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How bank branches affect customer service quality perceptions

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Abstract

The Australian banking industry has changed significantly with the introduction of electronic banking technology. This has led to a situation where facilities such as ATM machines and Internet Banking have become increasingly important in the service delivery process. Traditionally, there has been relatively little research into the role facilities play in service satisfaction. There is also little literature about how customers interact with service facilities. This has left banks grappling with facility design and planning issues. This article examines how Australian bank customers interact with local banking facilities by investigating five aspects of the service facility: Access, Atmospherics, Waiting Time, Technology, and Security. Findings suggest that facilities have a significant impact on customer satisfaction levels. Convenient and easy access, security, and a comfortable level of technology were identified by customers as the most important factors influencing their satisfaction levels.

Introduction

Until recently, Australian banking has relied on an extensive network of branches to service customers. Starting in the 1970's, deregulation has gradually changed the way banks do business (Carew, 1991; Harper, 1985). In response to industry trends, Australian banks have streamlined front-line service procedures with the aid of technology (Maitland, 1986), this has resulted in widespread branch closures that has, and still results in massive public discontent (Ferrers, 1998).

Traditionally, marketing literature has defined a service encounter as the period of time when a customer interacts directly with the service firm (Shostack, 1985). A large proportion of service literature concentrates on person-to-person relationships, focusing on the encounter between service personnel and the customer. There has been little literature about the interaction of the customer with the service facility, especially facilities where technology has largely replaced human contact.

This paper aims to determine the importance of Accessibility, Atmospherics, Waiting Time, Technology level and Security from a customer's viewpoint. It is arguable that facilities are the simplest and most cost effective area of a service business to manage and change. In a facility driven business like banking, the service setting should serve an important role in creating and maintaining customer perceptions of service quality and satisfaction.

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The changing role of banking

Modern bank facilities include the traditional bank-branch (counter transaction facilities), Automated Teller Machines (ATM), Internet and telephone banking. Although banks have closed many branches, the suburban bank branch is still very much in evidence. Remaining bank branches have evolved to play a new role; they no longer serve as the everyday banking outlet for most customers, but cater for less frequently needed transactions such as loans and investments. Greenland (1994) argues the focus has shifted from the branch being a utilitarian transaction outlet to a facility that serves as a cue for service quality and company reputation in an industry with increasingly less human contact. For example, well-built, solid looking branches could physically signify the reliability and concrete financial position of the bank. Well positioned branches with easy to use ATM's and short queues would increase customer perceptions of service quality, which in turn, should increase customer satisfaction.

Nielsen, Terry, & Trayler (1998) found that in Australia, the factors influencing a business customer's choice of bank includes long-term relationships with branch, efficient banking operations, convenient-location and new technology. On the other hand, Kennedy (1989) found that the most popular reasons Americans cited for switching banks were poor branch location, poor counter service and staff attitudes, excessive questioning by staff and niggling penalties and charges. It can be argued that these factors for switching are all very salient for Australian banks as well.

Julian & Ramaseshan (1994) indicated that 74 percent of customers in Western Australia considered services provided by banks to be of inconsistent quality. This was linked to the lack of tangible cues in the service transaction. The authors argued that this could be remedied by introducing distinct tangible cues to help customers judge the service they received from their financial institution(s). It can be argued that the functional utility, appearance, reliability and ease of use of technology at banking outlets would influence customer perception of service quality. Increased perceptions of service quality would in turn lead to increased customer satisfaction.

With the closure of bank branches, banks are increasingly struggling to find ways of providing tangible service quality cues to their customers. This is because electronic banking technology has lessened the need for customers to visit the bank branch, causing customers to have less contact with bank personnel. It is therefore imperative that research be undertaken how consumers in a self or semi-self service situation make judgements about service quality and derive service satisfaction from the transaction.

This paper adopts the concept that service quality is an antecedent to service satisfaction, while some of the hypotheses are based on customer satisfaction; it is implicit that the degree of satisfaction experienced by customers is dependant on the level of service quality. The term "banking facility" used in this paper refers to traditional brick and mortar branches that are operated by the bank, as well as electronic forms of banking such as ATMs, telephone and internet banking. It does not include service outlets that which, as their main source of business, provide retail banking services (e.g. post offices, grocery stores, supermarkets).

Model of a service facility

Turley & Fugate (1992) suggests that managers must be aware of five important perspectives in order to have a successful service facility. These are the *Operational*, *Locational*, *Atmospheric* or *Image*, *Consumer Use*, and *Contact Personnel* perspectives.

Operational perspective

The operational perspective is concerned with service production and delivery. With banks increasingly relying on technology driven transactions, customers have to participate more actively in most day-to-day banking transactions. This results in service areas having to serve both customer and staff needs. Coupled with fewer branches, this has resulted in cases of overcrowding at branches, resulting in increased waiting time for customers. Various authors have found waiting time to be negatively associated with customer quality perceptions and satisfaction (Chebat & Filatrault, 1993; Clemmer & Schneider, 1993; Marquis & Filatrault, 2002). For customers who preferred the self-service option when conducting banking transactions, waiting time has been found to be the most important factor in determining satisfaction (Langeard, Bateson, Lovelock, & Eiglier, 1981; Ledingham, 1984). Dabholkar (1996) indicated that customers perceive waiting in two ways when queuing up to use an ATM. The first is the block time needed to reach the ATM, and the second is the time it takes to complete the transaction once at the machine. Chebat & Filatrault (1993) found that there was less than one minute between customer perceptions of acceptable (5 min 3 sec) and unacceptable (6 min 1 sec) waiting periods, and although customers may experience only brief periods of waiting to utilize banking facilities, it has great impact on customer satisfaction.

An interesting finding was that customers who were unhappy about waiting in line at a bank normally do not complain to the service provider. Instead, they were likely to spread negative word of mouth about their service experience. This could have a negative "priming" effect on future customers in terms of the service levels that they are likely to receive (Marquis & Filatrault, 2002). In order to reduce waiting time, branches should provide adequate signage and instructions to move customers smoothly through the service transaction. Demand management plays a big part in reducing waiting time. Extra counters and staff during peak periods should help facilitate a smooth and speedy banking transaction, resulting in happier customers. Therefore, Hypothesis One is:

H1:   *Service satisfaction levels of Australian bank customers have an inverse relationship with the amount of waiting time they experience at their bank*

Consumer use perspective

This perspective focuses on how the facility is designed for ease of customer use rather than ease of operations. As banks continually increase the level of technological expertise required to perform everyday banking tasks, the level of technology must be reduced to a manageable state to facilitate ease of customer use (Turley & Fugate, 1992). Customers who are unable to utilise the technology at a self-service facility often become frustrated and cease to use the facility totally if this frustration is not remedied. This leads us to Hypothesis Two:

Locational perspective

Parasuraman, Ziethaml, & Berry (1985) suggest that service facility location is the most important factor when services represent discretionary purchases. Location is also important when the customer must visit a fixed location to utilise services (Christopher, 1983) and where there is frequent customer contact (Chase, 1978). When choosing a bank, these factors form common and important considerations for customers.

The location of branches and ATM's are often important and sensitive issues for customers. This was reflected in the public outcry raised in the spate of suburban and rural bank branch closures in recent years (Ferrers,1998), and by the move by Malaysian Police to offer space in police stations for commercial ATM's because this location's added security (The Star, 2004). Research has shown that if the service is incidental, for instance, as part of a shopping trip, then location and access to the facility becomes even more important (Upah & Fulton, 1985). Therefore, Hypothesis Three is:

H3a: *There is a positive relationship between customer perception of service satisfaction and the customer's ease of access to a banking facility*
H3b: *Ease of access to a banking facility would have a positive relationship with customer satisfaction*

Atmospheric and image perspective

The effect of atmospherics is widely recognised in facilities research. Atmospherics is the ability of the service facility's environment to convey a message about the image of the organisation and include the ambiance, décor, furnishings and design of the facility. In the banking industry, atmospherics includes not only the look and feel of the brick and mortar branch, but also the surroundings where remote terminals such as ATMs are located. This is an extension of the original servicescape dimensions discussed by Bitner (1994). While Bitner limited the servicescape to the physical facility that was operated by the service business, there was no mention of remote kiosks such as ATMs. This paper extends the definition of the service facility to include remote outlets that may or not be automated and require self-service on the part of the consumer.

The ability of atmospherics to influence consumer-buying behaviour and convey organisational image is well-documented (Baker, 1987; Bitner, 1986; Upah & Fulton, 1985). Consumers regularly look for tangible cues about a firm's quality and capabilities from facility decor and atmospherics (Berry & Clark, 1986). Turley & Fugate (1992) indicated that due to the intangible nature of services, and hence lack of tangible service quality cues, atmospherics serves an even more important role for service customers. In a facility-driven service encounter, the absence of other cues may mean that atmospherics provides the only tangible cues for the customer to judge service quality. This is especially true when bank customers use self-service kiosks (e.g. ATM or Internet banking). This leads to Hypothesis Four:

H4:   *There is a positive relationship between the customer's perception of the quality of facility atmospherics and service satisfaction*

Contact personnel perspective

With the push for an increasingly self-service intensive banking environment, bank customers have less and less contact with service personnel. Trust that was once built up between the customer and service personnel has now changed to a relationship between the customer and the automated banking machine.

Turley & Fugate (1992) indicated that there could be two opposite scenarios in the service delivery spectrum. On one hand, employees who are present at the facility merely facilitate the service transaction without actually getting involved in the service production process. On the other hand, customers recognise that employees who are not physically present at the service venue are clearly in-charge of the technological core of the service.

In banking, there are two types of transactions; one is the low involvement-low contact everyday transaction such as an ATM withdrawal. The other is the high involvement transaction like a mortgage or investment.

In low contact or involvement banking transactions, banking service personnel are interchangeable. The consumer's evaluation of the service received hinges upon their perception of the physical environment and atmospherics (eg. security when using an ATM). In high involvement transactions, service quality depends on how the service personnel treat customers.

In an industry where face-to-face contact is being increasingly replaced with interaction between customers and electronic terminals, it can be argued that the traditional trust between the customer and bank staff has been replaced by a need for the security provided by the bank during transactions. Studies by Kaynak & Whiteley (1999) and Sathye (1999) have shown that the modern bank customer values security highly. This leads to the last hypothesis:

H5:   *The perceived quality of the service encounter with a bank has a positive relationship with the sense of security the customer feels during the service encounter at a non-traditional banking facility.*

Methodology

A pre-test was conducted with 21 undergraduate students of a local university; modifications were made to the questionnaire to increase clarity and accuracy. A total of 150 self administered surveys were distributed at five locations in Western Australia using a combination of mall intercept and snowball sampling techniques, resulting in 124 valid responses. Four mall locations were selected, with three different interview times at each mall to ensure more heterogeneity in the sample. A random intercept technique was employed within the malls. Respondents were between 25 to 34 years old with 54 percent being female.

The survey consisted of 38 seven point Likert Scale questions that addressed the five perspectives in Turley & Fugate's (1992) model. The questionnaire asked about the respondents' experiences with their regular bank. A filter question was utilised to ensure that only holders of Australian bank accounts were interviewed. A systematic review of banking and service facility literature provided a basis for scale development. Turley & Fugate (1992) provided the base model for understanding facility dimensions, Gilchrist (1992) and Kaynak & Whiteley (1999) provided questions about location of facilities. Nielsen, Terry, & Trayler (1998) and Sathye (1999) contributed scales on electronic banking. Taylor, Sharland, Cronin, & Bullard (1993) provided rationale to develop a Universal Satisfaction Score Thornton & White (1992) provided research about usage of financial distribution channels. Other scale items were generated according to the literature discussed in the literature review.

Results were obtained using a four-step approach as recommended by Hair, Anderson, Tatham, & Black (1998). The steps were: 1) Confirmation of dimensionality and scale reliability (Coronach alpha). 2) Exploratory factor analysis. 3) Calculation of a Universal Service Satisfaction Score (Us3) using seven questions that assessed respondents feelings towards the different aspects of the banking facility (utilising the arithmetic mean). This composite score was deemed superior to using just one overall satisfaction-dissatisfaction question (e.g. Cronin & Taylor, 1994) as it better represents the feelings of the respondents. 4) Use of multiple-regression in examining the five hypotheses of this paper.

Results and discussion

Cronbach's alpha

Consistent with the original SERVQUAL scale development process (Parasuraman, Zeithmal, & Berry, 1988), Cronbach's alpha scores were utilised to ascertain scale reliability. Cronbach's alpha scores of between 0.61 and 0.81 for all scale items demonstrating adequate reliability for scale items (Nunnally, 1978). The Us3 score returned a score of 0.74 indicating that it is an adequate measure of service satisfaction for banking service facilities.

R factor analysis was utilised to identify the structure of the relationships within the data for comparison with Turley & Fugate's (1992) model. As suggested by Hair et al. (1998), factor scores were generated and later used in multiple regression analysis. Bartlett Test of Sphericity results indicated significant correlations ($p = 0.00$) among the variables with the Kaiser-Meyer-Olkin Measure of Sampling (KMO) returning a value of 0.742 (above the stipulated 0.5).

Inspection of the Anti-Image Correlation Matrix revealed that there were significant numbers of Measure of Sampling Adequacy (MSA) values that met the criteria for carrying out factor analysis, with most clustered around the 0.70 mark. Overall fit indices were deemed adequate for the application of factor analysis. Table 1 provides the pattern matrix from the principal components analysis (with Varimax rotation).

Factor analysis

Item	1	2	3	4	5
Access					
I have easy access to banking facilities when I need them	.77				
I have easy access to these non-branch banking services	.72				
My bank's ATM's are close by when I need them	.71				
The non-branch banking technology provided by my bank is dependable	.67				
The queue at my bank usually moves along at a reasonable pace	.51				
When I need help with my banking needs, they take an interest in my needs	.48				
When I go into the bank, I can easily get access to a bank manager / staff	.48				
I can easily find a parking spot when I visit my bank	.47		.47		
Facility					
My bank is painted in attractive colours		.86			
My bank is an attractive facility		.79			
My bank's interior wall and floor colour schemes are attractive		.79			
My bank is decorated in an attractive manner		.68			
My bank's architecture gives it a solid and trustworthy appearance		.45			
Waiting time					
My bank is usually crowded *			.83		
The queues at my bank are long when I am there *			.82		
I do not mind queuing at the bank*			.55		
Banking technology					
My bank offers banking services where I do not have to go into the bank *	.51			.55	
I have difficulty understanding these non-branch banking technologies				.78	
Security					
Security is a concern when I use my bank's ATM's *					.81
I am concerned with security when I bank over the phone / Internet *					.74

Note: Only loadings greater than .40 are shown   A seven point Likert scale response format was used
         * Reverse scored items

Table 1: Factor analysis of items associated with banking facilities

Factor loadings suggest that the data fit Turley & Fugate's (1992) model with the five components accounting for 61 percent of the variance explained. Communalities for the factor solution were above the stipulated 0.5 level (Hair, Anderson, Tatham, & Black, 1998), suggesting practical significance for the solution. The extracted factors were named Waiting time (1), Banking technology (2), Access (3), Facility Atmospherics (4), and Security (5) (See Table 1).

Regression

Stepwise multiple linear regression was carried out using the factor scores as independent variables (X_i) and the Universal Service Satisfaction Score ($Us3$) as the dependent variable. This multivariate test is well-developed and widely used for identifying the minimum number of predictor variables. Multivariate liner regression measures the amount of contribution by these predictor variables to the final model. In view of the familiarity of this technique to researchers, the methodology of this technique will receive only a brief discussion in this article.

The regression equation can be stated as:

$$US = b_0 + b_1X_1 + b_2X_2 + \ldots + b_nX_n$$

Where the intercept is b_o and the regression coefficient ($b1$) represents the change in the satisfaction indicator associated with a one-unit change in the ith independent variable. The application of multiple-regression here has been undertaken with the intent of model confirmation and hypothesis explanation.

Variables	Adjusted R^2	Variables in equation				
		Coefficient	Standard Error of Coefficient	Beta	Partial t-value	Partial Correlation Coefficient
Y- intercept		4.851	0.043	113.594		
Access	0.513	0.564	0.043	0.719	0.780	0.780
Technology	0.563	-0.180	0.043	-0.230	-0.370	-0.370
Facility	0.613	0.181	0.043	0.230	0.370	0.370
Waiting Time	0.637	-0.128	0.043	-0.163	-0.272	0.272
Security	0.652	0.104	0.043	0.132	0.224	0.224

Tolerance and VIF for all variables =1.00

Table 2: Regression results for Banking facility

The regression model supports all proposed hypotheses, that customer satisfaction with service at bank branches in Western Australia is affected by the facility. Table 2 shows that the final regression model contains all of the independent variables. As shown by the increases in the Adjusted R^2 value = 0.65 (Multiple R =0.82, R^2=0.67), each of these variables explains at least one percent of the total variance of satisfaction with bank service. As a group, the five factors explain 65.2 percent of service satisfaction with the banking facilities. The F-Ratio for ANOVA is 44.91 (*df* 5-112) significant at the 0.05 level.

The single most influential factor is Access to Facility, explaining 51.3 percent of service satisfaction. Other important factors are Ease of Use, Understanding of Banking Technology and Atmospherics. The negative sign in Technology is explained by the reverse scoring of the scales. Examinations of Partial Correlation Coefficients confirm the relative importance of the sequence of the independent variables.

H1 is supported; there is an inverse relationship between the amount of waiting time customers' experience and the amount of service satisfaction. Designing the facility to minimise queues could alleviate dissatisfaction with service levels that result from waiting. A method of doing this is to use multiple queues instead of employing just one long queue. Another method could be operating additional service counters during peak hours and alternative electronic banking facilities at convenient locations.

H2 is supported; customers who understand and are able to use electronic banking technology are more likely to be satisfied. This leads to the suggestion that banking technology should be simplified to a level where it is not confusing and prevents use. Although there will always be

individuals who are technologically challenged, banks could implement some form of training and familiarisation program for newer forms of electronic banking.

The most significant factor that influences service satisfaction is Ease of Access (**H3**). Although 99 percent of respondents reported that they lived close to their banks, most of them were between 15 to 30 minutes away. This suggests that the current trend of banks closing suburban and country branches would perhaps have a negative impact on customer satisfaction levels. Location is the most important aspect of the bank branch. Strategic location of branches and electronic banking terminals should be the topmost criterion when relocating or opening new facilities.

The relationship between the atmospherics offered by a bank branch and the level of customer satisfaction is also supported (**H4**). This suggests that, customers do rely on facility atmospherics and appearance for tangible cues in the banking industry.

H5 is supported, indicating that there is a positive relationship between customer satisfaction levels and the sense of security while using electronic banking facilities. This finding could indicate that banks should strive to make areas where ATM's are located more secure (perhaps siting them within buildings) and increase the security of other forms electronic transactions.

Limitations

The sample was chosen from areas in and around Perth, Western Australia. It is possible that the sample may not be representative of bank customers outside this limited geographical region (especially country areas). However, the population of this area is fairly representative of the remainder of the state's population, with many country residents migrating to the city for work and study purposes.

Respondents were specifically asked about dealings with their regular bank. Therefore the relationships found in this study may not be applicable to other types of financial institutions such as credit unions and building societies. However, the financial distribution channels and facilities offered by credit unions and building societies are in many cases similar to major Australian banks and often have an overlap in facility locations and offerings (such as ability to use common ATM's and other types of electronic banking).

Cost and time limitations also limit the scope and depth of this study. A door-to-door data collection technique might have increased respondent heterogeneity and participation, yet would have been too time consuming and expensive. Potential biases also exist in using snowballing and mall intercept techniques.

Statistically, the sample would suffer from a degree of common method variance, this was because the independent and dependent variable data was collected utilising the same sample. This could lead to inflated correlations.

Conclusions and future research

This study illustrates that the servicescape has a strong impact on customer service satisfaction levels in the banking industry. There is abundant literature in services research which addresses repatronage and loyalty factors (Parasuraman, Zeithaml, & Berry, 1988; Thornton & White, 2001), however little research has been done to examine the effects of facilities on customer service satisfaction. In order to maximise repatronage and prevent customer defections, managers must not only pay attention to the service event itself but also to the servicescape. This should start from facility design stages and continue into everyday operations.

The primary determinant of the satisfaction with service facility is the customer's access to banking facilities. Problems with access could be alleviated through the careful planning and location of branches and electronic banking outlets. The demographic and psychographic constitution of the community served by a bank should be taken into consideration as different segments of the population have differing needs. For example, in communities with a high number of seniors, branch facilities are the most important aspect. On the other hand, in communities that are largely transient or in business community locations, the number of electronic banking terminals and their convenient location are of utmost importance.

Facility aesthetics play a big role in influencing the customer's perceived image of a bank. Often customers form first impressions about a bank based on branch appearance. Although the average customer may visit a branch infrequently and spend little time there, when they do so, it is often with intent of carrying out important and often high value transactions. In this case, the customer could be swayed in their choice of bank by the aesthetics and ambience of the branch.

Since this study did not address the service personnel, service product and service offering aspects of the service equation, future research could build on these areas and explore their relative importance.

In conclusion, this paper has highlighted the need for managers in the banking industry to rethink banking facility design and location. So far, banks have concentrated on varying financial and transaction services. This paper has shown that the design, layout and location of banking facilities have an impact on customer satisfaction. The findings suggest that managers in the banking industry should work more closely with designers when renovating or planning for new commercial banking outlets. They should not only focus on the functionality of the outlet, but also on the cues that customers use to judge service satisfaction. This is due to customers taking functionality as a given (Parasuraman, Zeithml, & Berry, 1985). Having facilities that are comfortable, easy to use, in convenient locations, and secure would no doubt help in increasing customer satisfaction perceptions.

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