An Investigation Of Customers’ Perceptions On Internet Retail Service Quality Amongst University Students.

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ABSTRACT

Despite several studies having measured service quality, little research has been conducted in the context of Internet retailing. Accordingly, this research aims to investigate the customers’ perceptions of Internet Retail Service Quality (IRSQ) amongst one particular market segment, namely university students. The concepts, studies and research findings have developed in this research in order to identify an appropriate Internet Retail Service Quality dimensions from the existing theory. From this literature review, research questions are formulated. To answer the research questions, data were collected through distributing questionnaires to 203 students. Descriptive analysis and t-Test of Differences was used to identify customers’ perceptions of Internet retail service quality. The findings indicate that most of the respondents agreed that the service quality provided by the Internet retailer was fairly good. However, the t-test for equality of means indicates that there is no significant difference between male and female students in perceptions of IRSQ.

Detailed contributions of this research in improving the existing knowledge and providing guidance for developing service quality in Internet retailing industry are provided as recommendations.

Keywords: Internet retailing, Internet Retail Service Quality

RESEARCH BACKGROUND

The advent of the Internet provides opportunities to all businesses for marketing their product and service internationally with low entry barriers and low communication costs, as well as information advantages (Kýmýloglu, 2004; Cai and Jun, 2003). The Internet has reformed the way in which retailers market their products and interact with consumers and suppliers internationally. This business activity is commonly called Internet retailing since the retailers use the Internet as a vehicle for communications and transactions between marketers and consumers (Dennis et al., 2004; Kýmýloglu, 2004; Jones et al., 2002).

Since Internet retailing has continued growing, companies today could compete more effectively than ever by distinguishing themselves from other competitors through managing Service Quality (Zeithaml and Bitner, 2003). Jiang and Rosenbloom (2005) agree with Zeithaml and Bitner (2003) and note that Internet service excellence has become a powerful source of competitive differentiation and a key marketing component that could create customer satisfaction.

LITERATURE REVIEW

The initial concept of Internet retailing is derived from the use of Internet technology in retailing activities (Chaffey et al., 2003; Harris and Dennis, 2002). For better understanding, the following section will consider the definition of Internet retailing.
The concept of Internet retailing can be understood from the traditional definition of retailing. The American Marketing Association defines retailing as:

“A set of business activities carried on to accomplishing the exchange of goods and services for purposes of personal, family, or household use, whether performed in a store or by some form of non-store selling” (www.marketingpower.com).

To build on this existing definition, Internet retailing can be classified as non-store retailing, in which consumer contact occurs outside the retail store (via the Internet). Fenech and O’Cass (2001) outline that a key difference between retailing activities through the Internet and other non-store environments is that the activities reside in an Internet mediated environment. Furthermore, Internet retailing is also known as Retail E-Commerce, Online Retailing, E-Retail, E-tail, and E-tailing. However, it would be appropriate to term retailing activities using the Internet as Internet retailing since the retailing activities use the Internet as an electronic medium.

Moreover, some factors have been recognised as barrier for consumers to shop online (Harris and Dennis, 2002). These include credit card and security concerns, lack of personal and social interaction, lack of tangibility (seeing or feeling the merchandise on offer), not being available to receive delivery, premium charges for delivery and difficulties with returning goods for refunds. Having considered factors as barriers for consumers to shop online, additional services are continuously being planned on various Websites in order to remove the reasons for abandoning and avoiding online purchasing (Harris and Dennis, 2002; Sultan and Henrichs, 2000). However, the additional services on the Internet such as testimonials from satisfied customers, membership incentives, chat rooms, and bulletin boards could affect consumers’ preferences for current Internet retailing services (Sultan and Henrichs, 2000). This indicates that service is a key success factor in Internet retailing.

Thus, authors such as Parasuraman et al., (2005), Al-Naeem, et al., (2005) and Zeithaml, (2002) suggest that Internet retailers should consider the importance of managing Internet retail service quality in order to survive in a highly competitive market.

Furthermore, in order to take advantage of conducting business in Internet retailing, many companies attempt to understand how consumers evaluate Internet retail service quality (Zeithaml and Bitner, 2003; Kymylöglu, 2004). Therefore, the study of service quality is extended from traditional service quality to Internet service quality. A closer focus on the meaning of Internet service quality is offered in the following section.

Zeithaml and Bitner (2003: p.98) define Internet service quality as “the extent to which a website facilitates efficient and effective shopping, purchasing, and delivery”. In addition, Parasuraman et al. (2005) suggest that in order to deliver superior service quality, Internet retailers must first understand how consumers perceive and evaluate online customer service. The authors seem to consider that reality is not always as important as consumer perceptions, because perceptions drive consumer-spending activities (Gilmore, 2003). Consequently, some researchers consider that measuring expectations is unnecessary and that measuring service perceptions of outcomes should be enough (Gilmore, 2003; Cronin and Taylor 1992 cited Kandampully, 2002). Moreover, since customer perceptions will not always be in accordance with reality, customer surveys will be considered an important strategy for investigating consumers’ perceptions of service quality (Hill and Alexander, 2002).

The nature of Internet transactions that are more technologically relevant requires a specific service quality measurement (Long and McMellon, 2004). Accordingly, researchers (Parasuraman et al, 2005; Wolfinbarger and Gilly 2003 cited Dennis et al., 2004; Zeithaml and Bitner, 2003; Janda et al., 2002), have developed the appropriate service quality dimensions for measuring the service quality delivered by the Internet. Although these researchers are slightly different in identifying Internet service quality attributes, they use SERVQUAL dimensions as developed by Parasuraman et al. (1988) as a fundamental measurement tool. The following table identifies the Internet service quality dimensions developed by previous researchers:
Although each researcher assesses Internet retail service quality by focusing on different Internet service quality dimensions, those dimensions are very similar to others. Therefore, the author decided to develop an integrated dimension by combining elements, covering website design, security, ordering and delivery system, communication, access and sensation (refer to Table Construct Operationalisation).

The structure of self-administered questionnaire in this research was as follows: firstly, a number of questions about student evaluation of the Internet service quality including variables such as website design, security, ordering and delivery system, communication, access and sensation were included. Second, students were asked to answer general comments and also their profiles such as gender, age, nationality and buying frequencies.

Items in the questionnaires were measured using “Five point Likert Scales” (Strongly Agree, Agree, Neutral, Disagree, and Strongly Disagree) because it is deemed efficient, specific in measuring attitudes, and relatively easy to complete (Robson, 1993; Malholtra and Birks, 2003). Having considered factors, such as the kind of statistical analyses and the tradition in similar research areas regarding appropriate sample size, the author, therefore, decided to gather primary data from 200 representatives of students who had previously bought from Amazon.

The author considers Amazon.com website as the main Internet retailer for this research due to several reasons. Firstly, Amazon.com is the No. 1 online retailer in Europe for books, music, DVD’s, and videos and they are also among the leading online retailers for video games, electronics, tools, and cameras (Chaffey et al., 2003; Harris and Dennis, 2002). Moreover, Amazon is the most widely used site since it is recognised as a leader in online book sales (Strauss, 2003). Finally, Amazon.com is a customer focus Internet retailer (Awad, 2004; www.amazon.com).
## Table. Construct Operationalisation

<table>
<thead>
<tr>
<th>CONSTRUCT</th>
<th>DEFINITION</th>
<th>DESCRIPTION</th>
<th>REFERENCES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INTERNET RETAIL SERVICE QUALITY:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| The effectiveness and efficiency of Website design | Customer perception of website performance and the degree of user friendliness, including navigation, search, and ordering | • Provides in-depth information  
• Well organized  
• Quick loading times  
• Excellent Website colours, layout, clarity, and originality.  
• Simple to use Easy and quick to complete a transaction | Parasuraman et al, 2005  
Wolfinbarger and Gilly, 2003 (cited Dennis et al., 2004  
Janda et al., 2002  
Kaynama, 2000 (cited in Hoffman and Bateson, 2002) |
| Security                               | Relating to customer perceptions of trust in the Internet retailer’s integrity includes credit cards payments and privacy. | • It does not share personal information with other sites/mass mailing lists  
• Assures that information about customer activities will not be shared.  
• Protect information about credit cards  
• Obtain permission before creating a personal account with financial information  
• Feel safe in transactions with Internet retailer | Parasuraman et al, 2005  
Wolfinbarger and Gilly, 2003 (cited Dennis et al., 2004  
Janda et al., 2002  
Kaynama, 2000 (cited Hoffman and Bateson, 2002) |
| Ordering and Delivery system           | The extent to which an Internet retailer’s promises regarding order deliver and item availability are fulfilled. | • The product that delivered was represented accurately by the website (sent the items ordered)  
• Customer get what they ordered from the Internet retailer (truthful about its offerings)  
• The product is delivered by the time promised by the Internet retailer (Quick delivery). | Parasuraman et al, 2005  
Wolfinbarger and Gilly, 2003 (cited Dennis et al., 2004  
Janda et al., 2002  
Kaynama, 2000 (cited Hoffman and Bateson, 2002) |
| Communication                          | The credibility of information provider by the online retailer in responding to customer enquiries. | • Provide telephone numbers to reach the company  
• Has online customer service representatives available  
• Inquiries are answered promptly | Parasuraman et al, 2005  
Wolfinbarger and Gilly, 2003 (cited Dennis et al., 2004  
Janda et al., 2002  
Kaynama, 2000 (cited Hoffman and Bateson, 2002) |
| Access                                 | Internet retailer’s ability to provide a variety of products from anywhere in the world. | • Offers products originating from foreign countries.  
• Offers rare, custom and unique items  
• Website support multiple languages and currencies | Janda et al., 2002 |
| Sensation                              | Interactive features of the Internet retailer’s Web site.                   | • Provides online chat rooms for customer-salesperson interaction  
• Provides product picture that allow the customer to view a product  
• Enables contact with | Janda et al., 2002 |
In analysing the primary data, the author intends to use Statistical Program for the Social Sciences (SPSS) for windows. Descriptive statistics will enable the researcher to describe and compare variables numerically (Saunders et al., 2003). Market researchers often use descriptive statistics to answer questions about a single question (Malhotra, 1999). Therefore, Descriptive Analysis will assist the author to determine the first research question: How do students perceive Internet retail service quality? In addition, in order to test the significance of the differences between the two groups, the t-test was deemed appropriate (Sekaran, 2003). The t-test is the most commonly used method to evaluate the differences in means between two groups (Balnaves and Caputi, 2001; Bryman and Cramer, 1999). Thus, the t-test was generated to answer the second research question: Do male and female students have different perceptions of Internet retail service quality?.

**FINDINGS AND DATA ANALYSIS**

The descriptive analysis such as maximum, minimum, means, standard deviation and variance were conducted to answer the first research question: “How do students perceive Internet retail service quality”? The results of the descriptive analysis are as follows:

**Table 4.1: Descriptive Statistics**

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet Retail Service Quality</td>
<td>200</td>
<td>1.30</td>
<td>4.74</td>
<td>3.5189</td>
<td>.51715</td>
<td>.267</td>
</tr>
</tbody>
</table>

From the results, it can be seen that the mean average of the perception of Internet retail service quality is somewhat high (3.5189 on a 5-point scale). The mean of 3.5189 on a 5-point scale indicates that most of the respondents agreed that the overall service quality provided by the Internet retailer was fairly good. This also indicates that respondents perceived the overall service quality provided by Internet retail service quality (IRSQ) was good. Specifically, the following Table indicates order delivery dimension as the highest mean (4.0483).

**Table. Descriptive Analysis of the Respondent’s Evaluation to each Dimensions of IRSQ**

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Order Delivery</td>
<td>200</td>
<td>1.00</td>
<td>5.00</td>
<td>4.0483</td>
<td>.78041</td>
<td>.609</td>
</tr>
<tr>
<td>Security</td>
<td>200</td>
<td>.40</td>
<td>5.00</td>
<td>3.7540</td>
<td>.69708</td>
<td>.486</td>
</tr>
<tr>
<td>Website Design</td>
<td>200</td>
<td>1.83</td>
<td>5.00</td>
<td>3.7083</td>
<td>.65946</td>
<td>.435</td>
</tr>
<tr>
<td>Access</td>
<td>200</td>
<td>.00</td>
<td>5.00</td>
<td>3.2583</td>
<td>.73246</td>
<td>.537</td>
</tr>
<tr>
<td>Communication</td>
<td>200</td>
<td>.00</td>
<td>5.00</td>
<td>3.0350</td>
<td>.84499</td>
<td>.714</td>
</tr>
<tr>
<td>Sensation</td>
<td>200</td>
<td>.00</td>
<td>5.00</td>
<td>2.9633</td>
<td>.81086</td>
<td>.657</td>
</tr>
</tbody>
</table>

Although the result indicates that the minimum mean is 1.30, this nevertheless means some respondents disagreed that the service quality provided by the Internet retailer was good, however this will be less important since the standard deviation and the variance is not high (less than one). If the standard deviation value is low, the data is not spread out too much and the mean is not different from the actual values (Foster, 2001; Bryman and Cramer, 1999). In addition, the low value of variance indicates that most respondents are very close to the mean on IRSQ variables (Sekaran, 2003). The following figure illustrates the mean distribution of Internet service quality variable.
The curve does not show an ideal normal curve, where the mean, median and mode are the same (Foster, 2001), however the data is more or less normally distributed since most of means fall in the middle and fewer falls at points farther away from the middle deviation. The curve illustrates that very few respondents perceived Internet service quality was very good (over 4.5); very few respondents perceived IRSQ negatively (below 2). Most respondents perceived IRSQ somewhere between 3 and 4. In addition, the result of frequency analysis to the respondent’s overall evaluation of IRSQ supports the view that most respondents (95%, see the following Table) perceived IRSQ somewhere between 3 (Neutral) and 5 (Strongly Agree).

![Histogram](image)

**Table A: Frequency Analysis to the Respondent’s Overall Evaluation of IRSQ**

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agree</td>
<td>110</td>
<td>55.0</td>
<td>55.0</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>47</td>
<td>23.5</td>
<td>23.5</td>
</tr>
<tr>
<td>Neutral</td>
<td>33</td>
<td>16.5</td>
<td>16.5</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>5</td>
<td>2.5</td>
<td>2.5</td>
</tr>
<tr>
<td>Disagree</td>
<td>5</td>
<td>2.5</td>
<td>2.5</td>
</tr>
<tr>
<td>Total</td>
<td>200</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Based on the mentioned reasons, the result of the mean (3.5189) is considered reliable to answer the first research question (How do students perceive the Internet retail service quality?)

The literature indicates that every specific customer will evaluate the Internet service quality in a different way since they have different needs, wants, perceptions and expectations of services (Zeithaml and Bitner, 2003; Cai and Jun, 2003). Thus, an independent two-group t-test was conducted to examine gender differences in perceiving Internet retail service quality. The results of the t-test are as follows:

**Table Group Statistics**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Gender</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet Retail Service Quality</td>
<td>Male</td>
<td>92</td>
<td>3.4872</td>
<td>.57016</td>
<td>.05944</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>108</td>
<td>3.5459</td>
<td>.46833</td>
<td>.04506</td>
</tr>
</tbody>
</table>

The result shows the difference in the means of 3.4872 and 3.5459 with standard deviations of .57016 and .46833 for the male and female respondents concerning the perceptions of Internet retail service quality (IRSQ), is not significant. The significant level of the t-test for equality of means also indicates that there is no significant difference between male and female perceptions of IRSQ (p>0.01).

Accordingly, the results answer the second research question: Do male and female students have different perceptions of Internet retail service quality? Gender
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Table. Independent Samples Test

<table>
<thead>
<tr>
<th>Variable</th>
<th>Levene's Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
<th>95% Confidence Interval of the Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>Sig.</td>
<td>t</td>
</tr>
<tr>
<td>Internet Retail Service Quality</td>
<td>Equal variances assumed</td>
<td>2.73</td>
<td>.100</td>
</tr>
<tr>
<td></td>
<td>Equal variances not assumed</td>
<td>.786</td>
<td>-176</td>
</tr>
</tbody>
</table>

DISCUSSION AND CONCLUSION

The results indicate that most students’ perception of IRSQ was fairly good on average. This result might be influenced by the use of the most well known company, Amazon.com, as a leader Internet retailing for this research. Specifically, the findings indicate that respondents on the whole, perceived the retailer as having an effective order and delivery system. The most possible reason for this finding might be due to Amazon.com’s order and delivery system being quick since they use the three-clicks feature that allow the customers to check out the product within three clicks. Moreover, as previous mentioned in the literature, Amazon.com has invested further capital in improving delivery performance (as opposed to advertising), in order to differentiate themselves from their competitors (Jiang and Rosenbloom, 2005; www.amazon.com).

However, the Internet retailer should not be satisfied with this result since some of the students still perceived the service to be lacking, which can be seen from the minimum mean of 1.30. The descriptive result of each dimensions of IRSQ indicates that the sensation dimension has the lowest mean (2.9633). The result also indicates the minimum of 0 (zero), which means some students responded to the sensation questions by selecting the not-applicable (N/A) option. This might be due to the retailer not providing interactive features of the Internet retailer’s website, such as online chat rooms for customer-salesperson interaction and media to contact someone who has already bought a product to obtain a testimonial. According to Janda et al., (2002) the sensation dimension of IRSQ refers to the responsiveness features of online service quality involving human touch. Thus, sensation features can enhance the customers’ purchasing experience such as a virtual “try-on” of an item prior to purchase. This is achieved through interacting with someone who has already bought a product to obtain a testimonial. Similarly, Jiang and Rosenbloom, (2005) argue that the Internet retailer can differentiate themselves from competitors by creating innovative sensation features to support customers.

In addition, the findings suggest that gender does not affect the students’ perception of IRSQ, which means there is no significant difference between male and female students in perceiving IRSQ. This indicates that while the literature suggests that every specific customer will evaluate the Internet service quality in a different way (Zeithaml and Bitner, 2003; Cai and Jun 2003), this research discovers that there is no significant different between male and female student perceptions of IRSQ. A possible explanation for this result is most likely due to the characteristics of students as respondents in this research considered being similar and subsequently they have similar needs, wants and perceptions of the same services. This finding thus suggests that developing IRSQ amongst students does not require specific strategies for targeting males and females. Differential strategies
may however have to be adopted in the case whereby other online retailers sell gender specific products. In the case of Amazon, a differentiated strategy for males and females is less prevalent.

To sum up, the statistical analyses have been conducted in order to answer the research questions and to test the hypotheses of this research. The descriptive analysis demonstrates that most of the respondents agreed that the service quality provided by the internet retailer was fairly good. However, the t-test for equality of means indicates that there is no significant difference between male and female students in perceptions of IRSQ.

RECOMMENDATIONS AND REFLECTIONS

It is useful to consider the contributions of this research in contributing to existing knowledge and providing guidance for developing service quality in internet retailing industry.

Previous studies have considered factors such as barriers for consumers to shop online, such as credit card and security worries, lack of personal and social interaction, lack of tangibility regarding the merchandise, cannot be in to receive delivery (Harris and Dennis, 2002). This research shows that although most customers perceived IRSQ (e.g. order delivery, security, website design) being fairly good, they still offered low ratings for the sensation dimension. This might suggest that additional services be provided by the internet retailer such as through testimonials from satisfied customers, membership incentives, chat rooms, and bulletin boards could positively affect consumers' perceptions for current internet retailing services. Subsequently, this research suggests that sensation cannot be ignored when measuring IRSQ.

In addition, Internet retailers should consider the importance of managing Internet retail service quality in order to survive in a highly competitive market. This research provides guidance for Internet retailers in the development of IRSQ. Firstly, Internet retailers can use the IRSQ measurement developed in this study to detect service quality weaknesses and strengths. The Internet retailer can allocate company resources based on the level of importance of IRSQ dimensions perceived by customers. This research suggest that the Internet retailer needs to improve the sensation features of the website since respondents still perceived this dimension as rather lacking. The sensation features considered as important factor since they can enhance the customers’ purchasing experience. Secondly, this research indicates that there is no significant difference between male and female students in IRSQ perceptions. Subsequently, this finding suggests that developing IRSQ amongst students does not require specific strategies for targeting male and female consumers. This demographic feature may however play a greater role in determining IRSQ where particular online retailers are selling gender specific goods.

IMPLICATIONS FOR FUTURE RESEARCH

This study provides several directions for future research. Firstly, the measurement instrument developed in this research can be used for further investigations into customer perceptions of IRSQ, as well as the impact of IRSQ upon customer satisfaction and loyalty. Secondly, to enhance the generalisability of the findings, future research could employ larger and more representative samples. Thirdly, future research could also use different methodologies such as focus groups and interviews to examine the relationship between IRSQ, customer satisfaction and loyalty. This possible approach would help to render qualitative insights into customer perceptions of IRSQ, and thus further enhance our understanding of such features.

RESEARCH LIMITATIONS

The author has recognised that this research has limitations, which should be considered when evaluating the results. Firstly, the limits to generalisation, the extent to which such findings could be generalized to other students, or indeed the wider population is brought into question. In other words, these findings may not be representative of students at other universities and of the general population of online shoppers. Further research will help to clarify this issue. Secondly, the use of non-probability sampling due to time and money constraints. Thus, this research is considered to have limitations regarding the generalisability of findings as previously explained. Moreover, this study only considered Amazon.com and it is uncertain whether the analytical results can be generalized to other Internet retailers. Therefore, future research should explore the relationship between IRSQ from other types of Internet retailers in order to enhance understanding and knowledge about this relationship.

BIBLIOGRAPHY


