

## **Electronic Ticketing in Airline Industries among Malaysians: the Determinants**

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### **Abstract**

*The purpose of this study is to investigate the determinants of the usage of online ticketing within airline industry among consumers in Malaysia. Data for this study was collected through self-administered questionnaire and distributed through convenient sampling method. A total of 200 completed and usable questionnaires have been collected. Pearson Correlation analysis and ANOVA table were tested to determine the interrelation of different variables in electronic ticketing usage. Findings of this study are limited by the number of respondents, area and location of the study, and absence of other methods to obtain results other than secondary research and questionnaire. Empirical results show that there is a significant correlation between payment method, corporate image, security, and web design with usage of electronic ticketing. This study is important to the marketers to understand the online ticketing usage in airline industry. Marketers could also make improvement and strengthen the marketing strategy based on selected variable to be more competitive.*

**Keywords:** Corporate Image, Payment Method, Security, Web Design

### **1. Introduction**

One of the potential services that have been used recently in internet is travel related services. Airline electronic ticketing is one of these services. In 2003, airline electronic ticketing sales have reached nearly \$14.2 Billion (Foss, 2003).

The widespread of zeal for e-commerce is leading the airline industry into electronic ticketing system. In the Asia Pacific region, particularly in the Philippines, Thailand, Hong Kong and Malaysia, the e-ticketing service is gaining popularity. In Malaysia, Air Asia Company is the first to initiate the electronic ticketing system. This meets their core value of low cost carrier. According to the Nielsen (2005), nearly 14% of online purchasers bought airline ticket using internet. This helps the company to increase its popularity in internet and also minimize the costs.

The aim of this paper is to investigate the usage of electronic ticketing whether influenced by payment method, corporate image, security, and web design in Malaysia. Online businesses use numerous ways of payment methods, such as credit cards, debit cards and cash on delivery. Most of the customers choose to purchase an airline company ticket online not only for convenience reason but also for the security of the payment process. Thus, customers will evaluate the usefulness and user-friendly criteria for each airline online purchasing website which includes internet subscription, information searching, and payment methods (Grace and Chia, 2009).

Most consumers choose a payment method not only based on the convenience, but also for an important criterion that is security (Xiaoying, Kwek, and Min, 2012). Usually, electronic ticketing website provides few types of payment method such as, make an online payment with credit card, debit card (cash) or cash on delivery. When customers making a payment on the online ticket, a convince payment system is the first choice. A complicated payment method will chase out some customer. Therefore, uncomplicated payment methods on the electronic ticketing system will helps to maintain and increase the number of customers.

Corporate image is always important for every company. A good image will help company to build positive appearance. Corporate image determine the usage of electronic ticketing. Therefore, an airline company with a bad corporate image will influence the usage of electronic ticketing from the customers. The role of corporate image towards the airline company is important. Many studies have concluded that image and customer trust will affect the individual behaviour (Ratnasingham, 1998). Thus, the corporate image perceived by customers will make a tangible influence on decision to which airline ticket they are going to purchase online.

Traveling industry is the most high volume e-commerce business on the web (Ting, 2005). Thus, the web design of the airline company website is sure to be sensible. The website colour, structure, information and ease of use are the most important criteria for a web page in Airline Company.

Another factor that influences the e-ticketing usage is the security. Consumers are concern about the security, liability and privacy of the online website (Gefen, 2000). The security system is to protect the private information and card information of customers. A good reputation of security system on the airline company will be a huge advantage. The transaction data and personal information are exploring in the website in uses. Thus, a good security system in airline electronic ticketing is relatively important.

A suitable web page will derive the airline company to a positive way (Chan, Aw &Yousefi, 2013).The design of the web site should reflect the characteristics of the medium, the customers, and the competitive environment (Gretzel, et al 2000). Company should know what structure of web design will attract more customers. Usually websites that contains a clear description are more popular.

## **2. Previous Studies**

### **2.1 Electronic Ticketing**

E-ticketing by definition is a combination of issue and delivery the ticket from a single operation. E-ticketing is an electronic document without a physical paper, airlines industry is using this the most. In this era, most of the major airline companies are using Electronic ticketing. An e-ticketing model allows consumer to enter information directly into the airline's company database. Consumers also allow check-in without showing a physical paper ticket. E-ticketing enables the airline companies to reduce costs in terms of printing, mailing, and reduce the need of man power in terms of decreasing the employee work.

### **2.2 Corporate Image**

“Corporate image is viewing as a whole of all the experiences, beliefs, impressions, feelings and knowledge from the people toward a company” (Aaker, 1996). In line with this statement, corporate image is a customer perception associate with what the individual feels and belief of the company.

“An image is set by impression from different types of people for the company.” (Gray and Iaccker, 1985). In a result, corporate image is a summative process of contrast on several aspects within the company.

From the previous studies, some of the researchers have studied the influence of corporate image on customers' purchase intentions (Lin, Sher, & Shih, 2005). Airline Companies always work hard on the company image. A bad image will cause many negative aspects for the company. It may spread by rumour, online review or the powerful aspect of word of mouth. “Corporate image is considered as a great strategic tool in terms of the financial section, besides, it also helps to achieve long term objectives and goals” (Abratt and Mafokeng, 2001). Moreover, it may help Airline Companies to increase ticket sales. Good corporate image allows customer to put more trust towards the company, especially in online ticketing.

### **2.3 Payment Method**

Airline electronic ticketing normally provides two types of payment method to allow consumer to precede the whole purchasing process. For example credit card payment and cash payment (debit card). Public usually choose a payment method which is easy to use, but also mature in security system. “Consumers expect websites that protects personal data, provide for secure payment, and maintain the privacy of online communication” (Franzak et al, 2001). Any airline company which provides E-ticketing service is always trying to maintain and enhance its payment method.

“Customers will evaluate the usefulness and ease of use of a particular website, including information search, internet subscription and payment methods” (Grace&Chia, 2009). Thus, with this statement it shows how other factors influence the online electronic ticketing usage toward Airline Company. Nowadays, people always seek for the most convenient and easy way to get the task done. A complicated procedure to reach some purpose will annoy some customers. “When a customer spends a long time to understand and familiarize with shopping and payment procedures at a certain shopping website, the specific holdup cost paid on related intangible things will increase” (Grace&Chia, 2009)

### **2.4 Security**

Another important aspect that affects online ticketing usage in airline industry is security. “Security is the website ability to protect consumer's personal information” (Xiaoying, Kwek, and Min, 2012). The web must have the ability to protect every consumer information, such as credit card number and personal information. In other words, the data that collected from the online transaction process must ensure that does not expose into third party.

“Consumers concern about the security, liability and privacy of the online website” (Gefen, 2000). Company needs to build a positive perception for customers. Airline company website should be presented professionally and reliable. Airline companies have to put effort for building the positive image of security and privacy.

“Security concerns in electronic commerce can be divided into concerns about user authentication and concerns about the data and transaction security” (Ratnasingham, 1998). In terms of security, user authentication can be defined as gaining customer positive security engagement toward the airline company. Besides, data and transaction security is about the duration of the purchasing process. “When perception of security risk decreases, then satisfaction with the information service of online stores is expected to increase” (Elliot &Fowell, 2000). Meanwhile, when customers receive a good perception of security, it is increasing the number of customers in Airline Company.

### **2.5 Web Design**

“The design of web site has created attention in the human computer interaction (HCI) literature” (Palmer, 2002). It is a behavioural aspect for consumer interaction with computer for building various user-cantered products. There have few methods to analyse whether the web design are favourable to public.

“Prior to extensive use of the web, usability of information systems was matching to a set of design principles” (Palmer, 2002). There have few elements included in web design that analyse the functionality of the web. For example, interaction way with customers, interface design and response time. Besides, Airline Companies also will place some common navigation tool to enable public to access the web more convenience, some example for navigation tools are button, bar and pop out special promotion. As websites becoming the major interface for airline industry, marketers are now more focusing into the website environment rather than the basic usability.

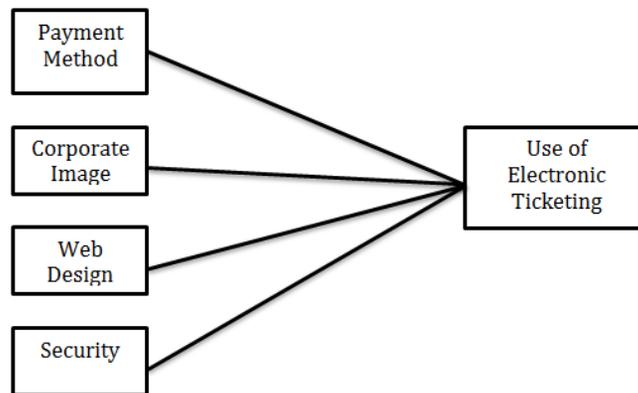
“Graphical design, layout, and actual content are prime components in making the page easier to use” (Rasmussen, 1997).

The speed of the website provide to customer when they searching some information is monitoring by everyone, such as people searching air ticket price in an airline company website. “The web become a progressively essential interface, usability research began to concern more specifically on increasing the basic usability principles into the web environment” (Palmer, 2002).

**2.6 Research Framework**

Figure 1 shows the framework of the present paper that includes payment method, corporate image, security and web design as independent variables and the usage of Electronic Ticketing among consumers in Malaysia as dependent variable. Therefore based on the above elements discussed, hypotheses of this paper can be given as; (note that they are given in the form of alternative)

- H1: There is a relationship between payment method and usage of electronic ticketing.
- H2: There is a relationship between corporate image and usage of electronic ticketing.
- H3: There is a relationship between security and usage of electronic ticketing.
- H4: There is a relationship between web design and usage of electronic ticketing.



**Figure 1: Theoretical framework**

**3. Research Methodology**

Looking at the sampling frame, all consumers who use E-ticketing system in airline companies in Malaysia were included in the sampling frame. Therefore, only these people in Malaysia would be selected as the potential respondents. Meanwhile, a population for this research are conduce for 18 to 47 years old people who used E-ticketing to purchase air ticket are the research target respondents. This research is using convenience-sampling method to conduce the questionnaire. “Convenience sampling is a non-probability sampling technique where subject are selected because of their convenient accessibility and proximity to the researcher.” (Castillo, 2009) Therefore, the researcher has chosen this method. In this paper, the statistical analysis will include Person Moment Correlation test and ANOVA analysis. These are applied to study the relationship between independent variables and dependent variable of electronic ticketing usage. The ANOVA test is to identify the factors that are influencing a given data set.

**4. Empirical Findings**

Pearson correlation analysis we will able to see the relationship of the variables of our data.

**Table 1: Reliability Test using Cronbach’s Alpha**

Variables	Cronbach’s Alpha	Number of Items
Electronic Ticketing	0.817	3
Payment Method	0.716	4
Security	0.636	4
Corporate Image	0.791	5
Web Design	0.791	5

According to Table 1, for the first variable of electronic ticketing, there are three questions in data collection. The Cronbach's Alpha value for this variable of this group of question is obtained as 0.817. As the target of the alpha value is 0.6, thus, the reliability value for this value is considered as high. Reliability statistics for payment method using four questions in data collection shows the value of 0.716 for this group of question which is more than 0.6, thus, this value is considered as acceptable. Therefore, the questions for this variable are reliable. Reliability statistics for security using four questions in data collection reveals as 0.636 for this group of question which is also acceptable. For the variable of corporate image, there are five questions in data collection. From the Table, the Cronbach's Alpha value of this group of question is 0.791, thus, the value is considered as high. Lastly, for the variable web design, there are five questions in data collection. According to the Table, the Cronbach's Alpha value of this group of question is 0.791, thus, the value is considered as high. Therefore, all variables are showing high reliability.

#### 4.1 Pearson Correlation Analysis

Pearson correlation analysis is performed on the variables that are under nominal category having to convert into scale. Pearson product moment correlation coefficient is the correlation coefficient that conducted to identify the relationship between variables and it is ranging from -1.00 to +1.00.

**Table 2: Pearson Correlation Analysis**

		ET-AVE	PM-AVE	S-AVE	WD-AVE	CI-AVE
ET-AVE	Pearson Correlation	1	.298*	.357*	.277*	.276*
	Sig. (2-tailed)		.000	.000	.000	.000
	N	200	200	200	200	200
PM-AVE	Pearson Correlation	.298*	1	.351*	.322*	.322*
	Sig. (2-tailed)	.000		.000	.000	.000
	N	200	200	200	200	200
S-AVE	Pearson Correlation	.357*	.351*	1	.286*	.286*
	Sig. (2-tailed)	.000	.000		.000	.000
	N	200	200	200	200	200
WD-AVE	Pearson Correlation	.277*	.322*	.286*	1	1.000*
	Sig. (2-tailed)	.000	.000	.000		.000
	N	200	200	200	200	200
CI-AVE	Pearson Correlation	.277*	.322*	.286*	1.000*	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	200	200	200	200	200

\* denotes Correlation is significant at the 1% level (2-tailed).

ET = Electronic Ticketing, PM = Payment Method, S = Security, WD = Web Design, CI = Corporate Image

##### 4.1.1 Correlation between Electronic Ticketing and Payment Method

According to the Table 2, the Pearson Correlation Between electronic ticketing and payment method were found to be 0.298 with the P value of 0.000 which is less than 0.05. Therefore, there is sufficient evidence to support the claim that there is a correlation between electronic ticketing and payment method. The Pearson correlation of 0.298 further shows that there is a positive and significant relationship between electronic ticketing and payment method. In other words, payment method is influenced towards E-ticketing service in Malaysia's airline industry.

##### 4.1.2 Correlation between Electronic Ticketing and Corporate Image

According to Table 2, it shows that the Pearson Correlation Between electronic ticketing and corporate image is 0.276 and the P value is 0.000. Therefore, there is evidence to support the claim that there is a correlation between electronic ticketing and corporate image. The Pearson correlation of 0.276 had shown that there is a positive and significant relationship with electronic ticketing and this relationship is slight and almost negligible moderate relationship with electronic ticketing.

##### 4.1.3 Correlation between Electronic Ticketing and Security

As it can be seen in Table 2, the Pearson Correlation Between electronic ticketing and security is 0.357 and the P value is 0.000. Therefore, it can be conclude that there is a support to the claim that there is a correlation between electronic ticketing and security.

The Pearson correlation of 0.357 had shown that there is a positive relationship and this relationship is slight and almost negligible moderate relationship between electronic ticketing and security.

#### 4.1. 4 Correlation between Electronic Ticketing and Web Design

From Table 29, it is obvious that the Pearson Correlation Between electronic ticketing and web design is 0.277 and the P value is 0.000. Therefore, it has sufficient evidence to support the claim that there is a correlation between electronic ticketing and web design. The Pearson correlation of 0.277 had shown that there is a positive relationship and relationship is slight and almost negligible moderate relationship between electronic ticketing and web design which means web design is influenced toward E-ticketing service in Malaysia's airline industry. In overall, the Pearson test shows that there is a relationship and it is slight and almost negligible moderate between electronic ticketing and independent variables.

#### 4.2 Multiple Regression Summary

**Table 3: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.426 <sup>a</sup>	.182	.169	.26555

a. Predictors: (Constant), CI, S, PM, WD, and dependent variable is ET

Table 3 shows that the R-square for this model is 0.182. This means payment method, corporate image, security and web design contributed 18% towards electronic ticketing. Even though the four variables do not present very strong relationship toward electronic ticketing but there still have a positive relationship and contribute in determining the behaviour of dependent variable.

**Table 4: ANOVA Table**

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	3.068	4	1.023	14.502	.000
Residual	13.821	196	.071		
Total	16.889	199			

Dependent Variable: ET

Predictors: (Constant), CI, S, PM, WD

Based on the Table 4, it indicates that the F-value of 14.502 with the p-value of 0.000 which is less than 0.05, the overall regression models with four variable of payment method, corporate image, security and web design have work well explaining the determining in electronic ticketing behaviour.

#### 5.0 Conclusion

In conclusion, this research has found out that there is a relationship between payment method, corporate image, security and web design with electronic ticketing usage. In other word, each independent variable has influenced the usage of electronic ticketing in airline industry. These relationships have identified through the Pearson Correlation Analysis and Multiple Regression Analysis together with ANOVA table. Results show that there is a positive and significant relationship between variables and such relationship is slight and almost negligible moderate relationship between electronic ticketing and explanatory variables in Malaysia's airline industry.

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