BANK SERVICE QUALITY PERCEPTIONS OF BUSINESS CUSTOMERS: PRIORITIES FOR BANKS IN RESOURCE ALLOCATIONS IN AN E-BANKING CONTEXT

David Wong[1]
School of Marketing, Curtin Business School
Curtin University of Technology

Nexhmi Rexha
School of Marketing, Curtin Business School
Curtin University of Technology

Editor:

Associate Professor Ian Phau
School of Marketing

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[1]**Corresponding author:**

David Wong
School of Marketing, Curtin Business School
Curtin University of Technology
GPO BOX U1987
Perth, WA 6845
Australia
Tel (+61 8) 9266 3289
Fax (+61 8) 266 3937
Email: David.wong@cbs.curtin.edu.au

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ABSTRACT

The onset of electronic commerce as a major tool of business has brought with it new methods of doing business and a redefinition of the relationship between an organisation and its customers. To deal with such a situation, organisations need to review the service quality expectations of their customers and how the performance of their services measure up to these expectations. This is particularly relevant in the banking sector, where the emergence of electronic banking brings with it a new avenue for banks to be more competitive through decreasing costs and broadening market reach. To realise these benefits, banks must be successful in providing high levels of service quality in order to be able to divert more of their customers to these low cost methods of banking. This research provides a review of how service quality perceptions have evolved in the banking sector amid the changes brought about by electronic banking. The SERVQUAL scale for measuring service quality that has been in use for 20 years is employed in this research. Factor analysis of the results reconfirms the robustness and continued usefulness of this scale, and the results from this research are compared to past research. It was found that large discrepancies exist between customer expectations and their perceived performance of banking services. Quadrant analysis was used to analyse these discrepancies across the five dimensions of service quality and produced specific recommendations on how banks should prioritise the allocation of their resources to maintain high perceived service quality.

INTRODUCTION

Electronic commerce (e-commerce) is fast becoming a very important technological advancement for businesses. From the implementation of electronic data interchange (EDI) to the use of the Internet for transactional purposes, it seems that this technological phenomenon will continue to evolve and change the way business is done. Many

industry sectors have experienced tremendous growth in recent years as a result of new business initiatives utilising these technologies.

The Forrester Report (Forrester Research 2000) has estimated conservative growth projections in e-commerce for various major industry sectors and found that industries that are information-oriented such as the banking services and securities trading sector are expected to experience the highest growths in e-commerce.

E-Commerce in the Banking Sector

The changes occurring in the banking sector, as part of a context of increasing deregulation and globalization have been a major stimulus for rationalization, consolidation, and an increasing focus on costs. One offspring of this has been the rapid development and use of various new and innovative technologies by banks in the form of electronic banking services (Or 1998). Evidence suggests, however, that the diffusion of these types of services to their customers is somewhat lagging behind the utilization rate by banks (DOCITA 1998, 1999).

The implementation of electronic banking (e-banking), such as Internet banking and the use of computer-based office banking software hold several obvious advantages for banks. It improves the bank's profit levels through the reduction of both variable and infrastructure costs, provides a source of differentiation and competitive advantage, provides global reach, adds another communication and feedback channel, increases customer satisfaction through the reduction of waiting times and thus improving service performance, or otherwise enabling the bank to more fully realise its sales potential through the achievement of higher sales volume (Schaggnit 1998; SBDC 1998a & 1998b; Hoffman & Novak 1995; Anthes 1994; Shneiderman 1992).

As can be appreciated, the advantages to banks are manifold, and have led many banks to undertake high levels of marketing effort in the bid to push more customers, in particular businesses, into implementing e-banking into their business processes.

Diversion of Bank Customers from Traditional Banking Channels to E-Banking Channels

In recent years, newspapers have been littered with reports about the strategic approach taken by banks regarding the use and marketing of e-banking. For example, The Australian Financial Review reports that improved service at lower cost is the key challenge for banks, and that they believe that new technology in banking channels will play a critical part in achieving this result. The Commonwealth Bank of Australia (CBA), for example, has already invested heavily in the bank's retail technology (Whyte 2003, The Australian Financial Review 10/04/2003). At the same time, in another article remarkably issued on the same day, The Mercury reports that CBA staff risk disciplinary action if they do not adhere to a set selling script with every customer. Staff must offer extra products to each customer, and these rules are policed by mystery shoppers, who pose as customers and assess the performance of staff. Staffs who receive a score of less than 95% in these assessments are placed on the bank's 'managing unacceptable performance' program, which may result in loss of bonuses or even their jobs (Denholm 2003, The Mercury 10/04/2003).

Considering the many cost advantages of e-banking to banks, and that optimal cost advantages will only be realised by diverting more of their customers from traditional banking channels to electronic banking channels, it is understandable then that banks are taking drastic actions to cross-sell these banking innovations to as many customers as possible and at every opportunity.

Significance of Reviewing Service Quality in the E-Banking Context

This current strategic approach undertaken by banks, however, may be seen as contrary to the views of many authors of relationship marketing, such as presented by McKenna (1992) who proposes that marketers need to devise strategies with the primary objective of sustaining and enhancing relationships with their customers over time (McKenna 1992). A pertinent question therefore, is what impact the adoption of e-banking by the customer has on sustaining and enhancing the bank-customer relationship. Indeed, evidence from exploratory interviews with business managers in this research has shown

that the procedures for e-banking in businesses have been somewhat haphazardly implemented in ways that do not fully realize its benefits to these businesses. Despite the efficiencies created by e-banking, many businesses are still keeping duplicative traditional records, and performing traditional banking tasks that result in less than full implementation of the technology. These haphazard approaches to e-banking by businesses beg the question whether the innovation will indeed provide the said benefits to businesses, and what impact it may have on the customer's perception of the bank's service quality.

Moreover, it has been shown that service quality affects satisfaction and that satisfaction in turn affects behavioural intentions (Gotlieb, Grewal & Brown 1994; Taylor & Baker 1994; Fornell 1992; Halstead & Page 1992; Cardozo 1965). Organisations that strive to continually increase service quality have shown to be more successful in retaining repeat customers as well as more successful in cross selling products and services to their customers (Rao & Kelkar 1997). Reviewing service quality perceptions is thus also an important key in understanding the take-up rate of e-banking technologies when they are being cross-sold by banks.

This research takes the first step of assessing the role of service quality in the e-banking context by providing a review of how service quality perceptions have evolved through the current and continuing barrage of change in banking technology and the corresponding changes in the nature of the relationship between banks and their customers.

THEORETICAL FRAMEWORK

Service quality is defined as a set of perceived judgements resulting from an evaluation process where customers compare their expectations with the service they perceive to have received (Gronroos 1984). Gronroos (1984) further suggests that service quality issues may be split into two facets – technical quality (what is done) and functional quality (how it is done). These two facets may be further interpreted to suggest that the

service must be *effective* (doing the right things) in satisfying the specific needs of the customer as well as executing the service *efficiently* (doing things right).

The importance of measuring consumer expectations is paramount especially in the context of banking and financial services where recent service developments, particularly with respect to the electronic delivery of these services, have resulted in a continuous increase in customer expectations and the consumer's subsequent demands as the quality of service improves (Rao & Kelkar 1997; Parasuraman, Zeithaml & Berry 1988). Any previous experience with the service, word-of-mouth, or advertising will have an influence on the expectations of the consumer.

Parasuraman, Zeithaml and Berry (1985) formulated a service quality model SERVQUAL that highlights the main requirements for delivering high service quality. These researchers found five dimensions of service quality. These are presented in order of their importance as follows (Berry & Parasuraman 1991):

1. *Reliability*: the ability to perform the promised service dependably and accurately.

2. *Responsiveness*: the willingness to help customers and to provide prompt service.

3. *Assurance*: the knowledge and courtesy of employees and their ability to convey trust and confidence.

4. *Empathy*: the provision of caring, individualised attention to customers.

5. *Tangibles*: the appearance of physical facilities, equipment, personnel, and communication materials.

Perceived service quality is thus measured from the differences in degree and direction between the perceptions of service performance and expectations for each of these dimensions (Parasuraman, Zeithaml & Berry 1988). This view has been strongly supported by other researchers such as Devlin and Dong (1994), and Boulding, Kalra and Staelin (1993), and will be the approach used in this research.

Service Quality and Satisfaction

Customer satisfaction is often seen as the long-term success factor to an organization's competitiveness (Hennig-Thurau & Alexander 1997). Customer satisfaction refers to the consumer's emotional evaluation of their experiences with the consumption or ownership of specific goods and services (Westbrook 1981). The literature on satisfaction is divided into two schools of thought – the process and outcome definitions of satisfaction. Outcome definitions of satisfaction can be viewed as a state of fulfilment that is connected to reinforcement and arousal. Several examples are given in the satisfaction-as-states framework developed by Oliver (1989). Literature on process definitions of satisfaction is more wide spread and generally more accepted in academic circles. The central theme of the process definition is the expectancy disconfirmation paradigm (Ruyter & Bloemer 1999). According to this paradigm, a consumer's feeling of satisfaction results from comparing a product or service's perceived performance in relation to his or her expectations. If the performance falls short of expectations, negative disconfirmation occurs, resulting in a feeling of dissatisfaction. If the performance exceeds the expectations, positive disconfirmation occurs, and the consumer is highly satisfied. If the performance just matches expectations, the consumer's expectations are confirmed, and the consumer is just satisfied.

Cumulative satisfaction is an overall evaluation based on the consumer's total set of consumption experiences with the product or service over time (Anderson, Fornell & Lehmann 1994). This set of experiences is multi-faceted and includes experiences related to various aspect of dealing with the organisation providing the product or service, as well as the experiences related to consuming these products or services (Czepiel, Rosenberg & Akerele 1974). Examples are given by Westbrook (1981) (retail store satisfaction) and Crosby and Stephens (1987) (satisfaction with life insurance companies).

It is undoubtedly the aim of many organizations to achieve high customer satisfaction. Highly satisfied consumers are found to be much less ready to switch as high satisfaction

creates an emotional bond with the brand, and not just a rational preference. The result is high customer loyalty.

Both service quality and satisfaction are constructs resulting from the comparison of expectations and performance. They are thus very strongly related, but as several authors have pointed out are not necessarily equivalent (Bolton & Drew 1991; Parasuraman, Zeithaml & Berry 1988). The difference between these two constructs, is that perceived service quality is a form of attitude and is a long run overall evaluation, where customer satisfaction is more of a transaction-specific measure (Chadee & Mattsson 1996; Cronin & Taylor 1992; Bolton & Drew 1991; Bitner 1990). Indeed, empirical research by Parasuraman, Zeithaml and Berry (1985) have found several examples where consumers satisfied with a service still did not think that it was of high quality. Oliver (1993) has also suggested that customers require experience with the product or service to determine how satisfied they are with it, while quality can be perceived without actual consumption experience.

Despite these differences, the link between service quality and satisfaction is an important one in this research. It has been shown that service quality affects satisfaction and that satisfaction in turn affects behavioural intentions (Gotlieb, Grewal & Brown 1994; Taylor & Baker 1994; Fornell 1992; Halstead & Page 1992; Cardozo 1965). Organisations that strive to continually increase service quality have shown to be more successful in retaining repeat customers as well as more successful in cross selling products and services to these customers (Rao & Kelkar 1997).

METHODOLOGY

Perceived service quality measured in this research will follow the process definition of satisfaction theory using the expectancy disconfirmation paradigm (Ruyter & Bloemer 1999), where a consumer's feeling of satisfaction results from comparing a product or service's perceived performance in relation to his or her expectations. The importance of measuring consumer expectations is paramount especially in the context of banking and

financial services where recent service developments, particularly with respect to the electronic delivery of these services, have resulted in a continuous increase in customer expectations and the consumer's subsequent demands as the quality of service improves (Parasuraman, Zeithaml & Berry 1988; Rao & Kelkar 1997). Any previous experience with the service, word-of-mouth, or advertising will have an influence on the expectations of the consumer.

Operationalisation of the service quality construct will be based on Parasuraman, Zeithaml and Berry's service quality model SERVQUAL (Parasuraman, Zeithaml & Berry 1985), and since Berry and Parasuraman's development of their service quality scale was specifically developed for the financial services industry (Berry & Parasuraman 1991), the same scales will be used in this research measuring the five dimensions of service quality; identified as Reliability, Responsiveness, Assurance, Empathy, and Tangibles. Perceived service quality in this research is thus to be measured from the differences in degree and direction between the perceptions of service performance and expectations for each of these dimensions (Parasuraman, Zeithaml & Berry 1988). Expectations and perceptions were measured on a 7-point scale from 0 (Strongly Disagree) to 6 (Strongly Agree). Of the 22 items in the scale, each assessing the different aspects of service quality, nine items were negative statements, which were subsequently recoded to form a set of unidirectional statements that can then be compared with each other based on their means.

Data Collection

An Australia-wide database of 2,500 business names and addresses was purchased from Dun and Bradstreet for use as a sampling frame for a mail survey. The use of a 4 stage pre-notification procedure yielded an overall response rate of 30.6%.

A broad range of businesses from various industry groups was surveyed. Table 1 shows the proportion of different types of business based on their main activity and annual turnover. The largest segment of the market is businesses with sales turnover between $1M and $3M, representing 36.5% of the total market. Service based businesses make up over half of this segment with 18.9% of the market.

Table 2 shows the distribution of business according to their ownership structure and annual turnover. Businesses that are family owned and controlled are by far the largest market segment, comprising 59.9% of the market. Of these family owned and controlled businesses, a large proportion are small businesses that have sales turnover of less than $3M; this group representing 44.2% of the overall market. Large businesses (sales turnover of between $5M to $10M) and corporations with sales turnover of greater than $10M are predominantly publicly or government owned, and collectively constitute 9.9% of the market.

Table 1:   Types of Businesses Surveyed based on their Main Activity
and Annual Turnover

Business: Main activity * Business: Annual turnover Crosstabulation

		Business: Annual turnover						
		Under 500K	500K - 1M	1M - 3M	3M - 5M	5M - 10M	10M +	Total
Business: Main activity	Retail	% within Business: Main activity	6.0%	9.6%	48.2%	8.4%	16.9%	10.9%	100.0%
		% of Total	.9%	1.4%	7.0%	1.2%	2.4%	1.6%	14.5%
	Service	% within Business: Main activity	19.0%	15.0%	33.6%	8.1%	11.5%	12.8%	100.0%
		% of Total	10.7%	8.4%	18.9%	4.5%	6.5%	7.2%	56.1%
	Manufacturing	% within Business: Main activity	15.5%	16.7%	36.3%	9.5%	8.9%	13.1%	100.0%
		% of Total	4.5%	4.9%	10.7%	2.8%	2.6%	3.8%	29.4%
Total		% within Business: Main activity	16.1%	14.7%	36.5%	8.6%	11.5%	12.6%	100.0%
		% of Total	16.1%	14.7%	36.5%	8.6%	11.5%	12.6%	100.0%

Table 2: Types of Businesses Surveyed based on their Ownership Structure and Annual Turnover

Business: Organizational catagory * Business: Annual turnover Crosstabulation

Business: Organizational catagory		Business: Annual turnover						Total
		Under 500K	500K - 1M	1M - 3M	3M - 5M	5M - 10M	10M +	
Family owned and controlled	% within Business: Organizational catagory	18.3%	16.6%	38.9%	10.4%	10.1%	5.6%	100.0%
	% of Total	11.0%	9.9%	23.3%	6.2%	6.1%	3.4%	59.9%
Unlisted public company	% within Business: Organizational catagory	8.8%	9.9%	40.7%	8.8%	18.7%	13.2%	100.0%
	% of Total	1.3%	1.5%	6.2%	1.3%	2.9%	2.0%	15.3%
Listed public company	% within Business: Organizational catagory	19.2%	11.5%	21.2%	7.7%	5.8%	34.6%	100.0%
	% of Total	1.7%	1.0%	1.9%	.7%	.5%	3.0%	8.8%
Government/semi gov. enterprise	% within Business: Organizational catagory			18.2%		36.4%	45.5%	100.0%
	% of Total			.3%		.7%	.8%	1.9%
Other	% within Business: Organizational catagory	11.9%	16.7%	32.1%	4.8%	9.5%	25.0%	100.0%
	% of Total	1.7%	2.4%	4.6%	.7%	1.3%	3.5%	14.2%
Total	% within Business: Organizational catagory	15.7%	14.8%	36.3%	8.9%	11.5%	12.8%	100.0%
	% of Total	15.7%	14.8%	36.3%	8.9%	11.5%	12.8%	100.0%

RESULTS AND DISCUSSION

Factor analysis was undertaken on the 22 items in the service quality scale to determine the main dimensions of service quality in this research, which can then be used to compare against Berry and Parasuraman's (1991) dimensions found previously in their research.

The final statistics and the rotated factor matrix (after subjecting to Varimax rotation) of the 22 items yielded five factors, which are summarized in Table 3. Only one item ("Adequate support for employees") was loaded to a different dimension than was originally found by Berry and Parasuraman (1991). In this research, the said item was shown to belong to the Reliability dimension with a loading of 0.450. However, it was decided that for the purposes of comparing these results to that of past research, to load this item to the Assurance dimension as per Berry and Parasuraman's previous findings. A total of 66.7% of the variances is captured collectively by the five factors.

Cronbach's Alpha was used to test the extent to which the various items purporting to measure the underlying dimension are reliable, and thus may be added together to give an overall score for each dimension of service quality. The item ("Adequate support for employees") that was reallocated from the Reliability dimension to the Assurance

dimension as described above, still brought about a very high alpha for the Assurance dimension – α=0.824 and α=0.782 for the expectations and perceptions scales respectively, thus confirming its high reliability in belonging to this dimension.

The mean scores for each dimension are also indicated in Table 3 as well as illustrated graphically in Figure 1. The data shows how businesses rated what they expected and what they perceived in terms of the five service dimensions. Reliability and Assurance were the top two dimensions businesses expected from the bank, while banks were seen to be performing best in terms of Tangibles and Assurance.

Table 3: Factor Analysis: Expectations and Perceptions of Service Quality in Banking Services
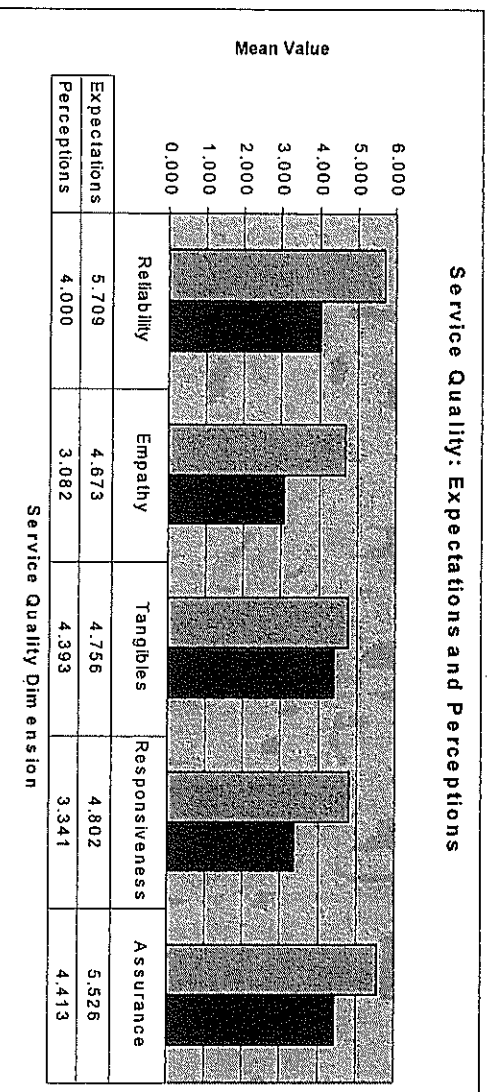
Rotated Component Matrix (Rsq=66.7%)			a. Expectations		b. Perceptions	
Factor	Items	Loadings	Alpha	Mean	Alpha	Mean
Reliability	Keeping timely promises	0.853	0.767	5.709	0.890	4.000
	Keeping promises	0.794				
	Dependable	0.773				
	Sympathetic and reassuring	0.657				
	Accurate records	0.558				
Empathy	Individual attention	0.783	0.743	4.673	0.860	3.082
	Employees knowledge of cust. needs	0.779				
	Customer's best interest at heart	0.769				
	Personal attention	0.758				
	Convenient operating hours	0.483				
Tangibles	Physical facilities appealing	0.851	0.805	4.756	0.811	4.393
	Physical facilities appearance	0.813				
	Employees well dressed and neat	0.729				
	Up-to-date equipment	0.630				
Responsiveness	Employees willing to help	0.806	0.715	4.802	0.799	3.341
	Prompt service	0.749				
	Prompt response to requests	0.724				
	Timing of services	0.399				
Assurance	Employees trustworthy	0.848	0.824	5.526	0.782	4.413
	Feel safe in transactions	0.814				
	Employees polite	0.606				
	Adequate support for employees#	0.251#				

Extraction Method: Principal Component Analysis.   Rotation Method: Varimax with Kaiser Normalization.
a Rotation converged in 6 iterations.
Originally belonging to Reliability with a loading of 0.450 but decided to load to Assurance as per Parasuraman et al (1991) due to high alp

Figure 1: Service Quality: Expectations and Perceptions

Service Quality: Expectations and Perceptions

Mean Value

	Reliability	Empathy	Tangibles	Responsiveness	Assurance
Expectations	5.709	4.673	4.756	4.802	5.526
Perceptions	4.000	3.082	4.393	3.341	4.413

Service Quality Dimension

Comparing Service Quality Dimensions with Past Research

Comparing the results from the service quality dimensions from this research to that of past research, namely that of Berry and Parasuraman (1991) is useful in gaining insights into how the relative importance of these dimensions to customers have changed through time.

Table 4 shows how the expectation ranking of the five service quality dimensions is compared to that of Berry and Parasuraman's original research. It is seen that time has brought little change with regards to the relative importance of these service quality dimensions to the customer. Reliability remains to be the top most important aspect of service quality for the customer. Responsiveness has moved down to 3rd place while Assurance has moved up to 2nd place in terms of importance rank. Similarly, Empathy has moved down a rank, while Tangibles has moved up a rank. In each of these shifts, the change is only by one rank.

Comparing the perceived performance ranking with the expectations ranking of this research, however, shows much larger discrepancies. For the top two expectations, only Assurance is perceived to be doing well, while in the bottom two expectations, Tangibles seem to be overrated.

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Table 4: Comparing Service Quality Dimensions with Past Research (By Rank)

Service Quality Dimension	Berry & Parasuraman (1991) Importance Rank	This Research	
		Expectations Rank	Perceived Perf. Rank
Reliability	1	1	3
Responsiveness	2	3	4
Assurance	3	2	1
Empathy	4	5	5
Tangibles	5	4	2

Comparing the differences in service quality expectations and perceived performances merely by rank, however, is inadequate to highlight the true size of these service quality gaps (or the size of the expectation – perception discrepancy). Other tools such as quadrant analysis will be more useful to examine the size of these service quality gaps, which will have implications on how banks are fairing on each dimension, and hence corresponding implications on the bank's resource allocation strategy to improve its performance on these dimensions. Quadrant analysis will be performed on these service quality dimensions in the next section.

Quadrant Analysis of Service Quality Dimensions

Quadrant analysis can be seen as a variation of cross tabulation where responses to two rating scale variables are plotted graphically. This is shown for the service quality dimensions in Figure 2.

Figure 2: Quadrant Analysis of Service Quality Dimensions

Quadrant Analysis of Service Quality Dimensions
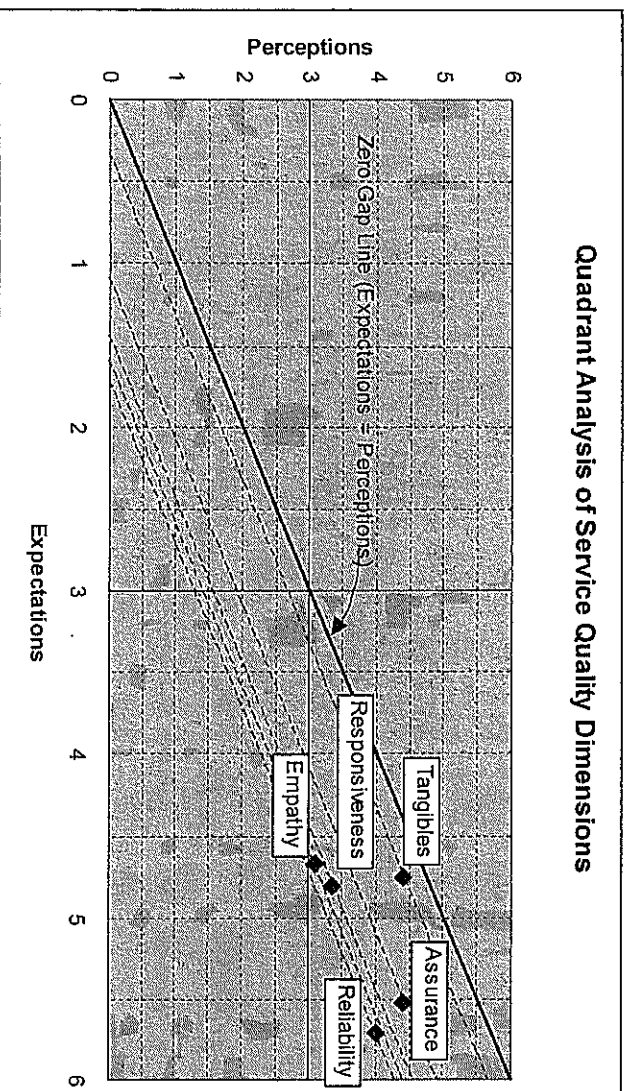
Here, expectations are plotted along the horizontal axis, while perceptions are plotted along the vertical axis. The Zero Gap Line is shown passing through the origin (0,0), and each of the points where expectations equal perceptions. This line is where the service quality gap is 0, indicating that customers rated their expectations similarly to their perceptions of the bank's performance and are hence satisfied with the service. Points above the zero gap line is where perceptions exceed expectations indicating very satisfied or delighted customers, while points below the line is where perceptions fall short of expectations indicating that the customer is dissatisfied with the service.

In the case at hand, it is shown that all five service quality dimensions fall within the upper right hand quadrant in the matrix. More detailed examination, however, indicate that for all dimensions, perceptions fall short of expectations (all points are below the zero gap line). It has become imperative then not so much to judge within which quadrant the points lie or whether the point is above or below the zero gap line, but rather more importantly how far the point is below the zero gap line.

Results from this analysis then bring about an indication of the service quality gaps that exist for each of these five dimensions. These five dimensions are listed again in order of the size of their corresponding service quality gaps from smallest (least dissatisfied) to biggest (most dissatisfied).

1. Tangibles   (Smallest Service Quality Gap)

2. Assurance   v

3. Responsiveness   v

4. Empathy   v

5. Reliability   (Biggest Service Quality Gap)

This shows that banks are performing relatively well in terms of their appearances (tangibles), and in building trust and confidence with their customers (assurance), while relatively poorer in providing prompt service (responsiveness)), individualised attention (empathy), and dependability and accuracy (reliability).

Measuring the size of the service quality gaps is important in determining how satisfied or dissatisfied customers are with the bank's service. The question now arises on the bank's resource allocation in dealing with these levels of satisfaction or dissatisfaction - which of these gaps need to be given attention first, and how much attention.

The simple notion is to prioritise resources according to the size of each service quality gap. That is, that the dimensions with the largest service quality gaps should gain the most attention of resources in order to close the gap, while the dimensions with the smallest gaps should be given a lower priority and allocation of resources.

This however is a fallacy as it neglects to analyse the most important aspect of service quality – how important that gap is to the customer. It may be that a large gap exists for a service dimension, but if the overall magnitude of the customer's expectations is relatively low, that dimension should not receive more attention than another dimension

with the same gap but has a higher customer expectation. The latter case should be dealt with more fervently by the bank than the former case.

To account for the differences in magnitude of expectations for the five dimensions of service quality, it is necessary to first calculate the mean ratings for expectations and perceptions across the five service quality dimensions and replot the quadrant analysis matrix with these means as the dividing lines between quadrants in the matrix.

The resulting quadrant analysis shown in Figure 3 now shows each service quality dimension plotted using its difference from the mean expectations and perceptions across all five dimensions. Points in quadrant one (Q1) would indicate a higher than average expectation of the service and a lower than average perception of the same service. Points in Q1 should receive the most attention in closing or minimising the service quality gap. The second priority would be the points that lie within quadrant two (Q2). Points in this quadrant have a higher than average expectation, but also have a higher than average perception. These points should receive second priority in resource allocations needed to further minimise or close the gap and to maintain or improve service quality. Quadrant three (Q3) indicates a lower than average expectation with also a lower than average perception, while quadrant four (Q4) indicate a lower than average expectation but higher than average perception. They should receive third and fourth priorities respectively.

In this analysis, we note that there are no points within Q1, but two points within Q2. These two dimensions of service quality – namely Reliability and Assurance, should receive the highest priority and most attention from the banks. Despite Assurance having a relatively small service quality gap (as found in the first analysis from Figure 2), the high expectation by customers for the bank to perform well in this dimension makes it an important gap to close. Reliability of the banking service also holds a high expectation from customers, and its relatively larger service quality gap (as found in the first analysis from Figure 2) further accentuates its needed attention.

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Figure 3: Quadrant Analysis of Service Quality Dimensions
(Using Difference from Mean)

**Quadrant Analysis of Service Quality Dimensions
(Using Difference from Mean)**
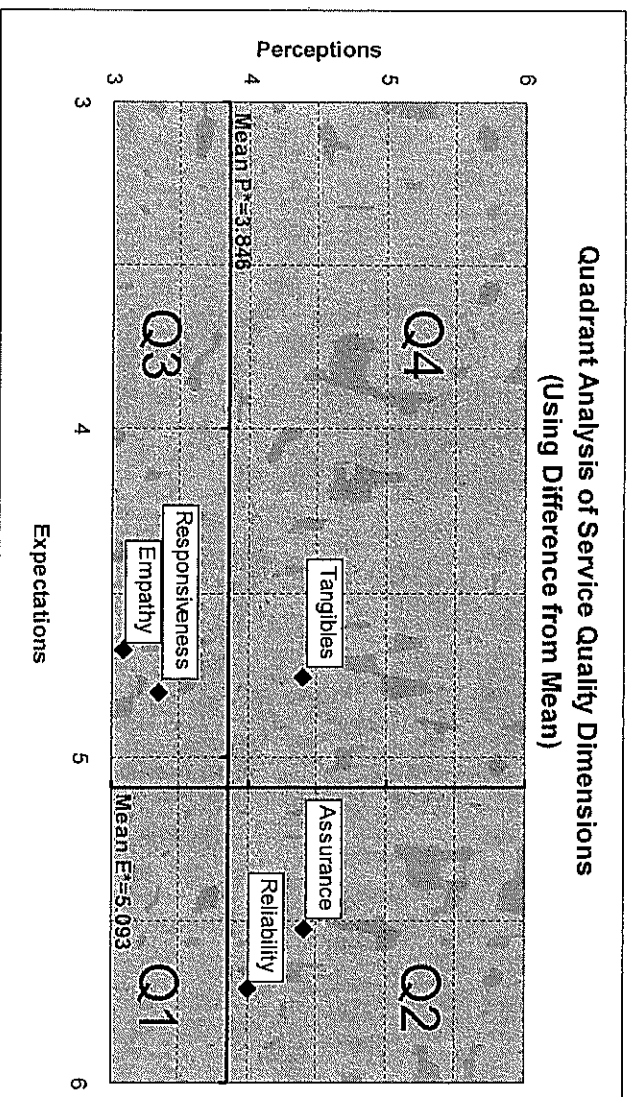
Responsiveness and empathy are the next dimensions to be dealt with that fall in Q3. These dimensions should receive lower priority in resource allocation than the dimensions in Q2 described earlier. They have moderately large service quality gaps, but lower than average expectations.

Tangibles should receive the lowest priority in resource allocation as it falls within Q4, where despite still having a small service quality gap, this dimension is characterised by lower than average customer expectations, while being perceived as performing higher than average.

It is important for banks to keep these priorities in mind both at the strategic level in the allocation of scarce resources, as well as at the tactical level in devising marketing programs for products such as e-banking. The challenge is for banks to allocate more resources and effort to close the large service quality gaps in Reliability and Assurance so as to maintain high levels of customer satisfaction. High customer satisfaction will in turn act to increase the effectiveness of marketing effort to increase the adoption of e-commerce innovations like e-banking; thus realising the cost advantages for the bank.

CONCLUSION

The results of this study have provided a review of how service quality perceptions have evolved amid the challenges faced by the banking sector brought about by the advancement of e-commerce. As discussed, little has changed with regard to the various dimensions of service quality and their importance to the customer.

The results show, however, that the performance of banking services is misaligned to customer expectations. This misalignment is the source of dissatisfaction among customers. The quadrant analysis performed proposed that banks need to prioritise their resources to focus on key service quality dimensions critical to the customer – more specifically, banks should focus on improving their service performance on the Reliability and Assurance dimensions of service quality as their first priority, Responsiveness and Empathy as their second priority, and lastly Tangibles as their third priority.

This research has focussed on providing a more current assessment of service quality in an e-commerce environment. It therefore provides a first step toward investigating other constructs associated with an organisation's relationship with its customers and how e-commerce products may be more successfully marketed to them. In the banking sector specifically, the motivations behind e-banking adoption by customers and its subsequent impact on the bank-customer relationship need to be further examined. Further research should look to examine the exact role service quality plays in the marketing of e-banking. The extent to which service quality is a necessary antecedent to successful cross-selling of e-banking solutions to customers or a consequence to be influenced by e-banking adoption will need to be determined.

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