UNDERSTANDING THE FACTORS THAT ATTRACT TRAVELLERS TO BUY AIRLINE TICKETS ONLINE IN SAUDI ARABIA

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Abstract

Despite widespread discussions of online consumer behaviour and the effect of web quality on online user’s actions, there is still a lack of research in the area of consumer attitude towards the services provided by airline companies due to the specific nature of travellers – being using the internet for different motivations and buying specific kind of product (e-tickets). This study aims to measure consumers’ electronic satisfaction and intention to purchase tickets from Airlines websites. The results provide better understanding on the factors that attract travellers to adopt the most cost effective distribution channel for Airlines (own website) for ticketing needs. To obtain the study objective, a conceptual framework is developed based on literature pertaining to e-consumer behaviour, web quality, and travel and tourism streams. A detective quantitative methodology was chosen to examine the constructs and the relations within the framework. An online survey targeting actual airline online users (travellers) in the Kingdom of Saudi Arabia is suggested with items covering 9 constructs: Information Quality (IQ), System Quality (SQ), Perceived usefulness (PU), Perceived ease of use (PEOU), e-Trust (ET), Airline reputation (AR), Price Perception (PP), e-Satisfaction (ES), and Intention to Purchase (IP). Findings would help decision makers within airline companies to understand their customers’ online behaviour and enable enhancements and modifications to be made to their airline storefront, hence ensuring the satisfaction of potential customers and conversion of visitors into buyers.

Keywords: online consumer behaviour, web quality, airline, e-ticketing.

1 INTRODUCTION

There are quite numerous studies that came across the online customers’ behaviour such as their browsing attitudes, continuance intention to use a website, willingness to purchase, or their shopping interests. Also research has been conducted to focus on different industries or sectors such as retailing, banking, governmental transactions, hotel booking and many other practices. This study intends to focus particularly on a significant yet under investigated industry. It is the Airline or Aviation Industry. According to Law and Leung (2000), Making travel arrangements online is suggested with items covering 9 constructs: Information Quality (IQ), System Quality (SQ), Perceived usefulness (PU), Perceived ease of use (PEOU), e-Trust (ET), Airline reputation (AR), Price Perception (PP), e-Satisfaction (ES), and Intention to Purchase (IP). Findings would help decision makers within airline companies to understand their customers’ online behaviour and enable enhancements and modifications to be made to their airline storefront, hence ensuring the satisfaction of potential customers and conversion of visitors into buyers.
for travel-related service entrepreneurs to provide services with their target customers (Ho and Lee, 2007) and the use of Airlines own website is generally regarded as the most cost effective for airlines (Lubbe, 2007).

Online services such as flight booking, selecting seats, web check-in, and more importantly buying tickets are essential for airline companies to succeed. So it is important to gain better and comprehensive understanding on how travellers behave when they complete their online travel arrangements. Literatures from online consumer behaviour, web quality, and travel and tourism where deeply investigated to come up with a measurement tool to study the travellers behaviour and learn what are the factors that could influence users to adopt Airlines websites for their air ticket purchasing needs.

2 LITERATURE REVIEW

2.1 Consumer behaviour models

Online consumer behaviour studies adopted famous theories such as the Expectation Confirmation Theory (ECT) which suggests that satisfaction usually depends on the consumers initial expectations of a service and if it is going to be confirmed or not during actual use (Oliver, 1980). Also, Theory of Reasoned Action (TRA) (Fishbein and Ajzen, 1975) and its family theories, including the Theory of Planned Behaviour (TPB) and the Technology Acceptance Model (TAM) were extensively tested. TRA and TPB focuses on determinants of intention and behaviour (Ajzen, 1985) while TAM states that the actual system use is determined by the behavioural intention and the attitudes towards usage, which in turn can be explained by perceived usefulness and perceived ease of use (Davis, 1989). These models have been extensively used by researchers individually as well as companied in the context of e-retailing (Dennis et al. 2009). Most of its constructs were confirmed to be valuable in predicting the behaviour.

2.2 Web Quality models

In addition to the traditional consumer behaviour research, many literatures from information technology aspect focused on the web site quality and its effect on user’s behaviour when using a website. A good website should be easy to understand and use, and should help and encourage customers to navigate throughout the entire site. Researchers developed several scales to measure the web quality of a web site and they defined many dimensions for this purpose. Site content, security, design, accessibility, navigation, responsiveness, personalization, and enjoyment are some examples of these dimensions. Most of the web quality scales where developed based on the traditional service quality scale SERVQUAL (Parasuraman, Zeithaml and Berry, 1985). This scale. Examples of these scales are: SITEQUAL (Yoo and Donthu, 2001), e-SERVQUAL (Zeithaml, Parasuraman and Malhotra, 2000), And “E-S-QUAL” (Parasuraman, Zeithaml and Malhotra, 2005). Several studies suggested that dimensions of website quality may differ by type of product or retailer and that there is a need to explore each type independently (Peterson, Balasubramanian and Bronnenberg, 1997). This was actually deployed within the travel and tourism industry by some researchers. (Kaynama and Black, 2000) developed an instrument called “E-QUAL” to measure travel web service quality with seven dimensions. Law & Wong (2003) proposed three dimensions that encourage customers to purchase travel products online in Hong Kong. According to (Nusair and Kandampully, 2008), all previous studies do not perfectly matched each other in terms of reporting similar web quality dimensions. That can explain the need for more studies to develop scales with dimensions that fit the purpose of the industry or products type for the online storefront.

Three observations from the literature of both consumer behaviour and web quality can be discovered. First, we can see that researchers looked at the way online users behave or use the internet from many different angles in diverse fields. Consumer behaviour studies with a marketing influence, IS researchers with functionality and process focus, and practitioners concerned about design and layouts.
Second, it can be seen in the earlier research that many dimensions or constructs are overlapping between models from various fields. For example, TAM theory uses the term “ease of use” as well as in the web quality model SITEQUAL (Yoo and Donthu, 2001), but in e-SERVQUAL (Zeithaml, Parasuraman and Malhotra, 2000) they call it “ease of navigation” and WebQual (Loiacono, Watson and Goodhue, 2002) name it “ease of understanding”. Also the term Usability, Reliability, and Efficiency are frequently used by researchers but sometimes describing the same thing. Another example is the use of the term privacy, security, and trust as they might not always have the same definition, but in many cases it present similar idea in different fields or contexts. Third, most of the online consumer behaviour and web quality studies adopted traditional e-shopping sites (e.g. goods, books, DVD, etc.). Particular industry or product specific studies are listed upon many researchers suggestion for future studies (e.g. (Aladwani and Palvia, 2002; S. Kim and Stoel, 2004; Nusair and Kandampully, 2008; J. Kim, Jin and Swinney, 2009; Qureshi et al., 2009)). This approach is starting to gain a lot of importance and published researches are growing including the travel and tourism industry.

2.3 Studies within the travel and tourism industry

Researches that utilized both consumer behaviour and/or web quality models specifically in the travel and tourism industry where explored. Table 1 below list the variables/constructs that was investigated in earlier studies within travel and tourism industry and the count of occurrence for each of them. (Kaynama and Black, 2000), (Ho and Lee, 2007), (Mills and Morrison, 2003), (Shchiglik and Barnes, 2004), (Nusair and Kandampully, 2008), (Ruiz-Mafé, Sanz-Blas and Aldás-Manzano, 2009), (Lau, Kwek and Tan, 2011). It can be observed from the table that the most pointed out dimensions are System Quality (Website design), Trust, , Responsiveness, Information quality, Usability, and Ease of Use. This observation can help current research when shaping the study frame work.

<table>
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<tbody>
<tr>
<td>Ease of Use</td>
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<td>Usability/Usefulness</td>
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<td>Responsiveness</td>
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<td>Information quality/Price knowledge</td>
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<td>System quality (Design/Navigation)</td>
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<td>6</td>
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<tr>
<td>Availability/Access</td>
<td></td>
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<td>Interactivity</td>
<td></td>
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<td>2</td>
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<tr>
<td>Enjoyment/Playfulness</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td>1</td>
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<tr>
<td>Personalization</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
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<tr>
<td>Customer service</td>
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<td></td>
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<td>Compensation/Incentives</td>
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</table>

Table 1. List of variables investigated in some of the travel and tourism specific studies.

3 Research gap and contribution

Despite the fact that previous research have used consumer behaviour and Information systems literature to measure the customer behaviour toward using an online portal in general and within the context of many industries, many researchers also agreed that there is still a need to combine...
dimensions from different disciplines to form new and robust measurement tools (Cheung, Chan and Limayem, 2005; Dennis et al. 2009). Moreover, as mentioned earlier, recent evidence suggests that to date, there has been only limited research into tourism website evaluation and that the existing tourism literature simply does not have any commonly agreed upon standards or techniques for website evaluation (Law et al. 2010). Consequently, an airline company need to better understand their traveller’s attitude when they process their travel arrangements. This study introduces a new tool for airlines to measure their customer’s satisfaction with their web services provided. Such satisfaction could influence them to purchase tickets online. The study will offer in depth analyses into the behaviour of this special spectrum of users (travellers).

In addition, from the literature review, it is clear that most studies have been done in developed or western environment. Less research work has been found so far in countries like Saudi Arabia. As far as the authors knowledge there has been no research that looked at airlines online services in the Middle East.

4 RESEARCH AIM AND OBJECTIVES

The research aims to utilize the existing theories on consumer behaviour and scales within web quality to develop a framework for measuring the traveller’s web satisfaction and willingness to purchase tickets from airlines website. Where the objectives include:

- Identifying the factors that most likely have a significance influence on web e-satisfaction and intention to purchase airlines e-tickets.
- Developing a conceptual framework concerning the relationships between e-satisfaction its antecedents and its consequence (Intention to purchase).
- Empirically assessing the proposed conceptual model.

5 STUDY CONTEXT

5.1 Study location (Saudi Arabia)

This study will be conducted in Saudi Arabia which has a relatively large population that is estimated to be more than 28 million. And it is considered as the 14th largest country in the world covering more than 2 million square kilometres (Nations Online, 2010). Also by analyzing the current Saudi e-commerce market, it is found that according to the Communication and Information Technology Commission (2010), more than one third (38.5%) of the Saudi population are using the internet regularly. In addition, a national survey that was conducted by the Arab Advisors Group in 2009 claimed that 14.3% of the Saudi population have used e-commerce and they spent $3.28 billion in e-commerce transactions in 2009 (Arab Advisors Group, 2009). This demonstrates the potential and opportunities available for online services to be adopted in this area.

In addition, in Saudi Arabia, there are no other proper methods of public transportation apart from air travel or cars. For example, there are no proper passenger railway networks between cities. Only 5 cities in the east of The Kingdom are linked (Saudi Railways Organization, 2011). According to a report Published by the Tourism Information and Research Centre in Saudi Arabia, domestically, Air travel between cities in Saudi Arabia are used 40 times more than railway. Also internationally, in 2009, the percentage of inbound journeys to Saudi Arabia was 48.6% by Air, 46.6% by cars and only 2.7% by sea. For the outbound journeys it was 41.7 % by Air, 57.7% by cars, 0.6% by sea. And there is no any rail network as well for international travels (Tourism Information and Research Centre, 2010).

Therefore, air travel is the most common method of transportation and for about 60 years there has been only one Airline company in Saudi Arabia. Three other airlines were introduced in 2003, 2007 (low cost) and 2005 (premium airline). Two of the newly launched companies where closed due to operational and financial problems. Table 2 below show all airlines operations in Saudi Arabia:
Table 2. Airlines Operation in Saudi Arabia.

<table>
<thead>
<tr>
<th>Airline Name</th>
<th>Type</th>
<th>Destination</th>
<th>Aircrafts</th>
<th>Launch</th>
<th>Note</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saudi Arabian Airline</td>
<td>Classic Airline</td>
<td>26</td>
<td>54</td>
<td>149</td>
<td>1945</td>
<td>(Saudia Airlines, 2011)</td>
</tr>
<tr>
<td>Nas Air</td>
<td>Low Cost Airline</td>
<td>6</td>
<td>19</td>
<td>12</td>
<td>2007</td>
<td>(Nas Air, 2011)</td>
</tr>
<tr>
<td>Al Khayala</td>
<td>Premium Airline</td>
<td>2005</td>
<td></td>
<td></td>
<td>On 1st of April 2009 bankruptcy was declared and all operations were ceased</td>
<td>(Alhamdan, 2009)</td>
</tr>
<tr>
<td>Sama Airline</td>
<td>Low Cost Airline</td>
<td>2003</td>
<td></td>
<td></td>
<td>From 23rd of August 2010 there flights temporary discontinue operation until further notice</td>
<td>(Aleqtesadiah, 2010)</td>
</tr>
</tbody>
</table>

5.2 Study industry of focus (Airlines)

It is not only in Saudi Arabia where Airlines are suffering. Currently all airline companies are facing big challenges to cover the running costs and to gain profits at the same time. Also, with the huge competition between travel agencies, traditional airlines and low cost carriers, it became essential to adopt smart solutions to reduce costs. E-solutions, however, are effective both in directly reducing operating costs and in making the enterprise more efficient, productive, and customer-centric. This is especially true in an industry with long-term growth like the travelling industry. Utilizing the internet to provide airlines services is becoming essential for any airline to succeed. However, providing the service is not usually enough, but encouraging more customers to use these services rather than traditional ones plays an important role in this success. “Distribution through own websites is generally regarded as the most cost effective for airlines” (Lubbe, 2007).

In addition, according to Eid, Zaidi, & Sciences, (2010), Airline is considered as high-tech industry to lead other business sectors having technological role-model and advancement. That confirms how this industry is important to be a focus of research.

6 Conceptual framework and hypothesis

Considering the study aim and objectives and after reviewing previous studies, we suggest a model that corresponds with ECT in centralising e-satisfaction and employ it as the main precursor for the intention to purchase tickets online. In a study that was conducted by Bai et al. (2008), they listed several studies in the offline environment that suggest that satisfaction leads to purchase intentions and found that this is applied to the online environment too. Also, a study by Jeong et al. (2003) reveal that customer’ information satisfaction is an important factor of online behavioural intentions. Moreover, the role of the famous and widely confirmed Technology Acceptance Model (TAM) can’t be neglected. It is a well-accepted intention model for predicting and explaining IT usage (Ahn, Ryu and Han, 2007). We adopted the two constructs ease of use and usefulness to be ancestors of e-satisfaction as well as intention to purchase. In addition, since we are studying an online store, we should include the web quality dimension as an important construct to explain the e-satisfaction. Jeong et al. (2003) found that website quality is essential for information satisfaction. More recently, Ho & Lee (2007) tried to develop a scale to measure e-service quality scale for the travel industry. His results, suggested that e-travel service quality served as an important indicator for predicting satisfaction as well as behavioural intention. The current study will split web quality into two constructs called Information Quality and System Quality. This is an approach was used and confirmed to be valid in other researchers such as Ahn, Ryu and Han, (2007); Nusair and Kandampully, (2008). Customers trust in
the airline or what is called e-trust also plays an essential role into the decision to complete the transaction and purchase products online. Nusair & Kandampully (2008) listed several studies that suggest that e-trust is an important dimension for the success of the online business (Lee & Turban, 2001; Zeithaml et al., 2002; Bomil & Ingoo, 2002; Luo, 2002; McKnight et al., 2002; Krauter & Kaluscha, 2003). According to Kim et al. (2009), previous studies empirically found that e-trust is to be a strong predictor of satisfaction in online context. Therefore, in our model it is integrated as a successor to e-satisfaction. Additionally, within the airline industry and after particularly reviewing studies from travel and tourism stream, we found an important dimension that can motivate e-satisfaction which is Price. On a study of airline ticket purchase attitude that compare online and traditional purchase, the result suggest that the most important way to attract customers to buy their tickets online is to focus on the amount of money that could be saved by purchasing air tickets online (Athiyaman, 2002). Finally, in e-commerce, a company’s reputation is perhaps even more critical to the customer because there are fewer visible signals of credibility and greater risks in a virtual environment (Wirtz, 2003). We inserted the airline reputation as a construct that affect e-trust and indirectly satisfaction and intention to purchase.

Figure 1 below represents the research framework for this study with nine constructs and thirteen relations (hypotheses).

![Conceptual framework and hypothesis](image_url)

**Table 2 below demonstrate the proposed study hypotheses:**

<table>
<thead>
<tr>
<th>Factor</th>
<th>Hypotheses</th>
</tr>
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<tbody>
<tr>
<td>e-Satisfaction (ES)</td>
<td><strong>H1:</strong> Intention to Purchase airline tickets will be positively influenced by the customer’s e-satisfaction with the airline website.</td>
</tr>
</tbody>
</table>
| Perceived usefulness (PU)     | **H2:** Perceived usefulness of the site will positively influence the e-satisfaction with the airline storefront.  
                           | **Ha:** Perceived usefulness of the site will positively influence the intention to purchase airline tickets.                                   |
| Perceived ease of use (PEOU)  | **H3:** Perceived Ease of use of the site will positively influence the e-Satisfaction with the airline storefront.  
                           | **Hb:** Perceived Ease of use of the site will positively influence the Intention to purchase airline tickets.                                   
                           | **He:** The perceived Ease of use of the airline site will positively influence the perceived Usefulness.                                    |
Table 2. Proposed hypotheses.

7 SURVEY

In order to test the validity of the framework and to examine the hypotheses, a survey is developed to measure each construct in the scale. According to Qureshi et al., (2009), survey research is suitable for obtaining personal facts, beliefs, and attitudes and it enhance the generalization of findings. It is also decided to make the survey available online as it best suited the context of this study. The thesis study online behaviour for travellers using an online approach. Hence, consumers are in a relevant setting when completing the survey. In addition, an online survey will enable a large geographical cover and produce fast, complete, lower cost response. The questions were adopted from appropriate previously validated scales in the literature. Each construct had between 5 to 7 items to measure it and the full model consist of 54 item (question). This questionnaire was then translated in Arabic and checked by academics, airlines practitioners, and normal online users from similar culture. A back translation methodology was also adopted. Minor changes and modification were done prior to the start of the pilot test on small group of users to examine its reliability and correlation.

The survey was sent to Saudi university students living in the UK. 65 responses involved. The reliability and correlation tests show good and sometimes above recommended standard result but proof that the scale can remain and that it can be adopted for a bigger scale data collection. Table 3 below demonstrate the reliability and correlation results from the pilot study.

Table 3: Pilot results

<table>
<thead>
<tr>
<th>Correlations</th>
<th>Reliability</th>
<th>Perceived Usefulness</th>
<th>Perceived Ease of use</th>
<th>Information Quality</th>
<th>System Quality</th>
<th>eTrust</th>
<th>Airline Reputation</th>
<th>Perceived Price</th>
<th>eSatisfaction</th>
<th>Intention to Purchase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived Usefulness</td>
<td>.962</td>
<td>1</td>
<td>.646**</td>
<td>.778**</td>
<td>.706**</td>
<td>.615**</td>
<td>.588**</td>
<td>.592**</td>
<td>.735**</td>
<td>.557**</td>
</tr>
<tr>
<td>Perceived Ease of use</td>
<td>.960</td>
<td>.646**</td>
<td>1</td>
<td>.765**</td>
<td>.759**</td>
<td>.449**</td>
<td>.655**</td>
<td>.459**</td>
<td>.741**</td>
<td>.474**</td>
</tr>
<tr>
<td>Information Quality</td>
<td>.915</td>
<td>.778**</td>
<td>.765**</td>
<td>1</td>
<td>.873**</td>
<td>.631**</td>
<td>.768**</td>
<td>.632**</td>
<td>.833**</td>
<td>.633**</td>
</tr>
<tr>
<td>System Quality</td>
<td>.935</td>
<td>.706**</td>
<td>.759**</td>
<td>.873**</td>
<td>1</td>
<td>.749**</td>
<td>.782**</td>
<td>.639**</td>
<td>.896**</td>
<td>.748**</td>
</tr>
<tr>
<td>eTrust</td>
<td>.969</td>
<td>.615**</td>
<td>.449**</td>
<td>.631**</td>
<td>.749**</td>
<td>1</td>
<td>.668**</td>
<td>.510**</td>
<td>.762**</td>
<td>.777**</td>
</tr>
<tr>
<td>Airline Reputation</td>
<td>.911</td>
<td>.588**</td>
<td>.655**</td>
<td>.769**</td>
<td>.782**</td>
<td>.668**</td>
<td>1</td>
<td>.686**</td>
<td>.827**</td>
<td>.654**</td>
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<tr>
<td>Perceived Price</td>
<td>.935</td>
<td>.592**</td>
<td>.459**</td>
<td>.632**</td>
<td>.639**</td>
<td>.510**</td>
<td>.686**</td>
<td>1</td>
<td>.664**</td>
<td>.608**</td>
</tr>
<tr>
<td>eSatisfaction</td>
<td>.937</td>
<td>.736**</td>
<td>.741**</td>
<td>.833**</td>
<td>.896**</td>
<td>.762**</td>
<td>.827**</td>
<td>.664**</td>
<td>1</td>
<td>.734**</td>
</tr>
<tr>
<td>Intention to Purchase</td>
<td>.964</td>
<td>.557**</td>
<td>.474**</td>
<td>.633**</td>
<td>.748**</td>
<td>.777**</td>
<td>.654**</td>
<td>.608**</td>
<td>.734**</td>
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** Correlation is significant at the 0.01 level (2-tailed).

Table 3. Reliability & Correlations between constructs of the proposed conceptual framework.
8 Conclusion

The need to understand the current new market is essential for airline companies to survive and be successful. This study should help airline companies to develop their online e-business solutions in a way that can attract customers to use them and then result into profit. A conceptual framework is developed based on literature from e-consumer behaviour, web quality, travel and tourism. Constructs have been tested using a small scale participants using an online questionnaire and the initial results prove that the measurement items and the conceptual framework can be utilized by for future researches in a bigger scale. Then Structural Equation Modelling (SEM) can be adopted to validate the model and test the hypothesis.
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