Consumer Perceptions of Internet Retail Service Quality

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ABSTRACT

Service quality is increasingly recognized as an important aspect of electronic commerce (e-commerce). Because the online comparison of the technical features of products is essentially costless, feasible and easier than comparisons of products through traditional channels, service quality is the key determinant for successful e-commerce. The purpose of this study is to explore consumers' perceptions of Internet retail service quality. A number of dimensions have been described in the literatures, however six dimensions that are important to consumers in their assessment of the quality of Internet retailers were identified. These are reliability (how well an online retailer does in terms of meeting expectations regarding order fulfilment), access (Internet retailer's ability to provide communication access and a variety of products from anywhere in the world), security (relating to perceptions of trust in the online retailer's integrity regarding financial and privacy issues), efficiency (refers to the speed of search and downloading and prompt reply to enquiries), ease of use (how easy the Internet retailer's website is for consumers to conduct, search and navigate) and information (quantity and credibility of information provider by the online retailer). Other objective is to highlight how online retailers can use the information from this study to enhance their service quality. Findings from the study could be used as the basis for the development of e-service quality for Internet retailing.

Keyword: *Internet Retailing, Consumers' Perceptions, and Service Quality*

1.0 INTRODUCTION

The Internet has revolutionized the business landscape. It has becomes increasingly an important channel for businesses to reach customers. Not only has the Internet reconfigured the way companies do business and the way consumers buy goods and services, it has been instrumental in transforming the value chain from manufactures to retailers to consumers, creating a new retail distribution channel (Donthu and Garcia, 1999).

However, firms face several problems in understanding the context of Internet retailing. Current notions of service quality and delivering quality service are based largely on research and managerial experience in conventional contexts where customers can physically examine and interact with the products they purchase. In contrast, the nature of customer interactions with products as well as the cues they receive about the firms are likely to be significantly different online. Understanding how customers perceive service quality online and how such perceptions influence of value and willingness to purchase online are important issues for both academics and especially the online retailers themselves (Choi B. et al, 2004)

Currently, understanding of the phenomenon of e-commerce phenomena comes largely from studies performed in the U.S and Europe contexts. With online retailing becoming increasingly mainstream across Malaysia, information on the phenomenon from Malaysians' context is particularly important. Consumer behaviour of online retailing has not yet been subject to many research projects in Malaysia. As a result, little is known about the demographics of online customers and even less about the factors influencing their decisions to buy. Therefore, measuring customers perceptions on quality and studying the customer service elements provided by Internet retailers in meeting customer satisfactions are important towards a successful Internet retailing business.

2.0 PRIOR LITERATURE ON INTERNET RETAIL SERVICE QUALITY

The notion of service quality has been increasingly recognized by both researches and practitioners as being one of the key determinants in successful e-commerce. According to David Gilbert (2001), electronic retailing, which is also known as a form of e-commerce, was first developed on a large scale in the 1980s. The area is advancing at a rapid rate with retail organizations realizing the growing importance of the sale of products and services through these new distribution channels. The term e-commerce has evolved from its meager notion of electronic shopping to mean all aspects of business and market processes enabled by the Internet and the World Wide Web technologies (Loshin et al, 2001). Although the web has made online shopping possible for many businesses and individuals, in a broader sense, e-commerce has existed for many years. E-commerce is a system that includes not only those transactions that center on buying goods and services to directly generate revenue, but also those transactions that support revenue generation, such as generating demand for goods and services, offering sales support and customer service, or facilitating communications between business partners (Kosiur, 1997).

Research into service quality which is closely related with the ability of online retailing to serve customers' need, has been popular for more than two decades, but it is only recently that it has been applied to the e-commerce environment. Developed from Internet marketing and the traditional service-quality literature, the concept of service quality in Internet retail can be defined as the consumers' overall evaluation and judgment of the excellence and quality of e–service offerings in the virtual marketplace. In contrast to their evaluation of traditional service offerings, customers are less likely to evaluate each sub-process in detail during a single visit to a Web site; rather they are likely to perceive the service as an overall process and outcome (Van Riel et al., 2001).

The research into self-service technology conducted by Meuter et al. (2000) assessed more than 800 incidents and found that positive incidents were rare, and that dissatisfying incidents were often caused by process failure (such as lost orders). Dabholkar (1996) identified that expectations of speed of delivery, ease of use, reliability, enjoyment and control will impact service quality expectations for technology-based self-service options. However, for online consumers, Internet retail service quality of a high standard is the means by which the potential benefits of the Internet are realized (Yang, 2001). Parasuraman (2000) proposed that flexibility, convenience, efficiency and enjoyment are examples of major positive themes in the online environment. Yoo and Donthu (2001) reported that there are four dimensions in capturing the perceived quality of an Internet shopping site that include: ease of use, aesthetic design, processing speed and security. Meanwhile, Szymanski and Hise (2000) looked at the determinants of a related construct e-satisfaction. Their findings showed that convenience, product information, site design and financial security have positive influence on consumer satisfaction ratings of Internet shopping experience.

Zeithaml et al. (2000) developed a framework consisting of 11 dimensions to be used in evaluating the delivery of "electronic service quality". The 11 dimensions include access, ease of navigation, efficiency, flexibility, reliability, personalization, security/privacy, responsiveness, assurance/trust, site aesthetics and price knowledge. Meanwhile, Kaynama and Black (2000) built on the traditional SERVQUAL dimensions to develop an electronic service quality measure comprised of seven dimensions: content, access, navigation, design, response, background and personalization. In response to that, Yang (2001) proposed potential factors of online service quality that align with those of the SERVQUAL instrument. The potential factors include reliability, responsiveness, access, ease of use, attentiveness, credibility and security. Liljander

et al. (2002) develop four e-quality dimensions: site design and content, trust, empathy and security.

When considering this recent body of work, several common dimensions emerge that are seen to be particularly relevant for online environments. First, researchers perceive security to be an important service quality dimension, which would appear to be a dimension unique to Internet retailing contexts. Perhaps the lack of a human-to-human interaction drives consumer's heightened sensitivity to the safety of transactions. For example, sensitive financial information is being shared with a computer instead of another individual. Ease of use and navigation is another dimension that appears in many of the studies listed above. This dimension is consistent with the functional quality aspects described by Gronroos (1982) and others. A retailer having a Web site that is easy to use and facilitates the locating of merchandise is a dimension that is different and more specific than service quality dimensions previously identified for traditional retail outlets. Another dimension, product information/content, is found across several studies. The quality and quantity of information on retailer Web sites is a dimension not directly explored in traditional retailing service quality measures. In the light of this, it shows that adequate and accurate amounts of information are considered a key part of the service provided by online retailers.

Many past researchers had attempted to define the criteria for service quality (Gronroos 1982; Dabholkar 1996; Yang 2001; Kaynama and Black 2000; Zeithaml et al. 2000; Parasuraman 2000; Szymanski and Hise 2000; Yoo and Donthu 2001; Liljander *et al.* 2002, Santos 2003) but most researchers in the previous studies were based on the western culture and not many on the Asian culture. Asian culture is somewhat different from the western culture in terms of attitudes, values, beliefs, standards and social and also in Internet usage. Furthermore, many countries in Asia are developing countries where the national and organizational conditions are different to those in the developed world and therefore, it is often inappropriate to apply existing experiences and research from the developed nations. For all these reasons, it is an appropriate time for this research to examine the consumers' perceptions for Internet retail service quality.

3.0 RESEARCH MODEL

The research model (Figure 1) is based on the six dimensions of e-service quality derived from Santos (2003). Santos has proposed and discussed a conceptual model of the determinants of e-service quality. It is proposed that e-service quality consists of six dimensions for the consumers to rate, which are:

- *Reliability* – This included the correctness of order fulfillment, prompt delivery and billing accuracy; this definition clearly excluding an information-only site.
- *Access* – This included the list of the company's street and e-mail addresses, phone and fax numbers, accessibility of service representatives, availability of chat room, bulletin boards and other communication channel.
- *Security* – This included security of personal information and minimal online purchase risks.
- *Efficiency* – This included prompt reply to enquiries, fast downloading, speedy search mechanism and fast loading of pages and images.
- *Ease of use* – which was related to an easy-to-remember URL address, well-organised, well-structured and easy-to-follow catalogues, site navigability and concise and understandable contents, terms and conditions.
- *Information* – Refers to adequate information, accurate product/service information and frequent updating of website's information.
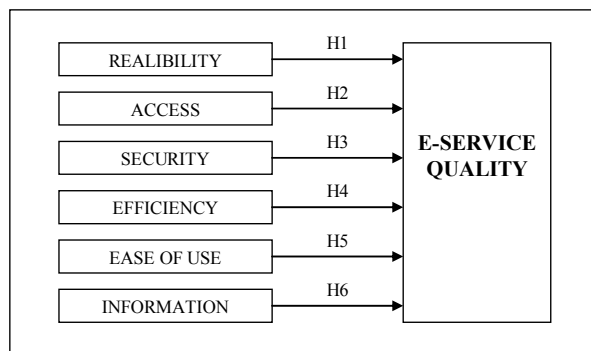

Figure 1: Research Model

Those six elements identified from Santos model are the features or factors that most commonly identified by other studies as well.

The hypothesized relationships are proposed to see the association between e-service quality variables with consumers' perceptions. The hypotheses are as follow:

H1: The consumers perceptions of reliability on e-service quality is positive

H2: The consumers perceptions of accesses on e-service quality is positive

H3: The consumers perceptions of securities on e-service quality is positive

H4: The consumers perceptions of efficiency on e-service quality is positive

H5: The consumers perceptions of ease of use on e-service quality is positive

H6: The consumers perceptions of information on e-service quality is positive

4.0 METHODOLOGY

The sampling method used to select the respondents is convenience sampling, which are accessible, easy to measure and cooperative. A total of 120 questionnaires were distributed to selected companies, which were RHB, Maybank and AirAsia. The respondents were customers of these three companies. The main objective of the questionnaire survey was to elicit responses from target respondents consisting of people who have experience with online services to evaluate their perceptions on online retailers. The research was addressed using a survey design, which was a relatively inexpensive and effective way of obtaining information on a large number of cases. The survey was conducted about four weeks. The sample drawn a highly homogenous group residing in Klang Valley area. Therefore, it may lack the diversity that can be expected from a comparable sample that is chosen across the entire country.

4.1 DATA ANALYSIS

The statistical analyses were carried out using SPPS. Data were analyzed based on the results of the questionnaires that were collected. Correlations coefficient tests were conducted to determine the relationships between consumers' perceptions with reliability, access, security, efficiency, ease of use and information. Reliability analyses were also done to determine the reliability of the statements in each dimension in evaluating consumer's perceptions of Internet retail service quality.

5.0 SURVEY RESULTS AND FINDINGS

The study reports the results of a survey of Malaysian consumers.

5.1 RESPONDENTS' PROFILE AND INTERNET USAGE

Table 1 reports the results relating to the respondents participating in this study. When examining the responses to the organization profile questions, it shows that the majority of respondents who used Internet retailing are male and 76.7% of the respondents are in the age group of 20-30 years and more then half (52.5%) hold a Bachelor's degree and working in IT and engineering sector with the income of between RM1000 and RM2500 per month.

Table 2 shows the information about the Internet usage of respondents such as the period, the frequency in using the Internet and the type of service(s) respondents' used on the Internet. The majority of the respondents have more than 4 years experience in using the Internet and access the Internet everyday. The most preferred type of service is online banking with 85 out of 120 respondents, followed by airline ticket booking/purchasing. The results are consistent with the survey done by ACNielson Consult (2004) where more than half or

51% respondents in Malaysia used the Internet for online banking services. The rapid rise in the popularity of online banking may suggest that the banking community has addressed the consumer needs. While for online shopping in Malaysia, it is far yet to reach its full potential. The contrast between the findings on online banking and online shopping is significant. This obviously shows that there are a number of issues that deter many potential customers including those who are Internet savvy from making online purchases. The result also being supported again by finding done by ACNielson Consult (2004), about 30% respondents who shopped online said they did not trust online stores with their credit card details, while 15% were concerned with the inability to be sure of the quality of the products on offer. This also proves that service quality has become an important strategic retailing weapon. Many successful product retailers differentiate themselves not through the product they sell but through the quality service they offer.

Based on the above information, it appears that the majority of the respondents were well-educated, young-aged who have average income and working in the technical fields; Computer/IT and Engineering. Furthermore, most of the respondents had a fair experience in Internet usage with ability to access the Internet everyday. Also, the survey finds out that Internet retailers that offer services for example banking and ticketing have dominated the business-to-consumer e-commerce in Malaysia.

Table 1: Respondents' Profile

Respondents' Age Group	Percent (%)	Number
Below 20	5.0	6
20 – 30	76.7	92
31 – 40	13.3	16
41 and above	5.0	6
Total	100.0	120
Respondents' Gender		
Male	56.7	68
Female	43.3	52
Total	100.0	120
Respondents' Level of Education		
Master / PhD	3.3	4
Degree	52.5	63
Diploma	25.8	31
Certificate	5.8	7
High School	11.7	14
Others	0.8	1
Total	100.0	120
Respondents' Occupation Sector		
Computer/IT	20.0	24
Engineering	16.7	20
Business/Marketing	8.3	10
Finance	11.7	14
Accounting	3.3	4
Student / Education	11.7	14
Consultancy	5.0	6
Others	23.3	28
Total	100.0	120
Respondents' Salary (RM)		
Less 1000	17.5	21
1000 – 2500	50.0	60
>2500 – 4000	22.5	27
>4000	10.0	12
Total	100.0	120

Table 2: Respondents' Internet Usage

Period of Usage		
< 1 year	1.6	2
1 – 2 years	6.7	8
3 – 4 years	24.2	29
> 4 years	67.5	81
Total	100.0	120
Frequency		
< 3 times a week	25.8	31
> 3 times a week	22.5	27
Everyday	51.7	62
Total	100.0	120
Type of Service		
Online Banking	70.8	85
Airline Ticketing	40.8	49
Redemption	24.2	29
CD	15.8	19
Books/Magazines	19.2	23
Clothes	9.2	11
Others	12.5	15

5.2 RESULTS ON TEST OF RELIABILITY
Cronbach's Alpha Test of Reliability was also conducted to determine the reliability of the statements in the six dimensions measured in evaluating consumer's perception of Internet retail service quality. The statements tested will be considered as good and reliable if the value of Cronbach's Alpha is more than 0.7. As shown in Table 3, the statements for all six dimensions except for Access are reliable and consistent. Access refers to consumer's ability to purchase a wide variety of products from anywhere in the world through a specific online retailer. Access comprises the variety and universality of products offered on a Web site. Hence, perhaps consumers felt that, with a seemingly infinite supply of retailers on the Internet at their fingertips, there is no pressing need to visit any one site that offers a large variety of products. Furthermore, online shopping is still not popular in Malaysia. They prefer traditional channels and outlets to buy things.

Table 3: Results of Cronbach's Alpha Test of Reliability

Dimension	Alpha Value	Result
Reliability	0.7009	Reliable and consistent
Access	0.5090	Not reliable and consistent
Security	0.8277	Reliable and consistent
Efficiency	0.8674	Reliable and consistent
Ease of use	0.7845	Reliable and consistent
Information	0.7993	Reliable and consistent

Note: Value above 0.7 is considered good and reliable.

5.3 RESULTS ON PERCEPTION LEVEL FOR INTERNET RETAIL SERVICE QUALITY DIMENSIONS

The correlations coefficient test, which was done to determine the relationship between consumers' perceptions with reliability, access, security, efficiency, ease of use and information shows that there is a positive relationship between consumers' perceptions with all six dimensions as shown in Table 4. The results show that hypotheses 1, 2, 3, 4, 5, and 6 are accepted. The survey results also confirmed the results from the past literature where e-service qualities that are reliability, access, security, efficiency, ease of use and information influenced the level of consumers' perceptions.

However the results indicate that the ease of use is the most important determinant of e-service quality. There is a very high demand for a Web site that is easy to find, use and navigate within. Some Web sites offer the option of internal search, which allows customers to search within the site by product, feature or keyword. This attribute was highly rated – a finding that has also been noted by other researchers. The second most important dimension is efficiency, which refers to the speed of downloading, search and navigation. Although service providers often blame the specifications of the hardware in the consumers' possession for inefficiency, providers can increase efficiency, even if consumers have low-speed PCs, by reducing the number of complicated graphics and by using interlacing. Information came in third place followed by security, access and lastly reliability. Parasuraman *et al.* (1988) finding stated that reliability as the most important dimension in all services however, the respondents in Malaysia did not think so. Most probably respondents in Malaysian are not into online shopping as yet, but prefer more on online services.

Table 4: Results of Perception Level for e-Quality Services

Variable	No. of Respondent	Correlation Coefficient	P Value
Reliability (H1)	120	0.515	0.01
Access (H2)	120	0.591	0.01
Security (H3)	120	0.697	0.01
Efficiency (H4)	120	0.742	0.01
Ease of Use (H5)	120	0.784	0.01
Information (H6)	120	0.732	0.01

Legend of the table: Greyed entries denote that the entries have significant association (significant at 0.05 levels)

From the findings, it can conclude that Malaysians' perception on Internet retail service quality can be ranked from high importance which are ease of use, followed by efficiency, then information, security, access to the least importance which is reliability. However, all the six dimensions have influence the level of consumers' perceptions.

6.0 CONCLUSIONS

The main objective of the present study is to gather information about Malaysian perceptions of Internet retail service quality based on selected dimensions. The paper makes several theoretical contributions. First, the paper provides insight into the demographic profile of the respondents and their Internet retail usages. Most of the Internet retail usages are young (about 76.7 % between the ages of 20 – 30 years) and well educated (52.5% had a bachelor's degree). Another important finding is that about 70.8% of the respondents used the Internet for online banking services. It shows that respondents trust the online banking but when it comes to shopping, the brick-and-mortar outlets are the ones they love and confidence.

Second, the study also did the reliability analysis by using Cronbach's Alpha Test to determine the reliability of the statements for each dimension in the constructed questionnaire in evaluating consumers' perceptions of Internet retail service quality. The result shows that all the statements are reliable and consistent except for Access.

It is also interesting to note that the ease of use is the most important determinant of e-service quality compared to the literature finding, where it stated that reliability as the most important dimension in all services. This is because of the advanced uses of information and communication technologies in the developed countries and it has a relatively long history of exploiting computing application hence ease of use was not rated too highly compared to Malaysia consumers.

However, it is clear that Internet technology and consumer savviness continue to evolve and develop together. By examining the six dimensions, online retailers can develop a better understanding of their customers' needs. Armed with this understanding, online retailers may develop strategies to help them compete and thrill in the online businesses. As such, developing measures of Internet retailer service quality must be considered a dynamic process. This study not only provides timely implications and suggestions for online retailers but also contributes to the ongoing task of developing an effective measure for assessing customer response to online retailing.

REFERENCES

ACNielsen Consult (2004), "The 11th Malaysia Internet User Survey", The Star, 8 April 2004.

Choi, B, Lee, C., Lee, H., and Subramani, M.(2004), "Effects of Web Retail Service Quality and Product Categories on Consumer Behaviour: A Research Model and Empirical Exploration", Proceedings of the 37th Hawaii International Conference on System Sciences.

Dabholkar, P.A. (1996), "Consumer evaluations of new-technology-based self-service options: an investigation of alternative models", International Journal of Research in Marketing, Vol. 13 No. 1, pp. 29-51.

Gilbert, David (1998), "Retail Marketing Management", Pearson Education Limited.

Gronroos, C. (1982), Strategic Management and Marketing in the Service Sector, Marketing Science Institute, Cambridge, MA.

Gummeson, E. (1979), "The marketing of professional services – an organizational dilemma", European Journal of Marketing, Vol. 13 No. 5.

Kosiur, David. (1997), "Understanding Electronic Commerce", Microsoft Press.

Loshin, Vacca and Murphy (2001), "Electronic Commerce", Third Edition, Charles River Media, Inc.

Meuter, M.L., Ostrom, A.L., Roundtree, R.I. and Bitner, M.J. (2000), "Self-service technologies: understanding customer satisfaction with technology-based service encounters", Journal of Marketing, Vol. 64, July, pp. 50-64.

Parasuraman, A. and Grewal, D. (2000), "The impact of technology on the quality-value-loyalty chain: a research agenda", Journal of the Academy of Marketing Science, Vol. 28 No. 1, pp. 168-174.

Santos, Jessica (2003), "E-service quality: a model of virtual service quality dimensions", Managing Service Quality, Vol. 13 No. 3, pp. 233-246. Available online at: http://www.emeraldinsight.com/0960-4529.htm

Szymanski, D.M. and Hise, R.T. (2000), "E-satisfaction: an initial examination", Journal of Retailing, Vol. 76 No. 3, pp. 309-322.

Van Riel, A.C.R., Liljander, V. and Jurriens, P. (2001), "Exploring consumer evaluations of e-services: a portal site", International Journal of Service Industry Management, Vol 12 No. 4, pp. 359-377.

Warkentin, M., ed., B2B Electronic Commerce: Challenges and Solutions. Hershey, PA: The Idea Group, 2001.

Yang, Z. (2001), "Consumer perceptions of service quality in Internet-based electronic commerce", Proceedings of the 30th EMAC Conference, 8-11 May, Bergen.

Yoo, B. and Donthu, N. (2001), "Developing a scale to measure the perceived quality of an Internet shopping site (SITEQUAL)", Quarterly Journal of Electronic Commerce, Vol. 2 No. 1, pp. 31-45.

Zeithaml, V.A., Parasuraman, A. and Malhotra, A. (2000), "A Conceptual Framework for Understanding E-service Quality: Implications for future Research and Managerial Practice", working paper, Report Number 00-115, Marketing Science Institute.

Zhang T., Faraj S., and Bailey, J.P. (2003), "Online Retailers' Strategies to Survive in a Homogeneous Product Market: An Exploratory Analysis", Twenty-Fourth International Conference on Information System, pp. 1.