

A Conceptual Framework for E-tailing Quality and Its Evaluation

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ABSTRACT

The Internet's influence in creating e-services has been revolutionary for retailer. Clearly, The Internet is fast becoming an important new channel for businesses in retailing, raising e-services as the emergent business paradigm in the industrialized world. Unfortunately, past research on measuring e-tailing quality is scarce. This paper provides a conceptual framework for e-tailing quality and discusses its evaluation. First, we summarize the main previous literature about service quality and e-service quality. Second, three analytical dimensions are identified: website quality, action quality and result quality, and each has its sub-dimensions. Each has different influence degree. Finally, we analyzing the evaluation way by comparing the online shoppers' perceived and expectation e-service. Future recommendations are also offered.

Keywords: E-tailing quality, E-service quality, E-service

1. INTRODUCTION

Since the 1960s, the Internet has been around, it was only a decade ago that the World Wide Web was born as a second segment of cyberspace. Undoubtedly, the digital revolution has changed almost every aspect of people's daily life, especially as stepping into the twenty-first century. In order to satisfy customers' sophisticated needs, many companies have set up their own web sites providing quality information and services to customers. When e-tailing was in its infancy, Web presence and low price were believed to be the drivers of success.

E-services, according to Roth [1], "are comprised of all interactive services that are delivered on the Internet using advanced telecommunications, information, and multimedia technologies." E-services are important in B2C e-commerce because they represent ways to provide on-demand solutions to customers strengthening the relations between customer and service provider, creating transactional efficiencies and improving customer satisfaction (Ruyter et al., 2001). While e-services are convenient and create efficiencies for their users, little is understood about how consumers evaluate them in operation and what are the important facts for customer choosing the E-services.

It is argued that better service quality can create better customer satisfaction (Zeithaml, Parasuraman and Malhotra, 2002). Consumers will satisfy or dissatisfy to a certain extent with the service, and will make the corresponding quality evaluation. This kind appraisal of service quality is actually a range degree function of quality between the consumer expectations and what they really get. However, according to an investigation [2], only 36% of the online shoppers are satisfied with their experience, and up to 28% of the online trade is end in failure, which prove the E-service Quality has already become one of the most important factors that

restrict customer to buy again. Nowadays, superior service quality has entered the picture as a differentiating strategy (Zeithaml, Parasuraman and Malhotra, 2002).

One of the main method for the website to be different from others, is to offer the higher service quality than its rival's. And the key is the service quality can satisfy the customer or exceed their expectations. In e-commerce, enterprises are unable to carry on the face-to-face communication with the customer, and almost all are offered through the website, here, it is impossible to carry on the proper adjustment by utilizing the feedback which through the oral communication with consumer even the physique language. In this case, it is very essential to understand the E-service Quality and how to evaluate.

2. LITERATURE REVIEW

Service quality has been recognized as an important strategic retailing weapon [3]. The most widely approach used to conceptualizing and measuring service quality has been developed by Parasuraman et al. (1985). Service quality has been defined as a form of attitude, related but not equivalent to the construct of satisfaction, which results from the customer's perception of service in relation to his or her expectations of service disconfirmation paradigm [4]. They also identify five dimensions of service quality and develop SERVQUAL, an instrument to measure customers' perceptions of Service quality [5]. The dimensionality and reliability of SERVQUAL has been the subject of many subsequent studies (e.g. Carman, 1990; Cronin and Taylor, 1992; Babakus and Boller, 1992; Cronin and Taylor, 1994; Parasuraman et al., 1994; Fischer and O'Bryan, 1995; Licata, Mowen and Chakraborty, 1995; Siu and Cheung, 1999, 2001; Siu and Woo, 1997 and 1999).

	Study	Focus	Dimension
SERVQUAL-oriented	Berry, et al. (1988) and Parasuraman, et al. (1985, 1988)	Service quality	Tangibles; Reliability; Responsiveness; Communication; Credibility; Security; Competence; Courtesy; Understanding/knowing the customer; Accessibility
	Parasuraman, Zeithaml and Berry (1988, 1991)	SERVQUAL	Reliability; Responsiveness; Assurance; Empathy; Tangibles
	Harvey (1998) [7]	Service quality	Quality of actual results; Process to achieve those results (Consists of both technical and perceptual aspects)
	Kaynama, Black (2000) [8]	Modifying SERVQUAL in travel industry	Responsiveness; Content and purpose; Accessibility; Navigation; Design and presentation; Background; Personalization and customization
Web-oriented	Zeithaml, Parasuraman and Malhotra (2000, 2002)	E-SERVQUAL	Efficiency; Reliability; Fulfillment; Privacy; Responsiveness; Compensation; Contact
	Li et al. (2002) [9]	E-SERVQUAL	Responsiveness; Competence; Quality of information; Empathy; Web assistance; Call-back systems
	Yang, Peterson and Huang (2001) [10]	E-service quality	Ease of use; Content displayed on the Web site; Accuracy of content; Timeliness of response; Aesthetics; Privacy
	Lociacono, Watson and Goodhue (2000) [11]	WEBQUAL	Informational fit to task; Interaction; Trust; Response time; Design; Intuitiveness; Visual appeal; Innovativeness; Flow (emotional appeal); Integrated communication; Business processes; Substitutability
	Yoo & Donthu, (2001) [12]	SITEQUAL	Ease of use; Aesthetic design; Processing speed; Security
	Wolfenbarger and Gilly (2002) [13]	. comQ	Web site design; Reliability; Privacy/security; Customer service

Figure 1: Comparison of Previous Studies

Superior service quality is widely acknowledged as a driver of perceived value, which, in turn, will enhance customer loyalty (Parasuraman and Grewal, 2000) and improve the provider's image, sales and profitability (Buzzell and Gale, 1987; Gummesson, 1993). Therefore, the study on service quality has been focus on in many studies of various industries. While the e-business has

become a grown-up point of new economy, the research on Service quality have been combine with the e-commerce. Based on the previous studies, Zeithaml et al. (2000, 2002) developed the new concept E-service quality and used the e- SERVQUAL to measure it to study how customers judge e-service quality.

E-service quality is defined as seven dimensions: efficiency, reliability, fulfillment, privacy, responsiveness, compensation and contact, which form two scales: a core e-serve quality scale and a recovery scale [6]. The first four dimensions are classified as the core service scale, and the latter three dimensions are regarded as a recovery scale, since they are only salient when online customers have questions or problems.

Although the development of e-service quality notion and measurements is at an early stage, the studies on this field have developed fast and varied in the evaluation way. **Figure 1** has shown this concept developing process and summarized the main ideas.

3. DEVELOPING A CONCEPTUAL E-TAILING QUALITY FRAMEWORK

E-service quality has so wide range of all operation in e-commerce, including e-tailing, but the existing

literature is not yet rich enough to provide a conceptual foundation of e-tailing quality and because of that, it was required to develop an understanding of the detailed determinants in e-tailing quality and their impact on consumer attitude.

After extensive literature review, we develop the E-tailing quality framework to enrich the Web-oriented studies. Gronroos (1990) had proposed the concept of perceived service quality, and it depends the comparison between customers' expectation and the perceive service level in service quality. In addition, he divided service quality into "technical quality" and "functional quality" [14]. Here, we use his conceptualization of technical and functional quality for reference, combining the E-SERVQUAL and .comQ. All the literature led to the development of the conceptual model of e-tailing quality, which is displayed below as **figure 2**.

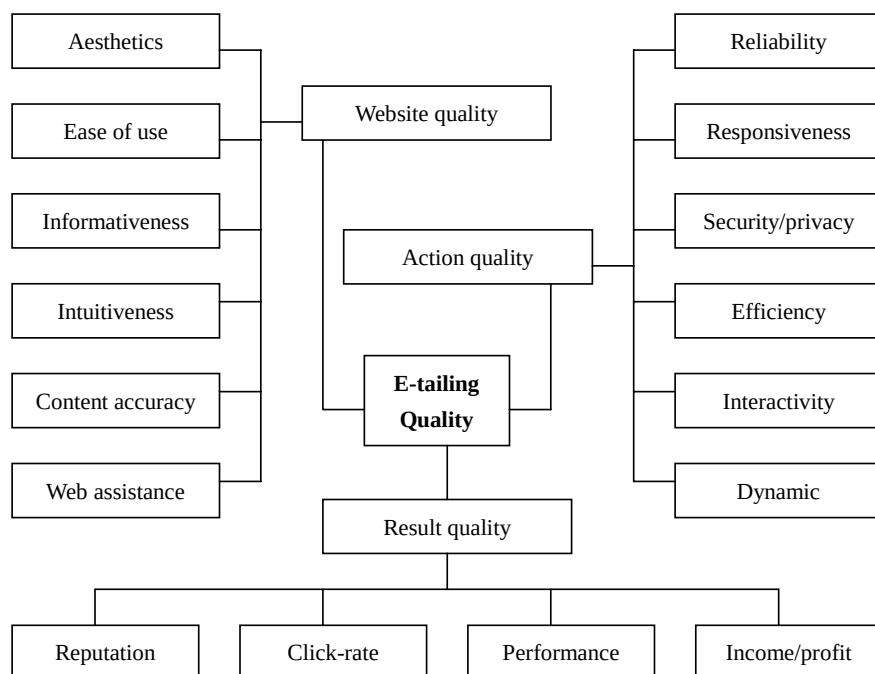


Figure2: E-tailing Quality Model

The quality of a web-based retail service depends on the perceived quality of the process of using the web for purchasing as well as the perceived quality of the outcome. E-tailing quality can be evaluated through three sections: website, action and result. Every section has serial dimensions. Website quality is mainly about the website design and customers' perception of the interactions that happen during their online-shopping. Action dimension deals with the process or the way in which service is delivered, and is a main contributor of consumers' willingness to buy. That is, it reflects the outcome of the service or what is received. Result quality defines as the e-tailer image and quality. This integration may help identify the relationship between e-tailing quality and willingness to buy on-line.

The website quality is a basic factor, which means is a go without saying function, so customer can get the request out of clearly, even not consider. If customer satisfies with it, it may not improve their satisfaction obviously. If the website can't satisfy them, customer may give up the online-shopping. Therefore, it is one of the importance competition factors. The action quality is an expecting factor, which the more realize in the online service, the more satisfied the customer is. When missing these demands, the customer is unsatisfied. Through offering it, the customer's perceived value of service can be improved, furthermore, improve the customer's loyalty. The result quality is a factor usually be neglected. The quality of the result e-tailer get can greatly affect the customer's perceived service quality. But all above isn't

absolute; it will change in different e-tailing product or service.

In the practical operation, it can evaluate the e-tailing quality according to measuring the consumer's expectation and perceived service. But the disparity between the actual and expecting e-service quality does not shape simply, instead, it finally forms by many kinds of disparity in the practices. Using the e-tailing quality model, reasons can be found when there are problems in e-service quality, and the proper method to narrow various kinds of disparity can be known, which offer the theoretical foundation for the e-tailer making the strategy and tactics of improving the consumer's perceived service quality.

The proposed model employs ETQ as the whole service quality in e-tailing, P_{ji} as the point of perceived service quality the i dimension get in the j section, E_{ji} as the point of expectation service quality the i dimension get in the j section, W_j as the weight of each section, W_i as the weight of each dimension, then as following:

$$ETQ = \sum_{j=1}^3 w_j \sum_{i=1}^n w_i \sum_{i=1}^n (P_{ji} - E_{ji})$$

If more than one consumer give the evaluations, the average point can be used (N means the number of the sample):

$$AVETQ = \frac{\sum_{j=1}^3 w_j \sum_{i=1}^n w_i \sum_{i=1}^n (P_{ji} - E_{ji})}{N}$$

What we need is the comparison between ETQ or AVETQ and 0, which is the comparison between the perceived e-service quality and the expectation.

4. CONCLUSION

In conclusion, this article proposes a e-tailing quality model based on the previous literature and the method to evaluate it. The objective of this article has been to present some preliminary frameworks for analyzing e-tailing quality, and the frameworks presented help clarify the discuss. The models of e-tailing quality consist of three section: website quality, action quality and result quality. Each section has its dimensions. It provide ways to understand the affected factors in e-tailing service, and what is leading to the success. In order to construct the model, a careful review of previous studies has been operated.

However, there are numerous existing questions that require further inquiry in order to get best practices. The determined factors of e-tailing quality are changing under the e-business environment, and the customer's appraisal on e-tailing quality will be different as the kind and the characteristic of e-tailing are different either. How great degree can this three section and each

dimensions can reflect customer's expectation in ETQ, which factor is more important, whether there are other factors can affect ETQ, all are questions needed studying further.

REFERENCES

- [1] A.V. Roth, "Service strategy and the technological revolution", in: J.A.D. Machuca, T. Mandakovic (Eds.), *POM Facing the New Millennium: Evaluating the Past, Leading With the Present and Planning the Future of Operations*, Production and Operations Management Society and the University of Sevilla, Sevilla, pp. 159-168, 2000
- [2] Chang Guangsu, "Service quality in E-commerce", *World Standardization & Quality Management*, pp. 28-30, Jan, 2004
- [3] Chen, Z., and Dubinsky, A.J. "A Conceptual Model of Perceived Customer Value in E-Commerce: A Preliminary Investigation," *Psychology & Marketing* (20:4), pp. 323-347, 2003
- [4] Parasuraman, A., Zeithaml, A.V., Berry, L.L., "A conceptual model of service quality and its implications for future research", *J. Marketing* 49, 41-50, 1985
- [5] Parasuraman, A., Zeithaml, V.A., and Berry, L.L. "SERVQUAL: A Multiple-Item Scale for Measuring Consumer Perceptions of Service Quality," *Journal of Retailing* (64:1), pp. 12-40, 1988
- [6] Zeithaml, V.A., Parasuraman, A., and Malhotra, A. "A Conceptual Framework for Understanding E-Service Quality: Implications for Future Research and Managerial Practice," *Working Paper No. 00-115*, Marketing Science Institute, Cambridge, MA, 2000.
- [7] Harvey, J., "Service quality: a tutorial", *Journal of Operations Management* 16, 583-597, 1998.
- [8] Kaynama, S.A., and Black, C.I., "A proposal to Assess the Service Quality of Online Travel Agencies: An Exploratory Study," *Journal of Professional Services Marketing* (21:1), pp. 63-88, 2000
- [9] Li, Y.N., Tan, K.C., and Xie, M., "Measuring Web-based Service Quality," *Total Quality Management* (13:5), pp. 685-700, 2002
- [10] Yang, Z., Peterson, R.T., & Huang, L., "Taking the Pulse of Internet Pharmacies", *Marketing Health Services*, Summer, 5-10, 2001
- [11] Loiacono, E.T., Watson, R.T., Goodhue, D.L., "WebQual: A Website Quality Instrument," *Working Paper 2000-126-0*, University of Georgia, 2000.
- [12] Yoo, B., and Donthu, N., "Developing a Scale to Measure the Perceived Quality of an Internet Shopping Site (SITEQUAL)," *Quarterly Journal of Electronic Commerce* (2:1), pp. 31-45, 2001
- [13] Wolfinbarger, M.F., and Gilly, M.C., ".comQ: Dimensionalizing, Measuring and Predicting Quality of the E-tail Experience," *Working Paper No. 02-100*, Marketing Science Institute, Cambridge, MA, 2002.
- [14] Gronroos, C., "Service Management and Marketing: Managing the Moments of Truth in Service Competition", *Lexington Books*, Lexington, MA, 1990.