

Service quality in public transportation services – aligning the operations perspective with customer expectations

*Filipa Fonseca (ffonseca@porto.ucp.pt)
School of Economics and Management
Catholic University of Portugal*

*Sofia Salgado Pinto
School of Economics and Management
Catholic University of Portugal*

*Carlos Brito
Faculty of Economics
University of Porto*

Abstract

The main objective of this paper is to explore the alignment between the operations perspective of service quality and the customer expectations. In order to analyse this alignment, the concept and operational dimensions of service quality are revised, as well as the concept of customer expectations. A model is presented, with the purpose of exploring the mentioned relationship and to guide the empirical study. A metro company in Europe was the core of this exploratory case study.

Keywords: Service Quality, Public Service

Introduction

Public transportations in the XXIst century are an essential asset. Public services, such as public transportation, have to meet the needs of the customers while playing a role in economic and urban sustainability, challenging operations to deliver quality to serve customers and non-customers while making the best use of company (and community) resources. Companies in this industry have already realised that they operate in a competitive environment, competing for customers as well as for resources. In services, quality is only obtained when the customer's needs and wants are satisfied or exceeded. Hence, companies in the public sector seem to be upgrading the passenger's relevance for their line of business.

The paper starts with the theoretical background of the research. It details the methodology used in the study, as well as it makes considerations about the quality of the research design. Then, it presents the findings, which are followed by a discussion of possible implications. Finally, the paper ends with the main conclusions, managerial implications and study limitations.

Theoretical background

The background literature of this paper is based on two major areas: service quality and customer expectations.

In the management context, the word quality can be used to refer to different things: accordance with the specifications (Levitt, 1972; Juran and Gryna, 1991); excellence (Garvin, 1984); accordance with the requirements, adequacy of use, prevention of losses, or how to answer to or to exceed the consumer expectations (Grönroos, 1984, Parasuraman, Zeithaml and Berry, 1985, 1988).

Garvin (1992) sought to group several definitions of quality, presenting five main approaches to the definition of quality: (i) transcendent, for it considers quality as an innate excellence which can not be defined with precision, nor can it be analyzed and recognized only by experience; (ii) based on the product because it regards quality as something precise and accountable; (iii) based on the user looking at quality as the answer to the needs and preferences of the consumer; (iv) based on the production regarding quality as the accordance with the project specifications and (v) based on value, evaluating quality and price. According to this author, a quality product or service is one which offers a performance in accordance with an acceptable price or cost, sustaining value over its price (Garvin, 1992). Ishikawa (1985) states that quality is to develop, produce and sell a quality product which is more economical, more useful and that always brings more satisfaction to the consumer. Oakland (1994) said that the notion of quality depends on everyone's perception. That which has quality for some consumers may not satisfy the needs of others and so, the concept of quality depends on the individual's perception. For Feigenbaum (1983), the quality is determined by the customer and not by the company's management. The quality should be based on the client's product and service experience and this should be measured by the perceived needs that are a goal in a competitive market and by doing so, corresponding to the customer's expectations.

Taking into account what Kotler et al. (1996) said, the quality level that is intended to be reached by a certain product, needs to consider the market segment which is being targeted. Quality is perceived by the clients through the comparison that they make between expectations and experience, concerning several dimensions of quality (Grönroos, 2000).

In this research, quality is presented in the typically service research perspective: quality as perceived quality.

The literature of expectations has to be adapted to the context which is to be studied. Expectations are pre-trial beliefs about a product or service and its performance at some future time (Boulding et al., 1993; Spreng et al., 1996). However, the service quality literature employed different understanding of the expectations construct. Parasuraman et al. (1988) have pointed out that expectations in the service quality tradition refer to what customers feel the service provider should offer. Teas (1993) has pointed out that the satisfaction literature most often refers to customer's beliefs about what will be offered during the next service transaction (Boulding and Teas, 1993).

In this study expectations are related with what the customers expect the service to supply.

Framework for analysis and research method

This study builds on one exploratory case study of a European metropolitan company. This company operates in the second biggest city of the country. Data was collected through interviews to assess the company's perspective on service quality and through

focus groups with customers and non-customers to obtain data on customers' expectations.

The use of a case study approach seemed to be appropriate for this research. Within qualitative methodologies, a case study strategy was adopted, based on the interaction between theory and empirical data. Yin (1994) defines case study as an empirical study that investigates a contemporary phenomenon in real life context, especially when the boundaries between the phenomenon and context are not clearly evident. In terms of features associated with the processes under study, it seems important to focus on contexts in which the phenomena developed. Moreover, this method allows the focus on perception processes more than outcomes, and how the participants interpret their experiences and give them meaning.

The research objective was to describe and understand processes and relationships in a consumer services organization. Attention was drawn to the processes, which was the study's unit of analysis. The focus of analysis of this research was teams, groups and departments.

Data was collected by both interviews and focus groups. The interviews focused on the company's perspective of service quality, while the focus groups with customers and non-customers provided data on customers' expectations. The interviews included people from operations areas and several hierarchical levels (executive vice-president, director of technical systems, director of marketing and communication, manager of operational safety, lawyer and supervision of securities).

In addition to the interviews, focus groups were conducted outside the company with customers and non-customers. The main objective of the focus groups was to identify customers' expectations.

Four focus groups were made. There were a total of 26 people involved (men and women). The age range of the participants selected was 13-35 years of age, because prior studies had indicated that 65 percent of the customers using the metropolitan were within this age range. The selection criteria used, aimed at selecting participants consisting of customers who use the metropolitan, at least once a week and non-customers who had never used this transport service. The focus groups were recorded and handwritten transcription notes were taken for later analysis. The focus sessions were divided in two distinct parts. Initially, the discussion focused on the reasons that would lead customers to use or not use the metropolitan. Then, the focus was shifted towards the determinants of satisfaction and dissatisfaction and on the characteristics that are most valued in this service.

In addition, documents were also analysed to triangulate data and to further understand the customer perceptions of quality.

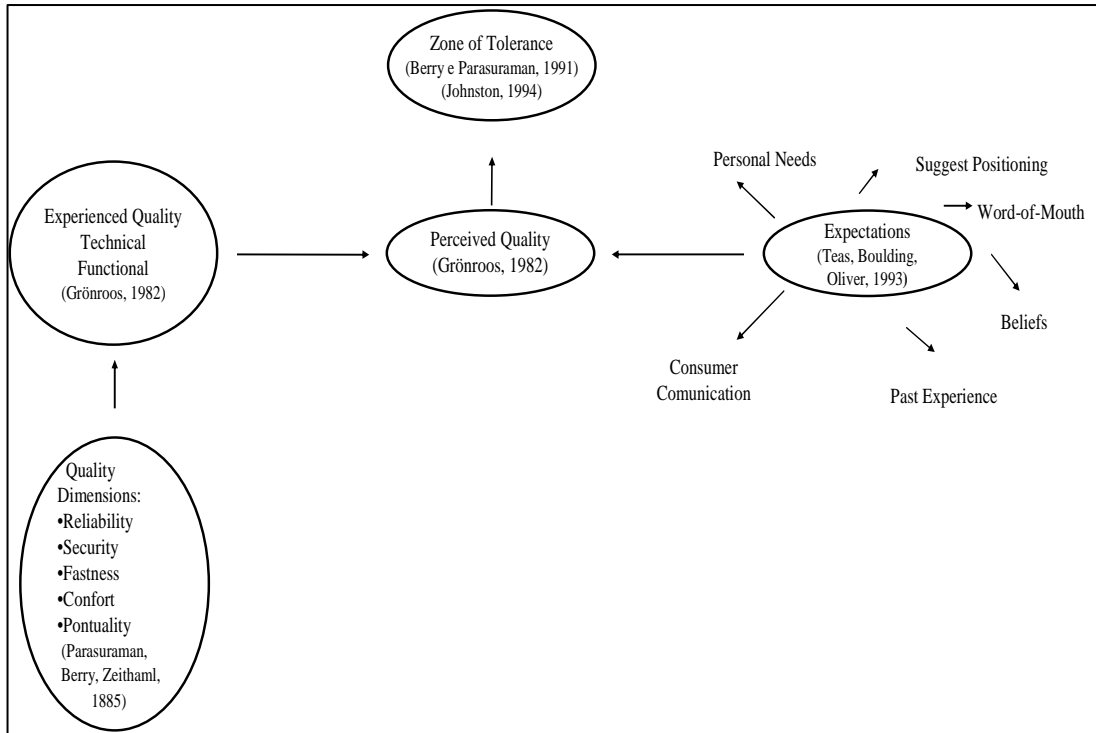
The process of analysis and interpretation of data began with the transcription of the interviews and group focus. All of this met with the objectives of the research, including the comparison and contrasting of the different views of the stakeholders on issues of the research, and allowed individual analysis and comparisons within the case study. Data was also analyzed and grouped, then codified and reduced employing a systematic approach that complies with that proposed by Miles and Huberman (1994).

In this research the process of data reduction began before its collection, by developing the research questions and model of analysis. The model of analysis developed would examine how quality relates to expectations and how this relationship takes place in a public transport services company.

To ensure coherence and reliability of the empirical data or study, the elements which were under investigation and their respective variables were defined, as outlined and presented in the diagram of Figure 1. According to this diagram, the relationship

between quality and expectations may be understood through a clarification of how customers evaluate the dimensions of quality. The zone of tolerance appears to be used as a unifying link between expectations, performance and results.

Figure 1 – Model of Analysis



Findings

In the literature, quality is defined regarding the whole experience of the product’s or service’s characteristics. It is also as argued that the quality focus should be on the customer. The results are in line with the literature and show that the consumer is asked periodically to evaluate quality, and the company only considers that quality has been achieved when consumer expectations are exceeded.

Another finding is that the quality dimensions of greater importance for the public transport services company are: reliability, security, speed, comfort and punctuality are the. These results were similar to the organizations’ customers. The results showed that in this specific public transport service, service quality is a synonymous of reliability and insurability of the trip’s time. Quality also means to excel in the infrastructures (ample and clean metro stations), the feeling of being safe, comfort, punctuality and the number of trains.

The research results showed that in this specific public transport service, the factors that lead the consumers to abandon the service are, most of the times, personal factors such as, the lack of security, the low speed and the frequency of trains in certain lines, inadequate access to the transport service and accidents. The customers mentioned that what would make them abandon the service would be scenarios of imminent danger and robberies; the non-customers, on the other hand, mentioned the lack of security and the lack of punctuality.

In this study customers and non-customers tolerance zones were also examined. The paper confirms that customers have a greater tolerance zone towards the service than non-customers. In other words, non-customers are less tolerant to failures than customers. This conclusion is evidenced by the customers when they say that in the

event of failures or problems with the service, such as delays, lack of cleanliness and lighting, or lack of seating, these reasons alone would not lead to abandoning the service.

Finally, it is also found that in the case of customers there may be some oscillation in the levels of expectations within the zone of tolerance. Non-customers are less tolerant. In these discussion groups' several situations or scenarios of dissatisfaction emerged that would cause abandoning the service, including failure to comply with the vehicle schedules, frequency of carriages and disabled access to the stations.

Conclusions and managerial implications

The research has three main contributions. First, the research clarifies the key dimensions of quality that influence customers' perceived quality in public transportation services. The most important quality dimensions for public transport services company are reliability, security, speed, comfort and punctuality. Second, it was found that customers' expectations are aligned with the dimensions of quality managed by the company, in particular comfort, punctuality, speed and reliability. Safety was the only exception found, the conclusion being that customers assume from the outset that the metropolitan is safe. For customers, poor service quality is commonly associated with the technical aspects of the service, and therefore does not necessarily mean not being able to answer some of their expectations. On the other hand, for the company, poor service is seen as a misalignment with customers' expectations, when referring for example, lack of comfort, lack of security at night or delays. Third, the results also helped to further understand the views of non-customers. They portray the expectations of potential customers as well as of the community served by the specific public transport service. The study puts in to evidence that non-customers are less tolerant to failures than customers. For non-customers several situations or scenarios of poor service emerged as causing service abandons, including failure to comply with the vehicle schedules, frequency of carriages and disabled access to the stations, while for customers' poor service, such as delays, lack of cleanliness and lighting, or lack of seating, would not lead to abandoning the service. Hence, the study clarified the difference among the perspectives of customers and non-customers and between these and the company operations.

There seem to be a main implication of this study for service management. The main practical implication seems to be that if managers know customers' service expectations they can focus their efforts on improving the related dimensions of quality, making the best use of the company resources while increasing satisfaction among customers.

In the public sector, if companies and managers know expectations of non-customers (and understand better their local community), they can focus investment on the development of the related dimensions of quality, increasing the ability to attract new customers and to consciously operate with local sustainability.

Study limitations and further research

Firstly, one of the limitations is the small number of cases studied in public transport services that limits the strength and spread or validity of the conclusions.

Secondly, another aspect was the identification of the factors that influence the formation of consumer expectations. When the interviewees were asked, in an open ended question, about which factors influence expectations, the answer was unanimous: communication with other consumers. Nevertheless, other factors could have been further explored. It would be even more interesting to emphasize the importance of expectations in a pre and post-consumer.

This study could be performed in different scenarios, particularly in areas of different service industries, such as telecommunications network or financial services. Another sector that would be interesting to study is the health sector. Public service, such as the health sector, has to serve the needs of its customers while playing a role in the economic sustainability. This way it faces the challenge to deliver quality to serve customers (the society) while making the best of available resources and dealing with different levels of expectations, this is the patients versus their family.

References

- Andreassen, W. (1995), "(Di)satisfaction with Public Services: the Case of Public Transportation", *Journal of Services Marketing*, Vol. 9, pp. 30-41.
- Bolton, R. and Drew J. (1991), "A Multistage Model of Consumer Assessments of Service Quality and Value", *Journal of Consumer Research*, Vol. 17, pp. 375-384.
- Boulding, W. Kalra, A. Staelin, R and Zeithaml, V. (1993), A Dynamic Process Model of Service Quality: From Expectations to Behavioral Intentions, *Journal of Marketing Research*, Vol. 30, pp. 7-27.
- Edvardsson, B. (1992), "Service Breakdowns, A Study of Critical Incidents in an Airline", *International Journal of Service Industry Management*, Vol. 3, pp. 17-29.
- Edvardsson, B. (1998), "Causes of Customer Dissatisfaction – Studies of Public Transport by the Critical Incident Method", *Managing Service Quality*, Vol. 8, pp. 189-197.
- Erevelles, S. and Leavitt, C. (1992), "A Comparison of Current Models of Consumer Satisfaction/Dissatisfaction", *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behaviour*, Vol. 5, pp. 104-114.
- Feigenbaum, A. (1983), *Total Quality Control*, 3rd Ed, New York, McGraw-Hill, International Editions.
- Friman, M., Edvardsson, B. and Garling, T. (2001), "Frequency of Negative Critical Incidents and Satisfaction with Public Transport Services", *Journal of Retailing and Consumer Services*, pp. 95-104.
- Garvin, D. (1984), "What Does Product Quality Really Mean?", *Sloan Management Review*.
- Garvin, D. (1992), *Operations Strategy*, Prentice Hall International Editions, pp. 126-131.
- Grewal, D., Baker, J., Levy, M., and Voss, G. (2003), "The Effect of Wait Expectations and Store Atmospheric Evaluations on Patronage Intentions in Service-Intensive Retail Stores, "Journal of Retailing", Vol. 79, pp.259-268.
- Grönroos, C. (1984), "A Service Quality Model and its Marketing Implications", *European Journal of Marketing*, Vol. 18, pp. 36-44.
- _____ (2000), *Service Management and Marketing: A Customer Relationship Management Approach*, Second Edition, John Wiley & Sons, England.
- Halstead, D., Hartman, D. and Schmidt, S. (1994), "Multisource Effects on the Satisfaction Formation Process", *Journal of the Academy of Marketing Science*, Vol. 2, pp. 114-129.
- Higgs, B., Polonsky, M., and Hollick, M. (2005), "Measuring Expectations: Forecast vs. Ideal Expectations. Does it Really Matter?", *Journal of Retailing and Consumer Services*, Vol. 12, pp. 49-64.
- Howard, J. and Sheth, J. (1969), *The Theory of Buyer Behaviour*, New York, John Wiley & Sons.
- Ishikawa, K. (1985), *What is Total Quality Control?*, United States, Prentice Hall.
- Johnston, R. (1995), "The Determinants of Service Quality: Satisfiers and Dissatisfiers", *International Journal of Service Industry Management*, Vol. 6, pp. 53-71.
- Juran, J. and Gryna, F. (1991), *Juran, Controle de Qualidade*, Handbook, Vol. 1, São Paulo, Makron Books do Brasil Editora.
- Kotler, P., Armstrong, G., Saunders, J. e Wong, V. (1996), *Principles of Marketing*, London, The European Edition, Prentice Hall.
- Levitt, T. (1972), "Production-Line Approach to Service", *Harvard Business Review*, pp. 41-52.

- Liljander, V. (1999), "Customer Satisfaction with Complaint Handling Following a Dissatisfactory Experience with Car Repair", *European Advances in Consumer Research*, Vol. 4, Bernard Buboio, Tina Lowrey, L. J. Shrum and Marc Vanhuele (Eds), pp. 270-275.
- Maddox, R. (1981), "Two-Factor Theory and Consumer Satisfaction: Replication and Extension", *Journal of Consumer Research*, Vol. 8, pp. 97-102.
- Miles, M. and Huberman, A. (1994), *Qualitative Data Analysis: An Expanded Sourcebook*, 2nd Edition, Thousand Oaks, Sage Publications.
- Oakland, J. (1994), *Gerenciamento da Qualidade Total*, São Paulo, Edições Atlas.
- Oliver, R. and De Sarbo (1988), "Response Determinants in Satisfaction Judgements", *Journal of Consumer Research*, Vol. 14, pp. 495-507.
- Oliver, R. (1996), *Satisfaction: A Behavioural Perspective on the Consumer*, New York, McGraw-Hill.
- Parasuraman, A. Zeithaml, V., Berry L. (1985), "A Conceptual Model of Service Quality and its Implication for Future Research", *Journal of Marketing*, Vol. 49, pp. 41-50.
- _____ (1988), "SERVQUAL: A Multiple-Item Scale for Measuring Consumer Perceptions of Service Quality", *Journal of Retailing*, Vol. 64, pp. 12-40.
- Swan, J., and Combs, L. (1976), "Product Performance and Consumer Satisfaction: A New Concept", *Journal of Marketing*, Vol. 40, pp. 25-33.
- Spreng, R., MacKenzie, S. and Olshavsky, R. (1996), "A Reexamination of the Determinants of Consumer Satisfaction", *Journal of Marketing*, Vol. 60, pp.15-32.
- Tse, D. and Wilton, P. (1988), "Models of Consumer Satisfaction Formation: an Extension", *Journal of Marketing Research*, Vol. 15, pp. 204-212.
- Teas, R. (1993), "Expectations, Performance, Evaluation and Consumers` Perceptions of Quality", *Journal of Marketing*, Vol. 57, pp.18-34.
- Westbrook, R. (1987), "Product Consumption-based Affective Responses and Post Purchase Process", *Journal of Marketing Research*, Vol. 24, pp. 258-270.
- Westbrook, R. and Reilly, M. (1983), "Value-Percept Disparity: An Alternative to the Disconfirmation of Expectations Theory of Consumer Satisfaction", *Advances in Consumer Research*, Vol. 10, Richard P. Bagozzi and Alice M. Tybout, Eds. Ann Arbor, MI, Association for Consumer Research, pp. 256-61.
- Yin, R. (1994), *Case Study Research: Design and Methods*, 2nd Edition, United States, Sage Publications.