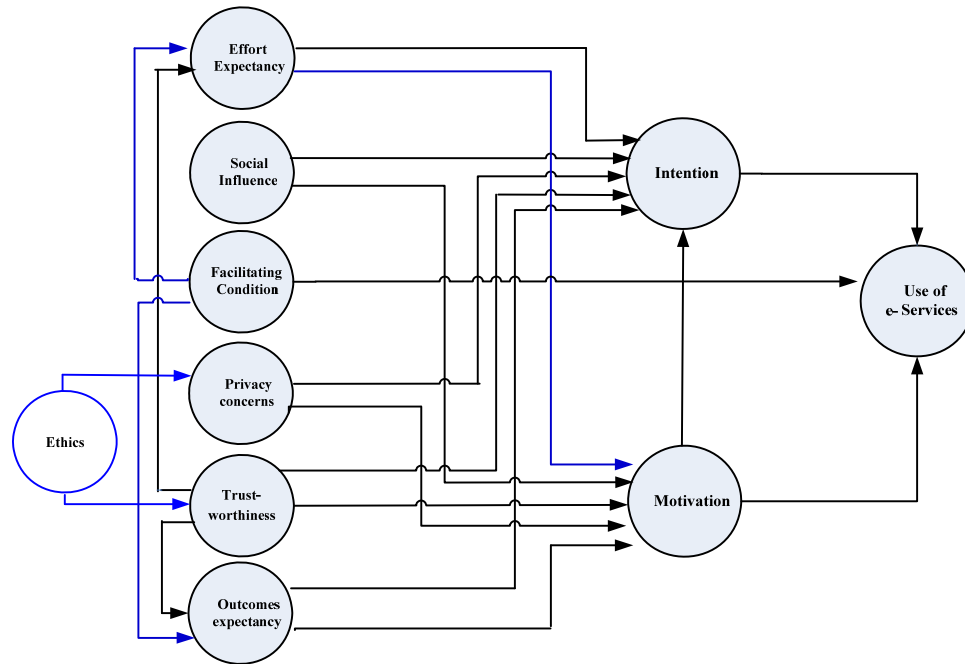
Figure 4.1 Summary of E-Services Adoption Model Based on Tentative Linkages

Two characteristics can be derived from Figure 4.1. Firstly, this tentative model closely relates to the initial research model. Almost all of the respondents agree with the initial model in that they mentioned the factors found in the model. Secondly, one respondent mentioned ethics as a factor of e-Services usage. However, as has been mentioned before, this extra factor was not included in the final model.

One last observation can be made on possible anomalies considered for the final model. Respondent B mentioned 27 items (the second highest in number) and 20 links among the constructs (the highest). This seems to be the much more comprehensive than the responses of respondent F, who mentioned 16 items (the lowest in number) and 13 links among the constructs (the second lowest). Respondent F mentioned that social influence was not considered as an important factor in affecting his use of e-Services. Furthermore, the items related to e-Services usage were different between respondents B and F. This was due to the fact that

respondent B had been a very active user. She used airline services for travel almost every week. She was also knowledgeable about which Indonesian airlines had already implemented services via internet transactions. Therefore, she was able to give much information about airline e-Services in Indonesia. Finally, respondent E mentioned 28 items (the highest number), but was the only one who mentioned that privacy concerns were not an issue.

4.4.4 Final Research Model

Based on the results of the field study, the final research model was developed. Generally, the field study supported the initial research model. Inclusion of initial constructs in the final model is supported both by theories in the references and evidence from the field. Figure 4.2 on the next page presents the final research model. In addition to the original number and kind of items, three new linkages among constructs were found, namely (i) facilitating conditions and effort expectancy, (ii) facilitating conditions and outcome expectancy, and (iii) effort expectancy and motivation. Indicators of measurement items were the same for both models. It is from this final research model that the research hypotheses were developed. This will be discussed in the next chapter.
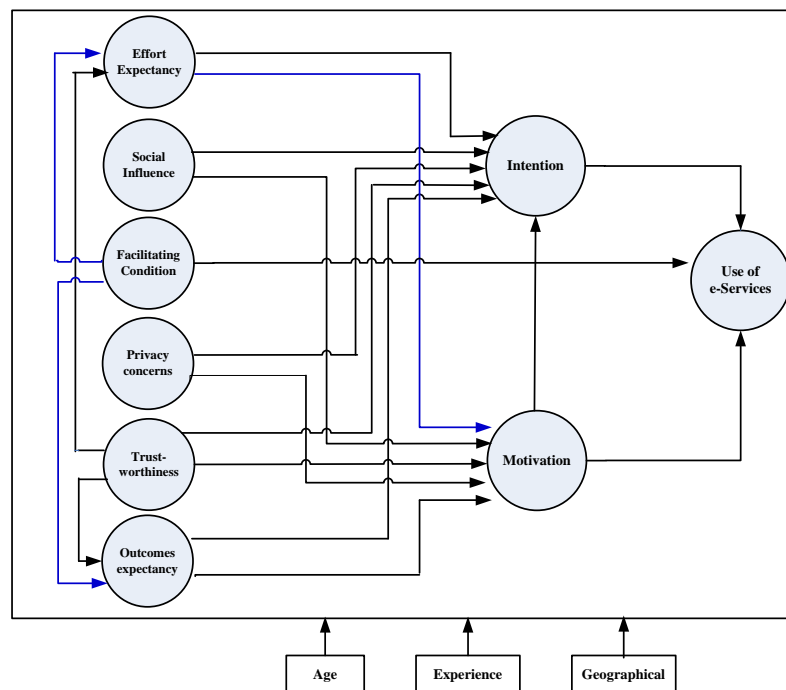
Figure 4.2 Final Research Model of E-Services Usage

The following section describes, in more detail, the measurement aspects of constructs and related items as generated from the final research model.

4.4.4.1 Effort Expectancy

Previous studies confirmed that effort expectancy has been shown to be a critical factor affecting the adoption process (Lin, Shih and Sher 2007; Venkatesh et al. 2003; Childers et al. 2001; Dabholkar and Bagozzi 2002; Gentry and Calantone 2002; Venkatesh 1999). There have been several items identified in previous research to measure the construct of effort expectancy. They included the criteria of being: easy to use (Kulviwat et al. 2007; Venkatesh et al. 2003; Davis, Bagozzi and Warshaw 1989; Moore and Benbasat 1991; Davis 1989); easy to learn (Venkatesh et al. 2003; Kulviwat et al. 2007; Moore and Benbasat 1991); clear and understandable (Venkatesh et al. 2003; Moore and Benbasat 1991; Davis, Bagozzi and Warshaw 1989); easy to remember how to use (Kulviwat et al. 2007); simple to use (Kulviwat et al. 2007); easy to access the system (Moore and Benbasat 1991; Davis, Bagozzi and Warshaw 1989); and easy to become skilful and flexible to interact with (Davis, Bagozzi and Warshaw 1989; Davis 1989). Most of the items for measuring effort expectancy in the literature refer to the adoption or usage of innovative technology. The construct of effort expectancy is concerned with consumers' effort assessment in learning and using airline e-Services.

In the field study, all respondents pointed out that e-Services are easy to use. Respondent A stated, "I believe that e-Services are easy to use", while Respondent C said, "I think it is very easy to use", and Respondent D stated, "It is easy and interactive". Likewise, it was found that all of the respondents except Respondent K agreed that e-Services are clear and understandable. For example, Respondent M said, "Consumers will absolutely find it is easy to understand". Respondent H also stated, "It is clear and understandable".

Furthermore, 13 out of 15 respondents found that e-Services were easy to learn because: they were presented in a simple language (Respondent B); there were clear

stages/instructions or ease of transaction processing (Respondents A, B, H and I); and the interface was clear (i.e. "suitable and user friendly") (Respondent G).

Additionally, Respondent E mentioned that e-Services are easy because he can access information easily. Respondent G also said that e-Services are useful to all consumers.

4.4.4.2 Social Influence

Prior literature stated that social influence becomes an important factor that influences behavioural intention in adopting new technology (Venkatesh and Davis 2000; Karahanna, Straub and Chervany 1999; Venkatesh et al. 2003; Hung, Wang and Chou 2007). Mok and Kwong (1999) revealed that social influence has a relationship to motivation. To measure the construct of social influence, the following statements have been used as items by previous studies: (i) most people who influence my behaviour think that I should use the systems; (ii) most people who are important to me suggest that I should use the systems (Venkatesh et al. 2003; Mathieson 1991; Davis, Bagozzi and Warshaw 1989; Al-Gahtani, Hubona and Wang 2007; Ajzen 1991; Yi, Fiedler and Park 2006); (iii) my supervisor has been helpful in the use of the new technology; (iv) I use the system because of the proportion of co-workers who also use the system (Thompson, Higgins and Howell 1991); (v) people who use the new technology have more prestige; and (vi) people who use the new technology have a high profile (Moore and Benbasat 1991; Yi, Fiedler and Park 2006). In reference to the literature, most of the respondents in the field study moderately agreed that the above characteristics of social influence would be the main concern with respect to how they are influenced by their peers to use a particular IT application.

In the field study, there was a general agreement among respondents that social influence affects their intention and motivation to use e-Services. Respondents A, B, D, E, H, I, J and K had been influenced by somebody, such as their colleague, supervisor, friend or other airline passengers. For example, Respondent B said, "I was influenced by somebody I met on board. A passenger gave me information, showed me the e-ticket, and then I tried by myself". Similarly: "I was influenced by my friends" (Respondents D, E and I).

Furthermore, Respondents B, E, J and K claimed that they felt more prestigious in using e-Services. "I feel more prestigious than others do when I use e-Services, because I am one step ahead of my friends. My friends still use the conventional way in getting tickets instead of e-Services, which are easier. Therefore, I feel more prestigious than my friends or colleagues" (Respondent B). "I want to be one step ahead from others" (Respondent E). In other words, Respondent D believed that people who have used e-Services are more exclusive since people who have internet facilities are limited in number.

Additionally, other respondents agreed that they were influenced by their colleagues or supervisors. For example, "I was influenced by my work partner and my boss" (Respondents H, I and J).

Therefore, the items of social influence in the final model consist of colleagues' persuasion, supervisors' support, friends' encouragement, somebody's influence, more prestige and more exclusiveness.

4.4.4.3 Facilitating Conditions

In relation to the construct of facilitating conditions, past studies have identified related items using the following statements: (i) guidance was available for using the system (Thompson, Higgins and Howell 1991; Jiang et al. 2000); (ii) a specific person (group) is available for assistance with system difficulties (Thompson, Higgins and Howell 1991; Jiang et al. 2000; Venkatesh et al. 2003); (iii) training for the system is available (Thompson, Higgins and Howell 1991; Jiang et al. 2000); (iv) the website is available to me when I need it (Jiang et al. 2000); (v) the company provides on-line answers to my questions (Bedford 2005); (vi) the company provides on-line help to use their website (Bedford 2005); and (vii) the use of their website is very supportive (Jiang et al. 2000).

In the field study, all respondents suggested that facilitating conditions played an important role in assisting them with e-Services adoption. All respondents suggested that technical and non-technical supports are important in e-Services usage. Respondent B said, "I believe the technical and non-technical support is important". Respondent A specifically mentioned that the availability of after-sale services also

becomes his consideration in using e-Services. Respondent L also revealed: "I had an experience where I had completed a transaction from booking until payment, but I was informed that my transaction was not confirmed. I thought it was problem with my credit card, Then I called the airline's customer service to ask for explanation. Thus, the support is important".

Furthermore, Respondents C and L believed that airline companies that provide e-Services should have daily 24-hour supports. Some respondents also stated that they prefer using the call centre (Respondents D, F and I), help desk (Respondents E, K, N and O) or chatting online (Respondents G, K, M, N and O) when they face difficulties because they will get faster responses and clearer solutions. Therefore, in case problems occur, the available support will help consumers (Respondent F).

Furthermore, Respondents A, B, E, H, I, M, N and O underlined that facilitating conditions have an influence on effort expectancy in the use of e-Services. For example, Respondent N suggested that a particular special division, such as helpdesk, may be unnecessary when the e-Services system already presents contents that are clear and easy to use as well as easy to access with an acceptable speed.

In addition, Respondents A, B, G, H, J and L considered facilitating conditions as a factor that affects their perception of outcome expectancy in the use of e-Services.

4.4.4.4 Privacy Concerns

Research findings indicated that privacy concerns and the requirement to submit personal information are among the primary factors that discourage users to transact online via the Internet (Westin 2001). Privacy concerns refer to a possible loss of privacy as a result of a voluntary or surreptitious information disclosure to a website while completing online transactions (Culnan and Armstrong 1999; Smith, Milberg and Burke 1996). Privacy concerns have been defined as negative perceptions that have an effect on IT innovation adoption, including e-Services.

In the field study, most respondents, except E, believed that privacy concerns would influence their use of e-Services. Respondent B revealed: "Privacy concerns become my consideration…. if my data are misused by other people… I am also still concerned, when I access the e-Services on a public personal computer (PC), because

I am afraid somebody else will access my information." Respondents E, H and J stated that they have a feeling, when they use e-Services, that somebody can track and monitor their clicks and actions.

Perceptions of privacy concerns from respondents varied from individual to individual, depending on that person's own backgrounds and values (O'Neil 2001), such as education, gender, location, experience and income. For example, respondents C and G, who had high experience in using online transactions, seemed to be more secure than respondents H and J, who had less experience. These results support the findings of Lose, Bellman and Johnson (2000) where sensitivity to privacy issues online decreased with Internet experience. Therefore, privacy concern was not a problem for respondents C and G in using e-Services.

Respondents A, B, D, F, G, H, I, J, K, L, N and O all considered privacy concerns as a factor influencing them in their intention to use e-Services. Respondent K mentioned, "I am still concerned about privacy concerns when using e-Services. After doing an online transaction, I always call the provider to make sure about the safety of the transaction."

Furthermore, respondents A, B, C, D, F, I, J, K, L and M indicated that privacy was a factor to be considered to motivate them in using e-Services. For example, Respondent A stated, "If there is a guarantee that information I submit is safe, I think I will be motivated". Respondent F also mentioned, "Privacy of information influences my motivation to use e-Services since I use e-Services on behalf of someone else… I am motivated to use airline e-Services if I am booking travel somewhere where I am not supposed to transit".

4.4.4.5 Trustworthiness

Trustworthiness plays an important role in the adoption and acceptance of online transactions (Pavlou 2003; Gefen, Karahanna and Straub 2003), including e-Services usage. It has two dimensions, namely trust of organizations and trust of technology (Srivastava and Teo 2005). Therefore, people will be encouraged to use e-Services, when they believe in the reputation of the provider of e-Services and the e-Services provided.

In the field study all of the respondents reported that trustworthiness was a crucial factor affecting consumers' behaviours in adopting e-Services. For example, Respondent B said, "Trust becomes my consideration of using airline e-Services". Likewise, all respondents believed that trustworthiness plays a part in their motivation to use e-Services. "I trust both the airline company and its e-Services. Those motivate me to use e-Services" (Respondent B). "I am motivated to use e-Services because I trust" (Respondent C).

Furthermore, fourteen out of fifteen respondents generally agreed that trustworthiness is a determining factor of effort expectancy and outcome expectancy. For example, Respondent D mentioned, "… if I trust, I feel more comfortable and easier…". "It is easy since I trust" (Respondent K). "As by trusting we could not worry anymore" (Respondent M). "If we trust it, everything will be automatically easier and faster" (Respondent N). In other words, trustworthiness can reduce a consumer's need to monitor airline e-Services responses in detail. As a result, the consumer can make online transactions more easily. Similarly, Respondent C also stated, "…trust will increase my expectations".   "…the more we trust, the more we hope and I believed the company would be better than other companies" (Respondent E). In other words, trustworthiness can increase consumers' expectations when they use e-Services.

In addition, most of respondents agreed that trustworthiness encompasses trust in two aspects: the airline company providing e-Services and the e-Services themselves. Thirteen of fifteen respondents, (all except F and G), stressed that they trusted both the company which provided the e-Services and the e-Services provided. Respondent L said, "We trust the company because it exists and we can access it through its websites".   Eleven of fifteen respondents agreed that e-Services are trustworthy. Moreover, respondents A, D and G mentioned that they trust airline companies providing e-Services if the companies can guarantee security of data. "The company would secure my data" (Respondent G).   Additionally, Respondents C and F mentioned that they become more trusting if e-Services can guarantee data validity.

4.4.4.6 Outcome Expectancy

The work of Snead and Harrell (1994) and Landry (2003) discovered that outcome expectancy was a determinant of behavioural intention. In relation to motivation, prior studies pointed out that increases in expectancy result in proportional increases in motivation (Harrell and Stahl 1986; Miller and Grush 1988; Elding, Tobias and Walker 2006). Outcome expectancy is believed to be a determinant of motivation and intention to use e-Services. According to Bandura (1997), people who anticipate outcomes mostly depend on their judgments of how well they will be able to perform in a given situation. If a customer expects that he or she will gain benefit from using e-Services and becomes conscious of the outcomes, this customer is more likely to have motivation and intention to continue using those e-Services.

In the field study, all respondents identified that outcome expectancy is an important influence on the individual that initiates e-Services usage behaviour (Benbunan-Fich and Arbaugh 2006). It indicates the consumer's confidence that utilizing e-Services will lead to a more suitable outcome expectancy. For example, Respondents E, I, J and K said that they expect to increase the chance of getting efficiency and effectiveness when buying tickets using e-Services. "E-Services usage is more suitable to my activity. It takes time to go to a travel agent" (Respondent B). Likewise, all respondents substantiated that outcome expectancy is a variable that positively contributes towards motivation to use e-Services. Outcome expectancy should motivate an individual to use the technology and gain more favourable benefits. Respondent E stated, "I believe everyone is seeking for ease about anything". Respondent F mentioned that he was motivated to use e-Services because he desired a cheaper price and didn't mind releasing a little private information within the e-Services system.

Furthermore, there was general agreement among participants in the field study that obtaining a more suitable flight schedule and price, and more efficiency in buying the ticket, were expected when they used e-Services. For example, Respondent F said, "I expect to see the available information of flight schedules, to choose as I wish, to choose the cheapest ticket, and I expect everything can be more efficient". In addition, there were other expectations, such as: ease of payment (Respondents B and G); priority offers via e-mail from the airlines as a reward for customer loyalty

(Respondents A, C and K); increased status among colleagues (Respondents B, C and K); provision of valid information (Respondent E); provision of affiliation with hotels and car rentals (Respondents L); and, to get seats (Respondents I and L) or to make a booking (Respondents B and N) without down payment.

4.4.4.7 Motivation

Nuttin (1987) stated that, without motivation, the intention to act would fail to be carried out. The discussion in Section 2.4.7 mentions that prior studies found that motivation was expected to be a determinant factor of behavioural intention and actual behaviour. The level of customers' motivation will directly influence their usage of e-Services or indirectly affect it via customers' intentions. The customer will be motivated to use e-Services due to their needs in doing business and improving image.

In the field study, eight of the fifteen respondents confirmed that they first used e-Services after they were introduced to them by their friends, colleagues, supervisors or other passengers. One of the respondents said, "…actually for the first time somebody influenced me. I knew about e-Services from my friend" (Respondent A). In this case, they can be motivated to use e-Services without any intention of their own. Alternatively, it is possible that they could be motivated to use e-Services via intention. For example, Respondent D said, "I am interested in using e-Services. But if I am busy, I will ask my secretary to use e-Services for buying tickets. If I have spare time, I will use e-Services".

The remaining seven of the fifteen respondents said that they used e-Services without being influenced by somebody else. All of them agreed that they were motivated to use e-Services. Their motivation in using e-Services is perhaps due to their intention. For example, Respondent N stated, "…if we know the Internet then we will find it easier to search… then we will use e-Services". Alternatively, they could be motivated to use e-Services without any intention when they need information about flights and then proceed to buy tickets according to schedules and prices that are suitable for their circumstances.

In the field study, all of the interview respondents, except respondent H, agreed that they are motivated to use e-Services. For example, Respondent G stated, "I am motivated and I am glad to use e-Services", although sometimes a consumer still needs to go to a travel agent, as stated by respondent H. In addition, all respondents said that they are going to persuade their colleagues, friends, family members and other people to use e-Services. They also were personally interested in continuing to use e-Services. For example, Respondent B said, "I feel more interested and motivated in using e-Services and I will ignore previous ways (of making travel arrangements)." In addition, Respondents B, E, G, N and O were committed to using e-Services for their activities when they are travelling from one place to another by plane.

4.4.4.8 Intention to Use and e-Services Usage

The work of Sheppard et al. (1988) shows, in its meta-analysis of 87 studies, that an average correlation of 0.53 was reported between behavioural intention and actual behaviour. Following the technology literature, the current study expected a positive relationship between intention to use and e-Services usage.

In the field study, respondents generally expressed that they would like to use e-Services to make an airline reservation. The interview responses below summarise opinions of the relationship between intention to use and e-Services usage, and provide an example of such relationship:

> *"I think when there is any chance to go by plane; I will use e-Services"* (Respondent C).

> *"I often check the flight schedule, especially when I have a plan to travel"* (Respondent K).

> *"I use it quite often, every time we would go travelling, we absolutely will do online checking"* (Respondent M).

> *"In accordance with my work activities and my personal need, I use e-Services ten times a month"* (Respondent O).

4.5 Summary

A field study has been conducted to establish the constructs and items relating to the use of Indonesian airline e-Services. The investigation involved fifteen Indonesian

customers of Indonesian airlines who had already used e-Services. Interviews were electronically recorded and subsequently transcribed. By way of content analysis, ten constructs and fifty-two items were identified and presented in a matrix form showing all the frequencies identified by the respondents. Perceived links among constructs were identified as well.

At this phase of the study, two products have been yielded. Firstly, the initial research model has been integrated with findings from the field study to form the final research model. This model characterized a more comprehensive set of constructs that were supposed to influence Indonesian customers to use Indonesian airline e-Services. From this revised model, research hypotheses can be developed to be tested in the field. Secondly, the initial constructs and items have been finalised to be used in the process of the questionnaire development. Nine constructs and fifty-two items were identified to be tested in the pilot test.

Chapter 5 Hypotheses Development, Questionnaire Development and Pilot Study

5.1 Introduction

This chapter provides a detailed description of the research hypotheses and questionnaire development, based on the final research model as the product of the field study. The proposed hypotheses are presented in the first section and instrument development is presented in the second. A total of 21 hypotheses will be proposed and a total of 52 items will be tested. Next, the processes of back translation and focus group discussion are presented. Finally, the operation and results of the pilot study are presented and the final questionnaire for the main survey obtained.

5.2 Hypotheses Development

5.2.1 Hypotheses Related to Effort Expectancy

Effort expectancy has been postulated as a determinant of an individual's intention to use a particular technology (Venkatesh and Davis 2000; Venkatesh et al. 2003). It is obvious that less effort required to use an IT application leads to favourable usage by the users (Davis 1989; Davis, Bagozzi and Warshaw 1989). In the context of e-Services, consumers expect to use them without much effort. In another words, consumers prefer an e-Service that is easy to use with an understandable interface (Gefen and Straub 2000; Pavlou 2003). The degree of ease perceived by a consumer, therefore, will facilitate his/her e-Service usage. A number of studies have shown that effort expectancy has a significant effect on intention (Schaper and Pervan 2007; Hung, Wang and Chou 2007; Wills, Gayar and Bennett 2008; Eckhardt, Laumer and Weitzel 2009). In contrast, Al-Gahtani, Hubona and Wang (2007) found that effort

expectancy has no significant effects. These inconsistencies have been verified by the field study.

The field study results provide evidence and suggest that effort expectancy seems to positively influence a consumer's intention to use e-Services, as was mentioned by all respondents and is shown in Table 4.3. In the field study, most respondents indicated the items related to effort expectancy such as ease of use, clarity and understandability, and ease to learn (see Table 4.2). Based on the findings from the field study, as illustrated in Table 4.3, six of the fifteen respondents emphasized the importance of effort expectancy in influencing customers' motivation to use e-Services. Respondent B, for example said, *"I feel motivated to keep using e-Services, especially if airline companies improve their services by making some good progress. For example, in one of the airline companies, it is now easier and more user friendly."* This statement is also in line with prior studies which revealed that ease of use of a learning system makes it more likely for individuals to be encouraged in their motivation to learn (Sun et al. 2008; Lee, Wong and Fung 2010).

Therefore, based on the foregoing discussion, the hypotheses related to effort expectancy are proposed as follows:

Hypothesis 1 (H1): *Effort expectancy positively influences consumers' behavioural intention to use e-Services.*

Hypothesis 2 (H2): *Effort expectancy positively influences consumers' motivation to use e-Services.*

5.2.2 Hypotheses Related to Social Influence

This study refers to social influence as the degree to which a customer perceives it is important that others believe he or she should use e-Services to expand his or her skills to obtain online services without anybody interfering (Venkatesh et al. 2003). A consumer would be likely to use e-Services when supported by somebody else in order to gain the benefit of enhancing his or her competency (Thompson, Higgins and Howell 1991). People will perceive their image as improved in their social relationships after using e-Services (Moore and Benbaset 1991). The relationship between social influence and the behavioural intention to use e-Services is, therefore, likely to exist (Karahanna, Straub and Chervany 1999).

Prior studies of technology acceptance have shown that social influence has a direct impact on behavioural intention (Venkatesh and Davis 2000; Karahanna, Straub and Chervany 1999). Other researchers also found that social influence plays a significant role in intention (Venkatesh et al. 2003; Hung, Wang and Chou 2007; Wills, Gayar and Bennett 2008). In contrast, the study conducted by Schaper and Pervan (2007) found empirical evidence to show that social influence has no effect on behavioural intention.

In relation to motivation, the work of Deci (1992) provides support that social relationships directly promote motivation and consequent engagement in classroom activities. Wentzel (1998) argued that supportive relationships with parents, teachers and peers were related to multiple aspects of school motivation. Likewise, customers may be influenced to use e-Services by their social relationships; they would like to be able to interact with innovative technology as an indication of social status (Hsu, Lu and Hsu 2007). For example, consumers are motivated to use e-Services because of encouragement by their relatives. After using the e-Services, they may be seen as experts among their friends or colleagues (Smith et al 2007a), then, he/she will motivate his/her friends or colleagues to use e-Services.

Similarly, in findings from the field study (as illustrated in Table 4.3), more than half of the respondents revealed that their motivation and intention to use e-Services was influenced by social interactions.

By referring to the findings of the literature and the field study, the formulation of hypotheses 3 and 4 are proposed:

Hypothesis 3 (H3): *Social influence positively affects consumers' behavioural intention to use e-Services*.

Hypothesis 4 (H4): *Social influence positively influences consumers' motivation to use e-Services*.

5.2.3 Hypotheses Related to Facilitating Conditions

Venkatesh et al. (2003) stated that the existence of facilitating conditions is a direct determinant of usage behaviour. In the e-Services context, a consumer will feel encouraged to use e-Services when the technical infrastructure supports the use of

e-Services (Jiang et al. 2000). For example, a helpdesk is available when a user faces a problem while employing e-Services (Lai and Lai 2012). In other words, a consumer would like to use e-Services when appropriate facilitating conditions are provided, such as call centres, online help or chat facilities. Therefore, it is reasonable that increased levels of facilitating conditions would reduce inconvenience on the part of the consumer at the time of encountering problems when using an e-Service. This view is also supported by prior studies (Hung, Wang and Chou 2007; Wills, Gayar and Bennett 2008; Eckhardt, Laumer and Weitzel 2009) which revealed that individuals believe that organizational and technical infrastructures enhance their use of particular information technology.

The work of Kim et al. (2006) in a groupware study found that technical support has a direct significant effect on effort expectancy. The study by Ngai, Poon and Chan (2007) supported the prior study, finding that technical support has a direct effect of effort expectancy.

In the field study, respondents stressed that technical and non-technical support, availability of resources and the availability of specific persons for technical support are recognized as characteristics of facilitating conditions and that those played an important role in their adoption of e-Services. In line with the literature, the interviewees mentioned that support services have helped solve issues or overcome difficulties that they faced. For example, Respondent E stated that 'the simulation and user guide are important to help those who don't really understand'.

Based on the discussions presented above, three ensuing hypotheses are suggested as follows:

Hypothesis 5 (H5): *Facilitating conditions positively influence consumers' e-Services usage.*

Hypothesis 6 (H6): *Facilitating conditions positively influence effort expectancy.*

Hypothesis 7 (H7): *Facilitating conditions positively influence outcome expectancy.*

5.2.4 Hypotheses Related to Privacy Concerns

Privacy concerns are the single most frequently mentioned reason why users and non-users of the Internet are discouraged from transacting online (UCLA 2001).

Privacy concerns have a negative effect on behavioural intention (Dinev and Hart 2006a, 2006b; Liao, Liu and Chen 2011). Sheehan and Hoy (2000) reported that, when privacy concern increases, users would likely provide inaccurate and incomplete information. A survey by Brown and Muchira (2004) indicated that privacy concerns have a significant inverse relationship with online purchasing behaviour. Wirtz, Lwin and Williams (2007) also found that increased privacy concerns result in more rejection to purchase online. In this case, consumers become worried about possible loss of privacy because of voluntary information disclosure to e-Services. Consumers are becoming more aware of the power of the Internet to monitor their activities and collect information about them with or without their knowledge and permission (Dinev and Hurt 2004).

Culnan and Armstrong (1999) indicate that customers would be more motivated to continue their relationship with a firm when fair information practice was implemented. It can be observed from Culnan and Amstrong's study that privacy concerns are an important factor that influences motivation. Consumers are not motivated to use e-Services when they are worried about possible loss of privacy regarding their personal information. Similarly, it is known that higher levels of concern over information privacy are expected to a cause lowering of a consumer's motivation to use e-Services.

There was a view arising from the field study that raised privacy concerns, with phrases such as "misuse of personal information", "obtained by unauthorized person", "track and monitor personal information", etc. implying negative impacts on people's use of e-Services. The findings from the field study were that 10 out of 15 respondents emphasized the importance of privacy concerns in a customer's motivation level when using e-Services. Therefore, based on previous literature and the field study findings, hypotheses are proposed as follows:

Hypothesis 8 (H8):   *Privacy concerns negatively influence consumers' behavioural intention to use e-Services*.

Hypothesis 9 (H9):   *Privacy concerns negatively influence consumers' motivation to use e-Services.*

5.2.5 Hypotheses Related to Trustworthiness

This study uses the viewpoint of Belanger, Hiller and Smith (2002) who defined trustworthiness as the perception of a customer's trust in the enterprise providing the services and the technology through electronic transactions via the Internet. In the context of e-Services, a consumer will be more comfortable doing online transactions via e-Services when the Internet employs enough protections. In addition, consumers should feel satisfied that legal and technological infrastructures protect them from difficulties when using e-Services. Trustworthiness could mitigate uncertainty. In other words, an increased level of trust could be followed by increasing levels of customer confidence, and customers would be more likely to expect the outcome. Therefore, trustworthiness could possibly encourage customers' intentions to use e-Services. Such a relationship is consistent with the study conducted by Jarvenpaa, Tractinsky and Vitale (2000) which indicated that a consumer's trust has a direct effect on intention to purchase, in multiple cultures. Gefen and Straub (2003) also argued that higher levels of consumer trust would lead to higher purchasing intentions. The relationship between trustworthiness and behavioural intention, therefore, has a strong basis for being adopted by this study.

Previous researchers in psychology exemplified the positive effects of trustworthiness on motivation (Dirks 1999; Falk and Kosfeld 2004). Zolin, Fruchter and Hinds (2003) believed that trustworthiness moderated the effects of motivation on performance. In the context of e-Service usage, it can be seen that a low level of trustworthiness towards the airline companies will reduce the motivation of consumers to use their e-Services. On the contrary, a higher level of trustworthiness will increase a consumer's motivation to use the e-Services.

In the IS literature, trust has been found to be a determinant of technology acceptance. Pavlou (2003) found that trust has a direct effect on perceived ease of use or effort expectancy. In this study, trustworthiness would reduce the need for customers to monitor the actions of e-Services, or to check every detail of information, and would make transactions via e-Services effortless (Chircu, Davis and Kauffman 2000). For example, the higher the security of the e-Services, the more willing consumers will be to conduct transactions.

Trust is one of the determinants of perceived usefulness (Chircu, Davis and Kauffman 2000; Pavlou 2003; Wu and Chen 2005; Gefen, Karahanna and Straub 2003), especially in the context of an online environment. This is because part of the guarantee that customers will gain from the Web interface depends on the people behind the website (see Gefen, 1997 in Pavlou 2003). In the e-Services context, it can be predicted that customers will gain outcome expectancy from e-Services websites that would depend on the organization behind the e-Services websites. Indeed, an airline company that has a good reputation will tend to provide its best facilities and create innovative improvements for the benefit of its customers.

The field study findings were in line with the literature. All of the respondents stressed that trustworthiness is a concern when they use e-Services. Slyke, Belanger and Comunale (2004) found that trust has a significant relationship with the intention to purchase goods or services from web merchants. Fourteen out of the fifteen respondents indicated that trustworthiness had a positive effect on effort expectancy and outcome expectancy (Pavlou 2003). In addition, all respondents expressed that trustworthiness played an important role in their motivation to use e-Services, which is in line with the work of Falk and Kosfeld (2004) who stated that trust has a positive impact on motivation to perform in a certain context.

Therefore, the following hypotheses are proposed:

Hypothesis 10 (H10): *Trustworthiness positively influences consumers' behavioural intention of using e-Services.*

Hypothesis 11 (H11): *Trustworthiness positively influences consumers' motivation to use e-Services.*

Hypothesis 12 (H12): *Trustworthiness positively influences effort expectancy.*

Hypothesis 13 (H13): *Trustworthiness positively influences outcome expectancy.*

5.2.6 Hypotheses Related to Outcome Expectancy

Outcome expectancy, according to Benbunan and Arbaugh (2006), is the internal force of the individual that initiates usage behaviour. Yang et al. (2007) found that outcome expectancy has a significant influence on intention behaviours. A consumer's intention to use e-Services will be determined by the appeal of using e-Services and the outcome expected by the consumer. Likewise, prior studies have

revealed that increases in outcome expectancy also result in increases in motivation (Harrell and Stahl 1986; Elding, Tobias and Walker 2006). For example, by buying e-tickets via e-Services, consumers could receive products and services without geographical limitations and establish a relationship more quickly with providers (Butler and Peppard 1998). In this case, a consumer can directly access the e-Service systems for searching suitable flights and prices from different airlines. In other words, the vast amount of information available on the Internet is reducing the need to visit a travel agent. Furthermore, consumers who have purchased e-tickets can check their itineraries, without having to phone the travel agents, by entering the code of their reservation online from home, the office or while they are on the road via mobile electronic devices (Frary 2005).

In the field study, all respondents agreed that outcome expectancy played an important role in their use of e-Services, through motivation and intention. Customers are likely to be more motivated to use e-Services when the e-Services provide the benefits or outcomes they expected. For example, customers who already use the airline e-Services will get a range of benefits, such as bundled services with accommodation and/or car rentals. By referring to the findings of the literature and the field study, the following hypotheses have been developed:

Hypothesis 14 (H14): *Outcome expectancy positively influences consumers' behavioural intention to use e-Services*.

Hypothesis 15 (H15): *Outcome expectancy positively influences consumers' motivation to use e-Services.*

5.2.7 Hypotheses Related to Motivation

In the context of this research, motivation is defined as the degree to which a customer is inclined or desires to be engaged in e-Services (Suri, Long and Monroe 2003). The work of Peffers, Santos and Thunner (1998) found that cost saving, faster delivery and improved logistics motivate users to adopt electronic data interchange (EDI). This means that consumers tend to use e-Services because they are driven by their motivation to use them. Without motivation, the intended behaviour to use e-Services would not be executed (Nuttin 1987). A consumer may like to use and keep on using e-Services due to certain beliefs they hold, such as the improvement in

social status it will bring to their social relationships (Miller and Grush 1988; Hsu, Lu and Hsu 2007) and the potential benefits that will be gained for practical business (Smith et al. 2007a). For example, consumers can book and purchase tickets from their home or offices via the Internet without having to physically go to the retail travel agency.

Motivation may more directly affect the use of e-Services (Johnson and Kaye 2003). Individuals who have high motivation to use e-Services will develop the intention to use it and make the effort to do so. For example, a consumer is motivated to use e-Services because of the range of benefits that may be obtained when using them (Smith et al 2007a). He/she also would like to be seen as an expert among his/her friends or colleagues when he/she relates his/her satisfactory experience about using e-Services to others (Smith et al. 2007a). Therefore, he/she would encourage and attempt to persuade his/her friends and colleagues to use e-Services (Suri, Long and Monroe 2003).

Findings from the field study also showed that motivation and intention to use played an important role in the usage of e-Services. All respondents agreed that motivation had influenced their intention to use e-Services. Likewise, 14 out of 15 respondents emphasized the importance of a customer's motivation to use e-Services. In addition, all respondents expressed that they would be interested in continuing using the e-Services.

Therefore, with support of the arguments discussed above, the following hypotheses are proposed:

Hypothesis 16 (H16): *Motivation positively influences consumers' behavioural intention to use e-Services*.

Hypothesis 17 (H17): *Motivation positively influences the use of e-Services*.

5.2.8 Hypothesis Related to Intention to Use

Intention to use is defined as the strength of the consumers' intent to be engaged in e-Services (Davis 1989; Davis, Bagozzi and Warshaw 1989; Venkatesh et al. 2003) while e-Service usage is defined as the consumer's engagement in e-Services (Igbaria 1990; Legris, Ingham and Collerette 2003). The relationship between

behavioural intention and usage is well documented in the literature of technology acceptance (Davis 1989; Davis, Bagozzi and Warshaw 1989; Venkatesh et al. 2003). Intention to use a system can explain a large portion of a user's actual system usage. This intention has been studied in the context of TRA (Ajzen 1975). Likewise, the link between intention to use and behavioural usage is well established (Ajzen 1991; Taylor and Todd 1995) and both variables could be used to measure technology acceptance. In the e-Services context, it can be asserted that a consumer, who has been using e-Services, was influenced by the intention (plan) to use it.

The results from the interviews were in line with the literature. There was a general agreement among the interviewees that they would like to shift from travel agents to online services. Therefore, the following hypothesis is proposed:

Hypothesis 18 (H18):   *Intention to use has a significant positive influence on e-Services usage.*

5.2.9 Hypotheses Related to Moderating Factors

In addition to the nine main factors, three moderating factors have been included in the study. These are age, experience and geographical area. The hypotheses regarding these three moderating factors were developed on the basis of the literature as discussed in Chapter 2.

5.2.9.1 Hypothesis Related to Age

The literature suggests that gaining a better understanding of age differences is important, particularly in the relationship between user acceptance and usage of new information technologies. In most technology-led markets, early users of new products of IT are commonly thought to be the young. Prior researchers found age group discrepancies within internet usage (Eastman and Iyer 2004; Dickinson and Gregor 2006; Nayak et al. 2006; Reisenwitz et al. 2007; McMurtrey, McGaughey and Downey 2008) and electronic commerce (Iyer and Eastman 2006). The expectation of this study is that people are less interested in using e-Services as they grow older because of physical complications when using new technologies. One of the well-known changes associated with aging is the loss of resolving power of the visual system: older people are unable to distinguish visual stimuli as easily as their

younger counterparts (Kline and Schieber 1982). Therefore, this study proposes the hypothesis, as follows:

Hypothesis 19 (H19): *Greater age has a significant moderating effect on consumers' e-Services usage.*

5.2.9.2 Hypothesis Related to Experience

Many researchers note that experience using the Internet has an important influence on whether or not people purchase items online (Bellman, Lohse and Johnson 1999; Lohse, Bellman and Johnson 2000; Miyazaki and Fernandez 2001; Slyke, Comunale and Belanger 2002). The reason for this is most probably because people who have been using the Internet for longer periods tend to have better skills in performing a variety of online activities, especially in using search capabilities of the Internet and shopping engines (for example: Google, Yahoo, eBay and Amazon) to identify shopping opportunities and compare product prices (Kwan 2001). Lennon et al. (2007) found that prior experience is positively related to online adoption. Accordingly, the following hypothesis is formulated:

Hypothesis 20 (H20): *Lack of experience in use of the Internet has a significant moderating effect on consumers' e-Services usage.*

5.2.9.3 Hypothesis Related to Geographical Area

According to Hammond (1997), non-metropolitan citizens are expected to lag behind metropolitan citizens in using IT, despite the different advantages the technologies offer to the residents of geographically isolated communities. Access to high-speed, broadband networks is more limited in non-metropolitan than in metropolitan areas. Dillman, Beck and Allan (1989) also suggest that residents who live in non-metropolitan areas provide more emphasis on tradition rather than innovation, and the localised orientations they have are likely to result in resistance to ideas imposed from outside the community. This culture of resistance would be expected to persist as a barrier to the adoption and use of IT. In addition, Ren and Kwan (2009) found that geographic context is an important influence on e-Shopping behaviours. Also, it could be expected that non-metropolitan citizens tend to be less interested in using e-Services than metropolitan citizens because, it has been revealed, they are more comfortable with face-to-face meetings (Choudrie,

Weerakkody and Jones 2005) when they would like to buy tickets. Therefore, they are more likely to go to a retail travel agent.

Following the above discussion, a hypothesis is proposed as follows:

Hypothesis 21 (H21):   *Geographical isolation has a significant moderating effect on consumers' e-Services usage.*

5.3 Summary of Developed Hypotheses

Based on the final model, overall, 21 hypotheses were proposed to describe the relationships that have been developed. The final model consists of the constructs and items explored from both literature and the field study. Figure 5.1 is presented to illustrate the hypotheses. In addition, Table 5.1 presents all the hypotheses developed above.

Table 5.1 Summary of Hypotheses Statements

Construct	Hypotheses	Path	Hypotheses Statement
Effort expectancy	H1	EE → IU	Effort expectancy positively influences consumers' behavioural intention to use e-Services.
	H2	EE → MT	Effort expectancy positively influences consumers' motivation to use e-Services.
Social influence	H3	SI → IU	Social influence positively consumers' behavioural intention to use e-Services.
	H4	SI → MT	Social influence positively influences consumers' motivation to use e-Services.
Facilitating conditions	H5	FC → EU	Facilitating condition positively influences consumers' e-Services usage.
	H6	FC → EE	Facilitating condition positively influences effort expectancy.
	H7	FC → OE	Facilitating condition positively influences outcome expectancy.
Privacy concerns	H8	PC → IU	Privacy concerns negatively influences consumers' behavioural intention to use e-Services
	H9	PC → MT	Privacy concerns negatively influences consumers' motivation to use e-Services.
Trustworthiness	H10	TW → IU	Trustworthiness positively influences consumers' behavioural intention to use e-Services.
	H11	TW → MT	Trustworthiness positively influences consumers' motivation to use e-Services.
	H12	TW → EE	Trustworthiness positively influences effort expectancy.
	H13	TW → OE	Trustworthiness positively influences outcome expectancy.

Table 5.1 Continued

Construct	Hypotheses	Path	Hypotheses Statement
Outcome expectancy	H14	OE → IU	Outcome expectancy positively influences consumers' behavioural intention to use e-Services.
	H15	OE → MT	Outcome expectancy positively influences consumers' motivation to use e-Services.
Motivation	H16	MT → IU	Motivation positively influences consumers' behavioural intention to use e-Services.
	H17	MT → EU	Motivation positively influences the use of e-Services.
Intention to use	H18	IU → EU	Intention to use has a significant positive influence on e-Services usage
Age	H19	-	Greater age has a significant moderating effect on consumers' e-Services usage.
Experience	H20	-	Lack of experience in use of the Internet has a significant moderating effect on consumers' e-Services usage.
Geographical area	H21	-	Geographical isolation has a significant moderating effect on consumers' e-Services usage.
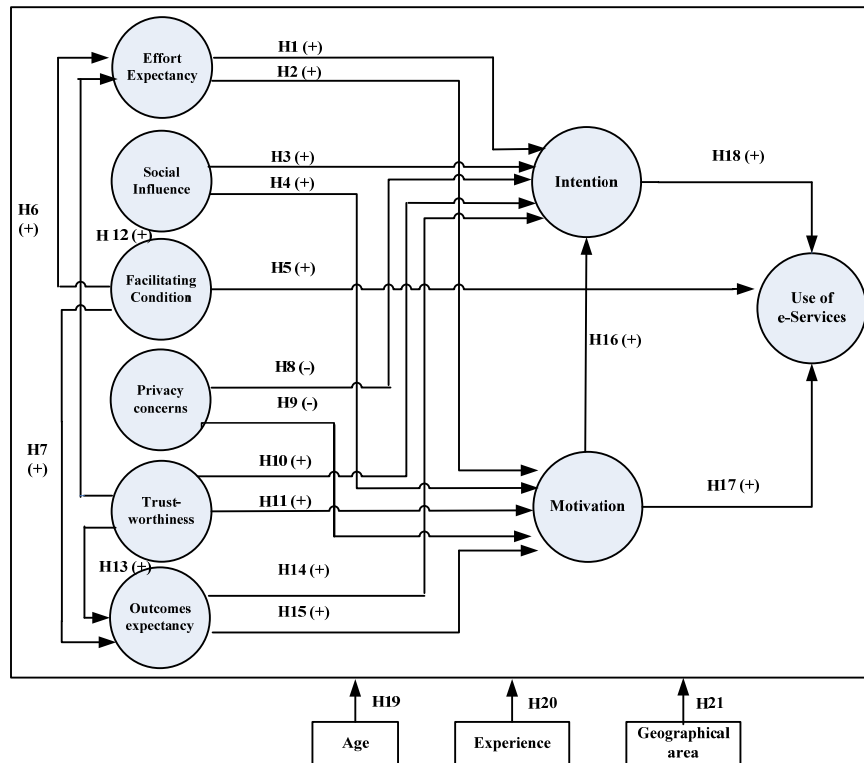
Figure 5.1 Research Model for Testing of Hypotheses

5.4 Questionnaire Development

The questionnaire for the main phase of the present study was developed on the basis of the final research model, as a result of the verification process via the field study. As can be seen, there are nine constructs and fifty-two items. A six-point Likert type scale, ranging from 'Strongly Disagree' to 'Strongly Agree' was used.

5.4.1 The E-Services Usage Questionnaire

The questionnaire consists of two parts. The first part focuses on measuring the influencing factors in e-Services usage. There are nine sections in the first part. Sections 1 to 6 ask respondents to provide their opinions on the factors that influence customers to use Indonesian airline e-Services. These are effort expectancy, privacy concerns, trustworthiness, social influence, outcome expectancy and facilitating conditions. Sections 7 and 8 asked respondents to rate their level of motivation and intention to use the e-Services. Section 9 is concerned with the use of e-Services.

The second part focuses on the demographic backgrounds of the respondents. Coded as Section 10, it asks the respondents to complete information about their backgrounds. These are thirteen categorical questions covering items such as location in the use of the e-Services, frequency of airline usage, gender, age, education level, education background, occupation, income, domicile, availability of Internet accesses at home, daily Internet usage, Internet experience and frequency of online transactions via the Internet.

To maintain consistency in the understanding of e-Services, an introduction page was provided in the questionnaire to highlight the objective of this study and to emphasize privacy and confidentiality of the respondents' answers. It was made clear that the information would be used solely as data for the research. For clarification, the definition of an e-Service was given to provide a clearer picture of the research topic. In addition, respondents were urged to keep in mind which airline's e-Services they mostly used when they answered sections 1-8. Finally, two procedures were performed to control for common method bias and increase the reliability of the measurement on the constructs: (a) the design of the study's procedures and (b) statistical controls (Podsakoff et al. 2003). For the procedural control, some

techniques have been adopted in this study such as improving scale items, providing specific wording and format questions, protecting respondents' anonymity and reducing evaluation apprehension. To secure the confidence of the respondents, one method is to allow the respondents' answers to be anonymous. Another is to assure respondents that there are no right or wrong answers (Podsakoff et al. 2003). One more is that the survey did not include any tracking codes so that it would be impossible for the researcher to find and compare the responses. For the statistical control, this study adopted a partial correlation procedure, as presented in Section 6.2.5.

5.4.2 Measurement Development of Questionnaire Items

This section presents the development of the measuring items of the questionnaire based on the final research model. As indicated in Figure 5.1, the final model of this study comprises nine constructs, namely: effort expectancy, social influence, facilitating conditions, privacy concerns, trustworthiness, outcome expectancy, motivation, intention to use and e-Service usage. These constructs must be operational so as to enable the researcher to measure them (Zikmund and Babin 2007). The items were extracted from previous theories and empirical studies in the relevant literature, as well as findings from the field study. The following section describes the details of the variables and measures for each construct.

The final questionnaire is shown in Appendix E (English version) and Appendix F (Indonesian Version). This questionnaire was then subjected to the ethics approval process at Curtin University and approval was obtained (GSB-11-09; 14 September 2009).

5.4.2.1 Effort Expectancy

In Sections 2.5.1, 4.4.4.1 and 5.2.1, effort expectancy has been demonstrated to have an effect on e-Service usage through motivation and intention. Effort expectancy reflects customers' perceptions of the ease of use in airline e-Services. In this study, effort expectancy is measured using seven items. Three items were generated from previous literature and strengthened by the field study. The rest of the four items

were adopted from the field study. Table 5.2 details the measurement items and their related references for effort expectancy.

Table 5.2 Measurement Items Related to Effort Expectancy

Code	Item	Measurement	Source/References
EE1	Ease of use	The airline e-Services are easy to use.	(Davis 1989; Davis, Bagozzi and Warshaw 1989; Moore and Benbasat 1991; Venkatesh et al. 2003); Field study
EE2	Understandability	My interaction with airline e-Services is clear and understandable.	(Davis 1989; Davis, Bagozzi and Warshaw 1989; Moore and Benbasat 1991; Venkatesh et al. 2003); Field study
EE3	Ease to learn	The airline e-Services are generally considered easy to be learned among consumers.	(Davis 1989; Moore and Benbasat 1991); Field study
EE4	Simple language	The airline e-Services are presented in simple language.	Field study
EE5	Simple instructions	The airline e-Services are presented in clear steps.	Field study
EE6	Usefulness	The airline e-Services are very useful for consumers.	Field study
EE7	Comprehensive information	The airline e-Services provide comprehensive information.	Field study

5.4.2.2 Social Influence

To measure the construct of social influence, five items were proposed. It is interesting to note that all of these items have been finalised based on the findings from the field study. The main references are Davis et al. (1989), Ajzen (1991), Thompson, Higgins and Howell (1991) and Moore and Benbasat (1991), while other supporting pervious empirical studies are Mathieson (1991), Taylor and Todd (1995) and Venkatesh et al. (Venkatesh et al. 2003). Table 5.3 shows the five items and the references for the social influence factor.

Table 5.3 Measurement Items Related to Social Influence

Code	Item	Measurement	Source/References
SI1	Persuasion	My colleagues persuade me to use the airline e-Services.	(Ajzen 1991; Davis, Bagozzi and Warshaw 1989; Mathieson 1991; Taylor and Todd 1995; Venkatesh et al. 2003); Field study
SI2	Support	My supervisor/boss supports me to use the airline e-Services.	(Thompson, Higgins and Howell 1991; Venkatesh et al. 2003); Field study

Table 5.3 Continued

Code	Item	Measurement	Source/References
SI3	Encouragement	My friends encourage me to use the airline e-Services.	(Ajzen 1991; Davis, Bagozzi and Warshaw 1989; Mathieson 1991; Taylor and Todd 1995; Venkatesh et al. 2003); Field study
SI4	Prestige	It is more prestigious for me to use the airline e-Services.	(Moore and Benbasat 1991); Field study
SI5	Inspiration	Airline passengers inspire me to use the airline e-Services.	(Ajzen 1991; Davis, Bagozzi and Warshaw 1989; Mathieson 1991; Taylor and Todd 1995); Field study

5.4.2.3 Facilitating Conditions

As mentioned earlier (see Sections 2.5.3 and 4.4.4.3), the construct of facilitating conditions deals with customer beliefs that organizational and technical infrastructure exist to support e-Service usage (Venkatesh et al. 2003; Ajzen 1991; Thompson, Higgins and Howell 1991). This factor is measured based on three items. The following table (5.4) shows the measurement statements and their references.

Table 5.4 Measurement Items Related to Facilitating Conditions

Items	Variable	Measurement	Source/References
FC1	Technical and non-technical support	There is a technical infrastructure supporting the use of the airline e-Services.	(Ajzen 1991; Taylor and Todd 1995); Field study
FC2	Availability of resources	Resources are available for tutorial and technical supports.	(Thompson, Higgins and Howell 1991); Field study
FC3	Availability of specific persons for assistance	Call centres, on-line help or chat facilities are available for assistance when problems occur when using the airline e-Services.	(Thompson, Higgins and Howell 1991; Venkatesh et al. 2003); Field study

5.4.2.4 Privacy Concerns

As has been mentioned before, there are three items related to privacy concerns (Dinev and Hart 2004, 2006a, 2006b). The results of the field study have strengthened these items. Table 5.5 shows the three items used to measure the influence of privacy concerns on e-Service usage.

Table 5.5 Measurement Items Related to Privacy Concerns

Code	Item	Measurement	Source/References
PC1	Misuse	Personal information submitted to the airline e-Services system could be misused.	(Dinev and Hart 2004, 2006a, 2006b); Field Study
PC2	Retrieval by unauthorized persons	Consumers' personal information within the airline e-Services can be easily retrieved by an unauthorized person.	(Dinev and Hart 2004, 2006a, 2006b); Field Study
PC3	Monitoring by somebody	When using airline e-Services, actions taken by customers can be easily monitored.	(Dinev and Hart 2004, 2006a, 2006b); Field Study

5.4.2.5 Trustworthiness

The construct of trustworthiness for this study is measured by the subtly different concepts of trust and trustworthiness. There are five items to measure trustworthiness. The first three items (TW1-TW3) were adopted from previous research (Jarvenpaa, Tractinsky and Vitale 2000; Belanger, Hiller and Smith 2002; Gefen and Straub 2003; Pavlou 2003; Carter and Belanger 2005) supported by the findings from the field study. The remaining two items (TW4 and TW5) were derived from the results of the field study and supported by previous studies. Table 5.6 shows survey items related to trustworthiness.

Table 5.6 Measurement Items Related to Trustworthiness

Code	Items	Measurement	Source/References
TW1	Trust of e-Services	The airline e-Services are dependable.	(Pavlou 2003; Gefen and Straub 2003; Carter and Belanger 2005); Field study
TW2	Trust of company	The company that provides airline e-Services is reliable.	(Carter and Belanger 2005); Field study
TW3	Trustworthiness	The airline e-Services are trustworthy.	(Jarvenpaa, Tractinsky and Vitale 2000; Belanger, Hiller and Smith 2002; Pavlou 2003; Carter and Belanger 2005); Field study
TW4	Guarantee of security of data	The airline e-Services provide secure systems for consumers' data.	(Belanger, Hiller and Smith 2002; Pavlou 2003); Field study
TW5	Guarantee of validity of data	The airline e-Services generate valid data.	(Belanger, Hiller and Smith 2002; Pavlou 2003); Field study

5.4.2.6 Outcome Expectancy

Outcome expectancy reflects the influence of a customer's outcome expectations toward their usage of e-Services. This construct is measured based on ten items, two from the existing literature and eight from the field study. Table 5.7 shows the ten items representing the construct of outcome expectancy.

Table 5.7 Measurement Items Related to Outcome Expectancy

Items	Variable	Measurement	Source/References
OE1	Most suitable flight and price	It is possible to get the most suitable flight schedule and price via the airline e-Services.	Field study
OE2	More efficiency	Buying tickets using the airline e-Services is cheaper.	Field study
OE3	Increasing status	Utilizing the airline e-Services leads to better self-image for users.	(Miller and Grush 1988; Compeau, Higgins and Huff 1999); Field study
OE4	Loyalty	The airline e-Services appreciate/reward their loyal customers.	Field study
OE5	Ease of payment	The airline e-Services provide an easy payment method.	Field study
OE6	Valid information	The airline e-Services provide valid updated information.	Field study
OE7	Speed to get a ticket	To get tickets via the airline e-Services is faster.	(Miller and Grush 1988; Compeau, Higgins and Huff 1999); Field study
OE8	Quickness to get a seat	To get seats by using the airline e-Services is quicker.	Field study
OE9	Affiliation with hotel and car rental	The airline e-Services are equipped with accommodation and/or car service booking facilities.	Field study
OE10	Booking without payment	The airline e-Services offer a ticket-booking facility without immediate payment.	Field study

5.4.2.7 Motivation

The construct of motivation deals with how customers are motivated to use the e-Services. This construct is based on the literature and the field study. The first two items were adopted from Smith et al. (2007). The third measurement item was adopted from Suri, Long and Monroe (2003). Those items were then coupled with the results of the field study. The following table (5.8) shows the measurement statements and their references for the construct of motivation in the questionnaire.

Table 5.8 Measurement Items Related to Motivation

Items	Variable	Measurement	Source/References
MT1	Benefit	I am motivated to use the airline e-Services because of its range of benefits.	(Smith et al. 2007a); Field study
MT2	Expertise	I am motivated to use the airline e-Services as I will be seen as an expert among my friends and colleagues.	(Smith et al. 2007a); Field study
MT3	Persuasion for somebody to use	I will persuade my friends and colleagues to use the airline e-Services.	(Suri, Long and Monroe 2003); Field study

5.4.2.8 Intention to Use

Four items were developed to measure the construct of intention to use the e-Services. As this construct is an integral component of a TRA or TPB or TAM or UTAUT based model, there are many measures available. For this study, items IU1-IU2 were adopted from the work of Pavlou and Fygenson (2006) and Venkatesh et al. (2008), while item IU3 was adopted from the work of Shih and Fang (2004). The last item, IU4, was derived from the field study. Table 5.9 details the variables, measurement statements and related references used in the questionnaire.

Table 5.9 Measurement Items Related to Intention to Use

Items	Variable	Measurement	Source/References
IU1	Intent to purchase	I intend to purchase e-tickets via airline e-Services in the very near future.	(Venkatesh et al. 2008; Pavlou and Fygenson 2006)
IU2	Plan to purchase	I plan to purchase e-tickets via airline e-Services in the very near future.	(Venkatesh et al. 2008; Pavlou and Fygenson 2006)
IU3	Adding favourite links	I will add the airline e-Services to my favourite links.	(Shih and Fang 2004)
IU4	Shift from travel agent to online transaction	I have shifted from travel agents to online ticket transactions.	Field study

5.4.2.9 E-Services Usage

The e-Services usage construct refers to the utilization of e-Services by customers. Twelve items are used to measure this construct. Item EU1 and EU2 were adopted from Venkatesh et al. (2008). For items EU3 to EU12, which were adopted from

Pikkarainen et al. (2004), the respondents are asked to mention how often they perform various actions by use of a six-point Likert type scale, ranging from 'Almost Never' to 'Almost Always'. Table 5.10 presents the items and related references used in the questionnaire development for the e-Services usage construct.

Table 5.10 Measurement Items Related to E-Services Usage

Items	Variable	Measurement	Source/References
EU1	Number of separate usages	Average e-Services usage	(Venkatesh et al. 2008; Pavlou and Fygenson 2006)
EU2	Number of transactions	The average number of transactions each time using e-Services	(Venkatesh et al. 2008; Pavlou and Fygenson 2006)
EU3	Browsing flight info	How often to browse flight info	(Pikkarainen et al. 2004); Field study
EU4	Notice of ticket prices	How often to notice ticket prices	(Pikkarainen et al. 2004); Field study
EU5	Finding ticket sales	How often to find ticket sales	(Pikkarainen et al. 2004); Field study
EU6	Finding tour sales	How often to find tour sales	(Pikkarainen et al. 2004); Field study
EU7	Booking online	How often to book online	(Pikkarainen et al. 2004); Field study
EU8	Paying online	How often to pay online	(Pikkarainen et al. 2004); Field study
EU9	Printing e-ticket	How often to print e-tickets	(Pikkarainen et al. 2004); Field study
EU10	Checking-in online	How often to check-in online	(Pikkarainen et al. 2004); Field study
EU11	Viewing seat	How often to view seats	(Pikkarainen et al. 2004); Field study
EU12	Seeking general information	How often to seek general information	(Pikkarainen et al. 2004); Field study

5.4.3 Back Translation and Focus Group Discussion

Since the original instruments were written in English, the survey questionnaire needed to be translated to Bahasa Indonesia before it was administered in Indonesia. This research follows Brislin's (1993) decentring procedure by using back translation to maintain translation equivalence. By so doing, concepts that survived from the back-translation process were considered as *etic* items, while those that were not translated well, or became lost, were deemed as *emic* aspects (Brislin, 1993).

This procedure involved, firstly, the original questionnaire being translated from English into Bahasa Indonesia by the researcher. This stage aimed to produce a natural and native Indonesian for the questions so that *emic* words and concepts were

matched with the closest notions in Bahasa Indonesia. In the next step, the questionnaire in Bahasa Indonesia was examined and translated back to English by two recognized bilinguals who were native English speakers and who were proficient in Bahasa Indonesia. With careful examination of *emic* items, as well as addressing a few concerns in the procedure, the translation was finally deemed to be reasonable.

A focus group discussion (FGD) was conducted to tentatively evaluate the quality of the research questionnaire. The objective was to identify potential weaknesses, such as question ambiguity and scale format. It was also used to confirm that the estimated time required to complete the questionnaire was acceptable and that the questions were suitable for the intended respondents. The participants of the FGD formed a convenient sample of five Indonesian Ph.D. students in Western Australia who were familiar with Indonesian airline e-Services. The participants were contacted by telephone to participate in the FGD. Table 5.11 presents demographic information of the participants of the FGD.

Table 5.11 Participants of the FGD

Initial name	Campus	Age (years old)	Work experience	Internet Usage
GP	Curtin University	48	Lecturer and researcher	High
GW	University of Western Australia	43	Lecturer and researcher	High
FRC	Curtin University	31	Lecturer and researcher	High
IY	University of Western Australia	31	Lecturer and researcher	High
YGH	University of Western Australia	42	Lecturer and researcher	High

Feedback obtained from the FGD indicated that the research instrument was easy to understand and no significant difficulties were found in answering the questionnaire. However, useful criticisms and suggestions were obtained to refine the questionnaire. For example, in the first part in section five, there was a revision: "When using airline e-Services, actions taken by customers can be easily monitored by somebody else", instead of "When using airline e-Services, actions taken by customers can be easily monitored". Finally, the questionnaire was improved based on the results of the FGD. It was revised and validated once again in the following pilot test.

5.5 Pilot Study

The pilot test provides technical validation by serving as a dry-run for the real main survey (Straub 1989). Cooper and Emory (1998) suggested the size of a pilot sample to be approximately 25 to 100, depending on the method used. As mentioned in Section 3.4.3.2, combined non-probability sample design (convenience, purposive and snowball sampling) was used to select the respondents. The draft questionnaire, which was in Bahasa Indonesia, was given to the potential respondents. Initially, the researcher contacted the nominated contact persons who lived in different cities. The contact persons then distributed the questionnaire within their organizations and private residences. The contact persons were asked to clarify with the respondents that they must have already used Indonesian airline e-Services. Finally, the contact persons were responsible for collecting the completed questionnaires and then sending them back to the researcher.

A total of 100 questionnaires were distributed in this pilot study. They were distributed to a variety of respondents in terms of gender, age, education level and background, occupation, domicile, their use of the Internet, their Internet and online transaction experience, and the place most frequently visited for e-Services usage. Respondents who had not used Indonesian airline e-Services were not included in the sample. Participation was voluntary, with the reward of a summary of the research results for those who responded and requested a copy.

Fifty-nine questionnaires were returned, and they were all found to be complete and were ready to be analysed. The results of the empirical pilot study showed that the draft research instrument worked properly. In addition, reliability tests were used to analyse the data collected from the pilot study.

5.5.1 Demographic Information of Pilot Study

The subjects of the instrument try-out were 59 persons designated to represent the real subjects in the main survey. Table 5.12 presents the details of the demographic information of the respondents.

Table 5.12 Background Information of Respondents

Demographic Aspects	Value	Number	Percentage
Indonesian airline e-Services	Public airline A	20	33.9
	Public airline B	2	3.4
	Private airline A	21	35.6
	Private airline B	6	10.2
	Private airline C	4	6.8
	Private airline D	6	10.2
Gender	Male	30	50.8
	Female	29	49.2
Age	<20	3	5.1
	20+ to 30	21	35.6
	30+ to 40	27	45.8
	40+ to 50	6	10.2
	50+ to 60	2	3.4
	>60	0	0
Education level	High school or equivalent	5	8.5
	Diploma	3	5.1
	Bachelor degree	31	52.5
	Master degree	15	25.4
	Doctoral degree	5	8.5
	Professional degree	0	0
Educational background	Science and Engineering	19	32.2
	Arts, Social and Humanities	7	11.9
	Health	6	10.2
	Business	21	35.6
	Law	0	0
	Education	3	5.1
	Others	3	5.1
Occupation	Manager/Director	5	8.5
	General staff	14	23.7
	Teacher/Lecturer	24	40.7
	Student	7	11.9
	Programmer/IT Specialist	2	3.4
	Professional	5	8.5
	Housewife	1	1.7
	Entrepreneur	1	1.7
Income per month	Less than Rp. 2,500,000	23	39.0
	Rp. 2,500,000 to Rp. 5,000,000	24	40.7
	Rp. 5,000,001 to Rp. 10,000,000	9	15.3
	Rp. 10,000,001 to Rp. 15,000,000	0	0
	Rp. 15,000,001 to Rp. 20,000,000	2	3.4
	More than Rp. 20,000,000	1	1.7
Residence area	Metropolitan	25	42.4
	Non-metropolitan	34	57.6
Internet connection availability (at home)	Yes	39	66.1
	No	20	33.9
Use of the Internet	Mandatory	36	61.0
	Voluntary	23	39.0
Duration of Internet experience	< 1 year	1	1.7
	1 – 3 years	9	15.3
	3 – 6 years	27	45.8
	> 6 years	22	37.3

Table 5.12 Continued

Demographic Aspects	Value	Number	Percentage
Use of online transactions via the Internet	Never	6	10.2
	1 - 3 times a month	22	37.3
	4 - 6 times a month	20	33.9
	> 6 times a month	1	1.7
	1 – 11 times a year	10	16.9
Airline e-Services usage	At work	33	55.9
	At home	14	23.7
	At campus/school	7	11.9
	In an internet café	2	3.4
	In a library	0	0
	In friend's/family's place	1	1.7
	Everywhere via mobile devices	1	1.7
	In another place	1	1.7

With regards to the respondents' frequencies of use of Indonesian airline e-Services, 20 persons (33.9%) used public airline A, 2 persons (3.4%) public airline B, 21 persons (35.6%) private airline A, 6 persons (10.2%) private airline B, 4 persons (6.8%) private airline C and 6 persons (10.2%) private airline D.

The respondents were 30 (50.8%) males and 29 (49.2%) females. In terms of age, 3 persons (5.1%) were under 20 years of age, 21 persons (35.6%) were between 20 and 30, 27 persons (45.8%) were between 30 and 40, 6 persons (10.2%) were between 40 and 50, and 2 persons (3.4%) were between 50 and 60.

In terms of education levels, there were 5 persons (8.5%) who had an education level of high school or equivalent and 3 persons (5.1%) who had an education level of diplomas. Thirty-one persons (52.5%) were holders of a bachelor degree, 15 persons (25.4%) were holders of a master degree, and 5 persons (8.5%) were holders of a doctoral degree. Of the respondents' educational backgrounds, 19 persons (32.2%) were from science and engineering, 7 persons (11.9%) were from arts, social sciences and/or humanities, 6 persons (10.2%) were from health, 21 persons (35.6%) were from business, 3 persons (5.1%) were from education and 3 persons (5.1%) were from other backgrounds.

In terms of occupation, 5 persons (8.5%) were company managers or directors, 14 persons (23.7%) were general staff, 24 persons (40.7%) were teachers or lecturers, 7 persons (11.9%) were students, 2 persons (3.4%) were programmers or IT specialists, 5 persons (8.5%) were professional consultants, 1 person (2%) was a housewife, and

1 person (1.7%) was an entrepreneur. Twenty-three persons (39.0%) reported a monthly income of less than Rp. 2,500,000; 24 persons (40.7%) earned between Rp. 2,500,001 to Rp. 5,000,000; 9 persons (15.3%) between Rp. 5,000,001 to Rp. 10,000,000; 2 persons (3.4%) between Rp. 15,000,001 to Rp. 20,000,000; and 1 person (1.7%) earned more than Rp. 20,000,000.

Of the 59 respondents, 25 persons (42.4%) lived in metropolitan areas and 34 persons (57.6%) in non-metropolitan areas. Thirty-nine persons (66.1%) reported to have Internet connection available at home. The remaining 20 persons (33.9%) did not. Thirty-six persons (61.0%) stated that their Internet use was mandatory while the remaining 23 persons (39.0%) stated that their Internet use was voluntary. In the duration of Internet experience, 1 person (1.7%) had less than 1 year, 9 persons (15.3%) had between 1 and 3 years, 27 persons (45.8%) had between 3 and 6 years and 22 persons (37.3%) had more than 6 years. In addition, 6 persons (10.2%) had never used online transactions, 22 persons (37.3%) had used online transactions 1 to 3 times per month, 20 persons (33.9%) 4 to 6 times per month, 1 person (1.7%) more than 6 times per month and 10 persons (16.9%) 1 to 11 times per year. Finally, with regards to place where the e-Services were used, 33 persons (55.9%) used the e-Services at work, 14 persons (23.7%) at home, 7 persons (11.9%) at campus or school and 2 persons (3.4%) at Internet cafes. None of the respondents used the e-Services in a library and one each (1.7%) used a friend or family's place, mobile devices and some other place.

5.5.2 Reliability Tests for the Instrument

The instrument pilot study was undertaken specifically to measure the internal consistency of the scale. An assessment based on Cronbach's alpha statistics (Straub 1989) was conducted using the SPSS computer software. Table 5.13 shows the results of the reliability analysis of all constructs.

Table 5.13 Reliability Analysis Results of Pilot Test

No.	Constructs	Cronbach's Alpha (α)
1	Effort expectancy	0.872
2	Privacy concerns	0.816
3	Trustworthiness	0.686
4	Social influence	0.725
5	Outcome expectancy	0.779
6	Facilitating conditions	0.853
7	Motivation	0.593
8	Intention to use	0.863
9	e-Services usage	0.826

The above table indicates that 7 of the 9 constructs exceeded the 0.7 score benchmark in which effort expectancy, privacy concerns, social influence, outcome expectancy, facilitating conditions, intention to use and e-Services usage showed the alpha values of 0.872, 0.816, 0.725, 0.779, 0.853, 0.863 and 0.826, respectively. The two constructs having an alpha value below 0.7 were trustworthiness and motivation, these being 0.686 and 0.593, respectively. However, a Cronbach's alpha higher than 0.5 is generally acceptable for explanatory research (Sood and Nasu 1995; Hirsch and Baxter 2011). Furthermore, the work of Hulland (1999) suggests that low item reliability might be due to inappropriate wording and/or translation. Therefore, some revisions were made to clarify the items in the constructs of trustworthiness and motivation. Finally, other minor corrections were undertaken for the research instrument to be used in the main survey. For example, based on the feedback from the small-sample survey, in the first part of section nine, additional activities were added to the airline e-Services. In the tentative questionnaire, the researcher provided the choice of "others" with respondents writing in the space provided. In this way, appropriate activities that had not yet been covered were obtained. As a result, the list was revised as ten instead of seven activities in order to make the questionnaire more comprehensive for the final respondents. The three additional activities were searching ticket prices, looking for tourism promotions and browsing for seat availabilities. The complete final version of the questionnaire can be seen in Appendix E.

5.6 Summary

This chapter presented two discussions related to the pilot study: the final research model and the instrument design. Firstly, to describe relationships among the constructs as indicated in the final research model, twenty-one hypotheses were developed. Eighteen of the research hypotheses were developed based on the literature review and the results of the field study. The last three hypotheses were developed based only on the existing literature.

Secondly, to develop the final version of the research instrument, three steps were conducted. In the first step, the draft of the questionnaire was subjected to back-translation processes. This resulted in the questionnaire draft in Bahasa Indonesia. In the second step, a focus group discussion involving five selected participants was conducted to verify the quality of the questionnaire. After being revised, the second version of the questionnaire was obtained. In the third step, the second version of the questionnaire was tested in an empirical pilot study involving 59 respondents. The obtained data were subjected to Cronbach alpha analyses yielding measures of the internal consistency of the questionnaire (Table 5.13 above). After undergoing a minor revision, i.e. the addition of three activities to the list of airline e-Services, the questionnaire attained its final version with fifty-two items and was ready to be used in the main survey.

Chapter 6 Data Analysis[*]

6.1 Introduction

The purpose of this chapter is to present the analysis and results of the nation-wide survey. The first section reports the administering of the survey. This is followed by demographics and descriptive statistics. The next section provides data examination and analysis. The final part discusses the results of the testing of hypotheses.

6.2 Administering of the National Customer Survey

The national customer survey was the main data collection phase in the study. Using the final version of the questionnaire, a national sample of 819 respondents took part. Data collection techniques were of mixed modes. The following presents details of the data collection.

6.2.1 The Questionnaire

The questionnaire consisted of fifty-two items divided into nine sections, corresponding to the nine constructs in the research model, plus one additional section related to demographic information. It commenced with an introduction of what the questionnaire was about and directions on how to respond to the items.

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[*] Part of this chapter was presented at the following conference, in:

Urumsah, D., M. Quaddus, and J. Galbreath. 2011. An Investigation into the Factors Influencing Consumers to Use E-Services of Indonesian Airlines: The Role of Motivation. In *The 19th European Conference on Information Systems (ECIS)*, Aalto University, Helsinki, Finland, 9 – 11 June.

6.2.2 Sampling

A combination of convenience, purposive and snowball sampling techniques was employed to collect the data. Convenience and purposive sampling were performed to select respondents who had used Indonesian airline e-Services while excluding those who had not. Snowball sampling was used by starting with the small number of selected respondents and using their recommendations to increase the final number of respondents.

6.2.3 Data Collection Technique

The data collection method in this study employed mixed modes, using paper and web media over a period of almost four months. The reason for this is that mixed mode surveys can provide wider sample coverage (Yun and Tumbro 2000). In addition, the web-based survey offers a faster reaction time than paper-based surveys (Schaefer and Dillman 1998). The paper-based questionnaire was administered to 900 respondents. The questionnaire was distributed by contact persons. More contact persons were engaged to collect the data for this survey (three to five persons in each city) compared to the small-sample survey (one person in each city). The survey was carried out in several airports and organizations as well as private residencies. The contact persons conducted an initial inquiry to clarify whether a participant had used any Indonesian airline e-Services. Participation was voluntary with a reward in the form of souvenirs and a summary of research results if requested.

The researcher administered another web-based survey by sending e-mails. The sample was gathered from the Consulate General of Indonesia in Perth, Western Australia. Convenience sampling was used to select 75 Indonesians who were returning to Indonesia from Perth, either students who had finished their studies or Indonesian employees who had finished their job contracts. The e-mail contained a greeting and the invitation to complete the questionnaire via the website. A short explanation of who could participate also was provided. The information included whether the respondents had already used any Indonesian airline e-Services before. A reward of a flight ticket was promised, by way of a draw, and a summary of research results was provided for those who requested one. In addition, the researcher asked the respondents who had completed the questionnaire to spread the

word to their friends, relatives or colleagues, in private, via e-mail or other contact media such as online chatting or short messaging via social network systems. The website questionnaire was available for the respondents for around two months.

6.2.4 Response Rate

From 900 paper-based questionnaires distributed, a total of 780 were returned. From the 780 questionnaires returned, 12 responses were discarded. Among these 12 responses, three responses were found to be inappropriate since the respondents were non-users and nine responses were rejected since the respondents had not completed all items. Therefore, only 768 were used in this study. From the 75 questionnaires distributed via e-mail, 51 questionnaires were completed. This resulted in a final sample of 819 usable responses from the paper-based and web-based questionnaires, which equates to an 84% effective response rate. This response rate can be considered very satisfactory since it was well above a benchmark of 30% put forth by Cooper and Emory (1998).

6.2.5 Non-Response Bias Assessment

In this study, non-response bias assessment was conducted by comparing earlier respondents and later respondents of the paper-based survey to see whether or not the responses had characteristics that were close to those of respondents who did not respond at all (Smith 1983; Grover, Lee and Durand 1994; Goode and Stevens 2000). This was necessitated by the fact that the data from the web-based survey was relatively small (N=51) compared to the data from the paper-based survey (N=768). In this technique, the receipt date of each returned questionnaire was identified. The respondents were split into two groups, according to the return dates of their responses in relation to the mean return date. The responses returned before the mean date were coded 1 (N=612) and the responses returned after the mean date were coded 2 (N=156). A non-response bias test was carried out using the Mann Whitney U test (Tilt 1994; Goode and Stevens 2000). The applied Mann Whitney U test compared the characteristics of demographics such as gender, age and experience. The test also compared the following key points regarding e-Services usage by customers: (i) I will persuade my friends and colleagues to use airline e-Services; (ii)

I have shifted from travel agents to online ticket transactions; (iii) I frequently use the airline e-Services; and (iv) average booking and purchasing of one ticket at a time. These items are representative of the key constructs of the base model of e-Services that is proposed in this study (see Figure 2.1 on page 26), namely motivation, intention to use and e-Services usage, respectively. Table 6.1 shows the results of the Mann-Whitney U test.

Table 6.1 The Mann-Whitney U Test of Sample from Two Groups

Item	Z Value	Significance
Gender	-0.053	0.957
Age	-6.260	0.000*
Experience	-0.136	0.892
I will persuade my friends and colleagues to use airline e-Services	-0.203	0.840
I have shifted from travel agents to online ticket transactions	-0.374	0.709
I frequently use the airline e-Services	-1.149	0.251
Average booking and purchasing of one ticket at a time	-0.504	0.614

* Significance at $\alpha = 0.05$

The results illustrate that the demographic 'age' variable had a significant Z-value (Z=-6.260; p=0.000). This indicates that there is a significant difference between group 1 and group 2 in their ages. However, there were no significant differences for the other demographic variables and items. The analysis also shows that none of the customers' e-Service usage-related items were significant. The presence of deviation in one variable is tolerable since it is impossible to eliminate the likelihood of non-response bias (Alreck and Settle 1995). Therefore, it is reasonable to suggest that, in this study, the presence of non-response bias is negligible.

6.2.6 Common Method Bias

In this study, the measurement of the research constructs relied solely on a single source; i.e. a survey. The use of such the measurement technique increases the possible problem of common method bias when measures used are gathered from questionnaire from a single source. To evaluate possible common method, the Harman's single factor test is the most widespread approach (Malhotra et al. 2006; Podsakoff et al. 2003). In this test, following the procedure outlined by Podsakoff and Organ (1986), all of the items of the constructs in the research model were

entered into principal components factor analysis (PCA) using SPSS v.19. The PCA results showed that there existed 12 factors with eigenvalue greater than 1 and no single factor emerged as a dominant factor accounting for most of the variance (the greatest eigenvalue accounts for 24.33% of the variance). The results of this test suggest that common method bias is unlikely.

6.2.7 Data Screening

The returned questionnaires, both from the paper-based and web-based surveys, were individually checked. Data screening was conducted to eliminate any outlying samples that may produce inaccurate results (Alreck and Settle 1995). As mentioned in Section 6.2.4, twelve paper-based and two web-based records were identified as having invalid responses. There were also some missing values in the raw data. The estimated means (EM) method was employed to replace the missing values. As a result, 819 valid responses were used for the final analysis of the research data.

6.3 Demographics and Descriptive Statistics

As mentioned in section 3.4.3.3.1, respondents for this survey were Indonesian customers who had used Indonesian airline e-Services. The respondents had been confirmed as e-Services users before they were asked to participate in the survey. The respondents' characteristics were classified into thirteen categories of location, frequency of use, gender, age, education level, education background, occupation, income, geographical area, Internet availability at home, Internet usage daily, Internet experience and frequency of online transactions via the Internet. A detailed analysis of each of these characteristics is presented below.

6.3.1 Location for the Use of the E-Services

The different locations used by respondents to access the e-Services are summarized in Table 6.2. Most of the respondents (358=43.7%) accessed e-Services in their workplace and 330 respondents (40.3%) at home. The other respondents used the e-Services from the Internet provided on campus or at school (33=4%), at an Internet café (26=3.2%), at the library (1=0.1%), at relatives' places (11=1.3%), and via

mobile devices (41=5%). The remaining 19 respondents (2.3%) mentioned other places, such as airports, hotels, restaurants or other business places.

Table 6.2 Respondents by Location when Accessing E-Services

Location when accessing e-Services	Frequency	Percentage
At work	358	43.7
At home	330	40.3
At campus/school	33	4.0
In an internet café	26	3.2
In a library	1	0.1
In friends' or family's place	11	1.3
Everywhere via mobile devices	41	5.0
Others	19	2.3

It can be seen that most respondents are concerned with privacy for accessing e-Services. From the percentages above, it seems that respondents might be more comfortable to access the e-Services from a private place such as in their workplace or at home.

6.3.2 Frequency of Use of Indonesian Airline E-Services

The respondents were asked to indicate their most frequently used Indonesian airline e-Service. As shown in Table 6.3, 387 respondents (47.2%) prefer to travel by public Indonesian airlines and 432 respondents (52.8%) prefer to travel by private Indonesian airlines. It can be seen, however, that usage was dominated by public Indonesian airline A (363 persons = 44.3%) and private Indonesian airline A (264 persons = 32.2%).

Table 6.3 Respondents by Frequency of Use of Indonesian Airline E-Services

Indonesian Airlines e-Services		Frequency	Percentage
Public	Indonesian Airline A	363	44.3
	Indonesian Airline B	24	2.9
Private	Indonesian Airline A	264	32.2
	Indonesian Airline B	125	15.3
	Indonesian Airline C	26	3.2
	Indonesian Airline D	17	2.1

There are explanations for this finding. Firstly, it is true that Indonesian civil servants prefer to use public airlines for business travel. Secondly, the route distribution among the Indonesian airlines is quite restrictive. For example, public Indonesian airline A is entitled to have wider routes than public airline B. Thirdly, among private Indonesian airlines, airline A seems to dominate the market since it has more craft and facilities than the other private airlines.

6.3.3 Gender

As noted in Table 6.4, the gender breakdown showed 452 (55.2%) males and 367 (44.8%) females.

Table 6.4 Respondents by Gender

Gender	Frequency	Percentage
Male	452	55.2
Female	367	44.8

It can be seen that the number of female users of e-Services is quite substantial. It seems that female users also think that the use of airline e-Services can assist in meeting their needs. It shows that female users have no less doubt about using online e-Services than their male counterparts.

6.3.4 Age

Table 6.5 presents age groupings of the respondents. In this study, the objective of this research was to examine the influence of age as a moderating variable. Following Chau and Ngai (2010), age was divided into a younger group (less than or equal to 30 years old) and an older group (above 30 years old). The data of the age groups indicated that 470 respondents (57.3%) belonged to the younger group and 349 respondents (42.7%) belonged to the older group.

Table 6.5 Respondents by Age Group

Age Group	Frequency	Percentage
20 years below	11	1.3
21 – 30 years	459	56.0
31 – 40 years	240	29.3

Table 6.5 Respondents by Age Group

Age Group	Frequency	Percentage
41 – 50 years	89	10.9
51 – 60 years	18	2.2
61 years or above	2	0.2

It seems to be reasonable that use of online services is dominated by younger persons. It seems true that Indonesian younger persons tend to adapt easily to utilise online experiences. Meanwhile, Indonesian older persons tend to be satisfied with limited levels of technology use.

6.3.5 Education Level

Data regarding the levels of highest education attained by the respondents are shown in Table 6.6. This table shows that 576 respondents (93.6%) had at least a bachelor degree, 158 respondents (19.3%) had a master degree, and 29 respondents (3.5%) had a doctoral degree. Twenty-five respondents (3.1%) had a diploma degree and the same number had completed high school or equivalent. Four respondents (0.5%) reported to have a professional degree (specialists in business and law) and two respondents (0.2%) wrote "other".

Table 6.6 Respondents by Education Level

Education level	Frequency	Percentage
High school or equivalent	25	3.1
Diploma	25	3.1
Bachelor degree	576	70.3
Master degree	158	19.3
Doctoral degree	29	3.5
Professional degree	4	0.5
Others	2	0.2

This distribution of educational levels seems to be reasonable. In the world of technology use in Indonesia, the majority of users hold bachelor degrees followed by holders of master degrees and doctoral degrees. Usage is related to work in schools or offices, and other professional matters. Meanwhile, persons who hold lower degrees (diploma and high school or equivalent) usually do not use much technology as they work in places where computers are not generally required.

6.3.6 Education Background

Table 6.7 presents information about respondents' fields of subject. The majority of the respondents (319=38.9%) are in business fields, followed by science and engineering (285=34.8%), and arts, social and humanities (118=14.4%). Small percentages of respondents came from health (56=6.8%), law (14=1.7%), and education (11=1.3%). Sixteen respondents (2.0%) mentioned others.

Table 6.7 Respondents by Education Background

Education background	Frequency	Percentage
Science and Engineering	285	34.8
Arts, Social and Humanities	118	14.4
Health	56	6.8
Business	319	38.9
Law	14	1.7
Education	11	1.3
Others	16	2.0

There seem to be no surprises in the characteristics of the above data. In Indonesia, the field of business tends to use much IT as an aid within the workplace. The same situation is true for tasks within science and engineering. Although the other fields use substantial amounts of IT, they do not show as high usage. So, it is not by chance that use of IT is dominated by respondents from business, science and engineering, as shown in the above table.

6.3.7 Occupation

As shown in Table 6.8, in terms of occupation, the majority of the participants are general staff (276=33.7%), students (149=18.2%), company managers or directors (143=17.5%), and teachers or lecturers (114=13.9%). The rest of the respondents' jobs were varied and lower in frequency: entrepreneurs (53=6.5%), professionals (35=4.3%), programmers or IT specialists (18=2.2%), housewives (7=0.9%) and others (24=2.9%).

Table 6.8 Respondents by Occupation

Occupation	Frequency	Percentage
Manager or Director	143	17.5
General Staff	276	33.7
Teacher or Lecturer	114	13.9
Student	149	18.2
Programmer/IT Specialist	18	2.2
Professional	35	4.3
Housewife	7	0.9
Entrepreneur	53	6.5
Others	24	2.9

It seems to be a commonly known fact that persons who work as general staff, particularly in offices, use a lot of computer work. As for managers or directors, there is no doubt that their use of IT is reasonably high. The same observation can be made for students and teachers or lecturers whose use of IT is much higher than persons from the other occupation categories. The weighting towards these occupations in the table above is, therefore, no surprise.

6.3.8 Income

The profile in Table 6.9 presents the respondents' incomes per month, in Indonesian currency. A total of 319 respondents (38.9%) had a monthly income between Rp. 10,000,001 and Rp. 15,000,000, 285 respondents (34.8%) less than Rp. 2,500,000 and 118 respondents (14.4%) between Rp. 2,500,001 and Rp. 5,000,000. Fifty-six respondents (6.8%) reported to earn between Rp. 5,000,001 and Rp. 10,000,000 per month. A minority of 14 respondents (1.7%) and 11 respondents (1.3%) reported to have a monthly income between Rp. 15,000,001 and Rp. 20,000,000 and more than Rp. 20,000,000, respectively.

Table 6.9 Respondents by Income per Month

Income per month	Frequency	Percentage
Less than Rp. 2,500,000	285	34.8
Rp. 2,500,000 to Rp. 5,000,000	118	14.4
Rp. 5,000,001 to Rp.10,000,000	56	6.8

Table 6.9 Continued

Income per month	Frequency	Percentage
Rp. 10,000,001 to Rp. 15,000,000	319	38.9
Rp. 15,000,001 to Rp. 20,000,000	14	1.7
More than Rp. 20,000,000	11	1.3

*A$1.00 ≈ Rp. 9,500

6.3.9 Geographical Area

To meet the specific objective of examining the influence of geographical area as a moderating variable, geographical area was broken down into metropolitan and non-metropolitan city. Table 6.10 shows that 476 respondents (58.12%) lived in metropolitan areas and 343 respondents (41.88%) lived in non-metropolitan areas.

Table 6.10 Respondents by Geographical Area

Residence area	Frequency	Percentage
Metropolitan	476	58.12
Non-metropolitan	343	41.88

For the purposes of this data, metropolitan cities are those that have harbours and airports, such as Medan, Jakarta, Semarang, Surabaya and Makasar. These are busy cities in Indonesia. There seems to be no doubt that use of IT is high in these areas. On the other hand, non-metropolitan cities are those such as Madiun, Tegal, Palu and Loksumawe. These are non-metropolitan cities in which use of IT tends to be low.

6.3.10 Availability of Internet Access at Home

Table 6.11 presents Internet access availability at home. As expected, a large majority of the respondents (721=88%) had Internet access at home. The rest (98=12%) did not.

Table 6.11 Respondents by Internet Availability at Home

Availability of Internet	Frequency	Percentage
Yes	721	88
No	98	12

There seems to be no peculiarity in the data above. The tendency is that those who use online services usually own a computer set with an Internet link at home. This can happen both in big and small cities.

6.3.11 Daily Internet Usage

Table 6.12 presents information about respondents' usage of the Internet on a daily basis. It can be seen in the table that 556 respondents (67.9%) use the Internet daily as mandatory requirement and 263 respondents (32.1%) on a voluntary basis.

Table 6.12 Respondents by Internet Usage Daily

Internet Usage Daily	Frequency	Percentage
Mandatory	556	67.9
Voluntary	263	32.1

From the data, mandatory use includes such situations where workers are requested by their employers to carry out a task needing the Internet. Voluntary use refers to such situations where persons used the Internet for their own needs. It is therefore true, as shown in the table above, that mandatory usage is more frequent than voluntary usage.

6.3.12 Internet Experience

Consistent with the objective of this study, Internet experience was divided into beginner (experience less than or equal to 6 years) and expert (experience more than 6 years). Table 6.13 presents respondents' levels of Internet experience. The majority of the respondents (494=60.3%) belonged to the expert group. The remaining 39.7% belonged to the beginner group. These were: between 3+ and 6 years (217=26.5%); between 1 and 3 years (91=11.1%); and less than 1 year (17=2.1%).

Table 6.13 Respondents by Internet Experience

Internet Experience	Frequency	Percentage
Less than 1 year	17	2.1
1 to 3 years	91	11.1
3+ to 6 years	217	26.5
More than 6 years	494	60.3

There seem to be no surprises in the data above since persons who use online services are usually advanced users of the Internet. On the contrary, beginner Internet users tend to be more cautious to use online services.

6.3.13 Frequency of Online Transactions

Table 6.14 presents information about respondents' frequency in making online transactions (via the Internet). Frequency use is dominated by two major classifications: 1 to 3 times a month (355=43.3%) and 1 to 11 times a year (274=33.4%). Minor classifications are 4 to 6 times a month (69=8.4%), more than 6 times a month (61=7.1%) and never (60=7.3%).

Table 6.14 Respondents by Frequency of Online Transactions

Frequency of online transactions	Frequency	Percentage
Never	60	7.3
1 – 3 times a month	355	43.3
4 – 6 times a month	69	8.4
More than 6 times a month	61	7.4
1 – 11 times a year	274	33.4

It can be seen from the table that respondents can be categorized into either frequent users or rare users. The frequent users utilize online transactions via the Internet 1 to 3 times a month while rare users utilize online transactions via the Internet 1 to 11 times a year. The former happens to such persons as frequent travellers (government employees, company managers, etc). The latter happens to such persons who rarely travel (family occasions, holidaymakers, etc).

6.4 Examination of the Data

Of the 975 questionnaires that were sent out, a total of 819 completed questionnaires were obtained from respondents for this study. In terms of sample sufficiency, this number (819) is more than enough to fulfil statistical requirements. This number was well in excess of ten times the number of items in the research instrument (Gefen, Straub and Boudreau 2000). In this study, the number of items in the questionnaire was 52, while the number of respondents was 819.

Data analysis, using the PLS method, involved two sequential stages: the assessment of the measurement model and the assessment of the structural model (see detail in Section 3.5.1 and 3.5.2, respectively). Table 6.15 provides the two stages of analysis that are based on the research objectives (Section 1.4).

Table 6.15 Overview of Detailed Analysis

Stage	Purpose of analysis	Construct
1	To assess the e-Services Usage Model • To identify the influence of antecedent factors • To investigate the role of motivation	Effort expectancy Social influence Facilitating conditions Outcome expectancy Privacy concerns Trustworthiness Motivation Intention to use e-Services usage
2	To examine the effect of the moderating variables based on multigroup analysis	Age Experience Geographical area

As can be seen in the above table, the first stage of analysis was aimed at examining the e-Services usage model. In this stage, this analysis included identifying the influence of antecedent factors affecting e-Services usage, as well as investigating the role of motivation upon use of Indonesian airline e-Services. The second stage of analysis aimed to examine the moderating impacts of age, experience and geographical area on e-Services usage. In this stage, age, experience and geographical area were subjected to statistical analysis.

6.5 Data Analyses

As mentioned in Section 3.5, the data analysis was performed holistically using partial least square (PLS). PLS is suitable when models are complex. Hulland, Chow and Lam (1996) suggested that models with seven constructs are moderately complex, placing the final research model (see Figure 5.1) higher in the model complexity continuum.

Barcley, Higgins and Thompson (1995) asserted that PLS has been formed to accommodate both formative and reflective indicators of constructs. Formative indicators "cause" the latent construct while reflective indicators are "effects" of the latent variables (Bollen 1984, 1989).

Furthermore, Chwelos, Benbaset and Dexter (2001) stated that reflective indicators are deemed to exist before the variable is measured, and each item "reflects" the unmeasured latent variable. Because each item reflects the same latent variable, the construct is unidimensional and, therefore, the items should be correlated, making measures of internal consistency appropriate. In contrast to the reflective indicators, formative indicators reverse the direction of causality in that they directly form or cause the latent variable. In addition, Chin (1998a) noted that items are interrelated in the case of reflective indicators. On the contrary, items are not related in the case of formative indicators.

6.5.1 Stage 1 Analysis: Antecedent Factors in E-Services Usage

Stage 1 data analysis included both aspects of the study: the measurement model and the structural model, involving all the reflective indicators in the research model. As has been mentioned before, there were 40 items for all the eight antecedent constructs; effort expectancy (EE1-EE7), social influence (SI1-SI5), facilitating conditions (FC1-FC3), outcome expectancy (OE1-OE10), privacy concerns (PC1-PC3), trustworthiness (TW1-TW5), motivation (MT1-MT3) and intention to use (IU1-IU4), as well as 12 items for e-Services usage (EU1-12).

6.5.1.1 Assessment of the Measurement Model

The measurement model was a questionnaire containing 52 items developed from the literature and results of the field study. The questionnaire was tested for item reliability, internal consistency and discriminant validity before it was used to assess the structural model (Barcley, Higgins and Thompson 1995). Discriminant validity was designated to indicate the validity of the instrument while convergent validity, (consisting of two measures: item reliability and internal consistency), was designated to indicate the reliability of the instrument (Santosa, Wei, and Chan 2005).

6.5.1.1.1 Item Reliability

Item reliability was measured by the loadings of the reflective indicators. The analysis began with the loading of the items into the loading matrix. Composite reliability (CR) and average variance extracted (AVE) were generated automatically using the bootstrap technique via the PLS-Graph (Gefen and Straub 2005). The bootstrap technique is a resampling procedure used to examine the stability of estimates (Chin 2010). This procedure involves repeated random sampling with replacement from the original sample to obtain standard errors. The repeated bootstrap parameter estimations are then used to create an empirical sampling distribution for each model parameter (Hair, Ringle and Sarstedt 2011). Table 6.16 shows 52 observed variables within the questionnaire and the results of the initial item loadings and AVEs.

Table 6.16 Initial Item Loadings and AVEs of the Final E-Services Model

Construct	Variable	Items	Loading	AVE
Effort Expectancy	Ease of use	EE1	0.785	0.576
	Understandable	EE2	0.783	
	Easy to learn	EE3	0.750	
	Simple language	EE4	0.776	
	Simple instructions	EE5	0.818	
	Useful	EE6	0.665	
	Comprehensive information	EE7	0.727	
Social Influence	Persuaded	SI1	0.828	0.582
	Supported	SI2	0.832	
	Encouraged	SI3	0.826	
	Prestigious	SI4	0.624	
	Inspired	SI5	0.679	
Facilitation Conditions	Technical and non-technical support	FC1	0.866	0.756
	Availability of resource	FC2	0.891	
	Availability of specific person for assistance	FC3	0.853	
Privacy Concerns	Misused	PC1	0.908	0.783
	Obtained by unauthorized person	PC2	0.899	
	Monitored by somebody	PC3	0.847	
Trustworthiness	Trust of e-Services	TW1	0.781	0.646
	Trust of company	TW2	0.829	
	Trustworthy	TW3	0.864	
	Guaranteed security of data	TW4	0.749	
	Guaranteed validity of data	TW5	0.791	
Outcome Expectancy	Most suitable flight and price	OE1	0.561	0.341
	More efficient	OE2	0.515	
	Increasing status	OE3	0.533	
	Loyalty	OE4	0.627	
	Ease of payment	OE5	0.685	
	Valid information	OE6	0.710	
	Faster to get a ticket	OE7	0.630	
	Quick to get a seat	OE8	0.546	
	Affiliation with hotel and car rental	OE9	0.554	
	Booking without immediate payment	OE10	0.416	
Motivation	Benefit	MT1	0.799	0.593
	As an expert	MT2	0.621	
	Persuade somebody to use	MT3	0.868	

Table 6.16 Continued

Construct	Variable	Items	Loading	AVE
Intention to Use	Intent to purchase	IU1	0.855	0.672
	Plan to purchase	IU2	0.869	
	Add in favourite links	IU3	0.758	
	Shifted from travel agent to online	IU4	0.792	
e-Services Usage	Frequency of usage	EU1	0.404	0.427
	Number of transactions	EU2	0.439	
	Browsing flight info	EU3	0.742	
	Noticing ticket price	EU4	0.770	
	Finding ticket sales	EU5	0.726	
	Finding tour sales	EU6	0.516	
	Booking online	EU7	0.829	
	Paying online	EU8	0.772	
	Printing e-ticket	EU9	0.766	
	Checking-in online	EU10	0.624	
	Viewing seat	EU11	0.601	
	Seeking general information	EU12	0.453	

To evaluate item reliability, the rule is to accept items with a loading of at least 0.7. Some studies accept a loading less than this cut-off level, such as 0.5 or 0.6 (Chin 1998a). However, loadings as low as 0.3 also can be accepted as a minimum value for items to be considered as reliable (Igbaria et al. 1997).

As can be seen from the table above, the AVEs for two out of nine constructs were found to have a value lower than 0.5: outcome expectancy (OE) and e-Services usage (EU). In order to meet the 0.5 criterion, some low loading items under each of these constructs were removed. The removed items had the smallest factor loading (lower than 0.5). Items were removed one by one and the PLS was run again to achieve AVEs equal to or above 0.5. By removing items OE2, OE3, OE8, OE9 and OE10, the AVE value of the OE construct increased to 0.506. As for the EU construct, items EU6, EU11 and EU12 were removed to achieve the improved AVE value of 0.500. It should be noted that, although the EU1 and EU2 items had a loading of 0.404 and 0.439 respectively, both items were retained because they were key items in the EU constructs and had been widely used by previous studies (Davis, Bagozzi and Warshaw 1989; Ajzen 1991; Venkatesh et. 2003, Venkatesh et al. 2008). The final model with the remaining 44 items was run again using the PLS-Graph and the result is presented in Table 6.17 on the next page.

Table 6.17 Final Item Loadings and AVEs of the Final E-Services Model

Construct	Variable	Items	Loading	AVE
Effort Expectancy	Ease of use	EE1	0.785	0.576
	Understandability	EE2	0.783	
	Ease to learn	EE3	0.750	
	Simple language	EE4	0.775	
	Simple instructions	EE5	0.818	
	Usefulness	EE6	0.666	
	Comprehensive information	EE7	0.727	
Social Influence	Persuaded	SI1	0.829	0.582
	Supported	SI2	0.833	
	Encouraged	SI3	0.827	
	Prestigious	SI4	0.621	
	Inspired	SI5	0.678	
Facilitating Conditions	Technical and non-technical support	FC1	0.870	0.756
	Availability of resource	FC2	0.886	
	Availability of specific person for assistance	FC3	0.851	
Privacy Concerns	Misused	PC1	0.908	0.784
	Obtained by unauthorized person	PC2	0.899	
	Monitored by somebody	PC3	0.847	
Trustworthiness	Trust of e-Services	TW1	0.782	0.646
	Trust of company	TW2	0.829	
	Trustworthy	TW3	0.864	
	Guaranteed security of data	TW4	0.745	
	Guaranteed validity of data	TW5	0.792	
Outcome Expectancy	Most suitable flight and price	OE1	0.687	0.506
	Loyalty	OE4	0.532	
	Ease of payment	OE5	0.746	
	Valid information	OE6	0.812	
	Speed to get a ticket	OE7	0.748	
Motivation	Benefit	MT1	0.811	0.591
	expertise	MT2	0.598	
	Persuasion for somebody to use	MT3	0.869	
Intention to Use	Intent to purchase	IU1	0.859	0.672
	Plan to purchase	IU2	0.872	
	Adding in favourite links	IU3	0.752	
	Shift from travel agent to online	IU4	0.792	
e-Services Usage	Frequency of usage	EU1	0.404	0.500
	Number of transactions	EU2	0.439	
	Browsing flight info	EU3	0.742	
	Noticing ticket price	EU4	0.770	
	Finding ticket sales	EU5	0.726	
	Booking online	EU7	0.829	
	Paying online	EU8	0.772	
	Printing e-ticket	EU9	0.766	
	Checking-in online	EU10	0.624	

6.5.1.1.2 Internal Consistency

As has been mentioned above, the internal consistency was tested by checking internal composite reliability (ICR) (Fornell and Larcker 1981). The cut-off point of internal consistency is normally taken as 0.7. The results of the analysis are presented in Table 6.18 below.

Table 6.18 Internal Composite Reliability and Correlation among Constructs

	ICR	EE	SI	FC	PC	TW	OE	IU	MT	EU
EE	0.905	**0.759**								
SI	0.873	0.314	**0.763**							
FC	0.903	0.371	0.339	**0.869**						
PC	0.916	-0.142	-0.097	-0.199	**0.885**					
TW	0.901	0.596	0.351	0.393	-0.295	**0.804**				
OE	0.835	0.553	0.430	0.418	-0.142	0.593	**0.711**			
IU	0.891	0.413	0.397	0.348	-0.124	0.402	0.481	**0.900**		
MT	0.809	0.463	0.539	0.492	-0.138	0.506	0.569	0.571	**0.769**	
EU	0.895	0.360	0.244	0.150	-0.066	0.254	0.352	0.466	0.317	**0.706**

Note: the bold elements in the main diagonal are the square roots of AVE.

EE = Effort expectancy   OE = Outcome expectancy
SI = Social influence   IU = Intention of use
FC = Facilitating conditions   MT = Motivation
PC = Privacy concerns   EU = e-Services usage
TW = Trustworthiness

The table shows that all latent constructs of the e-Services model have ICRs above 0.7. The internal consistency of all constructs therefore meets the criterion, with the lowest internal consistency being motivation (0.809) and the highest being effort expectancy (0.905).

6.5.1.1.3 Discriminant Validity

Assessment of discriminant validity uses the same statistical analysis, differing only in one aspect: discriminant validity analysis uses the square root of AVE and cross loading factors (Barcley, Higgins and Thompson 1995). Results of the discriminant analysis can be seen in Table 6.18 above.

The first step of the discriminant validity analysis was conducted by comparing the square roots of the AVEs with the inter-construct correlations, using the procedure of Fornell and Larcker (1981). AVEs were found for all constructs (see Table 6.17). The square roots of the AVEs are shown in the main diagonal of Table 6.18. The off-diagonal elements represent the correlations among the constructs. The constructs in the model are believed to have acceptance discriminant validity if the square root of the AVE of a construct is larger than its correlation with the other constructs. In other words, the diagonal values that signify square roots of AVEs should be larger than the off diagonal values in the corresponding columns and rows (Hulland 1999). Results in Table 6.18 indicate that discriminant validity of the constructs was met, which means that all the constructs are different from each other.

The second step of the discriminant validity analysis was conducted by using cross loadings analysis. In this analysis, each item was explored and compared across all the constructs to ensure that no item loaded higher than another construct being assessed (Barcley, Higgins and Thopmson 1995). Cross loading tabling was done manually because PLS-Graph version 3.0 does not provide a tool for this function. The results of cross loadings are shown in Table 6.19.

Table 6.19 Cross Loadings

	EE	PC	TW	SI	OE	FC	MT	IU	EU
EE1	.785	-.067	.438	.253	.449	.259	.346	.373	.383
EE2	.783	-.111	.467	.216	.432	.216	.338	.357	.366
EE3	.749	-.112	.396	.216	.352	.247	.288	.258	.253
EE4	.775	-.128	.440	.220	.383	.308	.329	.300	.239
EE5	.818	-.160	.475	.233	.412	.335	.343	.345	.242
EE6	.666	-.052	.405	.250	.470	.201	.395	.260	.235
EE7	.727	-.121	.522	.273	.432	.381	.405	.289	.193
PC1	-.119	.906	-.273	-.110	-.123	-.197	-.159	-.136	-.048
PC2	-.156	.901	-.274	-.064	-.145	-.181	-.097	-.095	-.088
PC3	-.107	.848	-.231	-.070	-.113	-.140	-.089	-.084	-.044
TW1	.500	-.166	.782	.306	.462	.306	.429	.344	.231
TW2	.467	-.222	.829	.234	.443	.348	.400	.292	.165
TW3	.518	-.217	.865	.279	.524	.314	.434	.349	.232
TW4	.402	-.362	.745	.269	.415	.285	.381	.328	.157
TW5	.497	-.235	.792	.320	.528	.327	.385	.300	.226
SI1	.301	-.089	.281	.829	.358	.274	.434	.322	.201
SI2	.309	-.093	.300	.833	.363	.259	.441	.358	.234
SI3	.316	-.098	.295	.827	.401	.284	.468	.336	.245
SI4	.070	-.010	.197	.621	.212	.202	.334	.219	.093
SI5	.144	-.062	.255	.678	.275	.272	.363	.259	.125
OE1	.475	-.069	.429	.242	.687	.242	.426	.321	.314
OE4	.192	-.109	.301	.327	.531	.323	.388	.294	.097
OE5	.368	-.080	.394	.335	.746	.307	.392	.372	.246
OE6	.472	-.134	.519	.364	.812	.353	.438	.363	.270
OE7	.427	-.111	.441	.258	.748	.257	.375	.352	.306
FC1	.325	-.164	.342	.279	.390	.870	.432	.314	.154
FC2	.291	-.167	.329	.261	.319	.886	.415	.288	.086
FC3	.345	-.187	.351	.337	.371	.851	.432	.303	.143
MT1	.476	-.143	.485	.380	.569	.415	.811	.474	.306
MT2	.120	-.018	.202	.398	.231	.312	.598	.287	.082
MT3	.388	-.125	.420	.484	.448	.401	.869	.515	.285
IU1	.338	-.095	.299	.287	.403	.244	.426	.859	.404
IU2	.340	-.066	.322	.274	.381	.229	.427	.872	.414
IU3	.316	-.123	.329	.351	.329	.348	.507	.752	.320
IU4	.357	-.121	.363	.385	.454	.320	.506	.792	.384

Table 6.19 Continued

	EE	PC	TW	SI	OE	FC	MT	IU	EU
EU2	.125	-.024	.093	.062	.124	.056	.187	.241	**.433**
EU3	.121	-.008	.121	.198	.173	.098	.195	.244	**.454**
EU41	.302	-.043	.201	.144	.257	.069	.180	.308	**.774**
EU42	.290	-.043	.171	.165	.283	.086	.208	.306	**.799**
EU43	.272	-.064	.162	.168	.236	.108	.206	.291	**.719**
EU45	.349	-.090	.244	.225	.334	.142	.268	.424	**.865**
EU46	.282	-.063	.221	.175	.289	.089	.247	.410	**.803**
EU47	.289	-.028	.196	.166	.286	.117	.239	.375	**.801**
EU48	.174	-.030	.151	.231	.182	.184	.266	.282	**.551**

The table shows that item MT1 loads more strongly than item OE4. This indicates the presence of a slight discriminant validity problem in the "outcome expectancy" construct. However, item OE4 was retained in the final model for the following reasons. Firstly, the item was very important for the construct, since it reflected the definition of the outcome expectancy in that customers would be very happy if their loyalty was appreciated by the airline company. Secondly, the first assessment of discriminant validity via the square roots of the AVEs indicated that there was no problem with the OE construct when the OE4 item was included. Finally, in terms of item reliability, the OE4 item met the requirement.

6.5.1.2 Assessment of the Structural Model

As mentioned in Section 3.5.2, the structural model assessment can be done by evaluating the statistical significance of the path loading (*t*-value) and path coefficient (β) between each construct, as well as the amount of variance explained, or *R* square (R^2). For this, PLS-Graph version 3.0 was used as the analysis tool, by executing the bootstrap procedure. Figure 6.1 presents the results with explanatory powers, estimated path coefficients and associated *t*-values of the paths.
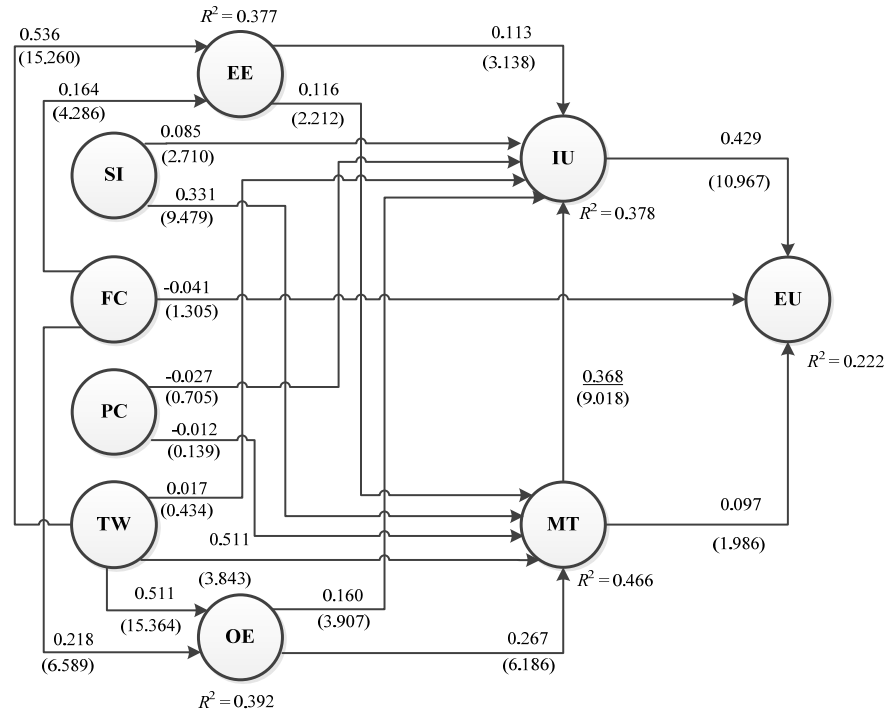
Figure 6.1 The Structural Model by PLS Analysis (N=819)

6.5.1.2.1 Amount of Variance Explained (R Square= R^2)

The explanatory powers of the e-Services model can be assessed by observing the R^2 values of the endogenous constructs (Santosa, Whei and Chan 2005). Each value reflects the proportion of variance of the dependent variable, explained by the independent variables in the structural equation. The resultant R^2 values within the e-Services model are summarized in Table 6.20.

Table 6.20 R^2 Values for the E-Services Model

Construct	R Square (R^2)
Effort expectancy	0.377
Outcome expectancy	0.392
Motivation	0.466
Intention to use	0.378
e-Services Usage	0.222

As shown in Table 6.20, the strongest R^2 value is for 'motivation' (0.466) thereby indicating that 47% of customers' motivation to adopt the use of e-Services can be explained by the constructs used in the model. The model also explains 37.7% of the variance in 'effort expectancy', 39.2% variance in 'outcome expectancy', 37.8%

141

variance in 'intention to use' and 22.2% variance in e-Service usage. The overall findings show that all the scores of R^2 values are greater than 0.20, which is considered high in disciplines such as consumer behaviour (Hair, Ringle and Sarstedt 2010). In addition, Falk and Miller (1992) recommend that R^2 values be at least 0.10 in order to be judged adequate. By this criterion, all of the R^2 values indicate satisfactory nomological validity. In the case of the explained variance of an endogenous construct being relatively low; then the observed variance of the endogenous construct, including factors that influence it, would indicate the need for further theory development (Hanlon 1999).

6.5.1.2.2 Path Coefficient and Statistical Significance

Following the assessment of the explanatory powers of the e-Services model via the amount of variance explained by the R^2 values, the evaluation of the construct hypotheses in this study was performed. This analysis was conducted by evaluating the path coefficients (β) and the statistical significance of the t-values. Table 6.21 shows the results detailing the path coefficients (β) and the t-values derived from the bootstrapping procedure. It can be seen that hypotheses H1, H2, H3, H4, H5, H6, H7, H9, H10, H14, H15, H16, H17 and H18 are supported (significant t-values) while H8, H11, H12 and H13 are not supported (insignificant t-values). More discussion on testing of the hypotheses will be undertaken in Section 6.6.

Table 6.21 Path Coefficients and t-Values of the E-Services Model

Hypotheses	Path	Path coefficient	t -Value	Result
H1	EE → IU	0.113	3.138**	Supported
H2	EE → MT	0.116	2.212*	Supported
H3	SI → IU	0.085	2.710**	Supported
H4	SI → MT	0.331	9.479***	Supported
H5	FC → EU	-0.041	1.305	Not Supported
H6	FC → EE	0.164	4.286***	Supported
H7	FC → OE	0.218	6.589***	Supported
H8	PC → IU	-0.027	0.705	Not supported
H9	PC → MT	-0.012	0.139	Not supported
H10	TW → IU	0.017	0.434	Not supported
H11	TW → MT	0.511	3.843***	Supported
H12	TW → EE	0.536	15.260***	Supported
H13	TW → OE	0.511	15.364***	Supported
H14	OE → IU	0.160	3.907***	Supported
H15	OE → MT	0.267	6.180***	Supported

Table 6.21 Continued

Hypotheses	Path	Path coefficient	*t*-Value	Result
H16	MT → IU	0.368	9.018***	Supported
H17	MT → EU	0.097	1.986*	Supported
H18	IU → EU	0.429	10.967***	Supported

Significance *$p<0.05$; **$p<0.01$; ***$p<0.001$

6.5.2 Stage 2 Analysis: Moderating Effects via Multigroup Analysis

The second stage of analysis in this study examines the moderating influences of age, experience and geographical area in the adoption of e-Services. Multigroup analysis was used to test the significant effects of the moderating impacts. Table 6.22 provides the split of the total participants based on age, experience and geographical area.

Table 6.22 Summary of Sample Based on Three Demographics

Demographics		Total	Percent
Age	Younger (less than or equal to 30 years old)	470	57%
	Older (more than 30 years old)	349	43%
Experience	Beginner (less than or equal to 6 years experience)	325	40%
	Expert (more than 6 years experience)	494	60%
Geographical area	Metropolitan	476	58%
	Non-metropolitan	343	42%

As illustrated in the table, in terms of age, 470 respondents were younger or equal to 30 years old (57%), whereas 349 respondents were older than 30 years old (43%). In terms of experience, the majority of customers were categorised as expert (60%), whereas 40% of the customers were categorised as beginner. A total of 476 of the respondents lived in metropolitan areas (58%), and 343 lived in non-metropolitan areas (42%).

6.5.2.1 Assessment of the Measurement Model

The assessment of the measurement model was conducted on the three subgroups of age, experience and geographical area. The results of the analysis are presented in Table 6.23.

6.23 PLS Factor Loading, ICR and AVE by Subgroups of Age, Experience and Geographical Area

Items	Age				Experience				Geographical Area			
	Younger		Older		Beginner		Expert		Metropolitan		Non-metropolitan	
	Loading	*t*-Statistic	Loading	*t*-Statistic	Loading	*t*-Statistic	Loading	*t*-Statistic	Loading	*t*-Statistic	Loading	*t*-Statistic
EE1	0.769	16.359	0.807	15.842	0.746	11.401	0.812	19.329	0.761	14.048	0.816	14.539
EE2	0.777	18.068	0.788	13.598	0.754	12.312	0.806	17.155	0.795	13.954	0.767	14.676
EE3	0.742	14.715	0.765	10.926	0.772	10.308	0.735	15.609	0.724	11.381	0.781	14.748
EE4	0.743	13.747	0.819	14.875	0.785	10.239	0.769	17.170	0.783	14.263	0.768	12.547
EE5	0.794	19.868	0.849	15.355	0.811	16.417	0.823	16.734	0.830	19.172	0.802	15.663
EE6	0.697	11.744	0.613	8.907	0.657	10.931	0.673	12.654	0.697	12.419	0.625	10.890
EE7	0.723	15.848	0.733	12.128	0.670	11.917	0.764	21.265	0.720	15.033	0.737	13.162
SI1	0.831	13.597	0.827	12.894	0.779	10.169	0.857	18.180	0.820	11.736	0.838	15.923
SI2	0.818	16.585	0.853	16.394	0.816	13.564	0.846	21.325	0.808	15.698	0.859	19.453
SI3	0.815	16.826	0.846	13.877	0.818	14.702	0.833	21.673	0.832	14.604	0.823	18.119
SI4	0.601	8.579	0.648	7.282	0.558	4.884	0.653	10.308	0.595	6.472	0.649	10.886
SI5	0.703	10.442	0.641	7.137	0.649	7.583	0.688	10.803	0.716	11.641	0.642	7.582
FC1	0.865	12.803	0.880	14.592	0.832	6.134	0.882	18.463	0.876	16.304	0.860	10.223
FC2	0.882	15.955	0.890	16.943	0.863	5.873	0.891	19.989	0.872	14.363	0.905	15.429
FC3	0.831	12.886	0.876	14.887	0.860	6.120	0.859	20.652	0.844	13.152	0.861	11.411
PC1	0.909	4.456	0.906	4.212	0.925	4.086	0.894	5.718	0.866	6.152	0.962	2.615
PC2	0.905	5.289	0.895	2.240	0.869	3.317	0.915	5.054	0.920	7.244	0.845	0.949
PC3	0.844	2.027	0.851	3.943	0.785	1.601	0.880	4.528	0.871	5.658	0.788	0.982
TW1	0.789	18.408	0.772	17.425	0.804	15.285	0.768	19.401	0.806	23.132	0.752	13.034
TW2	0.825	20.037	0.834	15.978	0.829	16.176	0.830	21.571	0.820	18.191	0.842	20.292
TW3	0.853	19.834	0.880	19.745	0.863	22.079	0.867	22.587	0.855	25.756	0.878	18.969
TW4	0.762	15.275	0.726	12.724	0.769	17.270	0.730	13.618	0.744	18.925	0.748	10.346
TW5	0.777	18.593	0.810	14.635	0.776	17.443	0.802	17.873	0.786	20.819	0.802	16.934
OE1	0.702	14.816	0.662	11.425	0.737	11.152	0.662	15.384	0.713	15.797	0.652	10.059
OE4	0.463	8.128	0.619	8.868	0.463	7.939	0.566	11.580	0.554	9.952	0.496	7.465
OE5	0.727	15.112	0.771	15.929	0.723	9.966	0.757	19.555	0.752	16.262	0.739	12.906
OE6	0.838	19.582	0.778	15.265	0.794	16.374	0.823	22.359	0.810	18.407	0.812	17.273
OE7	0.756	16.065	0.738	15.270	0.755	11.399	0.753	18.086	0.773	16.340	0.715	12.419

Table 6.23 Continued

Items	Age				Experience				Geographical Area			
	Younger		Older		Beginner		Expert		Metropolitan		Non-metropolitan	
	Loading	*t*-Statistic	Loading	*t*-Statistic	Loading	*t*-Statistic	Loading	*t*-Statistic	Loading	*t*-Statistic	Loading	*t*-Statistic
MT1	0.817	22.162	0.806	19.131	0.807	16.642	0.812	23.500	0.835	21.840	0.782	20.103
MT2	0.579	7.950	0.621	9.324	0.567	6.069	0.617	11.095	0.540	6.955	0.672	12.188
MT3	0.863	27.936	0.878	22.642	0.880	20.275	0.862	25.632	0.865	27.641	0.873	21.584
IU1	0.837	21.483	0.885	29.754	0.859	20.196	0.857	23.711	0.856	24.374	0.862	22.728
IU2	0.844	25.098	0.904	31.243	0.843	20.742	0.888	30.902	0.876	28.509	0.866	20.973
IU3	0.718	18.214	0.801	21.456	0.752	13.593	0.755	18.501	0.746	18.712	0.759	16.007
IU4	0.773	19.789	0.820	24.382	0.836	20.334	0.763	19.668	0.800	22.506	0.782	21.921
EU1	0.458	5.636	0.390	4.216	0.491	6.156	0.362	4.598	0.428	4.954	0.431	5.838
EU2	0.482	6.637	0.412	5.957	0.520	5.393	0.401	6.052	0.377	4.778	0.542	6.969
EU3	0.776	11.114	0.777	7.618	0.797	11.756	0.747	7.038	0.788	9.472	0.760	9.280
EU4	0.794	9.289	0.814	10.081	0.801	10.425	0.792	9.421	0.800	9.210	0.806	11.063
EU5	0.718	10.118	0.730	7.034	0.764	8.928	0.677	6.563	0.727	9.425	0.713	8.170
EU7	0.844	15.453	0.892	15.177	0.866	12.735	0.858	16.499	0.857	16.054	0.876	16.171
EU8	0.782	11.786	0.795	12.409	0.802	11.879	0.798	12.793	0.803	13.131	0.803	13.060
EU9	0.560	10.507	0.829	12.292	0.775	10.963	0.814	12.808	0.813	12.515	0.785	11.762
EU10	0.458	7.105	0.535	5.714	0.606	7.084	0.512	7.167	0.519	5.623	0.588	8.129
Construct	**ICR**	**AVE**	**ICR**	**AVE**	**ICR**	**AVE**	**ICR**	**AVE**	**ICR**	**AVE**	**ICR**	**AVE**
EE	0.900	0.562	0.911	0.595	0.896	0.554	0.910	0.593	0.905	0.577	0.904	0.576
SI	0.870	0.576	0.877	0.591	0.849	0.535	0.885	0.609	0.870	0.577	0.876	0.589
FC	0.895	0.739	0.913	0.778	0.888	0.725	0.909	0.770	0.898	0.747	0.908	0.767
PC	0.916	0.785	0.915	0.781	0.896	0.742	0.925	0.804	0.916	0.785	0.901	0.753
TW	0.900	0.643	0.902	0.650	0.904	0.654	0.899	0.641	0.901	0.645	0.902	0.649
MT	0.803	0.582	0.817	0.602	0.802	0.582	0.813	0.596	0.799	0.579	0.822	0.608
EU	0.895	0.498	0.895	0.503	0.906	0.526	0.882	0.470	0.891	0.492	0.900	0.510

It can be seen from the table that all loadings are higher than 0.4 (Igbaria, Guimaraes and Davis 1995). The table thus reveals that all item reliabilities have been met.

6.5.2.2 Assessment of the Structural Model

The structural model was measured using the same procedure of splitting the data into two groups for each category of age, experience and geographical area. A bootstrapping procedure was run to obtain the path coefficients and t-values, then the amount of variance was explained to determine the statistical significance. The moderating effects of age, experience and geographical area on the model could thus be determined.

The structural model for the entire sample of respondents is presented in Figure 6.1 above. This figure provides the path coefficients and t-values among the constructs that have been mentioned in Section 6.5.1.2. Next, the assessment of the structural model by groupings of age, experience and geographical area was carried out as shown in Figures 6.2, 6.3 and 6.4, respectively. These results were then compared with the structural model for all the samples, as illustrated in Figure 6.1, to identify the significant and insignificant links.

6.5.2.2.1 Age

For age, the e-Services usage of younger and older respondents was found to be dissimilar from the structural model of all the samples. There were seven linkages that were insignificant. Relationships among the constructs can be seen in Figure 6.2.
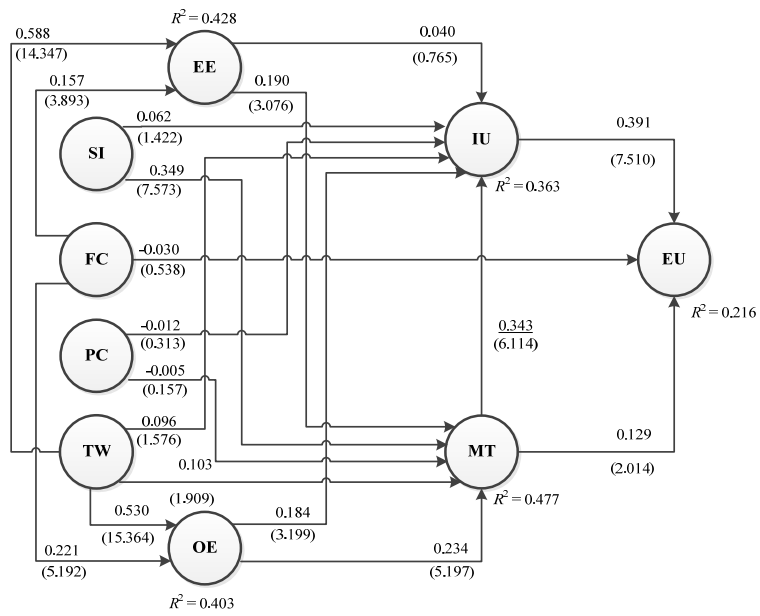
(a) Younger group (n=470)
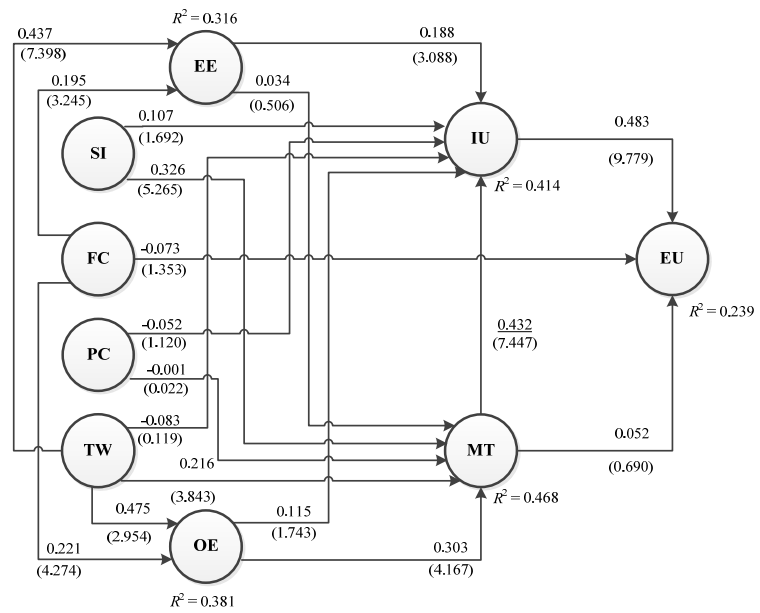
(b) Older group (n=349)

Note: *t*-statistics greater than 1.995 are significant at *p*<0.05

Figure 6.2 Path Model by Age Group

As can be seen in Figure 6.2a above, the relationship between effort expectancy and intention to use was found to be not significant in the younger group (β=0.040 and t=0.765). An insignificant relationship also was found between social influence and intention to use for this group (β=0.062 and t=1.422). Another insignificant link was found between trustworthiness and motivation (β=0.103 and t=0.1909). For the older group (Figure 6.2b), the insignificant link between social influence and intention to use was also supported (β=0.107 and t=1.692). However, the other insignificant links were between: effort expectancy and motivation (β=0.034 and t=0.506); outcome expectancy and intention to use (β=0.117 and t=1.743); and motivation and e-Services usage (β=0.052 and t=0.690).

6.5.2.2.2 Experience

In levels of experience, inconsistencies also were found. Five links were found to be insignificant. These links among constructs can be seen in Figure 6.3.

(a) Beginner group (n=325)

Note: t-statistics greater than 1.995 are significant at $p<0.05$
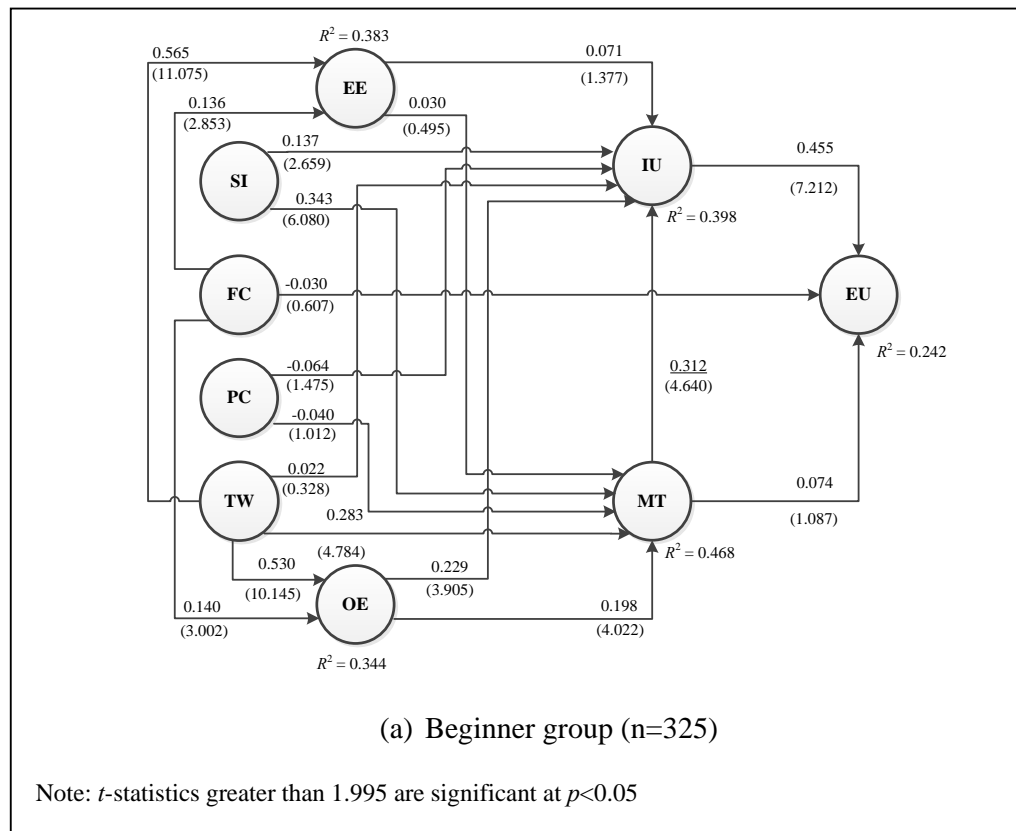
Figure 6.3 Path Model by Experience Group
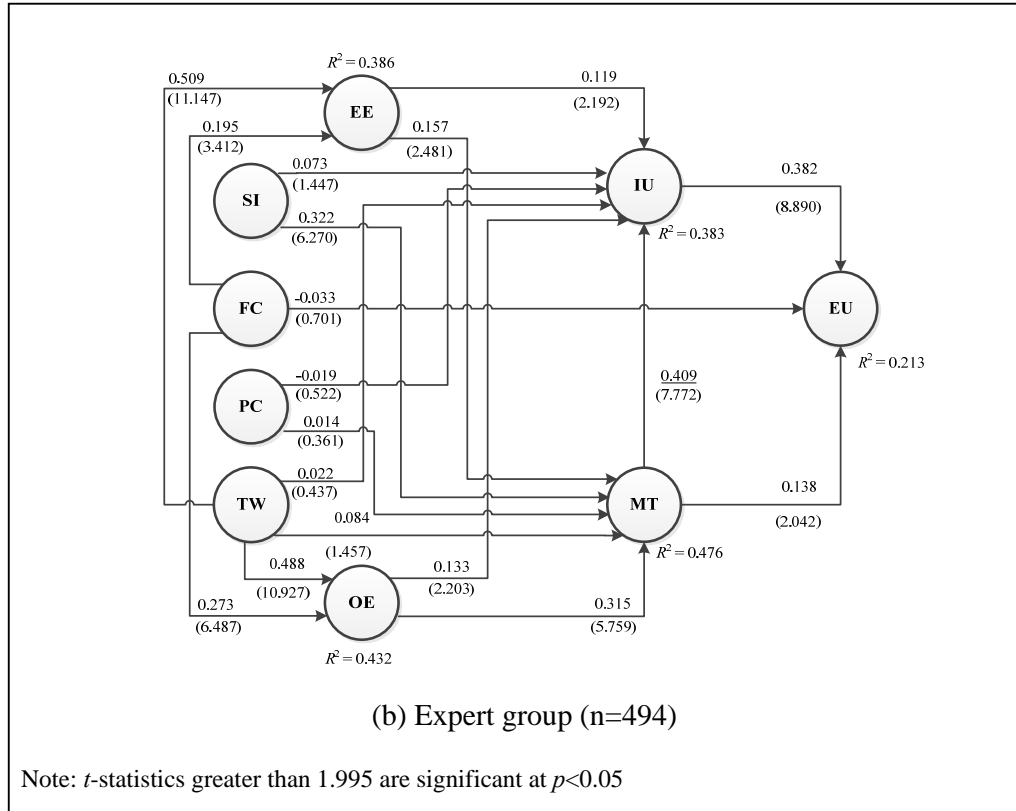
Figure 6.3 Continued

As shown in Figure 6.3a, for the beginners' group, insignificant links were found between: effort expectancy and the intention to use (β=0.071 and t=1.377); effort expectancy and motivation (β=0.030 and t=0.495); and motivation and e-Services usage (β=0.074 and t=1.087). For the experts' group (Figure 6.3b), the results show different trends. More specifically, the results demonstrated the insignificant links between social influence and intention to use (β=0.073 and t=1.447) and between trustworthiness and motivation (β=0.084 and t=1.457).

6.5.2.2.3 Geographical Area

For geographical area, the results also were inconsistent. Three insignificant effects were found, as can be seen in Figure 6.4.

(a) Metropolitan group (n=476)

(b) Non-metropolitan group (n=343)

Note: *t*-statistics greater than 1.995 are significant at *p*<0.05
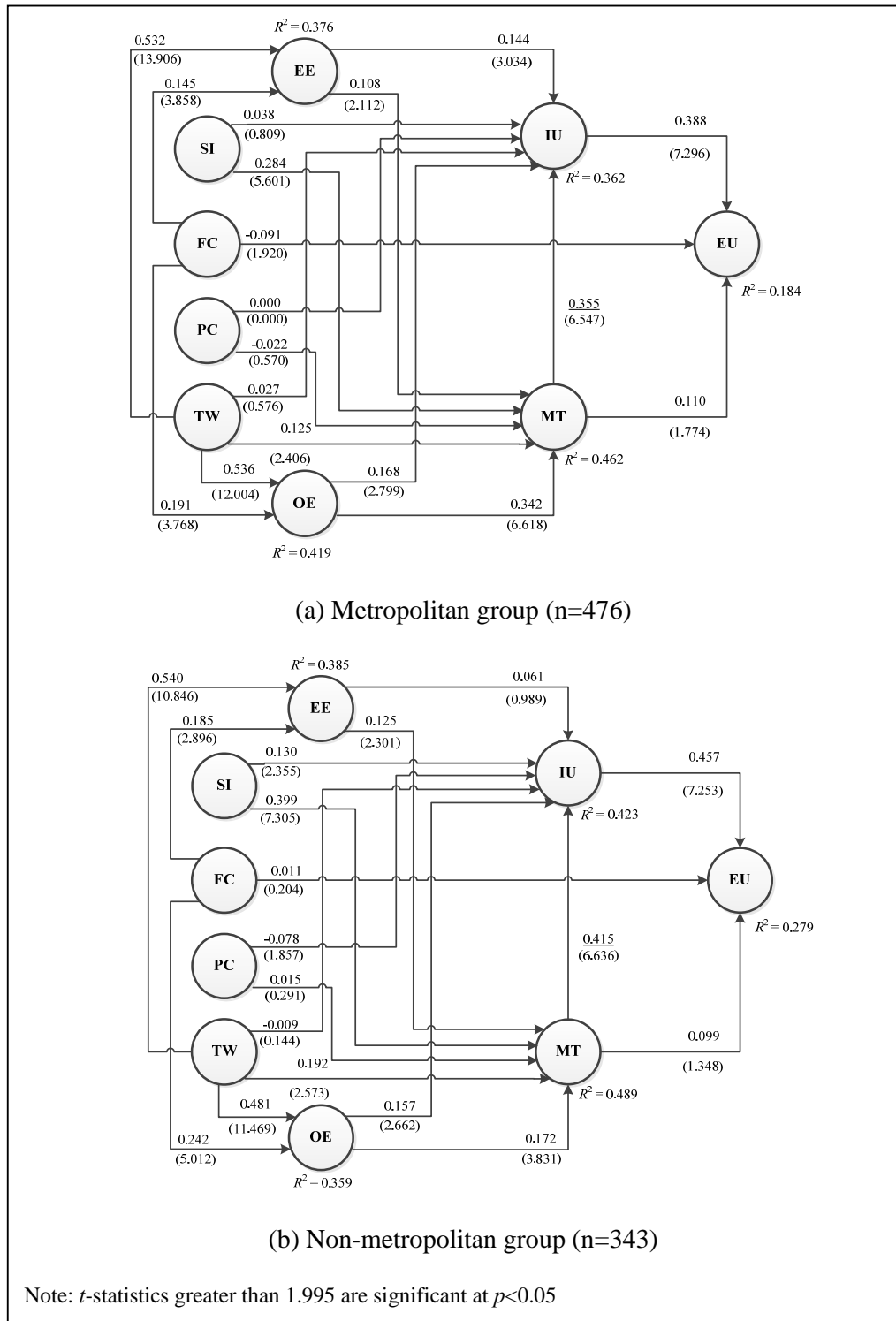
Figure 6.4 Path Model by Geographical Area Group

One insignificant effect was found for both groups, between motivation and e-Services usage: in the metropolitan group (β=0.110 and *t*=1.774); and in the non-metropolitan group (β=0.099 and *t*=1.348) as illustrated in Figures 6.4a and 6.4b.

The third insignificant relationship was found between effort expectancy and intention to use in the non-metropolitan group (β=0.061 and t=0.989).

Outside of the insignificant links mentioned above (age=7, experience=5 and geographical area=3), all other links in all subgroup models were consistent with the full-sample model. Although there were some inconsistencies, the overall results (Figures 6.2, 6.3 and 6.4) show that all components of the e-Services adoption model exhibited significant relationships, except privacy concerns. This outcome provides additional support for the hypotheses H1 to H18.

6.5.2.2.4 Component Interrelationships

In terms of interrelationships among components, mixed results were found, as summarized in Table 6.24 below.

Table 6.24 Mixed Results of Linkages among Constructs by Subgroup

	EE-IU	EE-MT	SI-IU	TW-MT	OE-IU	MT-EU
Younger	ns	s	ns	ns	s	s
Older	s	ns	ns	s	ns	ns
Beginner	ns	ns	s	s	s	ns
Expert	s	s	ns	ns	s	s
Metropolitan	s	s	s	s	s	ns
Non-Metropolitan	ns	s	s	s	s	ns

EE = effort expectancy   SI = social influence   EU = e-Services usage
TW = trustworthiness   OE = outcome expectancy   s = significant
MT = motivation   IU = intention to use   ns = not significant

In the relationship between effort expectancy and intention to use, for example, for the younger group (β=0.040 and t=0.765 in Figure 6.2a), beginners (β=0.071 and t=1.377 in Figure 6.3a), and non-metropolitan group (β=0.061 and t=0.989 in Figure 6.4b) it was found to be insignificant. Conversely, this relationship was significant for the older group (β=0.188 and t=3.088 in Figure 6.2b), experts (β=0.119 and t=2.192 in Figure 6.3b), and metropolitan group (β=0.144 and t=3.034 in Figure 6.4a).

Furthermore, the link between effort expectancy and motivation was significant for the younger group (β=0.190 and t=3.076 in Figure 6.2a), experts (β=0.157 and t=2.481 in Figure 6.3b), metropolitan group (β=0.108 and t=2.112 in Figure 6.4a),

and non-metropolitan group (β=0.125 and t=2.301 in Figure 6.4b). However, no significant links were found for the older group (β=0.034 and t=0.506 in Figure 6.2b), and beginners (β=0.030 and t=0.495 in Figure 6.3a).

In addition, concerning the relationship between social influence and intention to use, the younger group (β=0.062 and t=1.422 in Figure 6.2a), older group (β=0.107 and t=1.692 in Figure 6.2b), experts (β=0.073 and t=1.447 in Figure 6.3b), and metropolitan group (β=0.038 and t=0.809 in Figure 6.4a) there was no significant link. However, this relationship was significant for the beginner group (β=0.137 and t=2.659 in Figure 6.3a), and non-metropolitan group (β=0.130 and t=2.355 in Figure 6.4b).

In terms of trustworthiness and motivation, the younger group (β=0.103 and t=1.909 in Figure 6.2a) and the experts (β=0.084 and t=1.457 in Figure 6.3b) were found to have an insignificant relationship. With regards to the interrelationship between outcome expectancy and the intention to use, only the older group was found to be insignificant compared to other groups (β=0.115 and t=1.743 in Figure 6.2b).

In the relationship between motivation and e-Services usage, it was significant for the younger group (β=0.129 and t=2.014 in Figure 6.2a), and experts (β=0.138 and t=2.042 in Figure 6.3b). However, it was found to be insignificant for the older group (β=0.052 and t=0.690 in Figure 6.2b), beginners (β=0.074 and t=1.087 in Figure 6.3a), metropolitan group (β=0.110 and t=1.774 in Figure 6.4a), and non-metropolitan group (β=0.099 and t=1.348 in Figure 6.4b).

6.5.2.2.5 Subgroup Path Interrelationships

Since the samples were not of the normal distribution and the variances of groups were different, to examine the moderating effects of age, experience and geographical area, the Smith-Satterwait test was employed to calculate a pooled error t-test (Moore and Chang 2006). The t-test value is calculated as follow (Chin 1998b):

$$t = \frac{Path_{Sample\_1} - Path_{Sample\_2}}{\sqrt{S.E.^2_{Sample\_1} + S.E.^2_{Sample\_2}}} \qquad \textbf{\textit{Equation 3}}$$

The path sample refers to the path coefficient value according to the subgroup, whereas S.E. refers to the standard error value of the subgroup. Both the values of

path coefficient and S.E. were generated automatically from PLS-Graph by using the bootstrapping method (Chin and Dibbern 2010). Table 6.25 below provides detailed information for both values as well as the *t*-test values based on subgroups.

Table 6.25 Results of Pooled Error Term *t*-Tests by Subgroup

| Path | Age | | | | |
| | Younger | | Older | | *t*-Statistic |
	Path Coeff.	SE from bootstrap	Path Coeff.	SE from bootstrap	
EE → IU	0.188	0.0523	0.040	0.0609	**1.844***
EE → MT	0.034	0.0618	0.190	0.0672	**-1.709***
SI → IU	0.107	0.0436	0.062	0.0632	0.586
SI → MT	0.326	0.0461	0.349	0.0619	-0.298
FC → EU	-0.073	0.0557	-0.030	0.0540	-0.554
FC → EE	0.195	0.0403	0.157	0.0601	0.525
FC → OE	0.221	0.0426	0.221	0.0517	0.000
PC → IU	-0.052	0.0384	-0.012	0.0464	-0.664
PC → MT	-0.001	0.0319	-0.005	0.0448	0.073
TW → IU	-0.083	0.0609	0.096	0.0696	**-1.936***
TW → MT	0.216	0.0540	0.103	0.0731	1.243
TW → EE	0.437	0.0410	0.588	0.0591	**-2.099****
TW → OE	0.475	0.0472	0.530	0.0509	-0.792
OE → IU	0.115	0.0575	0.184	0.0660	-0.788
OE → MT	0.303	0.0450	0.234	0.0727	0.807
MT → IU	0.432	0.0561	0.343	0.0580	1.103
MT → EU	0.052	0.0641	0.129	0.0754	-0.778
IU → EU	0.483	0.0521	0.391	0.0494	1.281
Path	**Experience**				
	Beginner		Expert		*t*-Statistic
	Path Coeff.	SE from bootstrap	Path Coeff.	SE from bootstrap	
EE → IU	0.071	0.0516	0.119	0.0543	-0.641
EE → MT	0.033	0.0667	0.157	0.0633	-1.349
SI → IU	0.137	0.0515	0.073	0.0505	0.887
SI → MT	0.343	0.0564	0.322	0.0514	0.275
FC → EU	-0.030	0.0495	-0.033	0.0471	0.044
FC → EE	0.136	0.0477	0.195	0.0572	-0.792
FC → OE	0.140	0.0466	0.273	0.0421	**-2.118****
PC → IU	-0.064	0.0434	-0.019	0.0364	-0.794
PC → MT	-0.040	0.0395	0.014	0.0388	-0.975
TW → IU	0.022	0.0670	0.022	0.0504	0.000
TW → MT	0.283	0.0592	0.084	0.0577	2.407
TW → EE	0.585	0.0510	0.509	0.0457	0.818
TW → OE	0.530	0.0522	0.488	0.0447	0.611
OE → IU	0.229	0.0586	0.113	0.0513	1.489
OE → MT	0.198	0.0492	0.315	0.0547	-1.590
MT → IU	0.312	0.0672	0.409	0.0526	-1.137
MT → EU	0.074	0.0681	0.138	0.0676	-0.667
IU → EU	0.455	0.0631	0.382	0.0430	0.956

Significant *p<0.10; **p<0.05

Table 6.25 Continued

Path	Geographical Area				
	Metropolitan		Non-Metropolitan		
	Path Coeff.	SE from bootstrap	Path Coeff.	SE from bootstrap	*t*-Statistic
EE → IU	0.144	0.0475	0.061	0.0617	1.066
EE → MT	0.108	0.0511	0.125	0.0543	-0.228
SI → IU	0.038	0.0470	0.130	0.0552	-1.269
SI → MT	0.284	0.0507	0.399	0.0546	-1.543
FC → EU	-0.091	0.0474	0.011	0.0539	-1.421
FC → EE	0.145	0.0376	0.185	0.0639	-0.534
FC → OE	0.191	0.0507	0.242	0.0483	-0.728
PC → IU	0.000	0.0408	-0.078	0.0420	1.332
PC → MT	-0.022	0.0386	0.015	0.0516	-0.574
TW → IU	0.027	0.0469	-0.009	0.0625	0.461
TW → MT	0.125	0.0520	0.192	0.0746	-0.737
TW → EE	0.532	0.0383	0.540	0.0498	-0.127
TW → OE	0.536	0.0447	0.481	0.0419	0.898
OE → IU	0.168	0.0600	0.157	0.0625	0.127
OE → MT	0.342	0.0517	0.172	0.0746	**1.873***
MT → IU	0.355	0.0542	0.415	0.0625	-0.725
MT → EU	0.110	0.0620	0.099	0.0734	0.115
IU → EU	0.388	0.0532	0.457	0.0630	-0.837

Significant *$p<0.10$; **$p<0.05$

The values of the *t*-test indicate some significant effects of age, experience and geographical area. For example, there was a significant effect of age on the link between: effort expectancy and intention to use ($t=1.844$; $p=0.10$); effort expectancy and motivation ($t=-1.709$; $p=0.10$); trustworthiness and intention to use ($t=-1.936$; $p=0.10$); and trustworthiness and effort expectancy ($t=-2.099$; $p=0.05$). There was a significant effect of experience on the link between facilitation conditions and outcome expectancy ($t=-2.118$; $p=0.05$). There was a significant effect of geographical area on the link between outcome expectancy and motivation ($t=1.873$; $p=0.10$). The analysis of corresponding hypotheses will be described in Section 6.6.2.

6.6 Hypothesis Testing

6.6.1 Testing of Hypotheses with Antecedent Factors

As mentioned in Section 6.5.1.2, eighteen hypotheses were tested that were concerned with the main effects of antecedent factors on e-Services usage. The results are presented in Table 6.26 below. Discussion of these results will be presented in Chapter 7.

Table 6.26 Summary of Hypotheses Testing of Antecedent Factors

	Hypotheses	β	t –value	Result
H1	Effort expectancy positively influences consumers' behavioural intention to use e-Services.	0.113	3.138**	Supported
H2	Effort expectancy positively influences consumers' motivation to use e-Services.	0.116	2.212*	Supported
H3	Social influence positively affects consumers' behavioural intention to use e-Services.	0.085	2.710**	Supported
H4	Social influence positively influences consumers' motivation to use e-Services.	0.331	9.479***	Supported
H5	Facilitating condition positively influences consumers' e-Services usage..	-0.041	1.305	Not Supported
H6	Facilitating condition positively influences effort expectancy.	0.164	4.286***	Supported
H7	Facilitating condition positively influences outcome expectancy.	0.218	6.589***	Supported
H8	Privacy concerns negatively influences consumers' behavioural intention to use e-Services	-0.027	0.705	Not supported
H9	Privacy concerns negatively influences consumers' motivation to use e-Services.	-0.012	0.139	Not supported
H10	Trustworthiness positively influences consumers' behavioural intention to use e-Services.	0.017	0.434	Not supported
H11	Trustworthiness positively influences consumers' motivation to use e-Services.	0.511	3.843***	Supported
H12	Trustworthiness positively influences effort expectancy.	0.536	15.260***	Supported
H13	Trustworthiness positively influences outcome expectancy.	0.511	15.364***	Supported
H14	Outcome expectancy positively influences consumers' behavioural intention to use e-Services.	0.160	3.907***	Supported
H15	Outcome expectancy positively influences consumers' motivation to use e-Services.	0.267	6.180***	Supported
H16	Motivation positively influences consumers' behavioural intention to use e-Services.	0.368	9.018***	Supported
H17	Motivation positively influences the use of e-Services.	0.097	1.986*	Supported
H18	Intention to use has a significant positive influence on e-Services usage.	0.429	10.967***	Supported

Significance *p<0.05; **p<0.01; ***p<0.001

As can be seen in the table above, out of the 18 hypotheses, 14 were supported and 4 were not supported. The following section is a detailed discussion of the results of testing for each hypothesis that has been summarized in the table above.

6.6.1.1 Hypotheses H1 and H2

Hypothesis H1 predicts that effort expectancy will be positively related to intention to use e-Services. The results uphold this. The path coefficient (β) from effort expectancy to intention to use is 0.113, with a t-value of 3.138 ($p<0.01$). Although the path coefficient of this relationship is relatively low, prior studies have still accepted as long as the t-value is significant (Igbaria, Parasuraman and Baroudi 1996; Pajares 1996; Pavlou 2003). Therefore, hypothesis H1 is supported. Accordingly, the results suggest that effort expectancy has a positive impact on intention to use e-Services.

The same results are obtained for hypothesis H2. Effort expectancy has a positive effect on motivation to use e-Services ($\beta=0.116$ and $t=2.212$ with $p<0.05$). Therefore, hypothesis H2 is supported. Thus, this study reveals that effort expectancy has a positive and significant association with a customer's motivation.

6.6.1.2 Hypotheses H3 and H4

Hypothesis H3 is concerned with the relationship between social influence and intention to use. In this study, the effect of social influence is found to be significantly associated with intention to use ($\beta=0.085$ and $t=2.710$ with $p<0.01$). Even though the path coefficient is low, the t-value is significant (Igbaria, Parasuraman and Baroudi 1996; Freeze et al. 2010), therefore, hypothesis H3 is supported. As a result, it can be suggested that a customer's perspective on social influence has a significant relationship with intention to use.

Hypothesis H4 examines the relationship between social influence and motivation to use e-Services. This study finds that the path coefficient (β) from social influence to motivation is 0.331 with a t-value of 9.479 ($p<0.001$). Therefore, this hypothesis also is supported. Thus, it can be inferred that there is a significant positive relationship between social influence and motivation.

6.6.1.3 Hypotheses H5, H6 and H7

Hypothesis H5 investigates the influence of facilitating conditions on customers' use behaviour regarding e-Services. This study finds that the influence of facilitating

conditions on customers' use behaviour is not statistically significant. The path coefficient (β) from facilitating conditions to customers' use behaviour is -0.041 with a t-value of 1.230. Therefore, this hypothesis is not supported.

Hypotheses H6 and H7 are concerned with facilitating conditions' relationship with effort expectancy and outcome expectancy, respectively. The results suggest support for both hypotheses H6 and H7. Facilitating conditions have a positive effect on both effort expectancy (β=0.164 and t=4.286 with p<0.001) and outcome expectancy (β=0.218 and t=6.589 with p<0.001). Although the path coefficient of the link between facilitating conditions and effort expectancy is relatively low (β=0.164), prior studies have still accepted such a situation as long as the t-value is significant (Wetzels, de Ruyter and van Birgelen 1998; Pajares 1996). Therefore, hypotheses H6 and H7 are supported. Hence, it can be inferred that facilitating conditions have a positive effect on both effort expectancy and outcome expectancy.

6.6.1.4 Hypotheses H8 and H9

For hypotheses H8 and H9, there is a negative effect of privacy concerns in the usage of e-Services upon intention to use and motivation. The results show that the effect of privacy concerns on both intention to use (β=0.027; t=0.705) and motivation (β= -0.012; t=0.139) are not statistically significant. Therefore, hypotheses H8 and H9 are not supported.

6.6.1.5 Hypotheses H10, H11, H12 and H13

Hypothesis H10 proposes that there is a positive relationship between trustworthiness and a consumer's intention to use e-Services. This relationship is shown to be insignificant. The path coefficient (β) from trustworthiness to intention to use is 0.017 with a t-value of 0.434. Therefore, hypothesis H10 is not supported.

Hypothesis H11 investigates the impact of trustworthiness on a customer's motivation to use e-Services. This study finds that there is, indeed, a positive relationship between trustworthiness and customer motivation (β=0.511 and t=3.843 with p<0.001). Hypothesis H11 is accepted. Hence, this study finds that trustworthiness has a positive influence on the motivation of customers.

Hypotheses H12 and H13 investigate the positive effects of trustworthiness on effort expectancy and outcome expectancy, respectively. The study finds that trustworthiness has an influence on both effort expectancy and outcome expectancy. The results supported both hypotheses: H12 (β=0.536 and t=15.260 with p<0.001); and H13 (β=0.511 and t=15.364 with p<0.001). As a result, it can be stated that trustworthiness has a positive and significant impact on both effort expectancy and outcome expectancy.

6.6.1.6 Hypotheses H14 and H15

Hypothesis H14 explores the influence of outcome expectancy on intention to use e-Services. The relationship between outcome expectancy and intention to use has a path coefficient (β) of 0.160 with t-value of 3.907 (p<0.001). Although the path coefficient of this relationship is relatively low, prior studies have accepted similar relationships as long as the t-value is significant (Igbaria, Parasuraman and Baroudi 1996; Pajares 1996). Therefore, hypothesis H14 is supported. As a result, it can be inferred that outcome expectancy has a positive effect on intention to use.

The same result is obtained for hypothesis H15 which expected a positive relationship between outcome expectancy and motivation to use e-Services. The results of the relationship between outcome expectancy and motivation produced a path coefficient (β) of 0.267 with t-value of 6.180 (p<0.001). Therefore, hypothesis H15 is supported. Hence, this study finds that outcome expectancy influences motivation to use e-Services.

6.6.1.7 Hypotheses H16 and H17

Hypothesis H16 proposes that motivation and intention to use would have a positive relationship. The study finds that the influence of motivation on intention to use is statistically significant. The path coefficient (β) from motivation to intention to use is 0.368 with t-value of 9.018 (p<0.001). Therefore, the notion that there is a positive and significant relationship between motivation and intention to use e-Services is supported.

Similarly, the results also support hypothesis H17 that predicts a positive relationship between motivation and e-Service usage. This study finds that this relationship is

statistically significant. The path coefficient (*β*) from motivation to e-Service usage is 0.097 with a *t*-value of 1.986 (*p*<0.05). The path coefficient is low, but, because the t-value is significant, hypothesis H17 is accepted (Igbaria, Parasuraman and Baroudi 1996; Freeze et al. 2010) and supported. Thus, it can be suggested that motivation has a significant positive effect on e-Service usage.

6.6.1.8 Hypothesis H18

Hypothesis H18 is concerned with the influence of intention to use on e-Service usage. As expected, the study finds that it is statistically significant (*β*=0.429 and *t*=10.967 with *p*<0.001). Hence, it can be stated that there is a significant positive relationship between intention to use and e-Service usage.

6.6.2 Testing of Hypotheses with Moderating Factors

As mentioned in Section 6.5.2.2, the findings of the moderating effects of age, experience and geographical area are shown in Table 6.25. Results of the testing for hypotheses concerning the three moderating factors are mixed. A summary of these results is presented in Table 6.27 below.

Table 6.27 Summary of Testing of Hypotheses with Moderating Factors

	Hypotheses	Based on path coefficient and *t*–value	Result
H19	Greater age has a significant moderating effect on consumers' e-Services usage.	14 out 18 links insignificant	Not Supported
H20	Lack of experience in use of the Internet has a significant moderating effect on consumers' e-Services usage.	17 out 18 links insignificant	Not Supported
H21	Geographical isolation has a significant moderating effect on consumers' e-Services usage.	17 out 18 links insignificant	Not Supported

6.6.2.1 Hypothesis H19

For the effect of greater age, significant differences are found in the paths between: effort expectancy and intention to use (*t*=1.848; *p*<0.10); effort expectancy and motivation (*t*=1.709; *p*<0.10); trustworthiness and intention to use (*t*=1.936; *p*<0.10); and trustworthiness and outcome expectancy (*t*=2.093; *p*<0.05). No moderating

effects were found in other paths, so, based on the overall outcome, hypothesis H19 could not be supported.

6.6.2.2 Hypothesis H20

With regard to the effects of lack of experience in use of the Internet, significant difference is found in the link between facilitating conditions and outcome expectancy (t=2.118; p<0.05), indicating that the process of dealing with facilitating conditions and outcome expectancy is somewhat different between the beginner group (β=0.140) and the expert group (β=0.273). Apart from this significant link, other paths show no significant effects. Based on the overall findings, hypothesis H20 is not supported.

6.6.2.3 Hypothesis H21

In relation to the effects of geographical isolation, the results show that a significant difference exists only in the path between outcome expectancy and motivation (t=1.873; p<0.10). This result indicates that, when deciding to adopt e-Services, customers in the metropolitan (β=0.342) and non-metropolitan (β=0.172) area groups are different in terms of the influence of outcome expectancy on their motivation to use the e-Services. Apart from this difference, no significant difference is found in the other paths. Hence, H21 is not supported.

6.7 Summary

This chapter has presented the method of conducting the national survey, and the results of the analysis using the Partial Least Square (PLS) statistical method. In the first section, descriptions of the survey were given concerning the data collection and validation. This study involved 819 respondents who were customers of Indonesian airlines. In the descriptive statistics section, frequencies and percentages were used to describe the demographic characteristics of the respondents. Thirteen categories were selected to describe the respondents' backgrounds.

Next, PLS procedures were applied in two separate stages to show the validity and reliability of the measurement model and the structural model. In the first stage, the

PLS was carried out to examine the influence of antecedent factors in the e-Service usage of the customers of Indonesian airlines. In the second stage, the PLS was used to examine the moderating effects of age, experience and geographical area. Further analysis using multigroup analysis was conducted on these demographic variables.

In the last section, the research hypotheses were tested based on all of the analysis results. Out of the 21 hypotheses, 14 hypotheses were supported while 7 hypotheses were not supported. Discussion regarding the implications of these results are presented in Chapter 7.

Chapter 7 Discussion and Implications

7.1 Introduction

In this chapter, the results of the analysis are interpreted and discussed, with possible explanations and implications proposed. The first section provides the interpretation and discussion of the results related to the antecedent factors of e-Service usage. The second section presents the discussion of the results of the moderating effects of the demographic factors. The last section describes the implications of this study.

7.2 Interpretation and Discussion of the Research Results

Previous chapters have reported the proceedings of the study leading to the research results. Hypothesis development was described in Chapter 5, based on the final research model (Figure 4.2). The testing of hypotheses was conducted by examining the t-values and path coefficients (β). As reported in Chapter 6, fourteen hypotheses were supported, while the other seven were not supported. Following this evaluation, the next section will provide the interpretation and discussion of the results, commencing with those related to the antecedent factors of e-Service usage.

7.2.1 Antecedent Factors of E-Services

Eighteen hypotheses were developed concerning factors in the structural model and three hypotheses were developed concerning the demographic variables. Hypothesis testing was conducted as outlined in the previous chapter. Discussion and interpretation are presented below.

7.2.1.1 Hypotheses Related to the Effects of Effort Expectancy

Two hypotheses were developed to explain the effect of effort expectancy on intention to use (H1) and motivation (H2). Referring to the literature in the IT domain, effort expectancy was established to have an influence on intention to use. It was also predicted to have an impact on motivation. Results from the field study revealed that effort expectancy has an effect on intention to use. The relationship between effort expectancy and motivation also emerged. The following section will discuss, in detail, the results of the hypotheses related to effort expectancy.

Hypotheses H1 and H2

Data analyses showed that effort expectancy had a significant positive influence on customers' intention to use e-Services (H1: β=0.113; t=3.138; p<0.01). Effort expectancy positively related to the intention to use e-Services. This finding suggests that a customer's positive effort expectancy regarding an e-Service is indicated by his/her perception of its ease of use, i.e. the little effort required to use it. Conversely, it can be said that high complexity of technology and information loading, which often results in confusion and a lack of understanding, may discourage customers to use e-Services. In several cases, complexity and design issues have discouraged participants from pursuing e-Services (Lichtenstein and Williamson 2006). This is consistent with previous studies on IT usage (Venkatesh et al. 2003; Venkatesh and Davis 2000; Davis 1989; Davis, Bagozzi and Warshaw 1989; Schaper and Pervan 2007; Hung, Wang and Chou 2007; Xu and Gupta 2009; Carter and Belanger 2005; Gefen, Karahanna and Straub 2003a; Pavlou 2003). These previous studies support the notion that the use of a system is dependent on how easy it is to use. Results of the present study are in agreement with this notion.

Hypothesis H2 found that effort expectancy positively influenced motivation (H2: β=0.116; t=2.212; p<0.05). With regards to the link between effort expectancy and motivation to use e-Services; although the link has a low path coefficient, the finding shows that effort expectancy has a significant effect on motivation. This indicates that increasing levels of ease in using e-Services will increase customers' motivation to use them. This result supports the findings of Lee et al. (2010), that a desktop learning environment that is easy to use motivates people to become users. A similar

163

conclusion was made by Sun et al. (2008) who argued that a learning system that is easy to use makes individuals more motivated to learn with the system provided.

Consistent with the field study, the current study suggests that the characteristics of effort expectancy such as 'ease of use' and 'ease of learning' have a positive effect on how customers are motivated and how they intend to use e-Services. It seems suggestive that the positive links of effort expectancy to intention and motivation provide some evidence that effort expectancy is likely to be necessary in establishing positive customer perceptions of their e-Service usage.

Accordingly, it is possible to interpret this as meaning that the customers will have motivation and intention to use e-Services commensurate with the level of difficulty of the information within the e-Service systems, as well as the ease the consumers' experience in using those e-Services. For airline e-Services, this means being presented in simple language with clear instructions.

An implication of these findings can be that e-Service systems should have a more user-friendly interface to increase customers' intention and motivation to use them. In Indonesian circumstances, airline companies need to identify ways to improve their e-Service systems so that customers find them easy to use. In order to do this, inputs from customers should be considered.

7.2.1.2 Hypotheses Related to Effects of Social Influence

Two main hypotheses were developed to explain the effects of social influence on intention (H3) and motivation (H4) to use e-Services. As mentioned earlier, previous studies have indicated the positive effects of social influence on intention to use and motivation regarding e-Services usage. These correlations were supported by findings from the field study that indicated social influence plays an important role in determining a customer's intention and motivation in regard to e-Services usage. The discussion of the hypothesis testing results related to social influence is presented below.

Hypotheses H3 and H4

The research hypotheses stated that social influence upon customers significantly increased their intentions (H_3: β=0.085; t=2.710; p<0.01), and motivation (H_4:

β=0.331; t=9.479; $p<0.001$), in the use of e-Services. With regards to the effect of social influence on intention to use, this finding is consistent with previous studies (Tung and Rieck 2005; Hung, Wang and Chou 2007; Wang and Shih 2009; Carter and Schaupp 2009). Venkatesh et al. (2003) agreed that social influence had an impact on individual behaviour through three mechanisms: compliance, internalization and identification in mandatory settings. In addition, the studies by Venkatesh and Davis (2000) and Mathieson (1991) mention that the impact of social influence on intention to use would become less significant if users are in a voluntary-usage context. This is supported by the findings in this study, in which the link of social influence to intention had a low significance probably due to the voluntary-usage context.

However, the link between social influence and motivation was found to be significant. Support for hypothesis H4 in this study supports the work of Mok and Kwong (1999) who noted that social influence has a strong relationship with motivation. Wentzel (1998) also confirmed the role of social relationships in motivation. Hence, one potential explanation for the finding could be that customers are motivated in their use of e-Services because of peer group pressure. Customers learn from their peers who have experienced newer e-Services technology (Davila, Gupta and Palmer 2003).

The above findings are consistent with the results from the field study. The findings of this study provide evidence, in the contexts of Indonesian airline e-Services, that social influences, such as colleagues' persuasion, support from supervisors, friends' encouragement, inspiration from other passengers and the resultant feeling of higher prestige could influence the customers' perspectives on their intention and motivation to use e-Services.

An implication of these findings can be that Indonesian airlines should be aware of the importance of social influence. Therefore, it is important for them to build customers' perceptions about Indonesian airline e-Services. For example, a customer who has been successfully using Indonesian airline e-Services will relate his/her airline's experience to his relatives and/or colleagues and influence their adoption of those e-Services. Such a situation must become an important consideration for airline companies in promoting their services.

7.2.1.3 Hypotheses Related to the Effects of Facilitating Conditions

Three hypotheses were developed to explain the influences of facilitating conditions on: e-Services usage (H5); effort expectancy (H6); and outcome expectancy (H7). Based on literature in the IT area, airline companies would provide facilitating conditions in the form of an environment that makes it easy to use e-Services, such as the availability of technical infrastructure support, tutorials and call centres or online-help. Prior studies have recorded the positive effect of facilitating conditions on effort expectancy. From the field study, a significant link was found between facilitating conditions and outcome expectancy. The following section will discuss in detail the results of the hypothesis testing related to facilitating conditions.

Hypotheses H5, H6 and H7

Hypothesis H5 was not supported (H$_5$: β=-0.041; t=1.305). Evidence was mixed. Firstly, this finding is similar to other studies that found insignificant relationships between facilitating conditions and the use of IT (Al-Gahtani, Hubona and Wang 2007; Yeow and Loo 2009). Secondly, this finding was not in line with previous studies (Venkatesh et al. 2003; Hung, Wang and Chou 2007; Hong and Kang 2007; Gupta, Dasgupta and Gupta 2008) that found significant influences of facilitating conditions on actual behaviours. Moreover, this finding is also inconsistent with the results of the field study. Other sources in literature also have shown that individual beliefs in the existence of organizational and technical infrastructure will support IT usage (Wills, Gayar and Bennett 2008; Eckhardt, Laumer and Weitzel 2009).

The lack of significance of facilitating conditions affecting e-Services usage could be attributed to the given circumstances. Firstly, it is possible that the respondents were not familiar with the support facilities that have been provided by Indonesian airlines and, thus, did not see these facilities as important. Secondly, a possible explanation is that the respondents had adequate internet access and considerable experience in using the Internet, so they did not perceive any difficulties when using the Indonesian airline e-Services.

Hypothesis H6 was supported (H$_6$: β=0.164; t=4.286; p<0.001). Unlike the above result, this study has found that facilitating conditions statistically influence effort expectancy, although the link has a low path coefficient. This outcome is consistent

with the results from the field study and previous studies (Mazman and Usluel 2009; Ngai, Poon and Chan 2007). They revealed that technical support was found to have an effect on effort expectancy. Based on this result, it can be interpreted that the customers' effort expectancy perceptions are affected by availability of technical infrastructure that supports e-Service ease of use. It can also be said that technical support becomes important for users who are lacking in IT literacy, such as less experience of using the Internet and lack of computer skills.

Hypothesis H7 was supported (H$_7$: β=0.218; t=6.589; p<0.001). This study also found that facilitating conditions positively influence outcome expectancy. From this, it can be interpreted that customers' perceptions of outcome expectancy can be influenced by the availability of support from e-Service providers. For example, customers can access and obtain information quickly because of the high quality in the design and technical infrastructure support. This finding is in agreement with the results of the field study, suggesting that customers will feel happy and satisfied if they get a quick and satisfactory solution when they encounter problems in using e-Services.

Considering the results of H6 and H7 hypothesis testing, it is recommended that Indonesian airlines should emphasize the importance of customer support and technical infrastructure. Moreover, the design and development of e-Service systems should comply with those two prerequisites (effort expectancy and outcome expectancy); customers will tend to be motivated to use the Indonesian airline e-Services.

7.2.1.4 Hypotheses Related to the Effects of Privacy Concerns

Hypotheses H8 and H9 were developed to test the effects of privacy concerns on intention and motivation to use e-Services. In the literature, privacy concerns can be defined as customers' concerns about keeping their personal information private (Phelps, D'Souza and Nowak 2001). Findings of previous studies generally have been associated with the negative effects of privacy concerns on an individual's intention behaviour. Privacy concerns were also expected to have a negative influence on motivation. The results of the hypothesis testing are discussed in detail below.

Hypotheses H8 and H9

Hypothesis H8 was not supported (H$_8$: β=-0.027; t=0.705). This means that the current study has found that privacy concerns do not have a significant negative impact on consumers' intentions to use e-Services. This result is different from those of earlier studies (Dinev and Hart 2006a, 2006b; Liao, Liu and Chen 2011). The lack of statistical support for privacy concerns was extraordinary, given the support for this factor in the field study interviews. However, this result supports the findings of other prior studies (Yang, Wang and Wang 2008; Xu and Gupta 2009; Cases et al. 2010) revealing that privacy concerns were not related to behavioural intention. From this result, it can be concluded that there was a general lack of privacy concerns among the customers in using e-Services. They might not be anxious of misuse of their personal information that has already been submitted when using the e-Services due to trust in those e-Service sites. For example, a consumer is not worried about giving his or her credit card number over the Internet if he or she trusts to the site (Klassen, Gupta and Bunker 2009).

Hypothesis H9 was not supported (H$_9$: β=-0.012; t=0.139). Similar to the results above, the correlation between privacy concerns and motivation was insignificant. This finding is different from the results of the field study, as well as the work of Culnan and Armstrong (1999) who revealed that business firms emphasize privacy of information to motivate their customers to allow the firms to manage their information privacy. However, in the case of the present study, privacy concerns are not an issue in relation to the motivation of customers in their use of e-Services.

One plausible explanation for these insignificant findings can be attributed to the cultural values of the customers, as it has been found by Milberg et al. (2000) that cultural values have different effects on consumers' concerns about information privacy. In the Indonesian context, Indonesian culture can be classified as one having a low individualism aspect (Abdat and Pervan 1999). It is possible that more collectivistic Asian cultures tend to be less sensitive to the misuse of private information (Chiou, Chen and Bisset 2009). These findings are also similar to previous studies conducted by Yu et al. (2007) in China, and Xu and Gupta (2009) in Singapore, which are based on eastern cultures. For example, much private

information such as marrital status, date of birth, etc. is shared in Indonesian social networks.

An implication of these findings can be that, presently, Indonesian airlines need not be too worried about the issue of privacy concerns regarding their Indonesian customers. This is because it seems that Indonesian customers do not pay much attention to the significance of privacy concerns in e-Services usage. However, there may come a time when people must give more attention to privacy concerns in this case. Indonesian airline companies should be active in increasing awareness of the importance of privacy concerns among their customers; for example, by putting privacy concern links in their e-Service systems. In this way, customers can learn and understand when making online transactions that their privacy is adequately protected through the e-Service sites. The Indonesian government could also launch a campaign to increase customers' attention regarding personal information protection. The customers should know that their personal information is safe and protected by law.

7.2.1.5 Hypotheses Related to the Effects of Trustworthiness

Four hypotheses were developed to describe the effects of trustworthiness on intention to use (H10), motivation (H11), effort expectancy (H12) and outcome expectancy (H13). Based on previous literature, trustworthiness was proven to have effects on intention to use e-Services. It was also expected to have an impact on motivation, effort expectancy and outcome expectancy in the use of e-Services. Results are mixed. Discussions of the results related to trustworthiness are presented below.

Hypotheses H10, H11, H12 and H13

Hypothesis H10 was not supported (H_{10}: β=0.017; t=0.434). It is a common expectation that trustworthiness will positively influence the intention to use e-Services. Evidence from the empirical analysis, however, did not support this hypothesis. The lack of a significant link between trustworthiness and intention to use is interesting as it is in contrast with previous IT literature (Jarvenpaa, Tractinsky and Vitale 2000; Gefen and Straub 2003; Slyke, Belanger and Comunale 2004; Carter and Belanger 2005). However, this result supports the findings of Plewa and

Quester (2007) and Garrity et al. (2009) who found an insignificant relationship between trust and behavioural intention.

Hypothesis H11 was supported (H_{11}: β=0.511; t=3.843; p<0.001). In contrast to the above, the findings provided support for H11 in the positive relationship between trustworthiness and motivation. This result suggests that customers' motivation in using e-Services is influenced by their perceptions of, and beliefs in, those e-Services and the airline companies that provide them. In addition, this finding empirically supports previous studies (Dirks 1999; Falk and Kosfeld 2004; Zolin, Fruchter and Hinds 2003) that noted the impact of trustworthiness on motivation.

Hypothesis H12 was supported (H_{12}: β=0.536; t=15.260; p<0.001). This finding indicates that trustworthiness enhances effort expectancy. It is consistent with the findings of Pavlou (2003) and Chircu et al. (2000) which mentioned that the consumers' beliefs towards an e-Services system will give them more ease and require less effort in using e-Services. It can be interpreted that most customers become more confident to do their transactions via e-Services because they have a perception that trustworthy airline companies will develop and provide an easy-to-use system.

Hypothesis H13 was supported (H_{13}: β=0.511; t=15.364; p<0.001). Like the result above, a significant finding in the correlation between trustworthiness and outcome expectancy was found. The support of this hypothesis (H13) demonstrates an interesting finding. This finding provides empirical evidence that trustworthiness has a positive influence on outcome expectancy. This is in line with the results of the field study. Based on this result, it can be inferred that customers believe that trustworthy airline companies will provide more benefits when they develop their e-Services.

Considering these findings, Indonesian airlines are encouraged to increase customer trust through advertising and marketing campaigns. Among other things that can be done, the Indonesian airlines can provide virtual advisors and unbiased information, keep promises and offer reliable performance of services (Urban, Sultan and Qualls 2000). Furthermore, Indonesian airlines may present company policies, (such as product and service warranty policies, or credit card loss assurance policies), user-

friendliness and reliability (Lee and Turban 2001). It will then be more probable for customers to develop trust in the Indonesian airline companies, making them more comfortable to use e-Services.

7.2.1.6 Hypotheses Related to the Effects of Outcome Expectancy

Two hypotheses (H14 and H15) were developed to investigate the impacts of outcome expectancy on intention and motivation to use e-Services. According to previous studies, outcome expectancy is proposed as a determinant factor of motivation and intention to use e-Services. These propositions were also supported by the results of the field study. The results are discussed in detail below.

Hypotheses H14 and H15

Hypothesis H14 was supported (H_{14}: β=0.160; t=3.907; p<0.001).With regard to the link between outcome expectancy and intention to use; although the link has a low path coefficient, the finding shows that outcome expectancy has a significant effect on intention. This finding is consistent with the result of the field study and previous studies (Landry 2003; Benbunan-Fich and Arbaugh 2006; Yang et al. 2007). These authors suggested that outcome expectancy is a determinant of behavioural intention. This finding means that the customers' perceptions of e-Service systems fulfil their expectations of outcome when they use those e-Services.

Hypothesis H15 was supported (H_{15}: β=0.267; t=6.180; p<0.001). Outcome expectancy was also shown, empirically, to have a positive and statistically significant influence on motivation. This finding is in line with earlier studies (Harrell and Stahl 1986; Miller and Grush 1988; Elding, Tobias and Walker 2006) in that the increase of expectations will also increase motivation. It can be interpreted that people will always be motivated to get what they expect. In this context, customers will be encouraged to use the e-Services due to multiple benefits that they will get from using them. For example, customers will receive airlines' newsletters when they have already been registered as members of the airline company. A member will be the first to know the latest low fares and other attractive offers, such as package sales with accommodation or special events' tickets.

The research findings demonstrate that the total effect of outcome expectancy on motivation (β=0.267; t=6.180) is higher than that on intention to use (β=0.160; t=3.907). It reveals that the influence of outcome expectancy will motivate the Indonesian airlines' customers in their use of e-Services more than just intention to use.

Today, many e-Services are available with easy-to-use features. Many benefits can be gained by the customers. For example, people do not need to go to the travel agent to purchase airline tickets; it can be done through online transactions via the Internet at home or work. Moreover, a mobile facility could be utilised from anywhere that there is sufficient communication signal. This will help them to be more effective and efficient in carrying out their duties and daily activities.

These above findings suggest that consumers' intentions and motivations to use Indonesian airline e-Services are encouraged by expected outcomes that would be gained after using them. Therefore, the Indonesian airline companies should improve the quality of their e-Service systems to enable them to meet the customers' expectations.

7.2.1.7 Hypotheses Related to the Effects of Motivation

Hypotheses H16 and H17 were developed to explain the impacts of motivation on intention to use and actual usage of e-Services. As mentioned before, motivation was predicted to have an impact on both intention to use and the usage of e-Services. These hypotheses also were supported by the results of the field study. The following section discusses, in detail, the results of hypothesis testing related to motivation.

Hypotheses H16 and H17

Hypothesis H16 was supported (H16: β=0.368; t=9.086; p<0.001) and H17 was supported (H17: β=0.097; t=1.986; p<0.05). The two statistical results suggest that motivation influences the use of e-Services directly and indirectly through intention. Since the effect of motivation on e-Services usage is lower than that of motivation on intention, it is possible to interpret this as a customer being motivated to use e-Services, without intention. It reveals that motivation is an important determinant of e-Services usage even if no or little intention is shown on the part of the users.

The impact of motivation on the usage of e-Services via intention is consistent with the prior study by Igbaria, Parasuraman and Baroudi (1996), which shows that motivation has an impact on actual behaviour through intention. The result of the present study suggests that Indonesian travellers may be motivated to use e-Services due to a driven tendency to use such e-Services. In other words, Indonesian customers are motivated to use e-Services because they are affected by their colleagues or relatives or friends who had often used them before. Therefore, they are likely to be motivated to use e-Services when they are making travel plans. For instance, an Indonesian traveller, who plans to go for a holiday with his/her family or friends, may be motivated to use e-Services. Firstly, he/she browses some airline e-Services looking for flight information and prices. Then, he/she compares them. Finally, he/she makes a decision to buy the tickets that are suitable according to the flight schedule and price. Motivation thus becomes a significant important factor in nurturing the use of the Indonesian airline e-Services, via intention to use.

In regard to the results of the effect of motivation on the usage of e-Services, the finding supports the work of Rahim (2004), which reveals that motivation leads to use (adoption, in the original study) as explained in his Adoption Motivation Model. The relatively low value of the path coefficient (β=0.097), although positive and significant, indicates that a further explanation is needed. Based on this finding in the current study, it can be interpreted that an increase in motivation will result in an increase in the usage of e-Services, in this context. In this case, a possible explanation of the low value is that airline e-Services may be lacking in providing special promotions that can motivate their customers to use e-Services. Therefore, the Indonesian airlines could create more interesting programs, including regular promotions and ticket sales, perhaps weekly, monthly, quarterly, half-yearly or yearly. Based on these promotions, an Indonesian traveller may be motivated to use e-Services for impulsively buying holiday flight tickets that had not been planned previously.

7.2.1.8 Hypothesis Related to the Effect of Intention to Use

Hypothesis H18 was developed to test the impact of intention on actual behaviour. Intention was postulated to be a main determinant factor of actual behaviour, in the IT literature. The result of the field study supports this. To test the impact of

intention on actual behaviour, hypothesis H18 was developed. The following discussion explains, in detail, the research results related to the impact of intention.

Hypothesis H18

Hypothesis H18 was supported (H_{18}: β=0.429; t=10.967; p<0.001). Intention to use was found to be statistically significant and a positive influence on e-Service usage. This is consistent with the theory reason action (TRA) and technology acceptance (TAM and UTAUT) concepts that have consistently showed high correlations between intention and actual use. Therefore, this finding has validated the practical utility of the final model of this study. This means that actual usage of the e-Services by customers is driven by consumers' intentions to use those e-Services.

An implication of this finding could be that Indonesian airlines can use the data of consumers' intentions, from the e-Service log-in systems, to formulate a strategic plan to ensure that the customers maintain their intentions to use the Indonesian airline e-Services (Hung, Wang and Chou 2007). It needs to be noted, at this stage, that intentions are not always tightly linked to what people really do (Rhodes, Courneya and Jones 2003). People may change their minds during as time passes; the original intention may no longer correspond with the actual behaviour (Pieters and Verplanken 1995). In addition, Sheeran and Orbell (1998) found that the intention-behaviour relationship tends to diminish when the time gap between the two exceeds a few months. Therefore, Indonesian airlines should keep in touch with their customers by proposing a variety of offers regularly, such as frequent flyer points, ticket fare sales and tour sales via e-mail subscriptions, social network systems and advertising or marketing events.

7.2.2 Moderating Factors of E-Services Usage

Three hypotheses were developed to investigate the impacts of age, experience and geographical area as moderating factors on the use of e-Services. Results were mixed, although the overall findings were as expected. Descriptions of the individual hypothesis testing are presented below.

7.2.2.1 Hypothesis Related to the Effect of Age

It is expected that age has a moderating effect on the usage of e-Services in that a difference exists in e-Services usage between younger and older customers. In the findings of the present study, some significant differences were identified (refer to Section 6.5.2.2.5 in Chapter 6, namely 4 out of 18 links, such as the links of effort expectancy on motivation and intention to use, and the links of trustworthiness on effort expectancy and intention to use).

In the first case, the younger Indonesian travellers weighed the importance of effort expectancy more than the older Indonesian travellers in determining their intention to use e-Services. In the second case, the older Indonesian travellers considered the importance of effort expectancy in determining their motivation to use e-Services. Possible explanations for these findings are that the increase of ease when using e-Services could influence the intention of young Indonesian travellers to use those services. Likewise, the more easy it is to use the e-Services, the more this will directly affect the motivation of the older Indonesian travellers to use those e-Services, or it could be affected indirectly via intention.

Thirdly, in regard to the significant impact of age on the link between trustworthiness and intention to use, it was found that the older Indonesian travellers had considered trustworthiness more than the younger Indonesian travellers. This suggests that the older Indonesian travellers appear to pay more attention to trustworthiness than the younger Indonesian travellers do when they use e-Services. The same result was found in the significant impact of age on the link between trustworthiness and effort expectancy. Fehr et al. (2003) found that the level of trust reached a peak somewhere around the age of 30 or 40, which was categorized as the older group in this study. Therefore, it can be interpreted that the older Indonesian travellers appear to have a higher expectation of trustworthiness than the younger Indonesian travellers do.

In general, no statistical support was found for the moderating effects of age on the link to e-Services usage (14 out of 18 links). This finding suggests that there is no significant difference between the younger and older Indonesian travellers in the use of Indonesian airline e-Services overall, except as discussed above. Therefore, hypothesis H19 is not fully supported. This outcome is different from prior studies

175

(Eastman and Iyer 2004; Kiel 2005; Dickinson and Gregor 2006; Nayak et al. 2006; Iyer and Eastman 2006; Reisenwitz et al. 2007; McMurtrey, McGaughey and Downey 2008), which have revealed that the younger population has an increased likelihood of using the Internet and enjoying online shopping. However, the finding provides additional support to earlier studies that found no impact of age on individual computer usage (Borghans and Weel 2002; Dickinson and Gregor 2006; Lee 2010).

7.2.2.2 Hypothesis Related to the Effect of Experience

Relating to the impact of experience (H20), a significant influence of experience was only found in the link between facilitating conditions and outcome expectancy. More specifically, expert customers appeared to be more comfortable than beginner customers in e-Services usage. A possible explanation for this is that expert customers might have higher expectations than beginner customers of deriving benefits from using e-Services.

Nevertheless, the overall findings (17 out of 18 links) showed that experience has no role in the usage of e-Services. This is contrary to expectations. In other words, there is no disparity between the beginner and expert customers in their use of Indonesian airline e-Services. Therefore, hypothesis H20 is not supported.

The results are not consistent with the belief that experience influences customers' behaviours in the use of new IT applications (Bruner and Kumar 2000; Shim et al. 2001; Gefen, Karahanna and Straub 2003b; Castaneda, Munoz-Leiva and Luque 2007; Liao and Lu 2008). The finding does, however, provide support for the work of Agarwald, Passad and Zanino (1996). They mention that there is no universal agreement on the impact of experience on IT adoption. It is also supported by the findings from earlier studies (Nysveen, Pedersen and Thorbjørnsen 2005; So, Wong and Sculli 2005) where experience was found not to have any effect on customers' perceptions of using Internet applications, such as online shopping.

Based on the above results, it can be implied that the beginner and expert customers of Indonesian airlines have similar views when dealing with e-Services. This similarity might be related to two possible explanations. Firstly, it might be due to

the fact that both types of respondents have had differing levels but still substantial experiences of Internet use. Secondly, it might be due to the simplicity of use of the e-Services. For example, when an Indonesian airline customer who is less experienced faces difficulties using their e-Services, he or she can ask for help from online support, via e-mail, or by making phone contact with customer service. Alternatively, he or she could also resource to his or her relatives or friends who had already used e-Services before. Now, it is easy to share experience through messages, online forum discussions or social networks that can be accessed quickly and easily via the Internet or mobile phones.

7.2.2.3 Hypothesis Related to the effect of Geographical Area

In terms of the geographical area (H21), a significant difference in location between metropolitan and non-metropolitan residential areas was found. However, this significant difference was limited to the relationship between outcome expectancy and motivation. Firstly, in the Indonesian context, metropolitan Indonesian airline customers might have more reason than non-metropolitan Indonesian airline customers to use e-Services. For example, by completing e-transactions, metropolitan customers can save time in avoiding traffic congestion when travelling to the retail travel agents. Secondly, Indonesian airline customers who live in metropolitan areas appear to have higher levels of motivation to use e-Services than customers who live in the non-metropolitan areas. Most metropolitan customers have more activities during work days than non-metropolitan customers. Therefore, most metropolitan customers are more likely to be motivated to use e-Services. For example, it is possible for people to use e-Services at their desks, without leaving the work being done, or when they are taking a break.

Apart from this finding, the overall findings show that there was no support for the moderating effects of geographical areas on e-Services usage. The outcomes were contrary to those of earlier studies (Farag, Krizek and Dijst 2006; Ren and Kwan 2009), which revealed that the position of residential areas influenced customers' behaviours in using e-Shopping.

In summary, it can be stated that there is not enough evidence to say that the hypotheses related to moderating factors on e-Service usage were not supported. One

possible explanation for these facts is that e-Services have begun to be used widely, regardless of people's ages, usage experiences or geographical areas. The nation has continued to improve the Internet infrastructure to enhance Internet accessibility across the country (Saputra 2012). A variety of ways to be educated in the use of IT are now available and can be easily accessed, not only formally in classrooms, but also informally via Internet facilities such as You Tube, discussion groups, social networking and others. With improved IT infrastructure and widespread IT education of society, both younger and older customers, beginner and expert customers, and customers who live in metropolitan and non-metropolitan areas will have the same opportunities to access and explore the Internet applications.

7.3 Implications

The findings of the study have a number of implications. Firstly, the Indonesian airline industry could use the findings of this study to improve their daily services to customers. Secondly, the Indonesian government may use the findings to support making decisions and regulations related to the practice of e-Services in Indonesia. Other possible users of findings of this study could be users of e-Services, people interested in IT and researchers on e-Services. Implications for these possible benefactors are presented below.

7.3.1 Antecedent Factors of E-Services Usage

In the study, 18 hypotheses have been developed, tested, discussed and interpreted. Implications of the findings are presented individually in the following sections.

7.3.1.1 Effort Expectancy

The research findings show that effort expectancy has an influence over e-Services usage through intention and motivation. This means that customers who have high expectancy of ease of e-Services usage will tend to use e-Services since they have high motivation and intention. A possible implication of this finding is that e-Services developers could expand the capacity and capability of Indonesian airline e-Service systems to be more attractive and user-friendly. To meet this objective, the Indonesian airlines need to identify ways to improve effort expectancy when they

develop e-Service systems. In order to do this, input from the customers should be appreciated and used for improvement purposes. Flexibility in the design of e-Services is also very important to support the attractiveness and user-friendliness of the e-Services.

7.3.1.2 Social Influence

The findings show that social influence has an effect on customer use of e-Services. Colleagues', supervisors' or friends' persuasion, support or encouragement will tend to urge customers to use e-Services. An implication of these findings could be that Indonesian airlines should be aware of the importance of social influence. An individual's decisions and behaviours are not made exclusively by him or her but, rather, are influenced by the characteristics and decisions common to his or her social network (Manski 2000). A person is part of a social network. He or she normally interacts with others in daily life and talks and shares with others concerning what he or she sees and thinks about his or her experiences (Brown, Broderick and Lee 2007). Therefore, person-to-person information exchanges often become an effective mode of promotional media (Okazaki 2008). In this context, consumers might tell of their new experiences to their colleagues, relatives or friends, relating details about the ease and speed of ticket purchases through online transactions, the professionalism of airline staff, both on the ground and in the air, departure and arrival timeliness, etc. This is promotion that is free of charge.

Therefore, it is important for Indonesian airlines to build favourable customer perceptions about their e-Services. For example, a customer who has been successfully using Indonesian airline e-Services will talk about his or her experiences to relatives or colleagues. Such a situation must become an important consideration for airline companies in promoting their services. An example of this effort can be that they should create attractive and innovative programs that can boost customers' motivation and, at the same time, encourage the customers to invite their relatives, colleagues or friends to use the e-Services. In other words, the Indonesian airline companies need to consider ways in which they can attract or influence customers to use e-Services.

7.3.1.3 Facilitating Conditions

The findings show that facilitating conditions do not have an impact on e-Service usage. However, facilitating conditions have a significant influence on effort expectancy and outcome expectancy. In other words, facilitating conditions have an influence on e-Service usage through effort expectancy and outcome expectancy. For example, how facilities are displayed on windows, or in leaflets or pamphlets, may have an impact on whether or not people will use the offered e-Services. Check-in counter facilities are provided by airline websites through computer terminals in airports. In the case of check-in through airport computer terminals, a friendly airline crew can help customers who face any difficulty in using the check-in terminal. Alternatively, airline crews can anticipate when schedules are likely to be heavily booked, such as during holidays or long weekends, and avoid long queues for customers who purchase tickets and check-in via online systems by providing a special line. These priority customers could be identified easily by print out of a different boarding pass. Likewise, airline crews can graciously offer guidance to customers who are comfortable to use the computer terminals check-ins; otherwise they are directed to proceed via the check-in desks.

A possible implication for these findings is that Indonesian airline companies should consider providing infrastructure facilities to support the use of e-Services. For example, airline companies could offer 24/7 customer supports, such as call centres or help desks. As in the example above, airline companies can provide two modes of check-in for customers' convenience. They can also provide virtual staff to respond to online chatting. In addition, programmers can develop a database for solving customers' problems, such as frequently asked questions (FAQs) that can be accessed via e-Service systems. Alternatively, the developers of e-Service systems should be aware of any issues emerging in the usage of e-Services to anticipate problems and provide solutions.

7.3.1.4 Privacy Concerns

The findings have demonstrated an insignificant link between privacy concerns and intention and motivation to use e-Services. This finding suggests that Indonesian customers do not appear to be worried when their personal information is collected

when using the Internet. In this context, most Indonesian customers consider that convenience and pleasure are more important that privacy (Belanger, Hiller and Smith 2002). In other words, as long as they have achieved what they wanted, via e-Services, they are less concerned with the misuse of personal information that may occur.

An implication of this finding is that researchers, airlines and others, who are interested in advancing e-Services usage, could consider educating people to be more concerned about privacy, such as raising customers' awareness to keep safe their personal information that has been incorporated into the website. They can campaign through a variety of media to provide understanding that customers, now or later, should turn to privacy-enhancing technologies to safeguard their online business. Government could also seek to educate providers and users about the importance of protecting the privacy of consumer data used in e-Service transactions. Government should advocate for privacy law as a fundamental human right, including in online transactions (Wirtz, Lwin and Williams 2007).

7.3.1.5 Trustworthiness

The research findings show that trustworthiness has an influence on e-Service usage through effort expectancy, outcome expectancy and motivation. This suggests that trustworthiness has a role to play in Indonesian airline e-Service usage. In other words, customers who have a high level of trust will be motivated to use e-Services for their business transactions. In a culture like Indonesia, once people have trust in a company's services, then they are likely to become a loyal customer (Harris and Goode 2004). For example, in general, people will trust somebody based on his or her history; that is, whether he or she has been trustworthy in the past (Mosley and Grogan 2012).

A possible implication of these findings is that Indonesian airline managers should seek to maintain and improve responsiveness to their customers, so that trust might be further established. For example, Indonesian airlines might solve problems related to their customers' complaints regarding e-Services usage. Quick practical responses to a customer's complaint should be realized, as this is likely to improve customer trust in using e-Services.

7.3.1.6 Outcome Expectancy

The findings show that outcome expectancy plays a role in the use of e-Services through intention and motivation. The finding suggests that customers are likely to lack intention and motivation to use e-Services if expectations are not high. For example, customers are likely to be motivated to buy a ticket via e-Services for their holidays if they can get the cheapest fares or cheaper holiday packets on the most suitable dates through e-Services systems. In addition, customers have more intention to use e-Services as airline companies demonstrate their appreciation for loyal customers, such as reward points. Therefore, such rewards are likely to encourage customers to use e-Services when booking future flights.

A possible implication for this finding is that Indonesian airline managers should considering improving airline products, in both variety and service quality. In terms of variety of products, e-Service systems could provide more choices for their customers to make decisions according to their circumstances. Such improvements will enable customers to satisfy personal outcome expectancies regarding e-Service usage. In terms of service quality, e-Service systems should be reliable, responsive, reassuring, empathic and tangible (Parasuraman et al. 1988). The issue of service quality is essential in e-Services; it may have an impact on service complaints and loss of profit due to poor service (Harris and Goode 2004). Therefore, airline customers could be more interested in using e-Services when given such benefits and service guarantees.

Another possible implication is concerned with professionalism. Airline companies need to improve their professionalism in relation to responding to complaints. In this case, complaints must be handled immediately and professionally. However, most customers are dissatisfied with the way companies handle their complaints (Johnston and Mehra 2002). This could apply to Indonesian airline companies that do not conduct services of recovery and complaint processing properly. Customers have expectations about the recovery process, such as acknowledgement, empathy, apology and compensation (Bitner, Booms and Tetreault 1990; Boshoff 1997). It has been shown that good recovery and complaint management have a positive impact on staff attitudes and staff retention, on process improvement and, arguably more essentially, on profit (Johnson 2001). Some Indonesian Airlines seem to have the

attitude that it is the customers who need their services, and not the other way around. For example, consumers often do not receive notification, either by phone or short message, when their flight has been delayed (Penumpang Garuda Berang 2011). Furthermore, a private Indonesian airline received some legal complaints due to their discrimination of people with disabilities, lost luggage, etc. (Saputra 2012). Therefore, airline companies should provide a speedy response and it should be recognized as vital that complaining customers are satisfied. This could be done by presenting a human face to the customer, to ensure that the complaint process is seen as being honest and helpful, rather than routine and impersonal (Johnson and Mehra 2002).

7.3.1.7 Motivation

The research findings show that motivation has a significant influence on intention to use and actual e-Service usage. This may mean two things. Firstly, customers may be motivated to use e-Services because of a predisposition to use such services. Secondly, customers may use e-Services because of mitigating circumstances.

In the first case, where customers are predisposed to use such services, it most commonly happens when customers have other favourable experiences with the airline company; therefore they are more trusting (Mosley and Grogan 2012). This motivation is internally driven and customers will proceed to use the e-Services of their own accord. Another explanation may be that consumers who have good IT literacy will be motivated to purchase tickets online because they have previously used e-Services elsewhere.

In the second case, customers could be driven to use e-Services due to emergency situations. For example, a person receives information that a distant family member is suffering, or is ill, so that he or she needs to book an airline ticket immediately. Alternatively, people may receive advertising information about one-day fare sales for familiar destinations in the next three to six months. In these situations, e-Services quickly fulfil his or her needs.

A possible implication is that the managers of airline companies should make improvements by offering products and services that provide incentives for

customers to purchase online. In the first situation, e-Service systems can be designed to accommodate purchasing online tickets at a rush time before flight departure, such as four hours in advance, due to any circumstances. Therefore, customers could be more comfortable that they do not need to rush to purchase their tickets at the airport. For the second situation above, airline companies could provide one-day fare sales at routine intervals, such as every two weeks via e-mail or Websites, and on special occasions via advertisements in various mass media formats. Hence, consumers will always remember that certain airlines always offer one-day fare sales every two weeks, such as every second Friday night.

7.3.1.8 Intention to Use and Actual e-Services Usage

The finding shows that intention to use influences actual use of e-Services and suggests that the higher is the level of intention to use e-Services, the more likely e-Services will actually be used. Certain customers, for example, may use e-Services with little reservation. Such customers are likely to have a strong intention to use e-Services for various purposes. They may take it for granted that e-Services are the best method to conduct personal business transactions.

A possible implication for this finding is that airline companies could give special attention to such customer sectors. This could be determined by examining those customers that frequently use their e-Service platforms. Another possible way is to provide more services of special interest, such as giving a fasting-break package, including dates and drinks for Muslim customers (and non-Muslim customers) during Ramadan.

7.3.2 Moderating Factors of E-Services Usage

In the current study, three hypotheses that related to moderating factors have been developed, tested, discussed and interpreted. Implications of the findings are presented individually in the following sections.

7.3.2.1 Age

The research findings show that the moderating effect of age is not statistically supported for almost the entire set of links among the factors of e-Service usage (14 out of 18 links), as shown in Table 6.25.

Of the few significant findings, the links of effort expectancy to both intention and motivation are influenced by age. The younger Indonesian traveller is perhaps less concerned about the effort required to use e-Services. This is, maybe, because younger people feel more comfortable learning to use new things with respect to new IT, including e-Services. On the other hand, older Indonesian travellers are likely to be motivated to use e-Services if instructions on how to use them are clear and easily understood.

A possible implication is that developers should be more creative and innovative in improving e-Service systems, in relation to effort expectancy, so that they motivate both younger and older Indonesian travellers to use e-Services. For the younger customers, airline companies can emphasize the ease of use of the e-Services. Meanwhile, for the older customers, airline companies could demonstrate that use of the e-Services is not complicated, by making sure that detailed instructions are provided, such as audio-visual simulations, interactive simulations, training, etc.

Furthermore, age has significant impacts on the links of trustworthiness, not only to intention to use but also to effort expectancy. For older customers, their trust in an airline and its e-Services is likely to increase both perception of ease of use and intention to use those e-Services.

7.3.2.2 Experience

The findings show that experience has insignificant effects on e-Service usage (17 out of 18 links) as illustrated in Table 6.25. This finding suggests that both expert and beginner customers have the same perceptions of using e-Services. For expert and beginner customers, the ease of use of e-Services will increase their intention and motivation in using them. In addition, increased levels of social influence increase both expert and beginner customers' intention and motivation. Furthermore, there is no difference between expert and beginner customers in the effects of

trustworthiness on their intention, motivation, effort expectancy or outcome expectancy.

However, a significant difference was found in the link between facilitation conditions and outcome expectancy. In this case, expert customers could perceive that Indonesian airlines will develop and improve the infrastructure of their e-Service systems in order to meet their expectations. For example, a customer can purchase tickets cheaper and faster via online transactions than from travel agents.

A possible implication is that Indonesian airlines should consider the expert customers' skills and abilities in using e-Services when they develop and improve their e-Service systems. For example, Indonesian airlines can provide more opportunities and options for their customers to take advantage of special tickets or other desired services such as bundled products. This could be done by developing an intelligent agent system which could provide combinations of flights, accommodation venues, land transportations and final destinations, including travel insurance. An Indonesian airline should certainly enable business cooperation with other parties, such as other airlines, hotels, online travel companies, destination services, etc. Therefore, customers could have more chances to create their plans with many alternatives, according to their needs, via e-Services.

7.3.2.3 Geographical Area

The findings show that there are no significant differences due to geographical area regarding the links among factors on e-Service usage (17 out of 18 links) as shown in Table 6.25. For example, in the links of facilitating conditions to e-Service usage (i.e. effort expectancy and outcome expectancy), the finding shows that facilitating conditions provided by airlines are likely to increase ease of use, expectation for receiving benefits and actual e-Service usage, regardless of geographic location. This suggests that the availability of adequate infrastructure for e-Services, such as call centres and help desks, will help both metropolitan and non-metropolitan customers to be more confident about using e-Services due to their ease of use and fulfilment of expectations.

However, a significant difference was found in the link between outcome expectancy and motivation. This suggests that customers who live in metropolitan areas are likely to be more motivated in using e-Services than customers who live in non-metropolitan areas, perhaps because they could perceive a higher level of benefits. For example, metropolitan customers live in busy locations; therefore, they would like to get what they want in an efficient and effective manner, such as purchasing a ticket via an online transaction, without having to take the time to travel potentially long distances, or over congested roadways, to get to a retail location.

A possible implication is that Indonesian airlines should provide equal opportunities for both metropolitan customers and non-metropolitan customers to access e-Services. Such services should be reliable and dependable so that both types of customer will be able to conduct transactions with the same efficiency and effectiveness. Another implication is that airline companies should provide adequate services, such as call centres and live chat rooms, so that non-metropolitan customers will be able to get the same access to services as metropolitan customers.

7.4 Summary

This chapter has presented an interpretation of the results of the PLS analysis for the final research model that was outlined in Chapter 6. The findings of the e-Services usage survey among Indonesian airline customers were discussed according to the proposed hypotheses, as presented in Chapter 5. The implications were then presented.

The first implication obtained is that effort expectancy has an important role in e-Service usage. To promote e-Service usage, developers of systems in Indonesian airlines should focus on the development of useful functions and information content needed by potential customers. The second implication is derived from the fact that social influence has an important influence on customers' intention and motivation. Therefore, the airline companies should be aware of the importance of social influence. They should consider developing supportive relationships among peer groups to increase the intensity of customers' intention and motivation to use e-Services. Next, facilitating conditions were found to have a direct effect on effort

expectancy and outcome expectancy. As a result, it is crucial for Indonesian airlines to provide effective customer and technical support to encourage their customers to use the Indonesian airlines' e-Services. In addition, although this study found that privacy concerns were not a determinant factor of intention and motivation in the use of e-Services in this context, Indonesian airlines should be aware of the need to enforce policies that involve privacy and security, and to make these visible to their customers.

Furthermore, trustworthiness plays a significant role; Indonesian airlines should build the trust of their customers through high levels of e-Service reliability and performance. Also, Indonesian airlines should identify the greatest benefits that are expected by their consumers; as well as planning specific activities in order to increase Indonesian airline consumers' expectations in every marketing activity. Additionally, motivation plays an important role in the use of e-Services; it not only affects the actual behaviour but also has a strong effect through intention. To increase e-Service usage, therefore, Indonesian airlines need to, innovatively, create activities and improve e-Service systems to increase customers' motivation and intention to use Indonesian airline e-Services. Providing drinks and snacks for fasting people, and posting sales personnel within socialization activities are examples of such innovative promotions to improve customers' motivation and intention.

As to the demographic factors, the study has found that age, experience and geographical area commonly do not have influence over e-Service usage. Some positive links were found, however. They include the influence of age upon the links of effort expectancy to both intention and motivation and the links of trustworthiness to both intention and effort expectancy, the influence of levels of experience upon the link of facilitating conditions to outcome expectancy, and the influence of geographical area upon the link of outcome expectancy to motivation. Relevant implications have been provided.

Chapter 8 Conclusions, Limitations and Future Directions

8.1 Introduction

This chapter summarizes the key findings and expands their significance, highlights contributions for the field, describes some limitations to the research methodology, suggests directions for future research and, finally, draws a conclusion.

8.2 Summary of Key Findings

The first key finding expands insight into e-Services usage by developing a novel model. There are some researchers who have studied the adoption of e-Services (Ruyter, Wetzels and Kleijnen 2001; Featherman and Fuller 2003; Featherman and Pavlou 2003; Gefen and Straub 2003; Featherman and Wells 2004; Wu and Chen 2005; Dinev and Hart 2006b; Lankton and Wilson 2007; Lin, Shih, and Sher 2007; Featherman, Miyazaki and Sprott 2010; Udo, Bagchi and Kirs 2010). However, all of these studies employed intention to use as a dependent variable; a few research models of e-Services have adopted actual usage as the dependent variable. The current study proposed an integrated e-Services model that adopted TRA family theories (TRA, TAM, TPB, UTAUT), expectancy theory (Vroom 1964) and the inter-organisational system motivation model (Rahim et al. 2007), including a variety of key factors that can potentially influence consumers to use new IT applications. This e-Services model included antecedent factors such as effort expectancy, social influence, facilitating conditions, privacy concerns, trustworthiness, outcome expectancy, motivation, intention, and e-Services usage by moderating factors of age, experience and geographical area; while previous e-Services models of

consumer behaviour research have been dominated by TRA, TPB, TAM, UTAUT, ECT or IDT, or a combination of two to three of these theories (Cheung et al. 2003).

The second key finding relates to the antecedent factors of e-Services usage. Based on the R^2 values of the endogenous constructs (as presented in Table 6.20), this study found that motivation is the strongest factor that influences Indonesian customers to use e-Services. It is followed by outcome expectancy, intention to use, and effort expectancy, in that order.

While intention has been found to be an antecedent factor of IT usage by most IS studies (Wu and Du 2012), especially for experienced users (Ajzen 1987; Szajna 1996), the results are not consistent (Horton et al. 2001). Rhodes et al. (2003) suggested that intentions are not always tightly linked to what people really do. This current study found that motivation serves as an intermediary effect after other factors such as effort expectancy, social influence, trustworthiness and outcome expectancy, which in turn, not only directly affects e-Services usage, but also acts indirectly on e-Services usage through intention. The findings suggest that customers who have medium levels of motivation will tend to use e-Services. There might also be customers who have high-level motivation and they will be directly driven in using e-Services without intention. These findings demonstrate that the important role of motivation in the use of e-Services depends on the particular circumstances of the customer.

This study also found that motivation is influenced by effort expectancy, social influence, trustworthiness and outcome expectancy. Previous researchers (Lee, Wong and Fung 2010; Wentzel 1998; Falk and Kosfeld 2004; Elding, Tobias and Walker 2006) have studied these factors within the domain of education and psychology. However, the impacts of these factors upon motivation have not been demonstrated in the IS fields (as described in subsections of Section 2.4). In particular, trustworthiness is the factor having the largest impact on motivation; social influence and outcome expectancy have a highly significant influence on motivation; effort expectancy is the weakest in having an effect on motivation. This provides some evidence that trustworthiness is a key determinant of customers' motivation to use e-Services, followed by social influence, outcome expectancy and effort expectancy.

As mentioned above, although intention was found to have an impact on e-Services usage, the intention factor itself is influenced by effort expectancy, social influence, outcome expectancy and motivation. In fact, motivation has the highest significant relationship to intention when compared with effort expectancy, social influence and outcome expectancy. Again, motivation was found to be an important factor that influences a customer's intention to use e-Services.

The findings validate the earlier literature (Kim et al. 2006; Pavlou 2003; Chircu et al. 2003). For example, technical support (Ngai, Pun and Chan 2007) and trust (Chircu, Davis and Kauffman 2000) have direct effects on effort expectancy. The results of this study found that facilitating conditions and trustworthiness factors play an important role in determining customers' perceptions of effort and outcome expectancy. It is interesting to note that the findings have confirmed that trustworthiness has the strongest effect on, and most significant relationship with, effort and outcome expectancy, among the other links within the final model. Individually, facilitating conditions were found to have a strongly significant relationship on both effect and outcome expectancy.

However, the findings of this study do not support privacy concerns as a determinant factor of e-Services usage. Facilitating conditions also were found to have no direct influence on e-Services usage. Similarly, trustworthiness does not directly influence intention to use. These findings are not in line with most previous studies (Dinev and Hurt 2004, 2006; Venkatesh et al. 2003; Gupta, Dasgupta and Gupta 2008; Gefen and Straub 2003; Carter and Belanger 2005). Although facilitating conditions and trustworthiness were discovered to have no direct influence on e-Services usage and intention to use, respectively, both factors influence e-Services usage indirectly through other factors. Furthermore, the insignificant impact of privacy concerns on e-Services usage further validates previous studies (Yu et al. 2007; Xu and Gupta 2009) which were based on eastern cultures, similar to this study, which tend to be less sensitive to privacy (Chiou, Chen and Bisset 2009).

The third key finding relates to demographic factors of age, experience and geographical area. Based on the overall findings, there are no significant differences in the linking among factors affecting e-Services usage between the youngest and oldest customers, beginner and expert customers, or metropolitan and non-

metropolitan customers. However, some specific links were found that indicate the importance of age, experience and geographical area in regard to e-Services usage. For example, in terms of age, ease of use has driven the younger customers' intentions to use e-Services, while the older customers considered that ease of use motivated them to use e-Services. Meanwhile, the older customers' consideration of the level of trustworthiness is higher than the younger customers because they expect to get their needs met according to their circumstances. In terms of experience, it seems that expert customers have higher demands than beginner customers in regard to the relationship between facilitating conditions and outcome expectancy. In this case, the expert customers will be more concerned with what facilities they can access and what benefits they will obtain from the e-Services usage. In terms of geographical area, more expectations have motivated the metropolitan customers in the link between outcome expectancy and motivation to use e-Services. In this case, metropolitan customers are motivated to use e-Services due to them having greater expectations than non-metropolitan customers, such as saving time, avoiding busy traffic, etc.

8.3 Contribution of the Research

The results of this study are believed to have made theoretical and practical contributions.

8.3.1 Theoretical Contributions

This study unearthed a number of interesting findings that will make theoretical contributions to the existing literature. Firstly, the study contributes to e-Services literature by providing insights regarding the factors that influence customer usage of airline e-Services. This study seems to be more suitable for studies in Indonesian contexts because it has accounted for national and cultural contexts.

Secondly, a review of the existing literature revealed that no prior studies had attempted to link the three key concepts of motivation, intention and adoption. The present study attempted to make these links, tested their validity and reliability, and found that the three factors are inter-related, namely links of: motivation to intention

(β=0.368; t=9.086); intention to e-Services usage (β=0.429; t=10.967); and motivation to e-Services usage (β=0.097; t=1.986). Although the result of the hypothesis testing for the impact of motivation on e-Services usage is relatively weak, this finding may present an additional principle in the theory of IT acceptance, more specifically in the use of e-Services systems, which may make the theory more comprehensive. In addition, further research is needed because of the found weak impact of motivation upon e-Services usage.

Thirdly, the findings of this research extend the literature related to the antecedent factors of e-Services usage (Ruyter, Wetzels and Kleijnen 2001; Featherman and Fuller 2003; Featherman and Pavlou 2003; Gefen and Straub 2003; Featherman and Wells 2004; Wu and Chen 2005; Dinev and Hart 2006b; Lankton and Wilson 2007; Lin, Shih and Sher 2007; Featherman, Miyazaki and Sprott 2010; Udo, Bagchi and Kirs 2010). This study has proposed motivation as a new determinant factor of e-Services usage. It is confirmed that motivation plays a crucial role in determining customers' usage of e-Services. This factor has the strongest R^2 among other factors in the model (0.466), thereby indicating 46.6% of consumers' motivation to use e-Services can be explained by the constructs used with this model. It is quite surprising, since the new construct had never before been tested under such circumstances, that the R^2 value tends to be so low (near 0.10) as the minimum value (Hanlon 1999).

Fourthly, the finding that privacy concerns are not a significant determinant of adoption is another contribution to the literature. Most studies in the IS fields, that have used the TRA families concept as a theoretical framework, have shown that privacy concerns are a highly significant determinant for IT adoption (Dinev and Hart 2006a, 2006b; Liao, Liu and Chen 2011). This study has contrasted this knowledge and demonstrated that, in the context of adopting e-Services in Indonesian airlines, privacy concerns do not have an impact on intention to use. The reason for the lack of privacy concerns associated with using e-Services is due to the cultural value of low individualism that Indonesian consumers have(Abdat and Pervan 1999). Therefore, they tend to be less sensitive about their personal information (Chiou, Chen and Bisset 2009).

Fifthly, the inclusion of three moderating factors in the model suggests a possible contribution to the existing theories. Prior studies in the IS field have revealed that the acceptance of new IT is influenced by moderating factors such as age (Atkin, Jeffres and Neuedrof 1998; Meuter et al. 2003; Rhee and Kim 2004), Internet experience (DeLone 1988; Venkatesh et al. 2003) and geographical area (Farag, Krizek and Dijst 2006; Ren and Kwan 2007). As has been presented in the findings, there were generally no differences between younger and older, beginner and expert, or metropolitan and non-metropolitan users in their use of e-Services. However, this study specifically found that age was a moderating factor acting on the links of effort expectancy on motivation and intention to use, and the links of trustworthiness on effort expectancy and intention to use. Likewise, experience was found to be a moderating factor affecting the relationship between facilitating conditions and outcome expectancy, and geographical area was confirmed as a moderating factor of the link between outcome expectancy and motivation to use e-Services.

8.3.2 Practical Contributions

As mentioned in Section 7.3, the findings of the study have major practical implications for Indonesian airlines, the government of Indonesia, Indonesian airline customers and Indonesian IT professionals. These can be in many forms: e-Services systems development; public education, specifically regarding awareness of e-Services usage; and service quality of airline companies.

The establishment of the antecedent and demographic factors in the e-Services model may inspire Indonesian airline decision-makers to consider these factors in the running of their airline businesses. Employees at the managerial levels may be more informed about the important factors determining the success of their businesses. This can be transmitted by education and training, through such strategies as workshops and executive meetings. It is expected that decision-making will take the reported e-Services factors into consideration in their strategic planning, implementation, and monitoring and evaluation.

As reported in this study, factors affecting customers in their e-Services usage have been empirically found to be determinant factors of e-Services usage. The government, as a regulating body, plays an important role in establishing and

improving policies to encourage the use of e-Services. The government may coordinate relevant parties, such as airline companies, providers of IT infrastructures, and related ministerial divisions, to improve Internet access infrastructures, rules and regulations so that optimal benefits will be derived for members of the community in relation to e-Services usage. It is expected that such problems and issues as are related to privacy concerns and trustworthiness will receive adequate attention via the Government's involvement through establishment of up-to-date regulations for protecting people when they execute online transactions.

The practical contributions of this study that will benefit Indonesian customers may be found in matters related to the three factors of privacy concerns, effort expectancy and outcome expectancy. As has been mentioned in the previous chapter, although privacy concerns is presently not a significant factor in e-Services usage, efforts must be made to raise the community's awareness of the importance of privacy concerns in matters related to online IT usage, such as e-Services usage. The customers could gain advantages in the future when they may be more sensitive to misuse of their personal information. In terms of effort expectancy, this study demonstrated that effort expectancy seems not to have a strong impact on either motivation or intention to use. Therefore, any extension initiatives about how to make e-Services systems more friendly and easy to use should be undertaken by system developers. Likewise, outcome expectancy was found to have a slight relationship to intention in using e-Services and a moderate impact on motivation to use e-Services. In order to increase levels of Indonesian customers' expectations in using e-Services, airline managers should attempt marketing expansions to promote various highlighted sales through any kind of media, such as advertisements, mass media, posters, pamphlets, etc.

For IT professionals, this study may offer contributions in the form of the conclusions about demographic factors of the Indonesian airline customers. The demographic factors, for example, have been found to have mixed characteristics. When offering online technologies to members of the community, these demographic characteristics can be taken into account related to effort expectancy, trustworthiness, facilitating conditions and outcome expectancy, as found in the study. IT

professionals may emphasise the benefits of using online technologies in daily life especially for the old, beginner and non-metropolitan user.

8.4 Research Limitations

This study has limitations. The first limitation is that the context was usage of Airline e-Services among consumers of the Indonesian airline industry; this makes the research findings less able to be generalized to Western consumers. Unlike most Western countries, Indonesia is still a developing country. When data collection was conducted in 2010, the Indonesian airlines had implemented e-Services less than two years earlier. Therefore, while having potentially limited value in its generalization to Western countries, this sample should generalize to developing countries such as India, Thailand, the Philippines and Bangladesh, all of which have a large IT consumer group with demographics similar to Indonesia.

The second limitation is data were collected from a single source. Using such a collection technique increases the possible problem of common method bias. However, as discussed in Section 6.2.6 that a single factor solution did not emerge, as evidenced by Harman's single factor test (Podsakoff and Organ 1986). Thus, common method bias is unlikely.

Another possible common method bias can be produced by mood state, which refers to the propensity of respondents to view themselves and the world around them in generally positive terms or negative terms (Podsakoff et al. 2003). For example, most of constructs in this study used positively worded items and only one construct, privacy concerns, was assessed with negatively worded items, so the observed linkages between constructs may be weaker than the true positive linkages between constructs (Doty and Glick 1998). Reverse-coded items may produce artificial response factors, consisting exclusively of negatively worded items (Harvey, Billings and Nilan 1985), that may disappear after the reverse-coded items are rewritten in a positive manner (Idaszak and Drasgow 1987). The effects of negatively worded items may occur because, once respondents establish a pattern of answering the questionnaire, they may fail to attend to the positive-negative wording of the items (Schmitt and Stults 1986). However, as mentioned above, the results testing

Harman's single factor (Podsakoff and Organ 1986) indicate no substantial common method bias. Hence, the use of positive worded items together with negative worded items was not a problem in this research.

The final limitation concerns the measurement of the capabilities construct. Generally, the measurement of the variable has significant influence on the outcomes of any SEM models. Hence, the problem always remains as to whether the most appropriate scale has been applied to measure the construct. There are two arguments put forth. First, the intent of this study is not to isolate on any given resource, but rather to afford all resource item 'equal' treatment in their assessment by the respondents. Thus capabilities have no more greater weighting than any other resource. Second, although the reliability coefficient for capabilities construct is low, it is still within acceptable range for hypothesis testing, while convergent and discriminant validity is robust.

8.5 Future Research Directions

With regards to the conclusions, contributions and limitations of the study, as discussed above, four future directions are proposed.

Firstly, this study has not included non-users as research respondents. Although it has been part of the specific design of the research, it would be interesting to explore the possibility of including non-users as research respondents. Such a strategy may give a more complete picture of e-Services usage. Further studies may be conducted with such design by adding non-users into the sampling technique.

Secondly, one of the research findings stated that privacy concerns did not have an effect on behavioural intention to use e-Services. This finding is inconsistent with the findings of research in previous IT adoption literature in Western environments (Malhotra et al. 2004; Dinev and Hart 2006), although it is consistent with the work of Xu and Gupta (2009) in Eastern environments (Singapore). It is recommended to verify these findings by conducting similar studies in other Eastern countries, such as Malaysia and Thailand. Another fact that can be pointed out is that, although motivation statistically has an effect on e-Services usage (β=0.097; t-value=1.986),

the statistical values are too low to be of practical use. A replication study could be conducted to verify this finding.

Thirdly, the core of the present study is the research model of adoption of airline e-Services usage. Beyond the scope of airline e-Services, this model may also be applied in the adoption of e-Services in other business companies. Further research can be conducted in these other companies by applying extension and re-operationalization of constructs for IT applications with different purposes and in different contexts.

Fourthly, the present study included only domestic airlines as the research target. Another possible future direction of further research is one that investigates international airlines as well. Using a replication or a modified design, such a study will bring contributions to the more comprehensive understanding of e-Services usage in Indonesian airlines.

8.6 Conclusion

The concept of e-Services has become essential in business transactions, yet there are still many organizations that have not developed e-Services optimally. Therefore, many consumers are still in doubt about their use, or even do not use them at all. To fill this gap, this study attempts to develop a model for e-Services adoption and empirically examines the factors influencing the customers to use e-Services. The objective of this study is to explain the phenomena of e-Services usage in Indonesia, in order to enrich the theory and practice of IT usage in the nation.

Taking six Indonesian airline companies as a case example, the study tried to investigate the antecedents of e-Services usage that may influence the perceptions held by customers of Indonesian airlines. This study further examined the impacts of motivation on customers in using e-Services in the Indonesian context. Another important aim of this study was to investigate how age, experience and geographical area can become moderating effects on e-Services usage.

The major findings of this study have confirmed that motivation makes the strongest contribution towards e-Services usage in this model. In addition, motivation affects e-Services usage both directly and indirectly through intention to use.

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Appendix A: Interview Questionnaire Guide in English

The primary objective of this research is to explore the factors that influence Indonesian consumers' adoption of e-Services in Indonesian Public and Private Airline companies. This interview is also aimed to supplement the initial research model based on the consumer's experiences to determine which factors influence e-Services adoption in Indonesian Airline Companies. This leads to the following interview questions:

About consumer's usage of Airline e-Services

Q1. What is your perception of e-Services offered by Airline Companies? For example purchasing online airline ticket, booking services, and information flight schedule.
- How many times do you use the airline e-Services?
- How often do you use the airline e-Services?
- Which services do you often use?
   o Browsing flight information
   o Booking services
   o Purchasing/paying online ticket
- Why have you shifted from travel agent to online ticket buying?

About influence of effort expectancy, social influence, privacy concerns, trustworthiness and outcome expectancy and motivation on e-Services usage through intention

Q2. What are the main factors that influence you to use e-Services?
Probe:
- Easy to use
- Social influence
- Facilitating conditions
- Information privacy
- Trustworthiness
- Outcome expectancy
- motivation

Q2.1 Do you believe that e-Services is easy to use?
   o *Probe*: Do you find the airline e-Services easy to use?
      Is your interaction with the airline e-Services clear and understandable?
      Is the airline e-Services generally considered easy to learn among consumers?
      Is there anything else?

Q2.2 Are you influenced by somebody when you use airline e-Services?
   o *Probe*: Do your colleagues persuade you to use of airline e-Services?
      Does your supervisor/boss support you to use of airline e-Services?
      Do your friends encourage you to use of airline e-Services?
      Is it more prestigious for some body to use the airline e-Services than who do not? Is there anything else?

Q2.3 Is information privacy a concern to you when you use airline e-Services?

o *Probe*: Are you concerned that the information that you submit on the airline e-Services could be misused?

Are you concerned that a person can find private information about you on the airline e-Services?

Do you have the feeling, when you are online via the airline e-Services, all your clicks and actions are being tracked and monitored?

Are you concerned that a person can find your information, such as your date and place of birth, addresses and telephones and credit card, when you are online via the airline e-Services?

Is there anything else?

Q2.4 Is trustworthiness a concern to you when you use the airline e-Services?

o *Probe*: Do you trust airline e-Services via Internet?

Do you trust the company that provides airline e-Services?

In your opinion, are airline e-Services trustworthy?

Is there anything else?

Q2.5 What are your expectations when you use the airline e-Services?

o *Probe*: Do you expect to get the most suitable flight schedule and price?

Do you expect to get more efficient at buying ticket?

Do you expect that your status will increase among your colleagues/associates?

Do you expect by using the airline e-Services, you will increase your chances of getting effective and efficiency?

Is there anything else?

Q2.6 In general, do you feel motivated to use the airline e-Services?

o *Probe*: Are you motivated to use the airline e-Services?

Are you interested to continue using the airline e-Services?

Will you persuade your friends to use the airline e-Services?

Whenever possible, are you committed to use the airline e-Services?

Is there anything else?

About impact of social influence, privacy concerns, trustworthiness and outcome expectancy on motivation

Q2.6.1 Are you motivated by somebody else in using airline e-Services? *(social influence-motivation).*

o *Probe*: Do your colleagues motivate you to use of airline e-Services?

Does your supervisor/boss motivate you to use of airline e-Services?

Do your friends motivate you to use of airline e-Services?

Is it more prestigious for some body to use the airline e-Services than who do not?

Is there anything else?

Q2.6.2 Do you think information privacy influences your motivation to use airline e-Services? (*privacy concerns-motivation*)
- o *Probe*: When you think that any information privacy that you submit to the airline e-Services could be misused, are you motivated to use those e-Services?
  Is there anything else?

Q2.6.3 Do you consider trustworthiness play a part of your motivation of the airline e-Services usage? (*trustworthiness-motivation*)
- o *Probe*: When you trust airline e-Services, are you motivated to use those services?
  When you trust the credibility of a company, are you motivated to use e-Services provided by that company?
  Is there anything else?

Q2.6.4 Do your expectations motivate you to use the airline e-Services? (*outcome expectancy-motivation*)
- o *Probe*: Do you think that expectations, such expectation on suitable flight schedule and price, will motivate you to use airline e-Services?
  Do you consider that expectations, such efficiency in buying ticket, will motivate you to use airline e-Services?
  When you feel that the use of airline e-Services will increase your status among your colleagues, are you motivated to use those e-Services?
  Is there anything else?

About relationship between facilitating conditions and e-Services usage

Q3. Do you believe technical and non-technical support is important in airline e-Services usage? (*facilitating conditions and actual usage*)
- o *Probe*: Is there a technical infrastructure supporting the use of the airline e-Services?
  Are there resources available for tutorial and technical support?
  Are there specific person or groups available for assistance when problem occur using the airline e-Services, such as call center or on-line help?
  Is there anything else?

About association between trustworthiness with effort expectancy and outcome expectancy

Q4.1 Does trust reduce your need to monitor the airline e-Services' actions and check every detail, making online transaction easier? (*trustworthiness-effort expectancy*)

Q4.2 Does trust increase your expectations from the use of airline e-Services? (*trustworthiness-outcome expectancy*)

Appendix B: Interview Questionnaire Guide in Bahasa Indonesia

Tujuan utama dari penelitian ini adalah untuk mengeksplorasi lebih jauh tentang faktor-faktor yang mempengaruhi konsumen Indonesia atas penggunaan e-Services di perusahaan penerbangan Indonesia, baik milik publik maupun swasta. Wawancara ini juga untuk melengkapi/menyempurnakan dari model yang diusulkan berdasarkan pengalaman para konsumen untuk menentukan faktor-faktor yang mempengaruhi penggunaan e-Services di kalangan perusahaan penerbangan Indonesia. Adapun rangkaian pertanyaan sebagai bahan wawancara disajikan sbb.:

Penggunaan e-Services di perusahaan penerbangan oleh Konsumen

P1. Apa pendapat anda tentang layanan e-Services di perusahaan penerbangan? (contohnya: layananan tiket online, booking online, layanan pencarian skedul penerbangan, ketersediaan seat, e-tiket)
- Berapa kali anda telah menggunakan layanan e-Services penerbangan?
- Berapa sering anda menggunakan layanan e-Services penerbangan?
- Layanan apa yang sering anda gunakan di e-Services penerbangan tersebut?
  - Mencari info skedul penerbangan
  - Layanan pemesanan tiket (booking)
  - Pembelian/pembayaran tiket online via internet banking
- Mengapa anda merubah kebiasaan membeli tiket via online yang dulunya biasa melalui travel agen?

Pengaruh kemudahan penggunaan, lingkungan social, kerahasiaan data pribadi, kepercayaan, hasil yang diharapkan dan motivasi terhadap kecenderungan untuk menggunakan e-Services

P2. Menurut anda, faktor-faktor penting manakah yang mempengaruhi anda untuk menggunakan e-Services perusahaan penerbangan?
- Kemudahan penggunaan
- Pengaruh lingkungan social
- Fasilitas yang tersedia
- Kerahasiaan data pribadi
- Kepercayaan
- Ekspektasi
- Motivasi

P2.1 Apakah menurut anda, e-Services penerbangan tersebut mudah penggunaannya?
Kemungkinan:
- Apakah anda menemukan bahwa e-Services penerbangan mudah digunakan?
- Apakah interaksi anda terhadap e-Services penerbangan mudah dipahami dan jelas?
- Apakah e-Services penerbangan secara umum mudah untuk dipelajari diantara konsumen yang lain?
- Ada hal-hal lain yang mendukung kemudahan tersebut?

P2.2 Apakah anda dipengaruhi oleh orang lain untuk menggunakan e-Services penerbangan?

Kemungkinan:

- Apakah anda dipengaruhi oleh rekan kerja?
- Apakah anda didukung oleh pimpinan anda?
- Apakah teman anda mendorong anda untuk menggunakannya?
- Apakah lebih prestisius bagi orang yang telah menggunakan e-services penerbangan dari pada orang yang belum?
- Apakah ada hal-hal lain yang mendukung kemudahan tersebut?

P2.3 Apakah kerahasiaan informasi pribadi menjadi suatu pertimbangan bagi anda untuk menggunakan e-Services penerbangan?

Kemungkinan:

- Apakah anda merasa kawatir atas informasi pribadi yang anda input ke e-Services? (biasanya untuk bisa hingga booking tentunya harus memasukkan informasi pribadi, nama, tgl lahir alamat, kontak telphon dsb)
- Apakah anda yakin informasi tersebut tidak akan dapat diakses oleh orang lain atau digunakan oleh perusahaan tersebut untuk kepentingan yang lain tanpa seijin anda?
- Apakah anda punya firasat bahwa aktifitas via menklik dapat ditrack dan dimonitor oleh pihak lain?
- Adakah hal-hal lain yang membuat anda merasa kawatir atas informasi pribadi yang anda submit untuk kepentingan ini?

P2.4 Apakah kepercayaan menjadi salah satu pertimbangan anda untuk menggunakan e-Services penerbangan tersebut?

Kemungkinan:

- Apakah anda percaya layanan e-Services penerbangan Online via Internet?
- Kepercayaan tersebut terbangun karena nama besar perusahaan yang menyediakan e-Services?
- Menurut anda, apakah e-Services dapat dipercaya?
- Adakah hal-hal lain yang membuat anda percaya atas e-Services?

P2.5 Apakah anda punya ekspektansi pada saat menggunakan e-Services penerbangan?

Kemungkinan:

- Seperti harapan mengetahui secara jelas tentang
  - jadwal penerbangan yang sesuai dengan keinginan
  - harga tiket
- Menjadi lebih efisien
  - misalkan hanya dari belakang komputer dapat melakukan transaksi, ndak harus pergi atau telphon ke agen
  - akan mendapat harga yang lebih murah
- Apakah anda merasa lebih nyaman (lebih baik, karena dapat memanfaatkan fasilitas berbasis IT/internet) dibanding teman/orang yang tidak memanfaatkan layanan via internet tsb. Sehingga akan memperoleh efektifitas dan efisiensi.
- Ada hal-hal lain yang anda ekspektasi pada saat menggunakan e-Services ini?

P2.6 Secara umum apakah anda termotivasi untuk menggunakan e-Services?

Kemungkinan:

- Apakah anda akan terus menggunakannya?
- Akankan anda mengajak atau mempengaruhi atau menceritakan pengalaman anda kepada teman/saudara/kolega anda agar terdorong untuk menggunakan e-Services?
- Ada hal-hal lain?

Dampak atau pengaruh lingkungan social, informasi pribadi, kepercayaan dan pengharapan/ekspektasi terhadap motivasi

P2.6.1 Apakah anda termotivasi oleh orang lain pada saat akan memulai menggunakan e-Services?

Kemungkinan:

- Misalkan termotivasi oleh teman, pimpinan, rekan kerja
- Orang punya persepsi lebih terhadap orang yang melek TI dengan telah menggunakan layanan e-Services
- Ada hal yang lain?

P2.6.2 Apakah informasi pribadi yang diinput mempengaruhi motivasi anda untuk menggunakan e-Services?

Kemungkinan:

- Bila anda merasa informasi pribadi yang diinput/tersimpan dapat disalahgunakan, anda tetap termotivasi untuk menggunakannya?
- Ada hal yang lain?

P2.6.3 Apakah anda merasa bahwa kepercayaan merupakan bagian dari motivasi anda untuk menggunakan e-Services?

Kemungkinan:

- Ketika anda percaya terhadap perusahaan penyedia e-Services, anda termotivasi untuk menggunakannya?
- Ketika anda percaya layanan online berbasis internet akan menambah motivasi anda untuk menggunakannya?
- Ada hal yang lain?

P2.6.4 Apakah ekspektasi yang anda harapkan memotivasi anda untuk menggunakan e-Services?

Kemungkinan:

- Misalkan anda yakin bahwa anda akan dapat informasi yang lebih lengkap, maka hal ini memotivasi anda untuk menggunakan e-Services?
- Efisiensi membeli tiket akan memotivasi anda untuk menggunakannya?
- Lebih prestisius/lebih merasa nyaman dan lebih baik dibanding yang lain (bukan pengguna) mendorong anda untuk menggunakannya?

Hubungan antara fasilitas dan penggunaan

P3. Apakah anda percaya bahwa dukungan tehnis dan non-tehnis menjadi bagian yang penting untuk penggunaan e-Services?
Kemungkinan:

- Misalkan layanan dukungan teknis atau bantuan teknis jika terjadi masalah menjadi bagian yang penting?
- Tersedianya tutorial/guide yang jelas untuk menggunakannya?
- Adanya divisi khusus yang akan membantu memecahkan permasalahan jika terjadi ketidaklancaran pada saat menggunakan e-Services?
- Ada hal-hal lain?

Hubungan antara kepercayaan dan kemudahan & ekspektasi

P4.1 Apakah kepercayaan akan mengurangi rasa kawatir anda terhadap penggunaan e-Services?

P4.2 Apakah kepercayaan menaikkan ekspektasi anda pada saat menggunakan e-Services?

- Pengantar

Interviewer : Baik Bu kita mulai. Tadi sepintas Ibu sudah saya berikan pengantar. Tujuan saya mewawancarai ini adalah saya mengambil dari perspektif konsumen atas penggunaan e-Services. Dalam hal ini dalam kontek penggunaan layanan online dari perusahaan penerbangan untuk konsumen.

Interviewee : Ya

- Penggunaan e-Services di perusahaan penerbangan oleh Konsumen

Interviewer : Apa pendapat Ibu tentang layanan e-Services di perusahaan penerbangan? Mungkin Ibu pengguna Lion?

Interviewee : Yang sudah pernah saya gunakan Lion, Air asia, kemudian waktu itu yang pertama kali saya gunakan Adam air, karena menurut saya langsung mengetahui ada info tentang e-tiket, setelah itu menyusul Lion Air, Asia dan terakhir Mandala, mandala sudah e-tiket dan yang terakhir sekali Batavia juga sudah.

Interviewer : Mandala sudah ya? Seperti Air Asia?

Interviewee : Sudah. Mandala sudah beberapa bulan yang lalu, tapi memang belum lama. Dan yang paling terakhir Batavia. Kalau Batavia dulu, kita hanya bisa check skedul, tapi kita tidak bisa belanja tiket, tapi sekarang sudah.

Interviewer : Bagaimana dengan Garuda?

Interviewee : Kalau Garuda malah tidak bisa beli. Garuda hanya availability seat. Itu pun belum bisa diketahui jumlah seatnya, hanya available gitu saja. Jadi memang dari segi online tiket, Garuda mungkin memang bisa, tapi tidak mudah diakses secara umum.

Interviewer : Betul, memang sebenarnya bisa, hanya hilang ditengah.
Interviewee : Iya makanya, Jadi memang menu disitu kurang friendly.

Interviewer : Berapa kali Ibu telah menggunakan layanan e-Services penerbangan?
Interviewee : Kalau menggunakan e-Services tidak terhitung, karena saya termasuk pengguna aktif. Dalam seminggu saya melakukan perjalanan. Pergi-pulang seminggu sekali. Jadi itu sudah saya lakukan dalam setahun ini.

Interviewer : Ya memang lagi tune-in baru setahun terakhir ini.
Interviewee : Ya, setahun terakhir ini, sejak mulai ada online ticketing, saya langsung menggunakan.

Interviewer : Berapa sering anda menggunakan layanan e-Services penerbangan?

Interviewee : Sangat sering.

Interviewer : Layanan apa yang sering Ibu gunakan?

Interviewee : Kalau yang paling sering memang layanan mencari info schedule, pemesanan sekaligus pembayaran. Tapi pembayarannya jarang dengan internet banking. Saya menggunakan pembayaran melalui kredit card.

Interviewer : Oh ya, prinsipnya sama.

Interviewee : Ya sama.

Interviewer : Mengapa Ibu melakukan perubahan?

Interviewee : Ya. Dari yang dulu datang ke travel agen langsung ke online.

Interviewer : Ya.

Interviewee : Begini... Saya merasakan manfaatnya yang sangat besar, karena saya bisa mengecek, memilih harga termurah, membanding-bandingkan harga tiket yang termurah sesuai dengan waktu saya, sesuai dengan keinginan saya. Jadi kemudahan saya mendapatkan, selain waktu. Jadi waktu kapan saja dimana saja saya bisa prepare.

- Pengaruh kemudahaan penggunaan, lingkungan social, kerahasiaan data pribadi, kepercayaan, ekspektasi, dan motivasi terhadap kecenderungan untuk menggunakan e-Services

Interviewer : Ada beberapa faktor-faktor yang barangkali berpengaruh atau mempengaruhi Ibu dalam menggunakan e-Services, diantaranya kemudahan, pengaruh lingkungan sosial (pengaruh dari teman misalkan), adanya fasilitas, kerahasiaan informasi pribadi, kepercayaan, ekspektasi, dan motivasi.

Interviewee : Kalau disini diantara semua ini saya hanya soal kemudahan penggunaan, kalau kepercayaan itu ya juga, kemudahan dan kepercayaan. Karena selama ini memang saya tidak pernah dikecewakan dengan online ticketing. Kalau fasilitas saya rasa enggak.

Interviewer : Maksudnya fasilitas disini, bukan fasilitas yang Ibu punyai untuk bisa akses.

Interviewee : Fasilitas dari...

Interviewer : Support dari perusahaan, baik support teknis maupun non teknis.

Interviewee : Ya itu termasuk juga.

Interviewer : Kemudian, mungkin pengaruh dari teman?

Interviewee : *Oh endak, karena di lingkungan saya cuma saya kayaknya. Di lingkungan sini itu....*

Interviewer : Masih langka.

Interviewee : *Ya, masih langka.*

Interviewer : Apakah kerahasiaan data pribadi (*privacy concerns*) menjadi suatu hal yang berpengaruh buat Ibu pada saat menggunakan e-Services?

Interviewee : *Kalau kerahasiaan data pribadi ya tidak begitu, karena saya tidak konsen kesini. Memang yang paling utama itu kemudahan, kepercayaan, dan fasilitas.*

Interviewer : Motivasi Bu?

Interviewee : *Motivasi disini apa ya?*

Interviewer : Motivasi ya… bahasa sederhananya… memang Ibu termotivasi untuk melakukan hal itu secara personal.

Interviewee : *kalau kebutuhan iyalah, karena kebutuhan.*

Interviewer : Jadi kalau misalkan Ibu mau membeli mobil… ada keinginan, tapi hanya sekedar keinginan saja. Sehingga kalau tanpa motivasi, maka keinginan itu menjadi tidak tercapai. Jadi memang yang saya teliti ini agak sulit batasannya.

Interviewee : *Ya, makanya.*

Interviewer : Tapi nanti lebih detail akan dibahas di belakang.

Interviewee : *Mungkin arahnya kebutuhan. Dorongan untuk melakukan iya. Dorongan itu muncul, karena memang saya butuh.*

Interviewer : Apakah menurut Ibu e-Services penerbangan yang ada ini memang mudah digunakan?

Interviewee : *Ya, mudah. Jadi seperti yang saya kemukakan, diantara semua itu mudah, yang sulit menurut saya cuma Garuda.*

Interviewer : Jadi disini kemudahan yang dimaksud. Memang mudah digunakan.

Interviewee : *Ya, mudah mengakses, mudah digunakan, mudah dipahami*

Interviewer : Apakah secara umum e-Services penerbangan mudah dipahami oleh konsumen yang lain?

Interviewee : *Iya, karena step-stepnya mudah sekali dimengerti*

Interviewer : Mungkin ada hal-hal lain yang mendukung kemudahan tersebut, selain yang tadi disebutkan?

Interviewee : Yang mendukung kemudahan ya... Jadi, menu yang ditampilkan di browser/halaman itu memang dengan bahasa yang sederhana dan mudah dipahami oleh siapa saja. Di dalam menu disitu langkah-langkah misalnya step satu, apa yang harus dilakukan, step dua, itu jelas sekali. Jadi di menu yang ditampilkan di situ jelas. Yang membuat bingung cuma satu, misalnya saya mau beli secara online dengan membuka garuda-indonesia.com, saya tidak bisa langsung mendapatkan. Tapi kalau yang Airline lain, begitu saya buka, dia langsung ada menu untuk booking. Itu langsung, begitu kita klik dia langsung menuntut kita untuk mencapai apa yang kita inginkan.

Interviewer : Mengarahkan kesana.

Interviewee : Tapi ada yang diantara semua saya sebutkan tadi, yang memang yang paling mudah kerja sama dengan pengguna itu, seperti Lion. Kalau Airline lain, kita harus mengisi data penuh. Kita tidak dapat mendapatkan kode Booking, seperti Mandala, seperti Air Asia, dsb. Yang dapat kode booking sebelum membayar hanya Lion, jadi setelah memasukkan data pribadi kita, ada menu pilihan, muncul kode booking dan time limit, yang bisa kita ambil dimana saja. Katakanlan saya dapat kode Booking dan time-limitnya 19.27. Saya bisa membawa kode booking ke travel agen manapun kalau kita terkendala soal pembayaran. Karena untuk menggunakan online payment dengan credit card harus 2x24 jam. Kalau dengan internet banking harus dengan mesin token, yang mana kadang-kadang mesin itu, kita tidak memiliki. Artinya memang yang paling mudah dengan credit card, tetapi sering terkendala waktu, kecuali Adam Air... 4 jam sebelumnya, dulu, kita bisa membayar dengan credit card. Yang paling menyenangkan dengan Online Booking, belanja tiket di Internet, dengan Lion. Setelah kita masukkan data kita, langsung muncul kode booking. Kita booking lagi dengan nama yang sama, muncul, dan data itu terekam. Sehingga kita nanti bisa mengambilnya dimana saja oleh siapa saja.

Interviewer : Emh… luar biasa ya.

Interviewee : Ya.

Interviewer : Apakah Ibu dipengaruhi oleh orang lain pada saat menggunakan ini pertama kali?

Interviewee : Ya jadi saya pertama kali, sekian tahun yang lalu, terpengaruh oleh sesama penumpang pesawat. Jadi saya terpengaruh oleh orang lain, mendapatkan info, dan menunjukkan bentuk tiket online-nya, sehingga saya mencoba sendiri.

Interviewer : Pada saat melakukan perjalanan kemana?

Interviewee : Ke Jakarta dari Solo. Jadi waktu naik pesawat, saya berkenalan dengan salah seorang penumpang. Dia mengatakan bahwa ada cara

mudah untuk belanja tiket. Waktu itu pertama kali terus saya mencoba.

Interviewer : Adam Air.

Interviewee : *Adam Air. Ya memang baru Adam Air waktu itu, kemudian saya mencoba dan kemudian ketagihan.*

Interviewer : Dengan adanya perilaku seperti itu, apakah Ibu merasa prestisius atau lebih dibanding orang lain?

Interviewee : *Ya, betul. Kalau itu saya merasa selangkah lebihlah diantara teman-teman saya, karena kalau melihat cara mereka mendapatkan tiket masih konvensional. Sementara ada cara mudah, mereka tidak tahu, saya merasa beberapa langkah lebih prestis.*

Interviewer : Saya setuju Bu. Apakah ada hal lain yang mendukung hal itu yang berkaitan dengan pengaruh orang lain?

Interviewee : *Tidak ya. Saya memang terpengaruh oleh orang lain, kenalan baru, dan itu langsung mempengaruhi dan mengubah image saya tentang belanja tiket.*

Interviewer : Apakah kerahasiaan informasi pribadi menjadi suatu pertimbangan bagi Ibu untuk menggunakan e-Services penerbangan?

Interviewee : *Iya sih. Tapi dalam konteks memang saya tidak menggunakan e-ticket di sembarang tempat, karena mungkin saya terlalu takut terpengaruh dengan berita-berita bahwa data-data kita itu bisa dengan mudah diakses hackers. Sehingga memang itu penting buat saya, dan saya senang menggunakanya itu, karena saya tidak harus ngomong sama orang, no handphone saya, alamat rumah saya. Saya hanya menggunakan di personal komputer saya.*

Interviewer : Emh… ya.

Interviewee : *Kalau kerahasiaan dari pihak orang lain, misalnya travel agen maksudnya?*

Interviewer : Bukan, dari personal Ibu sendiri.

Interviewee : *Yang tadi itu ya.*

Interviewer : Apakah Ibu merasa kawatir?

Interviewee : *Ya, kalau saya menggunakannya di lain tempat saya khawatir karena info saya akan diakses oleh orang lain terutama soal pembayaran karena kemudahan pembayaran yang diberikan di internet itu kan ada orang tahu nomor kartu saya dan tiga nomor pin di belakang kartu itu, bisa digunakan siapa saja sehingga memang itu yang membuat kekhawatiran saya, meskipun dalam pembayaran dilindungi Secure Socket Layer (SSL).*

Interviewer : Yang 128 bit.

Interviewee : *Ya, betul.*

Interviewer : Apakah yakin informasi yang tadi dimasukkan Ibu itu, akan dapat diakses oleh orang lain?

Interviewee : *Saya yakin bisa diakses oleh orang lain, kalau saya pakai di komputer umum. Karena saya pernah mendapatkan hal seperti itu, saya mengisi itu, ternyata sudah ada data-data orang lain. Karena kan ada salah satu menu, misalnya kalau kita tidak membacanya dengan seksama, meninggalkan data pribadi, kalau kita centang, besuknya maka akan meninggalkan data. Karena saya pengguna aktif, maka tinggal mengetikkan nama depan akan muncul semua data saya, sehingga saya kawatir bisa diakses orang.*

Interviewer : Apakah Ibu juga merasa punya firasat kalau setiap klak-kliknya Ibu dapat dimonitor oleh orang lain?

Interviewee : *Tidak. Selama masih di komputer saya pribadi, saya merasa tidak kawatir.*

Interviewer : Dari rumah ya berarti ya Bu?

Interviewee : *Di PC, di Handphone.*

Interviewer : Oh… di PC dan Handphone.

Interviewee : *Jadi saya melakukannya di notebook saya atau dari handphone, kalau belanja.*

Interviewer : Biasanya mengakses dari rumah atau kantor?

Interviewee : *Dari mana saja. Sekarang pun bisa.*

Interviewer : Oh… Pakai mobile ya.

Interviewee : *Jadi kalau tidak ada hot spot, saya pakai… apa namanya? telpon seluler … CDMA-Star One. Saya memang termasuk pengguna internet yang aktif. Jadi dalam sehari saya beberapa jam menggunakan internet, mengakses berita-beritat.*

Interviewer : Apakah trust menjadi salah satu pertimbangan Ibu untuk menggunakan e-Services penerbangan?

Interviewee : *Ya*

Interviewer : Trust disini yang dimaksud adalah trust terhadap secara teknologi dari layanan Onlinenya (websitenya) dan juga trust dengan perusahaannya.

Interviewee : *Ya, saya percaya ke dalam dua hal tersebut, teknologi dan perusahaannya. Alasan yang saya percaya, karena untuk men-setup seperti itu investasinya cukup tinggi. Sehingga tidak mungkin mereka akan main–main. Kalau airline yang sudah menggunakan e-tiket berarti dia beberapa langkah lebih maju dibandingkan airline yang*

lain. Contohnya, Sriwijaya itu sampai sekarang dia belum menggunakan layanan seperti itu. Dan saya memang mendapatkan kesulitan sekali ketika... (mungkin nanti ada di pertanyaan berikutnya, mumpung saya ingat). Jadi kelebihannya saya menggunakan itu... selain saya lupa tiket... saya lupa apa pun... saya bisa datang ke counter yang sama minta dicetakkan. Saya pernah kejadian dengan tiket fisik, hanya soal tertinggal pun, saya harus membayar penuh, padahal waktu dicek di sistem mereka ada nama saya. Jadi hanya soal birokrasi. Itu yang menyebabkan saya antipati dengan tiket fisik, kecuali kepepet, saya ke travel agen.

Interviewer : Mungkin ada hal-hal lain yang membuat Ibu percaya terhadap e-Services, selain kedua hal tersebut?

Interviewee : Intinya itu, kemudahan buat kita sebagai pembeli mudah sekali, tidak ada birokrasi yang harus dilewati. Kemudian kemudahan kita, ibaratnya, kita menyebutkan nama kita pun, pernah suatu saat ketinggalan tiket Mandala, memang tertinggal. Kita tinggal datang, sebutkan nama dalam hitungan menit, sudah jadi e-tiket kita. Jadi ya kemudahan dan kebebasan kita menentukan jadwal, harga yang kita pilih. Jadi khan banyak pilihan, mau ada yang murah dan jam berapa pun kita bisa tentukan.

Interviewer : Yang cocok dengan kita ya.

Interviewee : Ya, kalau kita pergi ke travel agent minmal memakan waktu dan ada ketidakpercayaan pada mereka. Menurut pendapat saya, travel agen itu akan menjual harga yang paling mahal dulu, karena mereka dapat persentase dari harga tiket, jadi mereka tidak mungkin akan menjual harga promo lebih dulu. Kalau pembelinya lugu maka mereka akan ditawari yang mahal. Nah saya ndak percaya, ada faktor ketidak percaya kepada travel agen, bahwa mereka akan memberikan harga promo.

Interviewer : Emh… ini informasi berharga.

Interviewee : Iya. Karena pernah waktu itu, kami pernah mau mbuka usaha travel agen, penjual hanya dapat prosentase harga tiket. Kalau bisa dijual tiket yang bukan promo, kenapa harus dikasih yang promo. Sementara dengan e-tiket, penerbangan itu terbuka, siapa yang cepat akan mendapatkan yang murah. Inilah salah satu faktor ketidakpercayaan ke travel agen, karena mereka ndak mau repot, ngapain cari-cari yang promo.

Interviewer : Apakah Ibu punya ekspektasi pada saat menggunakan e-Services penerbangan?

Interviewee : Ya, ada. Harapan saya itu pada kemudahan pembayaran. Kalau sekarang itu yang terkendala hanya soal cara pembayaran. Cara pembayaran itu yang menghambat saya, sehingga kadang-kadang tidak menggunakan e-tiket pada saat saya perlu perjalanan mendadak. Kita kan tidak merencanakan minimal 2 hari sebelumnya.

Ketika kita akan membeli dengan e-tiket, kita sulit membayar dengan credit card karena dibatasi waktu 2 x 24 jam jadi 48 jam. Selisih satu jam pun tidak bisa.

Interviewer : Saklek betul, karena sistem.

Interviewee : Saklek. Sementara, pernah pengalaman saya, e-tiket yang paling menyenangkan adalah dengan Adam air, 4 jam-pun sebelum berangkat pun masih bisa. Bahkan saya pagi besuk pergi jam 7, saya jam 3 masih bisa membeli dengan online, sama-sama dengan credit card. Jadi harapan saya pada kemudahan cara pembayaran. Toh ketika tidak masalah buat airline, seperti kita belanja barang di counter-pun dengan harga sekian, misalnya saya beli handphone seharga 8 juta dengan sekali gesek bisa, mereka juga percaya, kenapa tiket airline tidak bisa?

Interviewer : Ya

Interviewee : Harapan yang kedua buat airline lain, seperti Batavia, Mandala dan yang lain-lain, bisa memberikan pilihan dengan memberikan kode booking, kalau memang tidak bisa dibayar dengan credit card saat itu.

Interviewer : Seperti yang dilakukan Lion.

Interviewee : Ya. Sehingga misalkan saya dapat kode booking, saya telpon atau sms ke travel agen untuk cetak kode booking. Artinya saya tidak harus meluangkan waktu untuk pergi ke travel agen, sementara saya sedang sibuk. Jadi itu dua harapan penting.

Interviewer : Secara umum apakah Ibu akan termotivasi untuk menggunakan e-Services?

Interviewee : Ya, saya akan terus menggunakan. Dengan semakin majunya, mereka akan memperbaiki terus situsnya. Contohnya yang melakukan perbaikan itu Air Asia. Air Asia sekarang lebih familiar dan lebih mudah. Dia juga ada, 4 jam menjelang penerbangan baru-baru ini, bisa booking lewat internet. Dulu khan tidak bisa, tapi pembayaran tetap tidak bisa. Dulu itu, kalau sudah kurang 24 jam, jadwal untuk besuk sudah tidak bisa kita lihat, tapi sekarang masih bisa dilihat.

Interviewer : Luar biasa ya.

Interviewee : Ya. Dengan kemajuan-kemajuan ini, membuat saya sebagai pengguna semakin tertarik dan termotivasi untuk terus menggunakan. Dan meninggalkan cara-cara konvensional.

Interviewer : Apakah Ibu akan mengajak kepada teman-teman/saudara/kolega dan mempengaruhi mereka?

Interviewee : Ya, sudah. Saya sudah mengajak ya, tapi pada beberapa teman keterbatasannya pada cara pembayaran. Jadi kalau saya melihat.... kalau di Jakarta khan saya juga punya komunitas, mereka umumnya

sudah punya alat pembayaran elektronik. Kalau di Solo, mereka belum terbiasa dengan hal-hal yang pembayaran dengan elektronik, mereka belum punya, sehingga mereka juga tidak tertarik. Dan satu lagi yang penting mereka jarang sekali melakukan perjalanan. Kalau misalnya sekali-sekali mengapa harus repot-repot.

- <u>Dampak atau pengaruh lingkungan sosial, informasi pribadi, kepercayaan dan pengharapan/ekspektasi terhadap motivasi</u>

Interviewer : Apakah Ibu termotivasi oleh orang lain pada saat menggunakan e-Services?
Interviewee : Ya. Termotivasi,, karena pengaruh orang lain seperti yang saya ceritakan di atas.

Interviewer : Apakah privacy concerns memotivasi Ibu untuk menggunakan e-Services?
Interviewee : Ya betul. Sangat berpengaruh.

Interviewer : Apakah kepercayaan juga merupakan bagian dari motivasi Ibu untuk menggunakan e-Services?
Interviewee : Ya, karena kepercayaan terhadap situs dan airlinenya. Itu yang membuat saya termotivasi untuk terus menggunakan.

Interviewer : Apakah ekspektasi yang Ibu harapkan akan memotivasi Ibu untuk menggunakan e-Services?
Interviewee : Ya, cuma saya tidak tahu harus menyampaikan kepada siapa.

Interviewer : Semoga ini bisa menjadi media.
Interviewee : Hanya tinggal harapan. Kadang membuat kesal juga. Kendalanya ketika saya sudah dapat, kemudian saya ndak bisa membayar. Ketika saya mau menggunakan kartu debit, saya ndak bisa menggunakan, karena saya tidak mendaftarkanya ke internet banking, sehingga saya tidak punya token.

Interviewer : Kadang token pun juga rumit.
Interviewee : Ya, rumit. Token suruh mengacak pin beberapa kali, itu tambahan waktu, sehingga bikin ribet.

Interviewer : Tapi ya saat ini, lebih bisa menjamin keamanan, kalau di Indonesia.
Interviewee : Ya, memang.

Interviewer : Kalau di Perth sana, tidak perlu token.
Interviewee : Ya. Makanya, kalau di Indonesia mungkin takut dibobol ya.

- Hubungan antara fasilitas dan penggunaan

Interviewer : Kaitannya dengan fasilitas tadi, yang dimaksud fasilitas adalah support teknis maupun non-teknis dari penyedia jasa e-Services penerbangan. Apakah juga mempengaruhi Ibu untuk menggunakan e-Services?

Interviewee : *Ya itu terutama, karena ya itu tadi. Contohnya begini, servis mereka misalnya setelah pembayaran di-approve, serta merta saya memperoleh tiket via e-mail, itu kan termasuk servis mereka. Begitu pembayaran saya confirm, langsung saya bisa mendapatkan asuransi saya, mendapatkan tiket saya, dan bisa saya cetak dimanapun saya berada. Itu salah satu servis dan fasilitas yang ada disitu. Yang memang memotivasi saya untuk percaya dan suka sekali menggunakan e-services.*

Interviewer : Contohnya tutorial yang jelas?

Interviewee : *Ya. Tutorial yang jelas. Terus apa lagi ya...?*

Interviewer : Mungkin ada divisi khusus, misalkan bagian tersendiri dari perusahaan penerbangan, yang memang menyediakan Yahoo Massanger atau Help Desk Online?

Interviewee : *Ya, kalau itu mungkin ya, tapi saya tidak pernah menggunakannya.*

- Hubungan antara kepercayaan dan kemudahan & ekspektasi

Interviewer : Apakah dengan kepercayaan akan mengurangi rasa Ibu, sehingga menggunakan layanan e-Services penerbangan via Online menjadi lebih mudah?

Interviewee : *maksudnya?*

Interviewer : Ibu tidak perlu terlalu hati-hati untuk melakukan transaksi.

Interviewee : *Ya, betul seperti itu. Jadi dengan kepercayaan terhadap layanan mereka. Saya yakin kalau mereka sudah mempertimbangkan security. Sehingga saya enjoy saja melakukan pembelanjaan tiket lewat online. Jadi saya yakin kalau mereka sudah membuat itu menjadi secure. Percaya.*

Interviewer : Kemudian dengan kepercayaan tadi kan juga akan mempengaruhi ekspektasi Ibu untuk menggunakan layanan e-Services?

Interviewee : *maksudnya ekspektasi yang untuk apa itu? Untuk penggunaannya selanjutnya atau?*

Interviewer : ekspektasi...

Interviewee : *Ekspektasi terhadap airline itu?*

Interviewer	:	Otomatis dengan airline itu, dengan layanan e-Services. Seperti yang Ibu sampaikan tadi, hanya mengulang saja, bahwa kalau mereka inovasi, Ibu juga jadi tambah percaya.
Interviewee	:	*Saya yakin mereka akan selalu melakukan inovasi-inovasi*

Interviewer	:	Sehingga harapan yang tadi Ibu sampaikan yakin akan terpenuhi.
Interviewee	:	*Ya, terpenuhi. Saya memang merasa, mereka melakukan inovasi terus-menerus. Saya hampir setiap hari iseng mengecek dan melihat penerbangan. Misalkan saya merencanakan pergi beberapa bulan sebelumnya, saya sudah mengecek. Pokonya hampir semua yang online sudah pernah saya coba. Saya sudah mencobanya belanja lewat situ. Sejak pertama kali saya menggunakan sekian tahun yang lalu, sudah banyak terjadi perubahan.*

Interviewer	:	Perubahan yang signifikan.
Interviewee	:	*Ya, perubahan yang siginifikan. Jadi perbaikan terus menerus, seperti Mandala, sekarang sudah bagus. Karena Mandala, sekarang bukan lagi milik ABRI, sudah dibeli oleh investor dari Amerika dan perusahaan penerbangan di Indonesia. Sehingga pelayanannya berubah total 180 derajat.*

Interviewer	:	Bukan milik publik lagi ya?
Interviewee	:	*Bukan, milik investor Indonesia dan Amerika. Mereka join prosentasenya 51% dan 49%. Dan manajemennya diganti betul-betul yang profit oriented, servis bagi mereka nomor satu. Nah setelah itu, baru online tiket.*

Interviewer	:	Saya tempo hari mencoba monitor, masih belum.
Interviewee	:	*Oh sudah. Sudah lama.*

Interviewer	:	Sudah ada satu tahun?
Interviewee	:	*Oh belum. Kalau setahun belum, tapi sudah beberapa bulan yang lalu. Saya mendapatkan itu hanya kebetulan, bukan karena saya tahu dari mana-mana. Kebetulan pada saat saya mencoba melihat skedul, ternyata disitu ada belanja Online.*

Interviewer	:	Ya.
Interviewee	:	*Jadi saya mendapatkan info untuk belanja tiket online umumnya karena saya pengguna internet. Jadi saya sering browsing mencari-cari melihat penerbangan. Bukan karena dapat dari Koran atau iklan mana pun, tapi iklan dari di internet itu.*

Interviewer	:	Mungkin dari apa yang sudah kita diskusikan tadi, ada suatu hal yang kelewatan Bu, yang perlu disampaikan?
Interviewee	:	*Sepertinya sudah ya.*

Interviewer	:	Kelihatannya sudah komplit.
Interviewee	:	*Ya, komplit. Mungkin barangkali sebagai masukan apakah tingkat pendidikan, lingkungan sosial dan jenis pekerjaan mempengaruhi orientasinya terhadap pembelian online tiket.*

Interviewer	:	Ya, Bu. Memang dalam research saya ada beberapa variable moderator, yang contohnya seperti yang Ibu sampaikan tadi.
Interviewee	:	*Ya, variabel moderator, yang maksudnya demografi, itu mungkin penghasilan pasti mempengaruhi orientasi pembelian, termasuk umur juga.*

Interviewer	:	Pengalaman.
Interviewee	:	*Ya, anak-anak yang masih muda barangkali jarang.*

Interviewer	:	Karena diskusi kita hingga sampai variabel moderator, maka ada satu hal yang perlu saya konfirmasi. Apakah faktor geographical area dimana Ibu berada mempengaruhi perilaku dalam menggunakan layanan ini?
Interviewee	:	*Ya betul. Jadi menurut saya yang demografi itu lingkungan tempat tinggal. Jadi mengapa pengguna e-ticket di daerah-daerah kecil ini jarang, karena lingkungan geografis tidak mendukung. Disitu memang jarang orang yang melakukan (habit) seperti itu. Di lingkungan geografis di dalamnya ada pergaulan di lingkungan sosial. Barangkali bila bekerja dalam lingkungan kerja, orang itu gaptek, tapi teman-temannya selalu menggunakan tiket online, barangkali akan terpengaruh. Jadi yang saya maksud dengan lingkungan kerja atau lingkungan fisik.*

Interviewer	:	Kaitannya dengan infrastruktur akses Bu?
Interviewee	:	*Infrastuktur itu yang kaitannya dengan pendapatan. Dimana pendapatn juga berpengaruh ke life-stylenya.*

Interviewer	:	Terima kasih banyak atas kesediannya.
Interviewee	:	*Ya, sama-sama.*

Appendix D: Sample Transcript of the Interviewee B in English

- Introduction

Interviewer : Let us begin. As I told you in the introduction, the objective of this interview concerns consumer's perspectives on using e-Services.

Interviewee : OK.

- About consumer's use of Airline e-Services

Interviewer : What is your perception of e-Services offered by Airline Companies? For example purchasing an online airline ticket, booking services, and flight information.

Interviewee : I have ever used Lion Air, Air Asia, and Adam Air. I knew firstly that there was information on e-ticket about using Adam Air. Then, I knew about Lion Air, Air Asia, and the last one was Mandala. Mandala had already provided e-ticket services, as well. Batavia was the last one to provide e-ticket services as far as I know

Interviewer : Mandala already has e-Services like Air Asia, hasn't it?

Interviewee : Yes, both are already have e-Services. Mandala has had e-Services since months ago. I checked the schedule, but I could not buy a ticket, but now   I can.

Interviewer : How about Garuda?

Interviewee : Well, I even could not buy a ticket via Garuda's services. Garuda only provides information about seat availability, but it does not tell how many seats are available. Thus, in terms of online tickets Garuda is able to provide the e-Services. However, in general, it is difficult to access.

Interviewer : You are right but actually it can be accessed. It is missing in the middle of process.

Interviewee : Yes, therefore I want to say that the available menu is not friendly enough.

Interviewer : How many times do you use the airline e-Services?

Interviewee : I have used e-Services so many times, because I am an active user. In addition, I travel once in a week, so I often use the e-Services. I also have been using the e-Services since the first time e-Services emerged.

Interviewer : I think, the online ticket had emerged since the last year.

Interviewee : Yes, since online ticket emerged, the last one year, I have used it.

Interviewer : How often do you use the airline e-Services?

Interviewee : As I told you, I use e-services very often.

Interviewer : Which services do you often use?

Interviewee : *I often use flight information, ticket reservation, and ticket payment. Especially for payment, as I do not use internet banking, but I use credit card.*

Interviewer : Yes, basically they are the same.

Interviewee : *Yes, they are.*

Interviewer : Why have you shifted from using a travel agent to online ticket purchase?

Interviewee : *You mean, why do I shift from a travel agent to e-Services?*

Interviewer : Yes.

Interviewee : *Well, the reasons for shifting from travel agent to e-Services are because of its benefits. I can check the airlines and the flight information, I can choose the cheapest price and I can compare the ticket price from an airline company to another. I also can choose the price and the time. Therefore, I can prepare my trip at anytime and from anywhere.*

- About influence of effort expectancy, social influence, privacy concerns, trustworthiness and outcome expectancy and motivation on e-Services through intentional use

Interviewer : What are the main factors that influence you to use e-Services? Such factors ease of use, social influence, facilitation conditions, privacy concerns, trustworthiness, expectancy, and motivation.

Interviewee : *From those factors that influence me to use these services, I choose ease to use and trust. So far, I have not been disappointed by e-Services. As for the facility factor, I do not think it influences me.*

Interviewer : The facilities, I mean in this case, are not the facilities you have.

Interviewee : *So, what facilities do you mean?*

Interviewer : I mean the airline company's support both technical support and non-technical.

Interviewee : *Yes, including those facility supports.*

Interviewer : What about social influence such influence of friends?

Interviewee : *Oh no, as in my workplace I am the only one. Here is still ………*

Interviewer : Rare?

Interviewee : *Yes, it is.*

Interviewer   : Is the privacy of information of concern to you when you use airline e-Services?

Interviewee   : I do not think privacy concerns influences me because I don't focus on this factor. To me the main factors are ease of use, trustworthiness, and facilities.

Interviewer   : What about motivation?

Interviewee   : What do you mean?

Interviewer   : I mean, you are motivated personally to use online services.

Interviewee   : Need, I think; because of need.

Interviewer   : Let me give an illustration, you want to buy a car **...** you have intention, but if it is only intention without a motivation your intention wouldn't be achieved. The limitations of the research I am conducting now, does not make things easy.

Interviewee   : Yes, agree.

Interviewer   : But the detail will be discussed later.

Interviewee   : I think about a need. A motivation to do it is possible. The motivation has emerged since I have a need.

Interviewer   : Do you believe that airline e-Service is easy to use?

Interviewee   : Yes, I do. As I told you previously, e-Services are easy to use, except Garuda.

Interviewer   : I mean, are e-Services easy to use?

Interviewee   : Yes, easy to access, easy to use, and easy to understand.

Interviewer   : Is the airline e-Service generally considered easy to learn among consumers?

Interviewee   : Yes, because the steps are easy to understand.

Interviewer   : Is there anything else?

Interviewee   : Well, there are factors that are supporting the ease of use. The menu in the pages is written in simple language, and everyone can understand it. In the menu, steps are very clear. Something that makes me confused concerns the process, for example, when I want to buy a ticket via e-Services by accessing garuda-indonesia.com, I can not get the information directly. However, when I open the pages at other airlines, I can see the menu for reservations or booking. Then, I click the menu; it guides me directly to the section I want.

Interviewer : It provides directions that are easy to follow.

Interviewee : Above all airlines I have mentioned, I think Lion's e-Services are the most cooperative to its consumers. Other airlines such as Mandala, Air Asia, and so on are multilayered, because we have to fill the form with our data completely and we do not get a booking code. In the mean time, Lion Air provides booking code before the payment. Thus, after submitting our data, we choose the menu, and the booking code and the time limit appear so that we can get the ticket from any travel agent. For example, I get the booking code and the time limit is 07.27 p.m. Then I can take the booking code anywhere, if I have payment problems. Meanwhile using online payment with credit card has to be completed within 48 hours only. Moreover, use of internet banking, requires a token machine, which sometimes we do not have. Therefore, it is the easiest to use credit card, but the problem in using the credit card is time. Especially at Adam Air, we can pay by credit card 4 hours before departure. Finally, I find it a pleasure using online booking services. Purchasing ticket by internet is best done using Lion's e-services; after submitting our data the booking code appears. When we book again by the same name, our data which has been recorded, appears on the screen. Thus, I can take my ticket anywhere and anytime or some body else can do it on my behalf.

Interviewer : Excellent, isn't it?

Interviewee : Yes.

Interviewer : Were you influenced by somebody to use airline e-Services?

Interviewee : Yes, the first time using e-Services was when I traveled. I was influenced by somebody I met on board. The passenger gave information, showed me the e-ticket, then I tried by myself.

Interviewer : Where did you travel?

Interviewee : To Jakarta from Solo. When I was on board, I met someone. He told me there was an easy way to buy e-ticket. Then, not long after that, I tried to get an e-ticket.

Interviewer : Was the airline Adam Air?

Interviewee : Yes, it was. It was only Adam Air. Then, I tried and I feel 'addicted' to the use of e-Services.

Interviewer : Is it more prestigious for some body to use the airline e-Services than someone who does not?

Interviewee : Yes, certainly, I feel more prestigious than others do when I use the e-services, because I am one-step ahead of my friends. My friends still use the conventional way in getting tickets instead of e-Services, which are easier. Therefore, I feel more prestigious than my friends or colleagues.

Interviewer : I agree with you. Is there anything else to do with somebody else's influence?

Interviewee : No, there is not. I was influenced by somebody else, a passenger. The passenger influenced me and changed my perception on buying e-ticket.

Interviewer : Is privacy of information a concern to you when you use airline e-Services?

Interviewee : Yes, privacy concerns become my consideration. In this case, I still have to be careful in using the e-Services. I am still concerned, if my data are misused by other people. This privacy is important. I am happy, because I do not have to talk to somebody else about my contact number and my address. I just use my personal computer to access the e-Services. I am also still concerned, when I access the e-Services in public computer, because I am afraid somebody else will access my information.

Interviewer : Oh…. Yes.

Interviewee : Do you mean one's privacy concern for example, a travel agent?

Interviewer : No, I mean you, yourself.

Interviewee : Oh, I see.

Interviewer : Are you concerned that a person can find your private information on the airline e-Services?

Interviewee : Yes. I am sure that my information could be accessed by somebody else, especially for payment via internet, if I use at a public computer. As we know when paying via internet, I have to submit my card number and the last three digits of my card number. Therefore, there is someone who knows, and it could be misused by anyone. Thus, I feel concerned even though the payment process is protected by……

Interviewer : Secure socket layer (SSL).

Interviewee : Yes, SSL.

Interviewer : 128 bits.

Interviewee : Yes.

Interviewer : Are you concerned that a person can find private information about you on the airline e-Services?

Interviewee : Yes, I am sure that my information could be accessed by somebody else if I use a public computer. I experienced such a thing when I used a public computer. As I wanted to submit my data someone else's data was there. In the menu, we can see an icon on private data, if we click it and give a check mark, and then our data remains available and accessible to everyone. Since I am an active user, I just type my

surname, and then my detailed information will appear. Thus, I am concerned my private information will be accessed by someone else.

Interviewer : Do you have the feeling, when you are online via the airline e-Services, all your clicks and actions are being tracked and monitored?

Interviewee : No, I don't feel monitored and tracked when I access e-services as long as I use my private computer, my mobile, or my notebook anytime and anywhere.

Interviewer : You use the computer at home, don't you?

Interviewee : From computer and mobile phone.

Interviewer : I see.

Interviewee : So, I use my notebook or my cell phone when I buy online.

Interviewer : Where do you usually access e-Services, at home or at the office?

Interviewee : Anywhere, I could even do it at once.

Interviewer : Oh… I see… via your mobile.

Interviewee : If there is no a hot spot to access Internet, I use mobile …. CDMA-Star One. I am an active user of internet. Therefore, I access information and news for a few hours every day.

Interviewer : Is trustworthiness a concern to you when you use the airline e-Services?

Interviewee : Yes.

Interviewer : Trust, which I mean, is trust in both airline and its e-Services.

Interviewee : Yes, trust becomes my consideration of using airline e-Services. I also trust both the e-Services and the airline. On the other hand, I trust the company to invest in very serious precautions, so it will not be careless. The airline companies, which have adopted e-ticket, should be one-step ahead of the others. For example, Sriwijaya Airline, until now, has not implemented e-tickets. In addition, I really get trouble (Maybe there is a question later, now I remember…). I have had a bad experience, when I used a ticket. While I forgot to bring my physical ticket for my departure, I had to buy the other new ticket in full payment for the same departure, whereas my name could have been found in the airline database. This difficulty is caused because of a bureaucracy. Thus, I have antipathy toward using a physical ticket, except when I have to use it. Finally, I get a benefit from using an e-ticket. When I forget to bring the printed ticket, I can go to the airline counter to ask for my e-ticket to be reprinted.

Interviewer : Is there anything else?

Interviewee : *I have already mentioned my point. I think, as a consumer, I find it very easy to use airline e-Services for purchasing e-tickets, because there is no bureaucracy. In other words, I just click my name and it has done. For example, if ever my Mandala ticket is left at home, I just go to Mandala's counter, submit my name and Mandala's staff take just a few minutes to re-issue my e-ticket. I feel free to decide my schedule and the price.*

Interviewer : Is e-Service more suitable to your activity?

Interviewee : *Yes, it takes time to go to travel agent, and the agent can not be believed. In my opinion, the agent will not sell at the cheaper price; on the contrary the agent will sell the most expensive ticket, because a higher percentage can be obtained from the price. The agency will not sell a promo price first instead of the regular price. When agents have common buyers, tickets will be offered at the most expensive price. This is one of my reasons for not going to a travel agent.*

Interviewer : What are your expectations when you use the airline e-Services?

Interviewee : *I expect ease of payment. The payment process in e-Services sometimes becomes a problem to me, especially when I have to travel urgently. The limit of time makes me feel reluctant to pay by credit card because the time limit is only 48 hours. I could not even pay for my ticket, if I am an hour late.*

Interviewer : It is a very strict procedure because of system.

Interviewee : *Yes, it is strict. Meanwhile, when I used Adam Air services, for example, four hours before the departure, I could still do a transaction of payment by credit card. Therefore, I expect payment facility to be available as I find it easy to use my credit card in another transaction.*

Interviewer : Yes.

Interviewee : *In addition, I expect the other airlines could provide some options by giving a booking code if consumers could not use their credit cards to pay for the ticket.*

Interviewer : As Lion has done?

Interviewee : *Yes, when I get a booking code, I call a travel agent to print the booking code. It means I am not supposed to waste time going to travel agent when I am busy. Those are two important expectations.*

Interviewer : In general, do you feel motivated to use the airline e-Services?

Interviewee : *Yes, I feel motivated to keep using e-Services, especially if airline companies improve their services by making some good progress. For example Air Asia, it is now easier and more user-friendly. I could even book an online ticket four hours before the departure, but the*

payment is still the same.   In the past, if it is less than 24 hours I can't see the schedule, but now I can see it.

Interviewer : It is great, isn't it?

Interviewee : By having such developing facilities, I feel more interested and motivated in using e-Services and I will ignore previous ways.

Interviewer : Will you persuade your friends to use the airline e-Services?

Interviewee : Yes, I have persuaded my friends, partners, and colleagues, but they find some problems with payment. They are not accustomed to paying by credit card. In Jakarta, I live in a community where all the members of the community have credit cards. Nevertheless, in Solo, they do not have such electronic cards. One other important matter is that my friends do not travel much. Thus, they do not need to make the effort to buy tickets online. They just ask to travel agent.

- About impact of social influence, privacy concerns, trustworthiness and expected outcomes on motivation

Interviewer : Are you motivated by somebody else in using airline e-Services?

Interviewee : Yes, I am motivated by somebody else as I told you before

Interviewer : Do you think the privacy of information influences your motivation to use airline e-Services?

Interviewee : Yes, privacy concerns motivate me.

Interviewer : Do you consider trustworthiness plays a part in your motivation to use the airline e-Services?

Interviewee : Yes, I trust both the airline company and its e-Services. Those motivate me to use the e-Services.

Interviewer : Do your expectations motivate you to use the airline e-Services?

Interviewee : Yes, but I do not know to whom I should express my expectations.

Interviewer : I hope this interview can be a medium for expressing your expectation.

Interviewee : Hope is just a hope. Sometimes I am upset as I get the ticket I can not pay for by my credit card. I should be able to pay by debit card, but I can not pay in that way since I do not sign in for internet banking. Therefore, I do not have any token machine.

Interviewer : Sometimes a token machine is complicated.

Interviewee : Yes, it should make the pin numbers random, and certainly, it takes time.

Interviewer : Yes, I see but nowadays, in Indonesia, it is the secured guarantee.

Interviewee : Yes, it is.

Interviewer : In Perth, we do not need token machine.

Interviewee : I see, but here we are afraid of internet fraud.

• About relationship between the facilitation condition and e-Services use

Interviewer : Do you believe technical and non-technical support is important in the use of airline e-Services?

Interviewee : Yes, I believe the technical and non-technical support is important. For example, when an airline approves my transaction I can get my insurance and my e-ticket via e-mail that is available on e-Services. I can print my   e-ticket anywhere so those are my reasons of using e-Services.

Interviewer : For example a clear set of instructions?

Interviewee : Yes, that is right. Then, another example is ……….

Interviewer : Maybe the availability of special division such as Yahoo Messenger or Help Desk Online?

Interviewee : Yes, may be, but I would not use it.

• About association between trustworthiness with effort expectancy and outcomes expectancy

Interviewer : Does trust reduce your need to monitor the airline the e-Service responses and every detail when making online transactions easier?

Interviewee : What does it mean?

Interviewer : It means that you do not need to be too careful when making a transaction.

Interviewee : Yes, it is right. I trust that the company will consider its security services. I enjoy e-Services because I am sure the company has made its services secured. I trust.

Interviewer : Does trust increase your expectations from the use of airline e-Services?

Interviewee : What expectation do you mean? You mean for the next use?

Interviewer : An expectation ………

Interviewee : Expectation to airlines? Is that what you mean?

Interviewer	:	Yes, automatically to airlines, to their e-Services as you told me. What I am saying is just a restatement that if an airline creates some innovations, you will trust more than before.
Interviewee	:	*I am sure Airline Companies will innovate themselves.*

Interviewer	:	So the expectation you have mentioned will come true.
Interviewee	:	*Yes, I think Airline Companies keep innovating themselves. Almost everyday, I check and browse available flights, for instance, when I plan to travel, a few months prior I check the flights. The point is that almost all e-services of airline companies I have tried to transact online ticket have changed. I have seen so many changes over the years.*

Interviewer	:	Are the changes significant?
Interviewee	:	*Yes! As a result, airlines keep improving their services, like Mandala. Now it is good as Mandala no longer belongs to Indonesian Armed Forces. It is already sold to an American investor and another Indonesian Airline Company so that its services totally changed.*

Interviewer	:	Oh, I see. So it does not belong to public anymore, does it?
Interviewee	:	*No, it does not. It belongs to Indonesian and American investors. They share the percentage 51% and 49 %. The management is totally rearranged to become a profit-oriented company, and its services are the main priority by shifting their services to online ticket.*

Interviewer	:	I tried to monitor it but it was still the same as before.
Interviewee	:	*Yes, it has changed.*

Interviewer	:	Has it been a year?
Interviewee	:	*No, not a year but it has been a few months ago. I got the information accidentally when I was trying to see flight schedules.*

Interviewer	:	I see.
Interviewee	:	*I got the information since I am an active internet user. I often browse the flight schedules and often see advertisements on the internet instead of by advertisement in newspapers.*

Interviewer	:	Is there anything else you want to say?
Interviewee	:	*No, there is not.*

Interviewer	:	The interview is completed, I think.
Interviewee	:	*Yes, I think so. Perhaps, I have a question: does educational level, social environment, and occupation influence consumers' orientation to buy an online ticket.*

Interviewer : You're right. In my research, there are some moderator variables – and you have just mentioned examples.

Interviewee : *Moderator variables, you mean a demographic variable is consumer income, which influences purchasing-orientation including consumer age.*

Interviewer : I mean experience.

Interviewee : *I think teenagers do not often use e-Services.*

Interviewer : Since our discussion is now about moderator variables, I have something to confirm with you. Does the factor of your geographical area influence your behavior in using e-Services?

Interviewee : *Yes, it does. I think one demographic factor is our living area. People who live in remote areas do not access e-ticket since the demographic environment does not support them. For example, an employee is information technology (IT) illiterate, but his/her colleagues often use e-Services in their workplace, so the employee will be influenced to use it.*

Interviewer : Tell me about access infrastructure?

Interviewee : *It is infrastructure, which is related to income, where income influences ones' life style.*

Interviewer : Well, thank you very much for your willingness to express your views.

Interviewee : *You're welcome.*

Appendix E: Questionnaire in English

Research Questionnaire on E-Services Adoption by Consumers in Indonesian Airline Companies

Dear Sir/Madam,

In order to examine e-Services Adoption in Indonesia, this questionnaire has been designed to study the main factors influencing consumers to use e-Services in Indonesian Airline Companies.

I would appreciative if you could spend about twenty minutes of your time filling the questionnaire. Your responses would be valuable for this study and there is no right or wrong answer. Please answer the questionnaire to the best of your knowledge. The questionnaire is unidentified. Participation is voluntary and the participants may withdraw at anytime without prejudice or negative consequences. All responses will be used simply for academic research and the access is limited to the researcher and supervisors. Only summarized results will be presented and will not identify any particular individual. This questionnaire has been approved by the Curtin University Human Research Ethics Committee (GSB-11-09; 14 September 2009). If needed, verification of approval can be obtained by either writing to the Curtin University Human Research Ethics Committee, c/- Office of Research & Development, Curtin University of Technology, GPO Box U1987, Perth, Western Australia, 6845, or telephone +618-9266 2784.

Should you have any queries, please feel free to contact me at +62 812 296 5500 or +61 433 522 745 (email: dekar.urumsah@gsb.curtin.edu.au); or my supervisor, Professor Mohammed Quaddus, PhD. at +618-9266 2862 (email: mohammed.quaddus@gsb.curtin.edu.au); or The Research Ethics Committee (Secretary) Curtin University of Technology, 78 Murray Street, Perth, Western Australia, 6000.

Many Thanks and Best Wishes.

Sincerely yours,

Dekar Urumsah,
Ph.D Candidate,
Graduate School of Business,
Curtin University of Technology

Airline e-Services Adoption Questionnaire

For purpose of this study, e-Services is defined as the provision of facilities in the airline company's websites that can be used by consumers encompassing online flight info, booking and purchase e-ticket facilities.

The main objective of this questionnaire is to identify the factors affecting the e-Services adoption among consumers in Indonesian Public and Private Airline Companies.

This questionnaire consists of ten sections. Section 10 is the demographic information. Other sections deal with various aspects of consumers using airline e-Services.

> Please answer the following questions by placing a check ($\sqrt{}$) in the space ($\square$) provided to express your opinion on each statement.

Sections 1-8 use the following scale:

1.	2.	3.	4.	5.	6.
Strongly Disagree.	Disagree.	Somewhat Disagree.	Somewhat Agree.	Agree.	Strongly Agree.

To what extent do you agree with the following statements? Please use the above scale.

Section 1	Code: EE	1	2	3	4	5	6
1.	The airline e-Services are easy to use.	$\square$	$\square$	$\square$	$\square$	$\square$	$\square$
2.	My interaction with airline e-Services is clear and understandable.	$\square$	$\square$	$\square$	$\square$	$\square$	$\square$
3.	The airline e-Services are generally considered easy to learn among consumers.	$\square$	$\square$	$\square$	$\square$	$\square$	$\square$
4.	The airline e-Services are presented in simple language.	$\square$	$\square$	$\square$	$\square$	$\square$	$\square$
5	The airline e-Services are presented in obvious steps.	$\square$	$\square$	$\square$	$\square$	$\square$	$\square$
6.	The airline e-Services are very useful to consumers.	$\square$	$\square$	$\square$	$\square$	$\square$	$\square$
7.	The airline e-Services provide comprehensive information.	$\square$	$\square$	$\square$	$\square$	$\square$	$\square$
Section 2	**Code: PC**						
1.	The personal information submitted to the airline e-Services system could be misused.	$\square$	$\square$	$\square$	$\square$	$\square$	$\square$
2.	Consumers' personal information of the airline e-Services can be easily obtained by unauthorized person.	$\square$	$\square$	$\square$	$\square$	$\square$	$\square$
3.	When using airline e-Services, actions taken by customers can be easily monitored.	$\square$	$\square$	$\square$	$\square$	$\square$	$\square$

Section 3	Code: TW	1	2	3	4	5	6
1.	The airline e-Services are dependable.	☐	☐	☐	☐	☐	☐
2.	The company that provides airline e-Services is reliable.	☐	☐	☐	☐	☐	☐
3.	The airline e-Services are trustworthy.	☐	☐	☐	☐	☐	☐
4.	The airline e-Services provide secure system for consumers' data.	☐	☐	☐	☐	☐	☐
5.	The airline e-Services generate valid data.	☐	☐	☐	☐	☐	☐
Section 4	**Code: SI**						
1.	My colleagues persuaded me to use airline e-Services.	☐	☐	☐	☐	☐	☐
2.	My supervisor/boss supports me to use airline e-Services	☐	☐	☐	☐	☐	☐
3.	My friends encourage me to use airline e-Services	☐	☐	☐	☐	☐	☐
4.	It is more prestigious for me to use airline e-Services	☐	☐	☐	☐	☐	☐
5.	Airline passenger(s) inspired me to use airline e-Services	☐	☐	☐	☐	☐	☐
Section 5	**Code: OE**						
1.	It is possible to get the most suitable flight schedule and price via the airline e-Services.	☐	☐	☐	☐	☐	☐
2.	Buying ticket using the airline e-Services is cheaper.	☐	☐	☐	☐	☐	☐
3.	Utilizing the airline e-Services result in better self-image for user.	☐	☐	☐	☐	☐	☐
4.	The airline e-Services appreciate/reward their loyal customers.	☐	☐	☐	☐	☐	☐
5.	The airline e-Services provide easy payment method.	☐	☐	☐	☐	☐	☐
6.	The airline e-Services provide valid update information.	☐	☐	☐	☐	☐	☐
7.	To get ticket via the airline e-Services is faster.	☐	☐	☐	☐	☐	☐
8.	To get seat availability by using the airline e-Services is quick.	☐	☐	☐	☐	☐	☐
9.	The airline e-Services are equipped with accommodation and/or car services booking facilities.	☐	☐	☐	☐	☐	☐
10	The airline e-Services offer ticket-booking facility without payment.	☐	☐	☐	☐	☐	☐

Section 6 Code: FC	1	2	3	4	5	6
1.	There is a technical infrastructure supporting the use of airline e-Services	☐	☐	☐	☐	☐	☐
2.	Resources are available for tutorial and technical support.	☐	☐	☐	☐	☐	☐
3.	Call center, on-line help or chatting facility, are available for assistance when problems occur using airline e-Services.	☐	☐	☐	☐	☐	☐
Section 7 **Code: MT**						
1.	I am motivated to use airline e-Services because of its range of benefits.	☐	☐	☐	☐	☐	☐
2.	I am motivated to use airline e-Services, as I shall be seen as an expert among my friends and colleagues.	☐	☐	☐	☐	☐	☐
3.	I shall persuade my friends and colleagues to use Airline e-Services.	☐	☐	☐	☐	☐	☐
Section 8 **Code: IU**						
1.	I intend to purchase e-ticket via airline e-Services in the very near future.	☐	☐	☐	☐	☐	☐
2.	I plan to purchase e-ticket via airline e-Services in the very near future.	☐	☐	☐	☐	☐	☐
3.	I will add the airline e-Services to my favorite links.	☐	☐	☐	☐	☐	☐
4.	I have shifted from travel agent to online ticket transaction.	☐	☐	☐	☐	☐	☐

For the remainder of the sections, answer the questions to the best of your knowledge by ticking the appropriate choice or filling up the space provided.

Section 9.   **Code: EU**

The following statements are associated with the use of Airline e-Services. Please express your opinion on each statement by ticking the most appropriate choice.

1. I use airline e-Services mainly
   - ☐ At work
   - ☐ At home
   - ☐ At campus/school
   - ☐ In an internet cafe
   - ☐ In a library
   - ☐ In friend's/family's place
   - ☐ Every where via mobile devices
   - ☐ In another place, please specify_____

2. On average, I use airline e-Services
- ☐ Never
- ☐ 1 - 2 times a month
- ☐ 3 - 4 times a month
- ☐ 5 - 6 times a month
- ☐ 7 or more times a month
- ☐ Every day

3. On average, I do _____ transactions at a time
- ☐ Never
- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5 or more

4. How often do you use the following airline e-Services?

	Almost never					Almost always
	1	**2**	**3**	**4**	**5**	**6**
Browsing flight info	☐	☐	☐	☐	☐	☐
Booking online services	☐	☐	☐	☐	☐	☐
Payment online services	☐	☐	☐	☐	☐	☐
Printing e-ticket	☐	☐	☐	☐	☐	☐
Online check-in	☐	☐	☐	☐	☐	☐
Special offer (i.e. promo ticket)	☐	☐	☐	☐	☐	☐
General information (i.e. profile, news)	☐	☐	☐	☐	☐	☐
Others. Please specify _____	☐	☐	☐	☐	☐	☐
Please specify _____	☐	☐	☐	☐	☐	☐

Section 10.   Demographic Information

Please answer the questions below by ticking the most appropriate response or filling in the space provided.

1. I most often use Indonesian airline e-Services provided by:
- ☐ Garuda Indonesia Airline   ☐ Lion Air
- ☐ Merpati Nusantara Airline   ☐ Mandala Airlines
- ☐ Batavia Air
- ☐ Other. Please specify
  _____

2. Gender: ☐ Male   ☐ Female

3. Age Group:
- ☐ 21 to 30
- ☐ 31 to 40
- ☐ 41 to 50
- ☐ 51 to 60
- ☐ More than 60

4. What is your highest level of education?
    - ☐ High School or equivalent
    - ☐ Diploma
    - ☐ Bachelors Degree
    - ☐ Masters Degree
    - ☐ Doctoral Degree
    - ☐ Professional Degree
    - ☐ Other. Please specify _____

5. Educational background
    - ☐ Science and Engineering (Computing, Mathematics, Physical, Chemical, Engineering)
    - ☐ Arts, Social and Humanities science (Social,politics, Cultures, Psychology, Arts)
    - ☐ Health science (medicine, pharmacy, nursing, public health)
    - ☐ Business (management, accounting, finance, economics, marketing)
    - ☐ Law
    - ☐ Education
    - ☐ Other. Please specify _____

6. Occupation
    - ☐ Manager/Director
    - ☐ General staff
    - ☐ Teacher/Lecturer
    - ☐ Student (diploma/bachelor/master/doctoral)
    - ☐ Programmer/IT Specialist
    - ☐ Professional (Lawyer/Accountant/Doctor/Engineer/Consultant)
    - ☐ Housewife
    - ☐ Other. Please specify _____

7. Income per month (before tax)
    - ☐ Less than Rp. 2.500.000,-
    - ☐ Rp. 2.500.000 to Rp. 5.000.000
    - ☐ Rp. 5.000.001 to Rp. 10.000.000
    - ☐ Rp. 10.000.001 to Rp. 15.000.000
    - ☐ Rp. 15.000.001 to Rp. 20.000.000
    - ☐ More than Rp. 20.000.000

8. Domicile city (mainly internet access location). Please specify
    _____

9. Internet connection is at home or not
    - ☐ Yes
    - ☐ No

10. The use of internet in my daily activity is …..
    - ☐ Mandatory   ☐ Voluntary

11. Degree of internet experience
    - ☐ < 1 year
    - ☐ 1 – 3 years
    - ☐ 3 – 6 years
    - ☐ > 6 years

259

12. The use of online transaction via internet
   - ☐ Never
   - ☐ 1 - 3 times a month
   - ☐ 4 - 6 times a month
   - ☐ > 6 times a month
13. What kind of online transaction have you been usage?
   - ☐ Never
   - ☐ Internet Banking
   - ☐ e-Bay
   - ☐ Purchase goods (e.g. books, CDs, computer's peripherals)
   - ☐ Purchase services (e.g. airline tickets, hotel reservations)
   - ☐ Please specify _____

Comments

If you have any comments to make regarding any section of this survey, please feel free to do so in the space provided below.

_____

_____

_____

_____

_____

_____

Thank you very much for your participation and cooperation in this study. Please make sure that you have completed all items.

Summary copy of the findings

I would like a copy of the summary of the findings from this survey. Please provide your name and address or enclose your business card.

Name of respondent   : _____
Mailing address   : _____
                                                        Post Code
E-mail   : _____
Delivery preference   : ☐ Print out (post mail) ☐ Softcopy (e-mail)
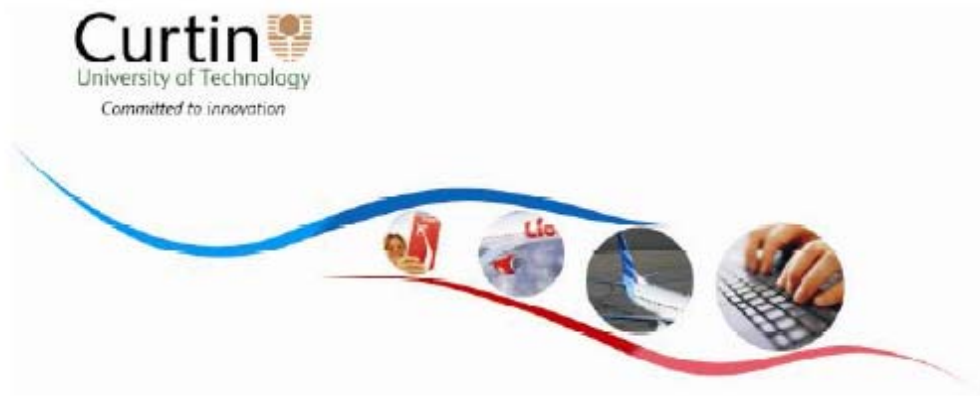
Kuesioner Mengenai Penggunaan *e-Services*
pada Maskapai Penerbangan Indonesia

Kuesioner Mengenai Penggunaan *e-Services*

Kuesioner ini dirancang untuk mengetahui faktor-faktor yang mempengaruhi konsumen dalam menggunakan *e-Services* pada maskapai penerbangan Indonesia. Untuk kepentingan itu, saya sangat menghargai dan berterima kasih, jika anda dapat meluangkan waktu sekitar dua puluh menit untuk menyelesaikan kuesioner ini. Partisipasi anda sangat berharga untuk membantu saya menyelesaikan studi S3 di Australia.

Kuesioner ini tanpa identitas dan sifatnya sukarela. Partisipan mempunyai kebebasan untuk membatalkannya kapan saja, tanpa konsekuensi. Semua jawaban hanya akan digunakan untuk penelitian akademik dan aksesnya terbatas bagi peneliti dan supervisor.

Silakan memilih jawaban yang paling sesuai dengan kondisi anda. Tidak ada jawaban benar atau salah. Bila anda memerlukan ringkasan hasil studi ini, silakan mengisi formulir pada lembar terakhir kuesioner ini.

Kuesioner ini telah disetujui oleh Curtin University Human Research Ethics Committee (Referensi surat no. GSB-11-09). Bila anda memerlukan verifikasi atas persetujuan itu, silakan anda dapat mengajukan permintaan secara tertulis kepada Curtin University Human Research Ethics Committee, c/- Office of Research & Development, Curtin University of Technology, GPO Box U1987, Perth, Western Australia, 6845, atau telepon +618 9266 2784.

Jika ada pertanyaan terkait dengan kuesioner ini, anda dapat menghubungi kami di +62 812 296 5500 atau +61 433 522 745 (email:Dekar.Urumsah@postgrad.curtin.edu.au); atau supervisor saya, Profesor Mohammed Quaddus, PhD. di +618 9266 2862 (email: Mohammed.Quaddus@gsb.curtin.edu.au); atau Research Ethics Committee (Secretary) Curtin University of Technology, 78 Murray Street, Perth, Western Australia, 6000.

Hormat kami,

Drs. Dekar Urumsah, SSi, MCom (IS).
Kandidat Doktor
Graduate School of Business,
Curtin University of Technology

Kuesioner penggunaan e-Services penerbangan 2 - 11

Kuesioner Mengenai Penggunaan *e-Services*

Dalam studi ini, *e-Services* didefinisikan sebagai penyediaan fasilitas maskapai penerbangan via website yang dapat digunakan oleh konsumen untuk mencari informasi jadwal penerbangan, pemesanan, dan pembayaran e-tiket secara online via Internet.

Tujuan utama dari kuesioner ini adalah untuk mengidentifikasi faktor-faktor yang mempengaruhi penggunaan *e-Services* oleh para konsumen pada maskapai penerbangan Indonesia.

Kuesioner ini terdiri dari 10 (sepuluh) bagian. Sembilan bagian pertama berisi aspek-aspek yang mempengaruhi konsumen dalam menggunakan *e-Services* penerbangan, sedangkan bagian sepuluh berisi tentang informasi demografi.

Silakan jawab pernyataan-pernyataan di bawah dengan memberi tanda cek (✓) pada tempat yang tersedia (☐) untuk jawaban yang paling sesuai dengan kondisi anda.

Untuk menjawab bagian 1-8 silakan menggunakan skala sebagai berikut:

1.	2.	3.	4.	5.	6.
Sangat Tidak Setuju.	Tidak Setuju.	Agak Tidak Setuju.	Agak Setuju.	Setuju.	Sangat Setuju.

Sejauh mana anda setuju atas pernyataan-pernyataan di bawah ini. Silakan menggunakan skala di atas.

Dalam merespon pernyataan di bawah ini, silakan merujuk pada *e-Services* penerbangan yang paling sering anda gunakan.

Bagian 1	Kode: EE	1	2	3	4	5	6
1.	*e-Services* penerbangan adalah mudah penggunaannya bagi saya.	☐	☐	☐	☐	☐	☐
2.	Saya mengerti dan dapat berinteraksi terhadap *e-Services* penerbangan dengan baik.	☐	☐	☐	☐	☐	☐
3.	Secara umum, konsumen dapat mempelajari *e-Services* penerbangan dengan mudah.	☐	☐	☐	☐	☐	☐
4.	*e-Services* penerbangan disajikan dengan bahasa yang sederhana dan mudah dimengerti.	☐	☐	☐	☐	☐	☐
5	*e-Services* penerbangan disajikan dengan langkah-langkah yang jelas.	☐	☐	☐	☐	☐	☐
6.	*e-Services* penerbangan sangat bermanfaat untuk konsumen.	☐	☐	☐	☐	☐	☐
7.	*e-Services* penerbangan menyediakan informasi yang komprehensif.	☐	☐	☐	☐	☐	☐

Kuesioner penggunaan e-Services penerbangan 3 - 11

	1.		2.		3.		4.		5.		6.
Sangat Tidak Setuju.		Tidak Setuju.		Agak Tidak Setuju.		Agak Setuju.		Setuju.		Sangat Setuju.	

Sejauh mana anda setuju atas pernyataan-pernyataan di bawah ini. Silakan menggunakan skala di atas.

Dalam merespon pernyataan di bawah ini, silakan merujuk pada *e-Services* penerbangan yang paling sering anda gunakan.

Bagian 2 — Kode: PC		1	2	3	4	5	6
1.	Data pribadi yang saya masukkan ke *e-Services* penerbangan dapat disalahgunakan.	□	□	□	□	□	□
2.	Data pribadi konsumen dalam *e-Services* penerbangan dapat diakses dengan mudah oleh orang yang tidak berhak.	□	□	□	□	□	□
3.	Aktifitas konsumen saat menggunakan *e-Services* penerbangan mudah dimonitor oleh orang lain.	□	□	□	□	□	□
Bagian 3 — Kode: TW							
1.	Sistem *e-Services* penerbangan dapat diandalkan.	□	□	□	□	□	□
2.	Maskapai penerbangan sebagai penyedia *e-Services* dapat diandalkan (kredibilitasnya).	□	□	□	□	□	□
3.	Informasi *e-Services* penerbangan dapat dipercaya.	□	□	□	□	□	□
4.	Sistem keamanan *e-Services* penerbangan dapat menjaga data konsumen dengan baik.	□	□	□	□	□	□
5.	Sistem *e-Services* penerbangan menyediakan data yang akurat.	□	□	□	□	□	□
Bagian 4 — Kode: SI							
1.	Rekan-rekan kerja saya menganjurkan agar saya menggunakan *e-Services* penerbangan.	□	□	□	□	□	□
2.	Pimpinan saya mendukung penggunaan *e-Services* penerbangan.	□	□	□	□	□	□
3.	Teman atau kerabat saya menganjurkan agar menggunakan e-Services penerbangan.	□	□	□	□	□	□
4.	Penggunaan *e-Services* penerbangan adalah bergengsi.	□	□	□	□	□	□
5.	Penumpang lain menginspirasi saya untuk menggunakan *e-Services* penerbangan.	□	□	□	□	□	□

Kuesioner penggunaan e-Services penerbangan 4 - 11

264

	1.	2.	3.	4.	5.	6.
	Sangat Tidak Setuju.	Tidak Setuju.	Agak Tidak Setuju.	Agak Setuju.	Setuju.	Sangat Setuju.

Sejauh mana anda setuju atas pernyataan-pernyataan di bawah ini. Silakan menggunakan skala di atas.

Dalam merespon pernyataan di bawah ini, silakan merujuk pada *e-Services* penerbangan yang paling sering anda gunakan.

Bagian 5	Kode: OE	1	2	3	4	5	6
1.	e-Services penerbangan membantu mendapatkan jadwal penerbangan yang paling sesuai dengan kebutuhan saya	☐	☐	☐	☐	☐	☐
2.	Harga tiket penerbangan dengan *e-Services* adalah lebih murah.	☐	☐	☐	☐	☐	☐
3.	Penggunaan *e-Services* penerbangan dapat menaikkan citra diri pengguna.	☐	☐	☐	☐	☐	☐
4.	Konsumen yang loyal pada *e-Services* penerbangan mendapat keuntungan tambahan.	☐	☐	☐	☐	☐	☐
5.	*e-Services* penerbangan menyediakan metode pembayaran yang mudah.	☐	☐	☐	☐	☐	☐
6.	Informasi *e-Services* penerbangan selalu terkini (*up to date*).	☐	☐	☐	☐	☐	☐
7.	Melalui *e-Services* penerbangan, tiket dapat diperoleh lebih cepat.	☐	☐	☐	☐	☐	☐
8.	Melalui *e-Services* penerbangan, saya berharap memperoleh nomor kursi lebih cepat.	☐	☐	☐	☐	☐	☐
9.	*e-Services* penerbangan dilengkapi dengan fasilitas pemesanan akomodasi dan atau penyewaan mobil.	☐	☐	☐	☐	☐	☐
10	*e-Services* menyediakan fasilitas booking tanpa harus membayar lebih dahulu.	☐	☐	☐	☐	☐	☐
Bagian 6	Kode: FC						
1.	*e-Services* penerbangan menyediakan infrastruktur dukungan teknis (misalkan: *direct call*).	☐	☐	☐	☐	☐	☐
2.	Tersedia sumber daya untuk tutorial dan dukungan teknis (misalkan: *direct call*) atas penggunaan *e-Services* penerbangan.	☐	☐	☐	☐	☐	☐
3.	Tersedia *call center*, bantuan online atau fasilitas chatting, untuk membantu ketika muncul masalah pada saat menggunakan *e-Services* penerbangan.	☐	☐	☐	☐	☐	☐

Kuesioner penggunaan e-Services penerbangan 5 - 11

265

1.	2.	3.	4.	5.	6.
Sangat Tidak Setuju.	Tidak Setuju.	Agak Tidak Setuju.	Agak Setuju.	Setuju.	Sangat Setuju.

Sejauh mana anda setuju atas pernyataan-pernyataan di bawah ini. Silakan menggunakan skala di atas.

Dalam merespon pernyataan di bawah ini, silakan merujuk pada *e-Services* penerbangan yang paling sering anda gunakan.

Bagian 7	Kode: MT	1	2	3	4	5	6
1.	Saya termotivasi menggunakan *e-Services* penerbangan karena dapat memberikan berbagai manfaat.	☐	☐	☐	☐	☐	☐
2.	Saya termotivasi menggunakan *e-Services* penerbangan karena saya akan dipandang sebagai seorang yang paham teknologi informasi oleh teman, rekan kerja, dan kerabat.	☐	☐	☐	☐	☐	☐
3.	Saya selalu ingin mengajak teman, rekan kerja, dan kerabat agar menggunakan *e-Services* penerbangan.	☐	☐	☐	☐	☐	☐
Bagian 8	Kode: IU						
1.	Saya ingin membeli e-tiket melalui *e-Services* penerbangan dalam waktu dekat.	☐	☐	☐	☐	☐	☐
2.	Saya akan segera membeli e-tiket melalui *e-Services* penerbangan dalam waktu dekat.	☐	☐	☐	☐	☐	☐
3.	Saya akan menambahkan *e-Services* penerbangan di dalam link-link favorit saya.	☐	☐	☐	☐	☐	☐
4.	Saya telah berpindah dari agen travel ke layanan online untuk pembelian e-tiket penerbangan.	☐	☐	☐	☐	☐	☐

Untuk bagian berikut di bawah ini, silakan menjawab dengan memberi tanda cek (✔) untuk jawaban yang paling sesuai menurut anda pada (☐) atau dengan mengisi tempat yang telah tersedia.

Bagian 9	Kode: EU

Pernyataan-pernyataan berikut berkaitan dengan penggunaan e-Layanan penerbangan.

1. Saya menggunakan *e-Services* penerbangan **paling sering** di (pilih salah satu) …

☐ Tempat kerja   ☐ Perpustakaan

☐ Rumah   ☐ Tempat teman/saudara

☐ Kampus/sekolah   ☐ Darimana saja via handphone

☐ Warung Internet   ☐ Lain-lain, sebutkan _____

Kuesioner penggunaan e-Services penerbangan 6 - 11

2. Saya menggunakan *e-Services* penerbangan (misalkan: mencari info penerbangan) …
   - ☐ Setiap hari.
   - ☐ 1 - 2 kali dalam sebulan
   - ☐ 3 - 4 kali dalam sebulan
   - ☐ 5 kali atau lebih dalam sebulan
   - ☐ 1 -11 kali dalam setahun
   - ☐ Tidak pernah

3. Biasanya, saya melakukan … transaksi pembelian tiket pada setiap kesempatan menggunakan *e-Services* penerbangan.
   - ☐ 0
   - ☐ 1
   - ☐ 2
   - ☐ 3
   - ☐ 4
   - ☐ 5 atau lebih.

4. Seberapa sering anda menggunakan *e-Services* penerbangan dari pernyataan berikut di bawah ini?

	Hampir Tidak pernah					Hampir Selalu
	1	2	3	4	5	6
Mencari info penerbangan	☐	☐	☐	☐	☐	☐
Melihat harga tiket	☐	☐	☐	☐	☐	☐
Melihat promosi tiket	☐	☐	☐	☐	☐	☐
Melihat promosi wisata	☐	☐	☐	☐	☐	☐
Pemesanan tiket online	☐	☐	☐	☐	☐	☐
Pembayaran online	☐	☐	☐	☐	☐	☐
Mencetak e-tiket	☐	☐	☐	☐	☐	☐
Check-in online	☐	☐	☐	☐	☐	☐
Melihat informasi kursi	☐	☐	☐	☐	☐	☐
Melihat informasi umum (i.e. profil, berita)	☐	☐	☐	☐	☐	☐

Kuesioner penggunaan e-Services penerbangan 7 - 11

1. Saya paling sering menggunakan *e-Services* dari maskapai penerbangan Indonesia yang disediakan oleh (pilih salah satu):

         ☐ Garuda Indonesia   ☐ Lion
         ☐ Merpati Nusantara   ☐ Mandala
                                   ☐ Batavia
                                   ☐ Sriwijaya
                                   ☐ Transnusa

2. Jenis kelamin: ☐ Pria   ☐ Wanita

3. Kelompok usia:

         ☐ Kurang dari 20 tahun
         ☐ 20+ s/d 30 tahun
         ☐ 30+ s/d 40 tahun
         ☐ 40+ s/d 50 tahun
         ☐ 50+ s/d 60 tahun
         ☐ Lebih dari 60 tahun

4. Apakah pendidikan terakhir anda?

         ☐ Sekolah Menengah Atas atau yang sederajat
         ☐ Diploma atau yang sederajat
         ☐ Sarjana atau yang sederajat
         ☐ Master atau yang sederajat
         ☐ Doktoral atau yang sederajat
         ☐ Profesi
         ☐ Lain-lain. Harap sebutkan _____

5. Latar belakang pendidikan

         ☐ Sains dan Teknik (Komputer, Matematika, Fisika, Kimia, Teknik)
         ☐ Seni, Sosial dan Humaniora (Sosial, Politik, Budaya, Psikologi, Bahasa, Seni)
         ☐ Kesehatan (Kedokteran, Farmasi, Keperawatan, Kesehatan masyarakat)
         ☐ Bisnis (Manajemen, Akuntansi, Keuangan, Ekonomi, Pemasaran)
         ☐ Hukum
         ☐ Pendidikan
         ☐ Lain-lain. Harap sebutkan _____

6. Pekerjaan

- ☐ Direktur/Manajer*
- ☐ Staff
- ☐ Guru/Dosen*
- ☐ Mahasiswa (diploma/sarjana/master/doctoral)*
- ☐ Programmer/spesialis Teknologi Informasi
- ☐ Profesi (Pengacara/Akuntan/Dokter/Konsultan)*
- ☐ Bapak/Ibu rumah tangga*
- ☐ Wiraswasta
- ☐ Lain-lain. Harap sebutkan _____

*) *coret yang tidak perlu*

7. Pendapatan kotor per bulan (sebelum pajak)

- ☐ Kurang dari Rp. 2.500.000,-
- ☐ Rp. 2.500.001 s/d Rp. 5.000.000
- ☐ Rp. 5.000.001 s/d Rp. 10.000.000
- ☐ Rp. 10.000.001 s/d Rp. 15.000.000
- ☐ Rp. 15.000.001 s/d Rp. 20.000.000
- ☐ Lebih dari Rp. 20.000.000

8. Kota tempat tinggal (kota lokasi yang paling sering untuk mengakses internet). Harap sebutkan (satu saja) _____

9. Tersedia koneksi internet di rumah

- ☐ Ya
- ☐ Tidak

10. Penggunaan internet dalam sehari-hari untuk saya merupakan ...
    - ☐ Kewajiban   ☐ Sukarela

11. Seberapa lama pengalaman penggunaan internet anda?

- ☐ Kurang dari 1 tahun
- ☐ 1 s/d 3 tahun
- ☐ 3+ s/d 6 tahun
- ☐ Lebih dari 6 tahun

12. Saya melakukan transaksi online melalui internet …
- ☐ Belum pernah
- ☐ 1 - 3 kali dalam sebulan
- ☐ 4 - 6 kali dalam sebulan
- ☐ Lebih dari 6 kali dalam sebulan
- ☐ 1 -11 kali dalam setahun

13. Jenis transaksi online apa saja yang pernah anda lakukan? (bisa lebih dari satu jawaban)
- ☐ Tidak ada
- ☐ Internet Banking
- ☐ e-Bay
- ☐ Pembelian barang (contoh: buku, komputer, elektronik)
- ☐ Pembelian jasa (contoh: tiket penerbangan, hotel, sewa mobil)
- ☐ Lain-lain. Harap sebutkan _____

Kuesioner penggunaan e-Services penerbangan 10 - 11

Komentar Tambahan

Bila anda ingin memberikan komentar tambahan untuk studi ini, silakan mengisi pada bagian yang telah disediakan di bawah ini.

_____

_____

_____

_____

_____

_____

_____

Terima kasih atas partisipasi dan kerjasama anda dalam studi ini. Mohon dipastikan bahwa anda telah melengkapi dengan menjawab semua bagian.

Permintaan Hasil Studi

Saya berminat untuk mengetahui hasil-hasil dari studi ini. Silakan kirim ke:**)

Nama   : _____

Alamat surat   : _____

         _____

         _____ Kode Pos_____

E-mail   : _____

Pilihan hasil studi : ☐ Print out (via pos) ☐ file (via e-mail)

**) Opsi di atas dapat diganti dengan memberikan kartu nama anda.