INHIBITORS AND DRIVERS OF INTENTION TO PURCHASE AIRLINE e-TICKETS IN MALAYSIA

BY

LEE KWEE FAH

A thesis submitted in fulfilment of the requirement for the degree of Doctor of Philosophy (Business Administration)

Kulliyyah of Economics and Management Sciences
International Islamic University Malaysia

JUNE 2018

ABSTRACT

The objective of this study is to investigate the determining factors of consumer intention to purchase air tickets online. E-ticketing is a very effective way of cutting costs for the airline industry as this distribution method bypasses travel agents, hence avoiding hefty commission payouts, and airline companies can minimize ticket sales through traditional sales offices which incur large overhead costs. To encourage more consumers to purchase air tickets online, it is important to investigate their purchase intention, which is represented as the dependent variable in this study. Consequently, purchase intention is the primary construct in the research framework. Other factors which determine purchase intention are represented as the constructs of perceived risk (PR), information search (IS), perceived ease of use (PEOU), and perceived usefulness (PU). These constructs were chosen as they comprise of elements that both inhibit and drive purchase intention, a combination of forces that ultimately impact consumer intention to purchase air tickets online. Founded on the theory of perceived risk and Technology Acceptance Model (TAM), the main hypotheses tested were: PR is negatively related to intention to purchase air tickets online, and PEOU as well as PU are each positively related to intention to purchase air tickets online. In addition, the effect of the risk-reliever used by consumers, IS, was also tested in terms of its relationship with PR, and intention to purchase air tickets online. The research method used is the quantitative approach based on the positivist paradigm. Self-administered questionnaires were utilised for online data collection. After screening, the data for 231 sample respondents was analysed for descriptive analyses, followed by PLS-SEM to validate the measures developed for this study and to test the hypotheses.

Results of the current study indicate that PR of the internet is the main determinant of intention to purchase air tickets online. PR is influenced by PEOU followed by IS. Moreover, PR comprise of financial, performance, psychological, security and privacy risks, which are separately considered by consumers in purchase decisions. PU is the second most important predictor of intention, and fully mediates the relationship between PEOU and intention. PEOU has no direct effect on intention, indicating ease of internet usage itself has no impact on intention to book flights online. Ease-of-use is only important if online booking is also perceived as useful. Surprisingly, IS does not directly predict intention to purchase air tickets online. Nevertheless, PR acts as a full mediator between IS and intention, hence supporting the risk-reliever role played by information search behaviour. Similar to many past studies, PR and PU have been found to be unrelated to each other. This finding implies that risk and usefulness of the internet are considered to be two separately important determinants of intention to purchase air tickets online. This study is significant because it expands on the theory of perceived risk through the conceptualization of perceived risk from a multidimensional perspective from which the individual dimensions are propounded to form an overall perception of risk; the inclusion of information search as a risk-reliever; as well as the integration with important TAM variables, PEOU and PU in the research model. For practitioners, the findings will guide the development of effective strategies to overcome consumer perceived risk, as well as to promote PEOU and PU, to increase consumer intention to purchase air tickets online.

خلاصة البحث

تهدف هذه الدراسة إلى استكشاف العوامل المحددة لنوايا المستهلكين لشراء تذاكر الطيران عبر الإنترنت. وتعتبر التذاكر الإلكترونية وسيلة فعالة جدا لخفض كلفة شركات الطيران، حيث إن طريقة التوزيع هذه تتجاوز وكلاء السفر، وبالتالي تتجنب دفع عمولات كبيرة، ويمكن لشركات الطيران خفض بيع التذاكر من خلال مكاتب المبيعات التقليدية التي تكلفها مبالغ كبيرة. ولتشجيع المزيد من المستهلكين على شراء تذاكر الطيران عبر الإنترنت ، فمن المهم معرفة نية الشراء ، والتي تمثل المتغير التابع في هذه الدراسة. لذا، تعتبر نية الشراء هي الأساس في هذا البحث. والعوامل الأخرى التي تحدد نية الشراء تتمثل في المخاطر المتصورة، والبحث عن المعلومات، وسهولة الاستخدام، والفوائد المتوقعة. وقد تم اختيار هذه العوامل لأنها تتألف من عناصر تؤثر على نية الشراء، وهي مزيج من االعوامل التي تؤثر على نية المستهلك لشراء تذاكر الطيران عبر الإنترنت. وتم بناء الفرضية على نظرية المخاطرة المتصورة ونموذج قبول التكنولوجيا (TAM)، والفرضيات الرئيسة التي تم اختبارها هي: المخاطر المتصورة المرتبطة سلبيًا على نية المستهلك شراء تذاكر الطيران عبر الإنترنت، وسهولة الاستخدام، والفوائد المتصورة المرتبطة إيجابا بنية شراء تذاكر الطيران عبر الإنترنت. بالإضافة إلى ذلك، تم اختبار تأثير المخفف للمخاطر الذي يستخدمه المستهلكون من حيث علاقته بالمخاطر المتصورة، والنية في شراء تذاكر الطيران عبر الإنترنت. واستخدم البحث المنهج الكمي القائم على النموذج الإيجابي. واستُخدمت الاستبيانات المصممة ذاتيا لجمع البيانات عبر الإنترنت. وتم جمع 231 استبانة، وتم تحليلها وصفيا، ثم تحليلها باستخدام PLS- SEM للتحقق من صحة الإجراءات التي تم تطويرها لهذه الدراسة واختبار الفرضيات. وأشارت النتائج إلى أن المخاطر المتصورة للإنترنت هي المحدد الرئيس لنية شراء تذاكر الطيران عبر الإنترنت. وتتأثر المخاطر المتصورة بتصور سهولة الاستخدام، يليها البحث عن المعلومات. علاوة على ذلك، تشمل المخاطر المتصورة؛ المخاطر المالية، ومخاطر الأداء، والمخاطر النفسية، والمخاطر الأمنية، ومخاطر الخصوصية ، والتي ينظر إليها المستهلكون بشكل منفصل في قرارات الشراء. والفوائد المتصورة هي ثاني أهم مؤشر للنية ويتوسط العلاقة بين سهولة الاستخدام والنية. ولا يوجد أي تأثير مباشر لسهولة الاستخدام على النية ، مما يدل على أن سهولة استخدام الإنترنت ليس لها أي تأثير على نية حجز التذاكر عبر الإنترنت. وتكون سهولة الاستخدام مهمة فقط إذا كان الحجز عبر الإنترنت مفيدًا. وأن البحث عن المعلومات ليس له تأثير مباشر على نية شراء تذاكر الطيران عبر الإنترنت. ومع ذلك، تعمل المخاطر المتصورة كوسيط بين البحث عن المعلومات والنية، وبالتالي دعم دور تخفيف المخاطرة الذي يلعبه سلوك البحث عن المعلومات. على غرار العديد من الدراسات السابقة ، ووجد أن المخاطر المتصورة والفوائد

المتوقعة غير مترابطة مع بعضها البعض. وهذا يعني أن مخاطر الإنترنت وفائدتها يعتبران عاملين مهمين منفصلين في نية شراء تذاكر الطيران عبر الإنترنت. وهذه الدراسة مهمة لأنها تتناول نظرية المخاطر المتصورة من خلال وضع تصور للمخاطر المتصورة من منظور متعدد الأبعاد، والذي يتم من خلاله وضع الأبعاد الفردية لتشكيل إدراك شامل للمخاطر. والمعلومات التي أدرجها البحث هي معلومات المخفف للمخاطر؛ فضلا عن التكامل مع المتغيرات الهامة لـ TAM، وسهولة الاستخدام والفوائد المتوقعة في نموذج البحث. وبالنسبة للممارسين، سوف تقود النتائج إلى تطوير استراتيجيات فعالة للتغلب على المخاطر المحتملة للمستهلك، وكذلك لتعزيز وسهولة الاستخدام والفوائد المتوقعة، لزيادة نية المستهلك لشراء تذاكر الطيران عبر الإنترنت.

APPROVAL PAGE

The thesis of Lee Kwee Fah has been approved by the following:

_____
Ahasanul Haque
Supervisor

_____
Suharni Maulan
Co-Supervisor

_____
Kalthom Abdullah
Internal Examiner

_____
Faridah Hassan
External Examiner

_____
David Yong Gun Fie
External Examiner

_____
Shahrul Naim Sidek
Chairman

DECLARATION

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

Lee Kwee Fah

Signature ....   Date ....

INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA

**DECLARATION OF COPYRIGHT AND AFFIRMATION OF
FAIR USE OF UNPUBLISHED RESEARCH**

**INHIBITORS AND DRIVERS OF INTENTION TO PURCHASE
AIRLINE e-TICKETS IN MALAYSIA**

I declare that the copyright holders of this dissertation are jointly owned by the student and IIUM.

Affirmed by Lee Kwee Fah

……..………………….. ………………………..
Signature   Date

ACKNOWLEDGEMENTS

I would like to take this opportunity to express my feelings of gratitude to the many individuals and parties who have helped to make this thesis possible.

Firstly, it is my utmost pleasure to dedicate this work to my beloved mother whose loving and unwavering support has kept me strong throughout the long and arduous journey towards reaching this goal. Thanks for being patient with me as I struggled between holding a full-time demanding job and completing this thesis. Relatedly, this work is also in honour of my dear, long departed father who planted the early motivating seed for my academic pursuits.

Special thanks go to my well-experienced supervisor Professor Dr. Ahasanul Haque, and my co-supervisor Assistant Professor Dr. Suharni Maulan, whose vast knowledge, guidance and continuous support have been instrumental in the development of this research work. Your much appreciated advice and encouragement have been most invaluable to me, and for that I will be forever grateful.

In no particular order, I would also like to extend my sincere appreciation to my committee members for dedicating time as well as effort to offer thoughtful comments and suggestions to enhance my work.

I am also grateful to my post-graduate coordinator, Assistant Professor Dr. Nurita Juhdi, for her ever-ready friendly support and kind assistance in administrative matters pertaining to my studies and thesis. On a related note, I am also appreciative of the other staff members at the post-graduate office of the Kulliyyah of Economics and Management Sciences for always being helpful.

Another much deserved thanks go to the Ministry of Education Malaysia for funding my academic study and research phase at the International Islamic University Malaysia. This financial support has enabled me to develop not only academically and professionally in my area of interest, but also personally. It is a privilege that I am truly grateful for.

Last, but not least, I wish to convey my heartfelt gratitude to my sisters, brothers and friends for generously offering years of enduring encouragement, endless moral support as well as immeasurable assistance to me in the process which paved the way towards the successful completion of this thesis. Many thanks for sticking with me through thick and thin. I will always treasure your belief in my persistence and ability to achieve this final goal.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

AVE   average variance extracted
B2C   business-to-commerce
FinR   financial risk
HCM   hierarchical component model
HOC   higher order component
HTMT   heterotrait-monotrait ratio of correlations
INT   intention to purchase
IT   information technology
IS   information search
LOC   lower order component
m   mean
MBG   money-back guarantee
md   median
PEOU   perceived ease of use
PerfR   performance risk
PLS-SEM   partial least squares – structural equation modeling
PU   perceived usefulness
PR   perceived risk
PrivR   privacy risk
PsychoR   psychological risk
sd   standard deviation
SecuR   security risk
SEM   structural equation modeling
TAM   Technology Acceptance Model
U.K.   United Kingdom
U.S.   United States
VIF   variance inflation factor

CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND OF THE STUDY

Airline companies operate in highly competitive environments in which there are significant challenges in covering costs and gaining profits at the same time. As such, it has become increasingly essential to adopt effective e-solutions to reduce operating costs and make the organization more efficient, productive and customer-centric (Taneja, 2002). Through e-ticketing airlines avoid paying substantial commissions to travel agents. They can also minimize the use of traditional ways of selling tickets via sales offices or call centres, which incur large overhead running costs (e.g. rentals, salaries, etc.). Against this backdrop, online ticketing became widely regarded as the most cost effective marketing channel for airlines in general (Lubbe, 2007).

Online gross booking of air tickets has been growing steadily over the years. In Southeast Asia alone, the figure stood at USD 9.3 billion in 2012 (Kapoor & Rauch, 2013). According to the same report, this is driven by growth in Malaysia, Singapore and the airline industry, namely Singapore Airlines, Jetstar Asia, and AirAsia and subsidiaries which increased by 20% in 2012.

Despite this growth in online purchase of air tickets, many travellers still prefer to buy offline through a traditional brick-and-mortar channel such as travel agencies and airline sales offices. Traditional travel agencies continue to be relevant, particularly in emerging markets as many middle class travellers prefer a personal relationship with an agent (Borgogna, Stroh, Hilz, Agarwalla, & Jakovijevic, 2016). A recent survey on Malaysian internet users shows that more than fifty percent do not shop online as they would rather make purchases from physical stores than from

websites (Suruhanjaya Komunikasi dan Multimedia Malaysia, 2017). There could be many possible reasons for this preference although online booking clearly offers the benefit of convenience (Amaro & Duarte, 2015). To date, research on this issue has produced mixed results.

For airline companies, this knowledge is important for them to devise and implement effective marketing strategies to encourage more travellers to book air tickets online. Over the long run, such strategies will contribute to substantial reduction in operation costs, increased sales and improved profits to airline companies.

1.2 CONTEXT OF THE STUDY

Due to increasing pressure to reduce operating costs, many airline companies around the world have initiated major structural changes to their ticket distribution strategies to seize the opportunity from advances in communication technology such as computing, system software, and the internet. Through their own websites and online booking platforms which act as a direct selling channel to air travel passengers.

Historically, the airline industry had been suffering from accumulated losses amounting to a staggering USD 42 billion since 2001 (SITA, 2009). To address this serious issue, the International Air Transport Association (IATA) has made it compulsory for all IATA members to implement electronic-ticketing effective from 1 June 2008 (SITA, 2009) as a measure to manage escalating operating costs incurred by the industry as a whole. This move was mainly driven by an expected annual cost savings of at least USD 3.2 billion (SITA, 2009), a substantial amount badly needed to keep the airline industry afloat.

The technology of electronic ticketing and reservation system was first developed and successfully patented in the United States on 25 July 2000, and defined as "A method and system of issuing an electronic authorization and validation for pre-scheduled activities such as airline reservations to eliminate paper tickets. The passenger makes a reservation and allows a reservation operation center to charge the passengers credit card company," (Goheen, 2000, p.1).

In SITA's (2009) white paper, electronic-ticketing (e-ticketing) has been described as a method of documentation and tracking of passenger movements without issuing paper tickets i.e. comprising of a paperless system which utilizes computer technology (SITA, 2009). Similarly, in a Malaysian study, Sulaiman and colleagues described e-ticketing as the combination of ticket issuance and delivery into a single step, which increases operational efficiency (Sulaiman, Ng, & Mohezar, 2008).

For airline companies, the major advantage of replacing paper tickets through e-ticketing helps the carriers to reduce significant costs (Pearson, O'Connell, Pitfield, & Ryley, 2015) which include printing, labour, shipping, and accounting costs as well as the elimination of commissions that must be paid to global distribution systems and agents (Chen, 2007). The usage of e-ticketing is also highly compatible with the internet communication technology (ICT) and facilitated by websites from which customers can browse for product/service information.

E-ticketing benefits air passengers in several ways (Escobar-Rodríguez & Carvajal-Trujillo, 2013; Lin & Huang, 2015). As there is no need to carry a paper ticket, passengers need not worry or suffer the stress of losing or misplacing a ticket. Moreover, passengers can search the internet, see what choice of seats is available, and book the preferred seats over the web at their convenience from anywhere and at

any time of the day (Chang & Hung, 2013; Lin & Huang, 2015). With the upward trend of e-ticket usage, airlines have started to set up self-service check-in kiosks at airports to simplify and speed up the check-in process enabling travellers to bypass the long queues typically encountered by those who check-in with paper tickets (Chen, 2007). Prices of air tickets sold online are also generally cheaper than those sold through traditional channels (Crespo-Almendros & Del Barrio-García, 2016; Escobar-Rodríguez & Carvajal-Trujillo, 2013).

Due to its clear advantages, e-ticketing has been well received and put into practice by some business sectors. Generally, search products and fairly standardised services such as travel are most amenable to e-ticketing usage. Search products are items for which it is easy to find information before purchase (Beneke, Scheffer, & Du, 2010; Girard & Dion, 2010) such as price and travel schedule. For standardised services, there is little variability in the delivery of service (Jun, Vogt, & MacKay, 2010). This had contributed to the upward sales trend in online ticket sales mainly in the transportation sector such as for booking of airline tickets, train tickets, bus tickets, subway tickets as well as for leisure activities like e-tickets to cinemas, concerts, sports events or any kind of live show (Mut-Puigserver, Payeras-Capellà, Ferrer-Gomila, Vives-Guasch, & Castellà-Roca, 2012; Hjorthol, 2009).

Market research data indicates that on a worldwide basis, almost 75 percent of all air tickets today are bought online (WNS, 2014). Most of these online ticket purchases come from advanced countries such as the United States (U.S.), the United Kingdom (U.K.) and Japan. In Malaysia, it has been reported that revenue from online sales of air tickets online were about USD 2.6 billion in 2015 ("Flights - Malaysia," 2015). In 2015, Statista projected that online air ticket sales in Malaysia will reach USD 2.95 billion in 2016 representing less than 1% of total worldwide sales ("Flights

4

- Malaysia," 2015; "Flights - Worldwide," 2015). According to the same source, sales in Asia is forecasted to be USD 71.3 billion in 2016 or 23% of global sales ("Flights - Asia," 2015; "Flights - Worldwide," 2015).

Facilitated by the availability of diverse internet sources for flight tickets including airline websites, online travel agents such as Expedia, Travelocity and Priceline, and meta-search tools such as Google Flight Search, Hipmunk, and Hopper, consumers are spoilt for choice when it comes to e-ticketing (Rosenbloom, 2015).

1.3 RESEARCH PROBLEM

From a consumer's perspective, the purchasing of air tickets over the internet brings certain disadvantages and advantages as compared to buying via traditional physical channels. When the disadvantages outweigh the advantages of booking online, consumers will tend to avoid buying air tickets using the web (Izquierdo-Yusta, Martínez-Ruiz, & Álvarez-Herranz, 2014). Such behaviour can be observed in some past studies. For example, in Hong Kong and Spain, consumers have been found to be reluctant to buy air tickets online (Kolsaker, Lee-Kelley, & Choy, 2004; Ruiz-Mafé, Sanz-Blas, & Aldás-Manzano, 2009) although they recognize the benefits of e-ticketing (Kolsaker et al., 2004), and majority (80%) used the internet to get information on times and prices, but few (30%) finally bought the ticket online (Ruiz-Mafé et al., 2009).

Closer to home, similarly, a market survey of Asia-Pacific travellers also showed that while many people search for travel information online, relatively few proceed to making the actual purchases online but instead prefer to buy from offline physical store channels (Kapoor & Rauch, 2013). Malaysians, too, display similar online search behavior (Singapore Tourism Board, 2014; Tourism Australia, 2013) but

5

prefer to book offline through a travel agency (Tourism Australia, 2013). Supportive data from Statista ("Flights - Malaysia," 2015) forecasted Malaysian user penetration of online air tickets will be only 10.91% in 2016.

Research findings indicate that the major reason why consumers are reluctant to buy air tickets online is due to the perceived risk of the medium (Izquierdo-Yusta et al., 2014; Kim, Kim, & Leong, 2005; Kim, Qu, & Kim, 2009; Kolsaker et al., 2004; Yen, 2015). Consumers perceive the presence of risk in purchasing air tickets over the internet when they expect that they will incur loss in a given transaction (Ruiz-Mafé et al., 2009).

Shopping through the internet medium invariably requires the utilization of self-service technologies. This operational function shifts the burden and responsibility of committing any mistakes to the consumer (Park, Tussyadiah, & Zhang, 2016). When reserving air tickets online, the consumer is personally accountable for looking up multiple carriers for air ticket fares, schedules, comparing prices, and keying in the correct bookings (Cunningham, Gerlach, & Harper, 2004). Mistakes fall directly on the consumer who has limited options to rectify the errors made (Cunningham, Gerlach, Harper, & Young, 2005). Consumers could also face much difficulty in changing itineraries after booking. Consequently, consumers perceive that it is riskier to purchase air tickets via the internet as compared to buying through physical distribution channels such as travel agencies and sales offices of airline companies.

The difficulties faced by consumers as discussed above are related to using the internet as a new technological medium to purchase air tickets. Notably, consumers' perceptions of risk when booking air tickets online could be due to feelings of uncertainty about the soundness of the underlying technological platform (Park et al.,

6

2016). For example, consumers may be very worried that there is insufficient mechanisms to ensure that their personal data remain safe (Izquierdo-Yusta et al., 2014). They could also fear about how secure it is to make payments using their credit card online (Nepomuceno, Laroche, Richard, & Eggert, 2012; Park & Tussyadiah, 2017; Sinha & Singh, 2017).

Given that online purchasing also comes with certain benefits, consumers' perceptions of how easy it is to use the internet, and the usefulness of the internet medium for online booking are also likely to affect online buying intention (Izquierdo-Yusta et al., 2014; Mohd Suki & Mohd Suki, 2017). Indeed, this notion which is based on information systems studies, demonstrate that when people perceive computer usage to be difficult to use, and/or not useful in achieving their work objectives, they will not use computers at work despite the benefits offered by computer usage (Davis, 1986; Davis, Bagozzi, & Warshaw, 1989; Davis, 1989; Venkatesh & Davis, 2000). Therefore, when consumers find it difficult to use the internet to buy air tickets, they will not purchase online even if they find the internet useful for purchasing purposes.

1.4 RESEARCH QUESTIONS

From the research problem discussed above, the research questions are formulated as following:

1- What is the impact of consumers' perceived risk of the internet on their intentions to purchase air tickets online?

2- Does information search impact on perceived risk and intention to purchase air tickets online?

3- Does perceived risk play a mediating role between information search and intention to purchase air tickets online?

4- Does perceived ease of use (PEOU) and perceived-usefulness (PU) impact on intention to purchase air tickets online?

5- Does PU play a mediating role between PEOU and intention to purchase air tickets online?

6- Does PEOU pose influence on consumers' perceived risk of the internet?

7- What is the relationship between consumers' perceived risk and PU of the internet?

1.5 RESEARCH OBJECTIVES

The objectives of this research are divided into general objectives and specific objectives as outlined below:

General Objective

1. The general objective of this research is to investigate the determinant factors that influence consumers' intention to purchase airline tickets online. The determining factors comprise both inhibitors and drivers of consumers' purchasing intention.

Specific Objectives

1. To investigate the impact of consumers' perceived risk of the internet on their intentions to purchase air tickets online.

2. To examine the impact of information search on perceived risk and intention to purchase air tickets online.

3. To investigate the mediating effect between information search and intention to purchase air tickets online through perceived risk.

4. To examine the impact of PEOU and PU on intention to purchase air tickets online.

5. To investigate the mediating effect between PEOU and intention to purchase air tickets online through PU.

6. To examine the relationship between consumers' PEOU and perceived risk of the internet.

7. To investigate the relationship between consumers' perceived risk and PU of the internet.

1.6 SIGNIFICANCE OF THE STUDY

1.6.1 Theoretical Significance

This study expands on the Theory of Perceived Risk in several ways:

Firstly, consumers' perceived risk is investigated from a multidimensional perspective from which the individual dimensions are postulated to form an overall perception of risk. The individual dimensions under investigation are financial, performance, psychological, security and privacy risks. As a result, a richer explanation and conceptualization of consumer perceived risk would be obtained by undertaking this research.

Secondly, consumer risk reduction behavior in the form of information search is examined in terms of its relationship with consumer perceived risk. The inclusion of this additional variable into the research model based on the Theory of Perceived Risk broadens understanding of the relationship between risk-reliever, consumer perceived risk, and purchasing intention. At the same time, there is also an added academic contribution to the literature on risk-relieving methods used by consumers, with particular relevance for studies on online purchasing behavior.

Thirdly, the integration of two important variables from the Technology Acceptance Model (TAM), PEOU and PU into the research model as determinants of