

RE-EXAMINING TRADITIONAL SERVICE QUALITY IN AN E-BANKING ERA

ABSTRACT

Purpose: The paper re-examines the role of traditional service quality in an e-banking environment by providing a review of (a) how traditional service quality perceptions have evolved through the current and continuing stream of change in banking technology and (b) the corresponding changes in the nature of how banks interact with their customers.

Design/methodology/approach: Data were collected from a mail survey sent out to a commercially purchased mailing list of 2,500 business names and addresses. The overall usable response rate was 30.6%. Quadrant analysis was performed on the service quality dimensions from the SERVQUAL scale.

Findings: While the importance ranking of the five SERVQUAL dimensions have not changed dramatically over the years, large discrepancies were found between customer expectations and their perceived performance of traditional banking services.

Practical implications: Quadrant analysis produced specific recommendations on how banks should prioritise the allocation of their resources to maintain high perceived service quality in their human interactions.

Originality/value: This is the first study which revisits and re-examines traditional service quality in the e-banking era. It highlights how high levels of traditional service quality may lead to increased customer trust and thus more successful cross-selling of e-banking products to customers.

Keywords: Service Quality, Interactive Marketing, Financial Services, e-Banking, Electronic Commerce, Business Banking.

Paper Type: Research paper.

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INTRODUCTION

Electronic commerce (e-commerce) has become a very important technological advancement for businesses in changing business practices (Brodie *et al.*, 2007; (Gonzalez *et al.*, 2008; Lichtenstein and Williamson, 2006). This has experienced tremendous growth in recent years as a result of new business initiatives utilising these technologies (Barwise and Farley, 2005). In particular, industries that are information-oriented such as the banking services and securities trading sector are expected to experience the highest growths in e-commerce (Ibrahim *et al.* 2006; Hughes, 2002). Inevitably, this phenomenon has sparked a lot of attention in the academic literature lately (such as Gan *et al.*, 2006; Pikkarainen *et al.*, 2006; Shamdasani *et al.*, 2008).

Undoubtedly, electronic banking (e-banking) has experienced explosive growth and has transformed traditional practices in banking (Barwise and Farley, 2005; Gonzalez *et al.*, 2008; Lichtenstein and Williamson, 2006). Brodie *et al.* (2007) speculated that these would lead to a massive shift in marketing practices leading to superior business performance. In fact, it has become the main means for banks to market and sell their products and services (Amato-McCoy, 2005) and is perceived to be a necessity in order to stay profitable and successful (Gan *et al.*, 2006). The changes occurring in the banking sector can be attributed to increasing deregulation and globalization, the major stimulus for rationalization, consolidation, and an increasing focus on costs (Ibrahim *et al.*, 2006; Hernandez and Mazzon, 2007). 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 (e.g. Pikkarainen *et al.*, 2006; Orr, 1998). The implementation of 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 (Lichtenstein and Williamson, 2006; Fox, 2005; Hernandez and Mazzon, 2007; Pikkarainen *et al.*, 2006; Shamdasani *et al.*, 2008; Schaggnit, 1998; Schneiderman, 1992).

As can be appreciated, the advantages to banks are manifold. These 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. 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. Others scholars such as Roth and Van der Velde (1989) suggest that the role of human interactions within the bank branch will be even more critical in the future, despite the increasing popularity and acceptance of new banking technologies. Tyler and Stanley (2001) have reiterated that human interaction between the bank manager and the corporate financial officer to be of prime importance. O'Donnell *et al.* (2002) echoed this finding that business banking customers generally prefer personalised human interactions with their bank as a means of communication, and that this is especially pronounced for smaller businesses. Interestingly, 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 and continued dependency on human interactions. These problems in the adoption of electronic services are not uncommon, and have also been reported in related industries such as in securities brokerage services (Yang and Fang, 2004). More importantly, Howcroft and Durkin (2000) suggest that such interaction preferences on the part of both the bank and the customer are important considerations as they will ultimately have a significant impact on the perceived quality of the relationship by both parties.

These issues encountered in electronic service delivery have thus prompted a proliferation of research into how service quality may be measured and managed for electronic service deliveries (such as Parasuraman *et al.*, 1991, 2005, Zeithaml *et al.* 2000, 2001, 2002; Yang and Jun, 2002; Bauer *et al.*, 2005; Ibrahim *et al.*, 2006; Shamdasani *et al.*, 2008). Research by Patricio *et al.* (2003) goes one step further to measure service quality of various banking services for different delivery channels, including both electronic and traditional channels. They have found that perceived service quality with one delivery channel has an impact on how another channel is perceived. Similarly, Burke (2002) suggests that marketers need to understand the value consumers place on technology as part of the overall interaction process, and stress that new interactions brought about by the advancement of technology are not separate, but rather act to enhance the overall shopping experience. Moreover, Fassnacht and Köse (2007) found that high electronic service quality in Web-based services had an important role in building overall customer trust for the service provider. Indeed, it seems that e-banking and traditional banking, though very different in their bases of customer interaction, are inseparable facets of the banking system, and should be seen as complimentary rather than substitutable ways of banking. It follows then that the customer's experiences with e-banking may have an influence on changing their expectations and perceptions of traditional banking services.

Significance and Objectives of this Research

Based on the preceding discussion, a number of pertinent questions have emerged and have been reiterated by many scholars. First, what impact the adoption of e-banking by the customer has on sustaining and enhancing the bank-customer relationship (e.g. Reibstein, 2002)? Second, what impact does this new e-banking environment, brought about by the increasing popularity of e-banking, have on the customer's perception of traditional bank service quality (e.g. Pikkarainen *et al.*, 2006)? These are gaps in the literature that have not been adequately looked at and should be revisited. Thus the over-arching objective of this paper is to re-examine the role of traditional service quality in an e-banking environment by providing a review of (a) how traditional service quality perceptions have evolved through the current and continuing stream of

change in banking technology and (b) the corresponding changes in the nature of how banks interact with their customers.

The paper is organised as follows. First, the theories and relevant literature in service quality and customer satisfaction are reviewed. The methodology and analysis and discussion of results are next presented. The paper concludes with the implications for both marketing theory and business practices and directions for future research.

THEORY AND RELEVANT LITERATURE

Service Quality and SERVQUAL

There are numerous models of service quality described in the literature. Grönroos (1984) pioneered this concept and defines service quality as a set of perceived judgements resulting from an evaluation process where customers compare their expectations with the service they perceive to have received. He suggests that it 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). Parasuraman *et al.* (1985) introduced a gap-model that focused on gaps in the perceptions of consumers. Both these models stressed the importance of expectation versus perception in service encounters. Cronin and Taylor (1992) introduced a service quality model based only on perceptions and not expectations as in the previous models. There are many other research describing models with varying degrees of difference to these original models, some of which are reviewed by Seth *et al.* (2005).

The importance of measuring consumer expectations is paramount especially in the context of banking and financial services. 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 and Kelkar, 1997; Parasuraman *et al.*, 1988). Any

previous experience with traditional or electronic services, word-of-mouth, or advertising will have an influence on the expectations of the consumer.

One such model that accounts for both expectations and perceived performance is the SERVQUAL model formulated by Parasuraman *et al.* (1985) 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: *Reliability* - the ability to perform the promised service dependably and accurately, *Responsiveness* - the willingness to help customers and to provide prompt service, *Assurance* - the knowledge and courtesy of employees and their ability to convey trust and confidence, *Empathy* - the provision of caring, individualised attention to customers, and *Tangibles* - the appearance of physical facilities, equipment, personnel, and communication materials (Berry and Parasuraman, 1991). 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 *et al.*, 1988).

This model is the most widely accepted and used measurement (Gonzalez *et al.*, 2008) and has been tested in a wide variety of service industries for its validity and robustness. Many researchers have employed near identical models and have emerged with similar dimensions (such as Saleh and Ryan, 1992; Gagliano and Hatchcote, 1994; Dabholkar *et al.*, 1996; Devlin and Dong, 1994 and Boulding *et al.*, 1993).

Customer Satisfaction and Expectancy Disconfirmation Paradigm

Customer satisfaction is often seen as the long-term success factor to an organization's competitiveness (Hennig-Thurau and Alexander, 1997). 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 and 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 *et al.*, 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. 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.

Service Quality and Satisfaction

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 and Drew, 1991; Parasuraman *et al.*, 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 and Mattsson, 1996; Cronin and Taylor, 1992; Bolton and Drew, 1991; Bitner, 1990). Indeed, empirical research by Parasuraman *et al.* (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. Mattsson (1992) found that service quality is the outcome of the satisfaction process; Spreng and Mackoy (1996) connect the constructs of perceived service quality and consumer satisfaction derived from expectations, perceived performance and desires. Dabholkar *et al.* (2000) describe a broader conceptual framework supported by the antecedents of service quality and the mediators of customer satisfaction. In other research, it has been shown that service quality affects satisfaction and that satisfaction in turn affects behavioural intentions (Gotlieb *et al.*, 1994; Taylor and Baker, 1994; Fornell, 1992; Halstead and Page, 1992). 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 and Kelkar, 1997). Reibstein (2002) argues that firms will only be profitable if these customers are retained and in order to do that, firms must attain high levels of customer satisfaction.

More specifically, Fullerton (2005) tested the relationships between service quality, commitment, and switching and advocacy intentions. The results show that commitment served as a partial mediator of the service quality-loyalty relationship. Tam and Wong (2001) has also examined similar constructs and shown that trust and satisfaction built up through human interaction through the salesperson's relationship orientation significantly influenced the success of future product adoption by customers. This evidence from traditional service settings show that service quality is a major driver of customer satisfaction, trust, and loyalty, which ultimately lead to increased sales opportunities and profitability. In the context of this research, high perceived service quality with traditional bank services will enable more successful cross-selling of e-banking products to customers through a relationship of trust and commitment.

METHODOLOGY

Measures

Operationalisation of the service quality construct was based on Parasuraman *et al.*'s service quality model SERVQUAL (Parasuraman *et al.*, 1985). Since this scale has been specifically developed for and tested in the financial services industry (Berry and 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 *et al.*, 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. These were subsequently recoded to form a set of unidirectional statements that can then be compared with each other based on their means.

Using the SERVQUAL scale without any alterations will allow a direct examination of how service quality perceptions have evolved in the 17 years that have passed between the aforementioned research and this research. This enabled direct comparisons to be made between the findings discovered by Berry and Parasuraman (1991) and the data collected in this research.

Survey Instrument

The survey instrument used in this research was a self-administered mail questionnaire that included two sections measuring expectations and perceived performance from the SERVQUAL scale, and a variety of personal and business demographic measures that provided information to establish categories for analysis.

Data Collection

An Australia-wide database of 2,500 business names and addresses was purchased from a professional source for use as a sampling frame for the mail survey. The data collection procedure followed the recommendations provided by Dillman's work on conducting successful mail surveys (Dillman, 1978, 2000). This included the use of a four stage pre-notification procedure suggested by Dillman (2000), and involved the use of personalised cover letters to respondents, and by making prior contact to notify the respondent of the pending arrival of the questionnaire in order to substantiate its authenticity and increase respondent cooperation. A self addressed pre-paid envelope accompanied each questionnaire.

Of the 2,500 sampling elements, 114 addresses were deemed void, 25 businesses responded to request removal of their details from the database, and 706 businesses responded within the 30 day cut-off period for valid questionnaires to be returned. This represented an overall response rate of 30.6%.

RESULTS

Sample

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 AUD\$1M and AUD\$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 AUD\$3M; this group representing 44.2% of the overall market. Large businesses (sales turnover of between AUD\$5M to AUD\$10M) and corporations with

sales turnover of greater than AUD\$10M are predominantly publicly or government owned, and collectively constitute 9.9% of the market.

- **Insert Table 1 here** -

- **Insert Table 2 here** -

Factor Analysis

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 (KMO=0.910, Barlett's Test of Sphericity=0.000). 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 – $\alpha=0.824$ and $\alpha=0.782$ 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.

- **Insert Table 3 here** -

- **Insert Figure 1 here** -

ANALYSIS AND DISCUSSION

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, and more specifically in the new era of e-banking.

Table 4 shows how the expectation ranking of the five service quality dimensions is compared to that of Berry and Parasuraman's (1991) 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.

- Insert Table 4 here -

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 was performed on these service quality dimensions adopting a similar approach to Joseph *et al.*'s (2005) work on banking technology.

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.

- Insert Figure 2 here -

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 are where perceptions exceed expectations indicating very satisfied or delighted customers, while points below the line are 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.

- Insert Figure 3 here -

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.

IMPLICATIONS AND CONCLUDING COMMENTS

The results of this study have provided a re-examination of how traditional service quality perceptions have evolved amid the challenges faced by the banking sector brought about by the advancement of e-commerce.

Little has changed with regard to the various dimensions of service quality and their importance to the customer. These findings seem to point to the apparent stability of the revealed factor structure with regard to the validity and robustness of the SERVQUAL measure (similar findings to Ibrahim *et al.*, 2006). This is particularly important noting the concern about the multi-dimensionality and reliability of the SERVQUAL scale (e.g. Gonzalez *et al.*, 2008). The SERVQUAL scale has withstood the course of time and will remain a popular measure in consonance with Gonzalez *et al.* (2008).

Managerial Implications

This research has shown that the shift in expectation rankings is minimal and is expected, given the continued importance of human interactions in bank-customer relationships in the new e-banking era. Despite the increasing popularity and acceptance of new banking technologies and the increasing move to an e-banking landscape, these findings continue to support the views of many past scholars (such as Yang and Fang, 2004; O'Donnell *et al.*, 2002; Tyler and Stanley, 2001; Roth and Van der Velde, 1989) that have found that customers, in particular businesses, still have a high preference for human interactions when dealing with their bank. This is an exceedingly valuable proposition in this e-banking era where banks are continuing to erroneously cut costs through the reduction of service staff levels and the streamlining of branch operations.

The comparisons of expectations and perceived performance ratings appeared to have more than modest differences. While the raw comparisons alone may not be statistically robust, they raise the concern for both practitioners and academics alike. These findings reflect Rao and Kelkar (1997) contention that the electronic delivery of such services, have resulted in a continuous increase in customer expectations and the consumer's subsequent demands as the quality of service improves.

The use of the quadrant analysis served to add more reliability to the discrepancy and the results show that the performance of traditional banking services is misaligned to the current set of customer expectations. This misalignment is the source of dissatisfaction among customers. As stated in Reibstein (2002), e-banking will only be successful if banks can retain existing customers. This study has applied the tools needed to understand and identify the dimensions, identified by customers as determinants of satisfaction and more importantly, allow banks to optimise the use of sometimes scarce resources available to them. As such, it is proposed that banks need to prioritise their resources to focus on key service quality dimensions critical to the customer as well as at the tactical level in devising marketing programs for products such as e-banking. More specifically, banks should focus on improving their service performance on the Reliability and Assurance dimensions of service quality as their

first priority. This supports Fassnacht and Köse (2007) study that high electronic service quality in Web-based services had an important role in building overall customer trust for the service provider. The dimensions of Responsiveness and Empathy should be served as the second priority, and lastly Tangibles as their third priority. 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 more fully realising the cost advantages for the bank, an issue that has also been highlighted by other researchers (Hernandez and Mazzon, 2007; Ibrahim *et al.*, 2006).

In summary, this research has focussed on providing a more current examination of the service quality of traditional banking services in an environment where customers are now presented with greater choice on how they choose to interact with their bank. Burke (2002), in stressing that new interactions brought about by the advancement of technology are not separate, but rather act to enhance the overall interaction experience, called for further research to better understand the value consumers place on these different ways of interacting with service providers. This research has answered that call by confirming the value of human interactions. It therefore provides a first step toward investigating other constructs associated with a bank's relationship with its customers and how e-banking products may be more successfully marketed to them. Indeed, it seems that e-banking and traditional banking, though very different in their bases of customer interaction, are inseparable facets of the banking system, and should be seen as complimentary rather than substitutable ways of banking.

Directions for Future Research

The findings of this study are limited to the Australian context where the Australian internet maturity is solid (Lichtenstein and Williamson, 2006). It should be replicated in other countries especially those with different levels of development and proliferation of Internet infrastructure, or where the adoption of e-banking has not reached critical mass for various reasons. For example, an emerging economy versus a fully industrialised one may have differing customer expectations of service quality (Pikkarainen *et al.*, 2006; Hernandez and Mazzon, 2007). Further research should

also look to examine how different levels of traditional service quality influence the rate of e-banking adoption by the customer. The extent to which high traditional service quality is a necessary antecedent to successful cross-selling of e-banking solutions to customers, and the mediating role of trust and commitment will need to be further investigated. Other questions that need to be answered include how banks should respond to the aging population and how other demographic variables influence e-banking usage behaviour and practices? How will these issues affect the perceived quality of traditional bank services and other forms of bank-customer interaction options like e-banking?

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

Business: Main activity * Business: Annual turnover Crosstabulation

			Business: Annual turnover						Total
			Under 500K	500K - 1M	1M - 3M	3M - 5M	5M - 10M	10M +	
Business: Retail	% within Business:	Main activity	6.0%	9.6%	48.2%	8.4%	16.9%	10.8%	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 category * Business: Annual turnover Crosstabulation									
			Business: Annual turnover						
			Under 500K	500K - 1M	1M - 3M	3M - 5M	5M - 10M	10M +	Total
Business: Organizational category	Family owned and controlled	% within Business: Organizational category	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 category	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 category	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 category			18.2%		36.4%	45.5%	100.0%
		% of Total			.3%		.7%	.8%	1.9%
	Other	% within Business: Organizational category	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 category	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%

Table 3: Factor Analysis: Expectations and Perceptions of Service Quality of Traditional 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 alpha

Figure 1: Service Quality: Expectations and Perceptions

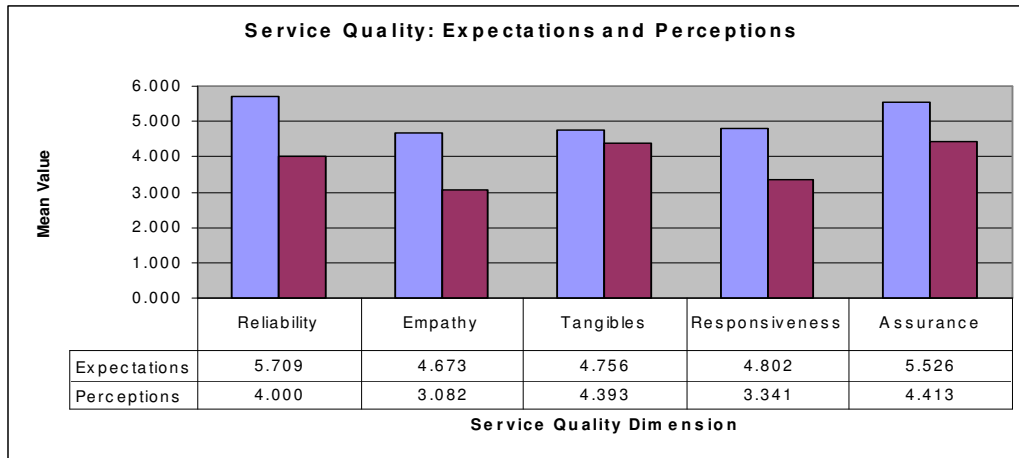
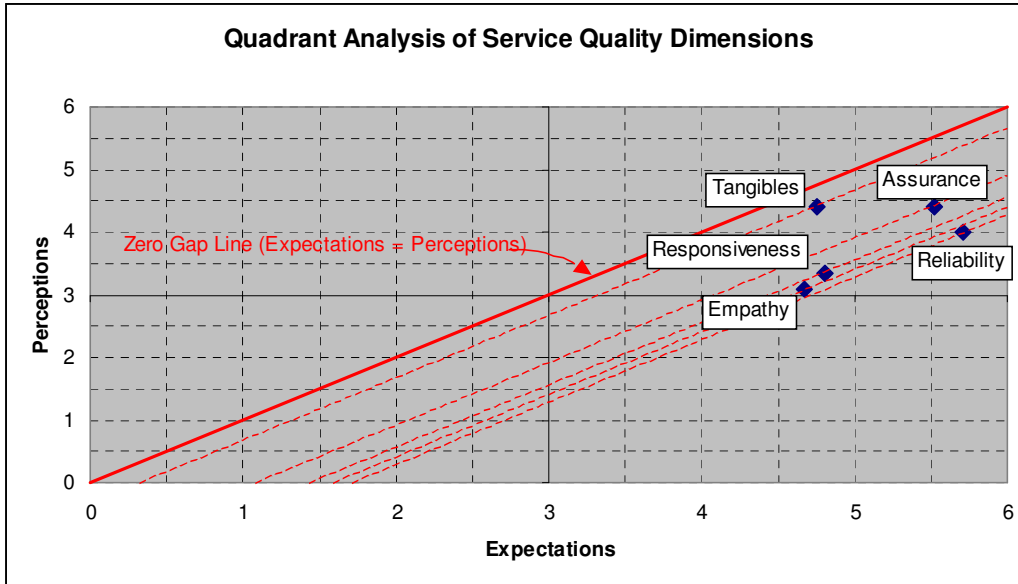


Table 4: Comparing Service Quality Dimensions with Past Research (By Rank)

	Berry and Parasuraman (1991)	This Research	
Service Quality Dimension	Importance Rank	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

Figure 2: Quadrant Analysis of Service Quality Dimensions



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

