How to Use Qualitative Research to Design a Managerially Useful E-Service Questionnaire

John R. Rossiter

University of Wollongong, School of Management & Marketing,
Institute for Innovation in Business and Social Research, Wollongong, Australia, john_rossiter@uow.edu.au

Abstract

E-service questionnaires must be content-aligned with the company or organization's customer relationship management system (CRM). Four phases of qualitative research will ensure this alignment. The first phase is a qualitatively evaluative search of the practitioner literature on e-retailing, both B2B and B2C, and on CRM so as to capture evolving knowledge in both fields. The second phase is individual depth interviews (IDIs) with potential, current, and lapsed customers to map their e-interactive behavior and experiences. The third phase is dyadic depth interviews (DDIs) with the marketing manager and the website designer to fully understand the company's current and potential e-service and CRM capabilities. The e-service questionnaire can then be designed according to the general guidelines presented in this article and using question-and-answer templates provided in the author's previous article [14]. The final phase of qualitative research will consist of post-survey IDIs with a sample of the original survey respondents to clarify and elaborate on the survey's findings, followed by a final manager-designer DDI to implement the findings.

Keywords: Qualitative evaluation of the literature, Customer IDIs, Manager-designer DDIs, Questionnaire construction, Post-survey qualitative research

1   Introduction

E-retailing, both business-to-business (B2B) and business-to-customer (B2C), is the largest marketing activity in the expanding field of electronic commerce. Excellent e-service quality is the critical success factor in e-retailing. In two previous articles the present author outlined how to most validly measure e-retailing service quality [13] and provided a prototype questionnaire for measuring the quality of e-retailing service components [14].

The present article explains the different forms of qualitative research necessary to design and implement a managerially useful e-service questionnaire. The article may be summarized as follows:

1.   Qualitative research should begin with a thorough qualitative search and expert evaluation of the practitioner-oriented literature on e-retailing and CRM. The purpose of this first phase of qualitative research is to keep up with the rapid developments in both fields. The developments are led primarily by e-business practitioners.

2.   The next phase of qualitative research should consist of individual depth interviews with potential, current, and lapsed customers, no matter how these people have attempted, will attempt, do now, or used to contact the company. The IDI interview question content must follow the sequential stages in the typical online interaction, beginning with if and how these individuals became aware of the online option and why they do or don't use it. The purpose of the IDIs is to identify stage-linked items worded in consumer language, together with behavioral-categories answer options for each item.

3.   Before the e-service questionnaire is finalized, qualitative depth interviews should be conducted with the company's or organization's e-retailing manager, with the IT website designer present. These are thus dyadic depth interviews. The main purpose of the DDIs is to make sure, beforehand, that the questionnaire covers attributes or features *designed in* to the website that customers and attempted customers may not have noticed or appreciated – what Jiang et al. [5] refer to as "service quality from the other side." The other purpose is to make sure that the question and answer categories in the questionnaire accurately describe problems that the manager can do something about, implying solutions that can be implemented technically.

4.   The e-service questionnaire, prepared in conjunction with a professional research firm, can then go into the field. The questionnaire should be administered off-line, preferably by the (least biased) face-to-face method or alternatively by telephone, although the telephone method is becoming more and more biased toward mobile-only phone users. The verbal answers to the survey questions should not be given numerical values, and should not be factor-analyzed, regressed, or otherwise analyzed with multivariate statistics. Frequency counts and simple cross-tabulations of the verbal answers is sufficient to yield valid, managerially useful findings.

5.   Survey findings almost inevitably need clarification, elaboration, and further questioning to properly expose problems and to identify promising new e-service tactics. This will mean a further post-survey phase of qualitative research consisting of additional IDIs with a moderate-sized sample of the original survey respondents, and a further post-survey DDI with the marketing manager and website designer to assess and implement the findings.

The article explains these five recommendations and provides concrete examples.

2   Qualitative Phase I: Evaluative Search of the Practitioner- Oriented Literature on E-retailing and CRM

E-service has to be designed to align with and enable the company or organization's customer relationship management system. Otherwise, there is no purpose in bothering with e-retailing. The website, in conjunction with the CRM system, must be capable of accurately recording and promptly responding to potential customers' and current customers' inquiries, profiling potential new customers, and rapidly retrieving the purchase history of current customers, and then making customer-tailored recommendations in addition to properly answering the present inquiry. Amazon.com is a leading example of designing the website to facilitate effective customer relationship management. Details of how leading e-retailers *do it* are usually available in practitioner-written or co-written case histories in practitioner-oriented publications.

The results of the literature search need to be qualitatively analyzed and evaluated by an expert. Academic-type *meta-analysis* should be avoided. Meta-analysis is hopelessly inexpert qualitatively and is incapable of separating valid and practically significant findings from invalid or trivial ones [4], [15].

There are several sub-recommendations that may be made here about the qualitative literature search: namely, that the great majority of academic studies of e-service quality are based on non-valid measures and can be safely bypassed; that practitioners' studies (or academic studies authored or co-authored by practitioners) are much more useful; and that practitioners' descriptive articles and occasionally released empirical studies of real-world CRM systems are well worth hunting for. These harsh but necessary recommendations are explained in the three sections below.

2.1   Academic Measures of E-service Quality Are Not Valid

Academically designed e-retailing service quality instruments are not valid and consequently produce useless and misleading findings. Academic researchers hoping to investigate e-service quality would almost always search only the academic literature, where they would be most likely to find and use, in order of journal publication, the instruments called eTailQ developed by Wolfinbarger and Gilly [16], E-S-QUAL developed by Parasuraman, Zeithaml, and Malhotra [10], the unnamed instrument developed by Collier and Bienstock [2], or eTransQual developed by Bauer, Falk, and Hammerschmidt [1]. These questionnaires were thoroughly criticized in the present author's earlier article [13] and share the following content-validity problems.

Firstly, none of the academic questionnaires covers the full sequence of stages in the e-retailing customer's decision-making process. These stages were listed in the present author's follow-up article [14] as:

1. The source of the website visit (e.g., a mass-media ad, a web banner ad, a media news story, word-of-mouth, or simply Googling a well-known retailer's brand name)

2. The website itself (as well as the product range offered, and prices)

3. The transaction attempt (recognizing that many attempts to use the website are aborted, especially by novice users, and the e-retailer does not know why)

4. The customer assistance phone contact (the usual resort when an online transaction fails)

5. The transaction outcome (product delivery time, delivery package suitability, delivered product correctness, and actual price paid, separated into product cost and shipping cost)

6. Service problem *recovery* (if needed)

A second problem with the aforementioned measures is their item content. The developers of these measures wrongly used factor analysis to delete items that did not *load significantly* on an artificial statistical factor. The researchers thereby discarded items referring to service quality aspects that, in the qualitative research, respondents had said were important, even vital.

A further serious problem with the existing measures is the content of their answer scales. All the instruments employ Likert (*strongly disagree* to *strongly agree*) answer scales which have no meaning to managers, and what is more, are always scored wrongly from 1 to 5, or 1 to 7, signifying unipolarity when Likert answer scales are actually bipolar. Take, for example, an item from E-S-QUAL, the very first item will do, which is *This site makes it easy to find what I need*, rated on a 1-to-5 Likert answer scale. Let's say this item is given an average score of 2. This numerical score of 2 (signifying an average verbal answer of *disagree*, falling between *strongly disagree* and *neither agree nor disagree*) could mean that the average respondent found the website *slightly* easy to use, which would be the unipolar interpretation of the answer scale, or that the website made it in fact *more difficult* to find what you were looking for (more difficult than if you had gone to a retail store), which would be the bipolar interpretation of the answer scale. Not only would the manager not know from the Likert answer scale whether the e-retail site was easy to interact with or not, the manager would also be in the dark as to why his site got a 2, what a *2* means, and how to fix it.

There has also been a trend in academic survey research to try to measure potential and current customers' experiential reactions to websites – such as *flow* and various positive and negative emotions like *surprise* and *anger*. The present author's firm conviction is that the very small effect sizes – effects usually measured on intermediate and often unrelated criteria such as how much the user *likes* the site – as well as the transient nature of these effects make the *experiential* or *emotional* factors not worth trying to do anything about. In the present author's opinion, this sort of subjective content in a service quality questionnaire is superfluous, and its results are misleading, especially if the subjective aspects are given equal weight alongside the more objectively rateable website performance factors.

The *villain* in academic survey research on retailing (and all other forms of marketing) is factor analysis. Here's a prime example, which only the present author has played *policeman* for. In a rarely referenced qualitative study [8] that led to the development by academic researchers Parasuraman, Zeithaml, and Berry [9] of their famous measure of offline retail service quality, SERVQUAL, the researchers identified – qualitatively – a group of items that they labeled as *Responsiveness*. These items (for offline retailing) were: *Calling the customer back quickly*, *Setting up*

appointments quickly, and *Mailing a transaction slip immediately*. These plainly important items, however, did not make it through the several rounds of factor analysis and coefficient alpha calculations that Parasuraman et al. applied to the 97 items (!) identified in their qualitative study to derive the *efficient* 22-item SERVQUAL measure [9]. The factor analysis did identify a factor that the researchers labeled as *Responsiveness*, but this was measured by hopelessly general and confusing, negatively worded items such as *You do not receive prompt service from XYZ's employees*. Compare the three plain and specific items, above, that they dropped. And in Parasuraman, Zeithaml, and Malhotra's service quality measure for e-retailing [10], E-S-QUAL, which also originated from factor analysis, there is no *Responsiveness* factor! There is only a set of seven vague items forming a *factor* that the researchers labeled as *Fulfillment*.

The present author is the only researcher ever to have criticized the main academic measures of service quality, criticizing them on the fundamental ground of poor content validity, and he did so in this journal, *JTAER* [13]. Remarkably, no-one else has criticized the factor analytic method, itself, for destroying content validity see [15].

2.2   The Practitioner Literature is Much More Useful

A quick search of the practitioner literature on e-service quality that the present author conducted in preparation for this article located valuable practitioner-led research that revealed the true importance of e-retailing *Responsiveness* and also showed how to measure it with a managerially useful answer scale. In a pair of studies reported in the practitioner-oriented *Harvard Business Review*, academic researchers Oldroyd and McElheran and CEO practitioner Elkington [7] audited the online response time for web-generated sales leads across more than 2,000 U.S. companies, and in a second study of 13 B2B companies and 29 B2C companies the researchers measured the conversion rate (defined as *having a meaningful conversation with a key decisionmaker*) as a function of response time. The first study's startling finding was that 23% of the 2,000 or so companies never responded at all, even after 30 days! Only 37% of the online sales leads were responded to within the first hour of receiving them, and this turned out to be the critical time interval that should be included in an e-service questionnaire. Oldroyd et al.'s second study revealed that the conversion rate for leads responded to within one hour was seven times greater than those responded to after a 1-hour delay, and – get this – 60 times greater than those responded to after a 24-hour delay. The second study also pointed to the solution. Companies must retrieve and respond to their sales leads from their CRM system's database continuously, not just daily or less often, which is the slack rate of responding practiced in so many companies at present.

Practitioners' studies, with their much more valid measures, real-world data, and straightforward analyses, are on the whole much more useful as background for e-retailing research than are academic studies.

2.3   Also Search the Practitioner Literature on CRM

To be useful – and profitable – the e-service system should be aligned with the company or organization's customer relationship management system. Indeed, in many cases the e-service software is, or is the main component of, the CRM system. This means that the researcher should search and evaluate the expanding literature on CRM systems, strategies, and outcomes.

Among the most informative articles is an article by two academics who happen to be also experienced business consultants, Payne and Frow [11]. These authors provide a comprehensive framework for CRM strategy that identifies the main alternative channels within which electronic commerce has to operate and coordinate with in large companies or organizations. The possible channels are:

- Company sales force

- Retail sales personnel

- Telemarketing

- Direct mail marketing

- Mobile marketing

- E-marketing (website and email)

Payne and Frow's framework also provides useful checklists of the business strategy and customer strategy inputs to these channels, the data repositories to be maintained, and a checklist for CRM performance monitoring and assessment.

Other useful articles for those companies or organizations contemplating setting up a CRM system are those by Langerak and Verhoef [6] in *Business Strategy Review*; Rigby and Ledingham [12] in *Harvard Business Review*; and

an extremely skeptical but eye-opening article by East, Hammond, and Gendall [3] in the *Journal of Marketing Management*. The latter article, presented with clear and straightforward supporting data, importantly casts doubt on the common assumptions of CRM: that long-tenure customers are more valuable than short-tenure customers, and that increases in customer satisfaction will result in increased profit. Obviously, these findings may differ by industry, but the researcher can help by pushing the client to check and verify the CRM results very closely instead of assuming that long-term CRM is profitable and that customer satisfaction is the driver of profit.

3 Qualitative Phase II: IDIs Stagewise and With All Types of Customer

The purposes of the individual depth interviews are:

1. To find out from *potential* e-customers why they are not using the e-channel and what might induce them to do so

2. To find out from *competitors'* e-customers why they are not *your* customers

3. To find out from your *current* e-customers what they like, dislike, or find difficult, and how to improve your e-service website so that they will use it more often

4. To find out from your *lapsed* e-customers why they are no longer your customer

The IDIs are best conducted as face-to-face personal interviews; an online sample is obviously inappropriate because the researcher will miss the first and possibly the second type of customer. Shopping-center recruitment, particularly in after-hours and weekend timeslots, is ideal; a random sample or probability sample is not needed – merely a good cross-section of general category customers, with about 10 interviews covering each of the first three segments above, and five or six in the last segment.

The interviewer should take a portable computer to the interview which is linked to the client's e-retailing website and to those of a couple of close competitors. All respondents should be *walked through* these websites and asked to comment aloud on their good and bad features. Their comments should be audio-recorded – easy with a voice-recording computer these days – for later analysis.

The interviewer for the IDIs need not be a specialized professional qualitative researcher. An amiable and intelligent *normal* interviewer will suffice – because this is very basic qualitative research, not *analytic* qualitative research [15].

The IDI qualitative discussion guide should follow the sequence of six stages listed earlier and in [4], though not all potential customers, of course, will have attempted every stage.

4 Qualitative Phase III: DDIs with the E-retail Manager and the Website Designer

Dyadic depth interviews with the two key end-users of the survey findings are the necessary next step. The key end-users are the e-retail manager and the company's website designer, interviewed together.

They too should be *walked through* their own website and those of several closest competitors. It is very unproductive to conduct these interviews in the abstract without *hands-on* commentaries. Analysis of the DDIs has to be in terms of what the company does offer – or could offer – in e-service that would prevent loss of customers and turn potential customers into regular customers.

The DDIs are best conducted by a professional qualitative researcher who is also tech-savvy.

5 Questionnaire Construction

The findings from all three qualitative research phases – practitioner literature review, customer IDIs, and manager-designer DDIs – now have to be sorted and integrated into the quantitative questionnaire.

The questionnaire construction phase is in fact *qualitative*, and is best conducted with a professional market research firm. Professional help is especially necessary given the naïve job done by academics, as criticized earlier (also see [15]). Following are some pointers for questionnaire construction:

- Questions (items) worded in plain *consumer language*, with no technical terms or marketers' jargon and see [14] for examples of plain-language questions and answers

- Behavioral-categories answer scales, not numerical rating scales or Likert answer scales and, again, see [14] for examples

- Questionnaires to be thoroughly pretested with at least 10 potential, current, and lapsed e-customers (of any e-retailer); pretesting cannot be omitted or done haphazardly *round the office*

- Frequency counts, cross-tabulations, and perhaps sequential cross-tab (CHAID) analysis only – no fancy correlations or other multivariate analyses to *depracticalize* the findings

The researcher or researchers should be present with the professional questionnaire designer for the pretesting step.

6   Final Qualitative Phase: Post-Survey IDIs and DDI

One of the main uses of qualitative research – too often neglected – is individual depth interviews, IDIs, conducted with a subsample of the original survey respondents after the survey findings have been reviewed. The purposes of this usually necessary and always informative final phase of qualitative research are to:

- Clarify the findings (particularly to determine the deeper or more detailed reasons for giving certain answers)

- Elaborate on promising new directions that were not thought of when the questionnaires were constructed

- Assist in implementing the findings

The implementation-assistance purpose means that a post-survey qualitative dyadic depth interview, a DDI, must also be conducted with the e-retail manager and the website designer prior to delivering the final report. Based on the input from this final DDI, the final report can then intelligently recommend how to improve the company or organization's e-service via the website and, most important, how to align e-service with customer relationship management.

7   Summary

This article argues that expertly designed and analyzed qualitative research is essential prior to and following the quantitative questionnaire in e-service research, as in every other research field of marketing.

The need for expert qualitative research, as well as the value of practitioner guidance throughout the four stages of qualitative research, is nowhere more evident than in the naive questionnaires published in the academic literature on service quality and more recently on e-service quality. For well-exemplified qualitative criticism of e-service questionnaires – and solutions – see [13] and [14], and for a more general review of qualitative and quantitative measurement see [15].

References

[1]   H. H. Bauer, T. Falk, and M. Hammerschmidt, eTransQual: A transaction process-based approach for computing service quality in online shopping, Journal of Business Research, vol. 59, no. 7, pp. 866-875, 2006.
[2]   J. E. Collier and C.C. Bienstock, Measuring service quality in e-retailing, Journal of Service Research, vol. 8, no. 3, pp. 260-275, 2006.
[3]   R. East, K. Hammond, and P. Gendall, Fact and fallacy in retention marketing, Journal of Marketing Management, vol. 22, no. 1, pp. 5-23, 2006.
[4]   H. J. Eysenck, An exercise in mega-silliness, American Psychologist, vol. 33, no. 5, pp. 517, 1978.
[5]   J. J. Jiang, G. Klein, and C.L. Carr, Measuring information system service quality: SERVQUAL from the other side, MIS Quarterly, vol. 26, no. 2, pp. 145-166, 2002.
[6]   F. Langerak and P.C. Verhoef, Strategically embedding CRM, Business Strategy Review, vol. 14, no. 4, pp. 73-80, 2003.
[7]   J. B. Oldroyd, K. McElheran, and D. Elkington, The short life of online sales leads, Harvard Business Review, vol. 89, no. 3, pp. 28, 2011.
[8]   A. Parasuraman, V.A. Zeithaml, and L. L. Berry, A conceptual model of service quality and its implications for future research, Journal of Marketing, vol. 49, no. 4, pp. 41-50, 1985.
[9]   A. Parasuraman, V.A. Zeithaml, and L.L. Berry, SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality, Journal of Retailing, vol. 64, no. 1, pp. 12-40, 1988.
[10] A. Parasuraman, V.A. Zeithaml, and A. Malhotra, E-S-QUAL: A multiple-item scale for assessing electronic service quality, Journal of Service Research, vol. 7, no. 3, pp. 213-233, 2005.

[11] A. Payne and P. Frow, Strategic framework for customer relationship management, Journal of Marketing, vol. 69, no. 4, pp. 167-176, 2005.
[12] D. K. Rigby and D. Ledingham, CRM done right, Harvard Business Review, vol. 82, no. 11, pp. 118-129, 2004.
[13] J. R. Rossiter, Toward a valid measure of e-retailing service quality, Journal of Theoretical and Applied Electronic Commerce Research, vol. 2, no. 3, pp. 36-48, 2007.
[14] J. R. Rossiter, ER-SERVCOMPSQUAL: A measure of e-retailing service components quality, Service Science, vol. 1, no. 4, pp. 212-224, 2009.
[15] J. R. Rossiter, Measurement for the Social Sciences. New York: Springer, 2011.
[16] M. Wolfinbarger and M.C. Gilly, eTailQ: Dimensionalizing, measuring, and predicting eTail quality, Journal of Retailing, vol. 79, no. 1, pp. 183-198, 2003.