

# The Role of Security as a Customer Perception on Customers' Online Purchasing Behavior

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**Abstract.** This study examined the factors influencing consumers' perception of online shopping and developed a causal model that explains how this perception affects their online-shopping behavior. A sample of 100 people from the Kuala Lumpur was conveniently selected to respond to a structural questionnaire. Research found that factors like, trust, customer service, customers' income, price of products or services and security are more important to encourage people to purchase online the computer related products and services. In other side factors like product customization and price of product were not much effective on purchasing behavior of the respondents. So high level of security in online marketing of computer related products and services has this potential to growth more and more to encourage people to reduce the time and cost of transaction. Most important concern regarding to online shopping is the security of transactions. The study intends to explore the understanding of consumer behavior regarding to the direct and indirect influences of the perceptions of online shopping on consumer behavior. Based on our analysis first, a factor analysis was conducted on the student's perception of 13 items, and three factors, "convenience, anxiety regarding security, and "poor navigation", were extracted. A model was created reflecting the direct influence of these three "perception"-related factors on behavior or their indirect influence through consumers' attitudes.

## 1. INTRODUCTION

By emerging of worldwide web a great opportunity is provided for producers and customers to do their business in real time and directly. Business to business and business to customer are the results of such a technology that enables people to react very fast. In this situation both international and local transactions seem to be perfect candidates to make the order and finish the transactions in a speedy process.

Nowadays most of the people are seeking for some ways in which they can make their shopping simple and fast and of course in a secure manner. So they desire to do their shopping quickly without any concern about the price or quality thus e-shopping is an important option for them. Buyers can order a great variety of goods through internet.

So what makes our research important is to present, what people buy via internet that are among them , computer and related tools, airline ticket and books. Here this research will discuss about important factor that affect shopping behavior. As we know nowadays there are a lot of online shopping mall such as Amazon, eBay, and so on.

In this heavy competitive business market every website must have a competitive advantage over competitors and taking care of customer profiles and information make them to consider the security as an important factor in online purchasing. In other word companies must try to draw customers to their web site and assure them about security beside the other factor such as price and quality. Therefore a company's web site can satisfy customers' needs in such aspects as atmosphere, product diversity, site design, and access to update information, security and so on.

A customer may access to web site to get information or place on order but he/she may not receive anything tangible so here is the trust issue that high secure web site will guarantee this concern to the

customer. We should understand that customers will judge both of production and consumption at the same time that depends on the interaction between customers and employees of that company which offer the services or products. On the web what determines the relations between customers and producers are mostly complicated. It's highly related to trust, security and convenience. Here we must consider customers' knowledge about web. Therefore because of web novelty many customers have less knowledge about it and especially about e-business thus it may be easier to handle them due an online purchasing than face to face transaction.

## **2. LITERATURE REVIEW**

The total number of Internet users worldwide passed 1 billion in 2005, up from 45 million in 1995 and 420 million in 2000 (New Media Age 2006). Accordingly, dozens of Internet-only companies have surfaced in many industries and numerous conventionally operated companies have adopted the Internet (Yang et al. 2004).

Nevertheless, recent studies pointed out: "whether Internet retailing will remain a stagnant business with negligible market share, such as TV home shopping, or whether it will become as ubiquitous and enduring as the department store, remains to be seen (Grewal et al. 2004). Issues such as privacy, unsolicited e-mail, transaction security continue to be hotly debated in the academic and practitioner literature (e.g. Meinert et al. 2006; Stead & Gilbert 2001; Vijayan 2005).

Many studies have done on online marketing in general to show that how it has changed from traditional facet to the advanced one. But there have been a few attentions to the role of security in an online purchasing. So first of all we must go to one of the most important issue that every business must handle it properly, satisfaction. As we know based on critical studies there are differences between service quality and satisfaction.

E-commerce and online shopping will rely on buyers' how people interact with computers (Hoque & Lohse 1999). Therefore site design and financial security are able to show customers' evaluation of satisfaction (Szymanski & Hise 2000). There are some factors which determine people's view about online purchasing for example, Extending the Technology Acceptance Model (TAM), transaction cost analysis (TCA) and service quality (SERVQUAL) frameworks. There are numbers of studies in e-shopping service. Some authors have tried to explain different attributes to online purchasing. They classified all these attributes into four main categories: merchandise, customer service and promotions, navigation and convenience, and security (Jarvenpaa & Todd. 1997; Lohse & Spiller. 1998; Szmanski & Hise 2000; Liu & Arnett 2000). As we mentioned above the last category is security in online shopping.

There is a necessity on doing a research about the e-service influences on customer reactions (Parasuraman & Grewal 2000 & Jeong *et al.* 2003). Getting an understanding of important factors in service quality, customer satisfaction, and purchase intentions for e-shopping is vital for both marketing researchers and online mall managers (Jeong 2003). Yang (2001) and Janda et al. (2002) have emphasized on the role of service quality in e-environment. E-shopping is a complex process that can be divided into sub-processes such as navigation, searching for information, online transactions, or customer interactions (Van Riel *et al.* 2001). They argued that customers are unlikely to assess sub-process individually in detail while they are visiting an online mall, but rather they perceive the service as an overall process and outcome.

Furthermore, for online customers, they can be satisfied of online services just when high standard e-service quality gives them most of potential benefits (Yang 2001). To explain the importance of e-service quality Santos (2003) says, it is so easy to compare product technical features and process online than due traditional channels. That is why e-service is becoming an important factor for buyers. Thus online buyers expect equal or higher level of services in comparison with traditional channels. Success in e-shopping is highly depends on customers' satisfaction of interface provided and web site's security.

There are several factors regarding to this issue that can affect consumers' satisfaction because as they claimed several factors determine the predictive value of the information with no one type of information to be uniformly valued by all consumers (Kolesar & Galbraith 2000).

Satisfaction is a result of psychological state (Oliver 1981). Cronin and Taylor (1992) have done some research to find out how to conceptualize and measure service quality as well. Thus there is a difference between the concept of service quality and satisfaction. Service quality is a global judgment related to service, whereas satisfaction is related to specific transaction (Parasuraman, Zeithaml & Berry 1998). Parasuraman, Zeithaml & Berry (1988) offered a great tool to measure the difference between customers' expectation and real performance. The difference can be measured by service quality (see figure 1).

There are five major dimensions which make service quality, tangible, reliability, responsiveness, assurance and empathy. As mentioned above, after less than a decade of globally commercial use of the internet and the web, business fundamentally has changed the world of business. Although some of the researchers such as Burke (1997) and Evans and Wurster (1999) have tried to provide explanations about the future of doing business on the web; a few researches have done on customers' behavior and interactions between them and internet in an online environment.

TAM components in ease and usefulness of online shopping are important factors in determining buyers' satisfaction in online purchasing (Devarja *et al.* 2002). Also they found out that TCA component are very important in assessing consumers' satisfaction in an online environment. Another facet in online marketing is the ability for information to be accessible easily by buyers. For example, Vijayan (2005) says a recent survey of 1,009 U.S. consumers conducted by Forrester Custom Consumer Research indicated that one in four consumers said they would not shop online because of Internet security concerns. Services and products are known as intangible, heterogeneous and cannot be kept for future using (Zeithaml *et al.* 1996).

Businesses will need to audit their data handling and security practices and get the right processes in place. Expect to see some major class sanctions by consumers against businesses that have had their data breached, stolen or lost. Most important concern regarding to online shopping is the security of transactions. Singh and Hill's study (2003) focused on consumers' concerns regarding online privacy in Germany. Their results suggested that consumers' views about Internet use and online behaviors are affected, among other things, by their views regarding privacy in general, and how they view the role of the government and the role of companies in protecting consumer privacy. Other scholars have focused their attention on analyzing online retailers' disclosures of privacy and security policies on websites, and their effects on consumers' perceived risks for online shopping. For example, findings showed that a positive relationship exist between the percentage of privacy- and security-related statements on websites and consumers' online purchase intentions (Miyazaki & Fernandez 2000).

This a serious question that why online consumers read privacy notices across a variety of situations? (Later, Milne & Culnan 2004). They found that reading privacy notices is only one element in an overall strategy consumers use to manage the risks of disclosing personal information online.

Recently, the willingness of graduate students is to provide personal information, given various degrees of protection offered by privacy policy statements (Meinert *et al.* 2006). Their results revealed that the willingness to provide information to online retailers increased as the level of privacy guaranteed by the statements increased. Their findings also demonstrated that while most individuals were aware of privacy policy statements, less than half of the respondents had ever read a privacy statement. What we are going to address in this research is to show how aforementioned factors can affect purchasing behavior among customers from job and gender perspective.



Figure 1. A model for service quality

### 3. DATA AND METHODOLOGY

Primary data were collected from various sources by the administration of questionnaire. The method is based on a structured survey which uses formal lists of questions asked of all respondents in the same way. All the questions were closed-ended. For the analysis of the collected data appropriate statistical tools are used, such as: SPSS.

We need descriptive information and this approach is most suited for gathering data and information from people and through our problems in the research. It will help us to collect much different information and it is quick and low cost as compared to observation and experimental method.

The total population for this particular study is all the literate Malaysian and the foreigners in Malaysia; these are those who can read and write and hence they are capable of using internet and its facilities. These are the individuals who can get access to internet and make a proper use of the service. In this research two sampling method has been used, mailing method that is a low cost method and face-to-face method that the cost is high which one provides simplicity and the other has some difficulty in data collection and their efficient as well. One of the downside of mailing method it is sometimes difficult to generalize the findings to the total population of study but in face to face method you can get the total population of the study. The sample size chosen by the researcher was 100 elements. To fulfill, this more than 100 questionnaires were distributed out for data collection. Due to difficulties of different cast and nationality the researcher could successfully collect 100 questionnaires back and hence the sample size used for data analysis and findings was 100 respondents. For assuring ourselves about results we made some hypothesizes as follow:

- 1- Security is the most important issue for customers in online shopping
- 2- Price is the most important issue for customers in online shopping
- 3- Information and navigation is the most important issue for customers in online shopping
- 4- Trust is the most important issue for customers in online shopping
- 5- Delivery is the most important issue for customers in online shopping
- 6- Convenience is the most important issue for customers in online shopping.

In this research in order to describe the collected data different figures and tables are used and questionnaire included personal characteristics such as: gender, and job record, has been analyzed by using some software such as SPSS. By using this soft ware we have been looking to make some evidences to find out whether security is important in online shopping or not. Beside we needed to use regression test as well. Regression analysis helped us to understand how the typical value of the dependent variable changes when any one of the independent variables is varied, while the other independent variables are held fixed. Even in this research by using factor analysis we could be able to find correlation between each variable.

#### **4. CONCLUSIONS**

In this research, we examine the direct and indirect influences of the perceptions of online shopping on consumer behavior. For this, we investigate 100 respondents, administering questionnaire surveys pertaining to their perception of online shopping, and their attitudes and behaviors in this respect. First, a factor analysis was conducted on the student's perception of 13 items, and three factors— convenience, anxiety regarding security, and "poor navigation"—were extracted. A model was created reflecting the direct influence of these three "perception"-related factors on behavior or their indirect influence through consumers' attitudes.

The validity of the model was examined through a covariance structure analysis, and the model was corrected by removing paths that were not significant at the 5% level. When the validity of the modified model was verified through the covariance structure analysis, its goodness of fit was high. Thus, through an interpreting the model, it was identified that "convenience" had a positive influence on online shopping. Additionally, "anxiety regarding security" and "poor navigation" had a negative influence.

Accordingly, it was suggested that if online shopping is evaluated as having a high level of convenience, the frequency at which people shop online will increase. On the other hand, when the user experiences anxiety related to the of security personal information or considers the navigation on the website to be poor, the frequency of online shopping will decrease.

Nevertheless, the present study has contributed to our understanding of online buyer behaviors, which has profound implication for organizations conducting business via the Internet. It helps online retailers to better address the needs and wants of their consumers and to define their online retail strategies for website design and online advertising. Data on online consumer buying behaviors are much needed in lieu of the gaining importance of online retailing in the globalized market.

There are a lot of factors which can affect shopping behavior for example intellectual ability is one of them that can be addressed in future studies.

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