Unique Insights Into Atm Quality Service

Devinaga Rasiah

Faculty of Business Multimedia University (Melaka Campus)

A R T I C L E   I N F O

A B S T R A C T

The aim of this study is to look at the unique services provided by the Automated Teller Machine in terms of quality and customer satisfactions in banks. However, there are pros and cons of consuming these services. Furthermore, the study also examines the perceived usefulness, ease to use, perceived risk and awareness that is faced by the individual consumers. The results were analyzed using statistical tools. The study confirms that a huge potential market exist for commercial banks to open their branches in limited locations and to connect these to all other ATMs networks and to could reap the benefits of their businesses to improve commercial bank performances.

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INTRODUCTION

The ATM stands for Automated Teller Machine. The ATM is an electronic computerized telecommunications device that allows financial institutions (e.g. bank or financial institutions) customers to directly use a safe means of communication to access their bank accounts. The ATM permits transaction such as dispense cash, accept deposits, transfer funds, and provide information on account balances. Commercial banks have formed integrated online system with nationwide networks so that a customer of one bank can use an ATM of another for cash access, by extension all commercial bank. Another researcher, Mc Andrews, (2003) had indicated that there are potential benefits when banks share their ATMs, allowing depositor of other banks access their account through a bank's ATM. Laderman (1990) highlighted that ATMs increase profitability and a certain level of operations, transaction cost are less when performed at an ATM then by a teller.

The ATM solely works with the employment of the ATM card or a debit card", these cards are issued by the respective commercial banks for the operation of the ATM. This little card is usually about eighty six times fifty four mm in size with a magnetic stripe. .The card size is a universal size as it can be used in all ATMs across boundaries. The plastic card replaces the cheque book after banking hours.

1.   Interacting With Atms:

The changing customers' perception of quality poses unique challenge to commercial banks. Lewis *et al* (1994) had indicated that good service quality has become an imperative for organizational sustainability. In another study conducted by Surjadjaja *et al.* (2003) had showed that the developments of technologies had enabled organizations to provide superior services for customers' satisfaction. These innovations involve several additional new services, growth of existing service or improvement within the services delivery environment. Growth of the commercial banks' services offered can satisfy the customers in more than one way. By the usage of ATMs, it lowers the labor cost which can be replaced by the self-service technologies (SSTs). There are several samples of self-services technologies (SSTs) like airline ticketing machines, voice processing and voice mail systems, self-diagnostic medical services, Automated Teller Machine (ATM) and therefore on.

Since the introduction of ATMs, there is no need to carry so much of cash when travelling, as ATMs can be found in many locations even intercity bank branches and other bank branches which you do not hold an account at shopping malls and supermarkets. (Sultan Singh, Ms. Komal, 2009) As we all know that, Automated Teller Machine (ATM) are scattered throughout the cities so as to enable customers easy access to their accounts.

The ATMs of a bank are connected to a platform of the commercial banks through ATM switches. Inter-bank ATM networks are created by setting up apex level switches to communicate between the ATM switches of different banks. Sultan Singh, Ms. Komal (2009) had indicated that the inter-bank ATM networks facilitate the use of ATM cards of one bank at the ATM(s) of other banks for basic services like cash withdrawal and

Corresponding Author: Devinaga Rasiah, Faculty of Business Multimedia University (Melaka Campus)
              E-mail: devinaga.rasiah@mmu.edu.my

balance enquiry. Commercial banks ATMs charge a fee for providing the ATM facility to the customers of other banks.There are two kinds of Automated Teller Machines (ATM). The essential units solely enable the shoppers to withdraw money and receive a report of the account balance. Alternatively, some complicated automated machines can accept deposits, utilities payments, dispense foreign exchange, payment of bills and report on their account. However, to access the advanced options of the complicated units, as usual, have to be compelled to be a customer of the bank that operates the machine.

2. Problem Statement:

Although ATM's provide an exceptionally valuable service to banks customers, from time to time they can be very exasperating to use and consequently there is room for perfection in the interface design. The interface facilitates communication between the user and the machine Technological innovations are important in our daily life and swift technology advancement has foremost changes in the economy and intermediation atmosphere. However, there are several weakness and intricacy particularly which is faced by the elders to access the new technology. In Malaysia Commercial banks have become the primary vendors of ATMs. In Malaysia there is an increased market share, although due to the pervasiveness of ATMs, it is not likely to increase profitability of banks. It is also certain that at a different level of operations, the cost of a single transaction performed at an ATM is potentially less than the cost of a transaction conducted from a teller. For instances ATMs are capable of handling more transactions per unit of time than the bank tellers (Laderman, 1990). Another problem is when the ATM returns the customers card prematurely e.g the user still has additional transactions to make where the customer wants to withdraw cash and then also needs to do another transaction. There are also several instanious where the machine runs out of cash, link failure in/ during dispensing to be most challenging.

Objective Of Study:
The objective is to achieve the subsequent objectives:
- To study the unique service dimension of Automated Teller Machine.
- To examine the unique impact of ATMs and usefulness on client satisfaction.

This study is very important to understand performance of the key dimension of different client perception whether or not is outlined in terms of service quality or satisfaction.

Literature Review:

Automated Teller Machine is all round the world, customers conduct their banking transaction in every corner of the globe. The ATM could be a computerized telecommunication machine that provides shoppers monetary transaction anywhere with none bank teller. On the trendy means, the customer inserts a plastic ATM card with a magnetic stripe or a plastic good card with a chip that contains a novel card range. It also contains security information like date of expiration or "Card Verification Value"(CCV). The ATM card is an authentication card which is provided with a private identification number (PIN). The user is granted access only when the number entered matches with the number stored in the system. Tong (2009) had indicated that users' satisfaction is an essential determinant of success of the technology-based delivery channels.

The ATM card is also called a bank card, consumer card, key card or money card. This card is issued by banks, credit union or building society that had to be access by ATM for deposits, withdraw money, checking account info and alternative forms of transaction, usually through interbank networks. Fassnacht & Koese, (2006) and Polatoglu & Ekin, (2001) had shown that strong support towards reliability as an essential determinant of customers' perceived service quality and positively relates to customers' use of ATM services. Joseph and Stone (2003) indicated that customers' perception of ATM quality and found that user-friendly, convenient locations, secure positions, and the numbers of ATM were as an essential dimension of ATM service quality. Another researcher, Mobarek (2007) established speed of operation, and waiting time as the important predictors of ATM service quality. Dilijonas et al., (2009) studies was conducted in the Baltic States and found banks generally did when they had adequate number of ATMs, conveniently and situated in a secured location. Other elements were operation of ATM such as speed, errors, high uptime, cash backup and quality service at reasonable cost

Conceptual Framework:

The research model adopted in this study portrays what ought to take place given the constructs that have been put forward by Rogers (1995) to the adoption of a technology. These constructs should affect the intention to use a particular innovation which in this case is the Automated Teller Machine (ATM).

Dependant Variables:
Customer Satisfaction of Automated Teller Machine

Independant:
- Usefulness and Accessible
- Perceived Risk
- Reliability and Convenience,
- Innovation
- Security & Privacy

Dependent Variable:

The satisfaction of client services springs from the interaction of service and technology that is understood as technological encounter satisfaction. This sort of satisfaction plays a vital role within the overall satisfaction with the intangible service suppliers. In recent years, technological choices in service delivery have proliferated. Diana (2009) had indicated that in a self-service transaction, the customer accepts the responsibility themselves and, thanks to the 3rd party accountability, they were less seemingly to be upset by any service failure. ATMs also provided secure, well liked and helpful 24 hour service with added protection and also cut back personal prices like service fees they became loyal to the bank as indicated by L. Liang Kheng et. al. (2010).

Independent Variables:
Usefulness and accessible:

Many ATMs are capable of handling more transactions per unit of time than are tellers (Laderman, 1990). In another study by Gill (1997) had highlighted detailed recommendations on the planning for those who were disable, visually impaired and blind to access the ATMs like card style, labels, operation instruction and text format, the planning of the keypads and bit screen technology is being employed. Therefore, there's flexibility within the operational activities.

Reliability and Convenient:

Reliability has been identified as a key determinant of service quality each in interpersonal and self service. (Zeithaml *et al*, 2002; Dabholkar 1996; Cox and Dale,2001). Therefore, clients have high reliability on ATM as a result of a lot of convenience when compared to a teller person. For ATMs, reliability means that the transaction is quick enough; it consumes less time compared to a teller. This criterion was selected since it had been reliable and ensured success as shown by Richie Singh, A. Chhabra, (2005).

Innovation:

Athanassopoulos, (2000) found strong empirical evidence of innovation, convenience, price, and service quality as vital dimensions of customers' satisfaction. The primary innovation of ATM technological innovation is the achievements like Bankograph and money dispenser were nice innovation at that point.

Security and Privacy:

Joseph and Stone (2003), through focus group study in the United States, found that easy access to location, user-friendly ATM, and security are important factors that influence majority of bank customers' perception of ATM service quality Security and privacy are important to shoppers and individual bank customers.

Usefulness and Accessible:

It refers to the extent to that individual believe that using new terms would enhance their task performance. Moutinho and Brownlie (1989) found that accessibility and location of ATMs significantly affect users' satisfaction. The research found that customers were willing to accept new offerings through ATMs. Waiting in queue to use the ATM was the major cause of dissatisfaction among the users.

Perceived risk:

Helena R., Mark M, Luiz A, (2000) and Howcroft (1991) noted that dissatisfaction among customers is associated with frequent interruptions and breakdown of ATMs such as machine breakdowns and transaction errors

Data Analysis:

The statistical tests used in the analysis of data included descriptive statistics, Cronbach's alpha -reliability analysis, correlation analysis, Anova analysis, and regression analysis. A total of 200 questionnaires were collected for this research. A pilot study was conducted to obtain access validity of the research instruments before actual data collection period. Due to this, the questionnaire was administrated manually to individual respondents.

Findings:

The Descriptive analysis of demographic characteristics indicated that the total of 200 respondents, 91 or 46% of the respondents are male while 110 or 55% of respondents were females.

Among the four main Malaysia ethnicity analyzed, the highest were Chinese consisting of 87 or 44.5%. Besides, 41 or 21.5% of the Malay ethnicity, 38 or 20% were Malaysian Indian respondents and the rest were foreign consisting of 35 due to 17%. The largest group using ATMs had used it at least few times a week, with the frequency of 69 or 34.5%. Followed by business women and men who used the services frequently. Next, customers who used at least once or twice on a weekly basis were 54 or 27.0%. The insignificant group was 10 or 6.0% ATM uses or didn't use the ATM probably for the reason that the technology new to them.

The reliability of a measure ensures consistent measurement across the various items in the questionnaire as indicated by Sekaran, (2003). The reliability of the factors was assessed using Cronbach's alpha values that are above 0.700. The dependent variable upon analsysis in this research is 4.6100 for 200 respondents while the standard deviation is 0.76744. From this result, it can be concluded that a respondent were satisfied with the Automated Teller Machine.

The result shows that the 200 respondents were generally satisfied to the survey items with useful and accessible, had reliability, convenience, innovation, security and privacy in the usage of the of the automated machines. The highest mean for the descriptive analysis is security and privacy with the amount of 4.7513 and the lowest mean was 4.2312 for convenient. Besides, the second highest mean is the reliability which was 4.7813; the third highest mean was useful and accessible which brings the amount of 4.4313; the fourth highest mean was the innovation range which amounted to 4.6612.

The Multiple Regression Analysis of customer's satisfaction towards Automated Teller Machine which a significant impact on the dependent variable. The result above shows that the F value was 75.876, which means that there was a regression relationship between how customers felt satisfied towards ATMs and all the other independent variables. Besides that, the coefficient of determinant (R) was 0.8332, which means that all independent variables are influenced by each other with 81.2%. The value of the R square value was 0.659, indicating all independent variables was above 66.1% of variance at the point of customer's satisfaction towards ATMs. The largest beta coefficient was 0.336, which was security and privacy that had the strongest impact towards customer's satisfaction and the lowest impact for the beta value which was -0.129 indicating convenience was important, compared to other variables. More to the point that usefulness and accessibility affected customers satisfaction with a $\beta = 0.269$, followed by a $\beta = 0.281$ innovation and $\beta = 0.175$ reliability. The significant value was 0.06 was considered as independent variable which was significant towards dependent variable.

The summary of the regression results indicated that (H1) was accepted indicating a significant relationship between useful and accessibility, Automated teller machine. Hypothesis (H2) was also accepted showing a relationship between reliability and customer's satisfaction, followed by hypothesis (H3) indicating significant relationship between convenient and customer's satisfaction. Hypothesis (H4) was also accepted which showed a significant relationship between innovation and customer's satisfaction towards. Finally, the fifth hypothesis (H5) showed that there is a relationship between security and privacy and customer's satisfaction towards Automated teller machine. Consequently, the hypothesis was accepted. Safeena, R., *et al*. (2010). Had mentioned that consumer had to be confident that any new innovation will be safe and secure, perhaps, this was one of the most important criteria both form the customers and banking company's perspective.

The Pearson Correlation showed r-value = 0.791 and p-value = 0.000. The reliability factor was found significantly related to Customer's satisfaction of Automated Teller Machine. Pearson Correlation analysis was constructed. The R-value was 0.646 and P-value was 0.00. This show that the P-value was lower than 0.01, therefore the relationship between customer's satisfaction towards Automated Teller Machine was significant. The result showed that R-value= 0.357 and the p-value = 0.00, it stated that there was significant correlation between the variables.

The Innovation factor was significantly related to Customer's satisfaction of Automated Teller Machine. This test analysis was to conduct to see if there is any relationship between Innovation and Customer's satisfaction of Automated Teller Machine. The Pearson Correlation r-value = 0.742 and p-value = 0.000.

The Security and Privacy factors were significantly related to Customer's satisfaction of Automated Teller Machine. Pearson Correlation Analysis was carried out in order to test the significant relationship between Security & Privacy and Customer's satisfaction of Automated Teller Machine. The Pearson Correlation r-value = 0.651 and p-value = 0.000.

Limitations Of The Study:

Survey design have been used in the study. A mix of interviews and qualitative data gathering techniques could be used to make the results more comprehensive and generalizeable. Future research could focus on diversifying the sample across different ethnic groups, income, and education.

Conclusion:

All of the wished-for issues of customer perceptions of Automated Teller Machines service quality had exhibited strong relationship between customer service and customer satisfaction. The findings indicated that the factors such as usefulness and accessibility, reliability, convenient, innovation, security and privacy are all having positive effects on customer's satisfaction towards the usage of the Automated Teller Machine. Above and beyond that, previous research studies had also showed that these benefits were noteworthy drivers for customer's satisfaction concerning improved banking services. The superior the velocity of security and privacy, the added attractiveness and extensiveness will be the usage of Automated Teller Machines. That's why this research study had looked into the unique insights into the customer's satisfaction towards Automated Teller Machines.

REFERENCES

Athanassopoulos, A. 2000. Customer satisfaction cues to support market segmentation and explain switching behaviour. Journal of Business Research, 47(3): 191-207.

Cox, J. & B.G. Dale, 2001. Service quality and e-commerce: Am exploratory analysis.Managing service quality, 1192: 121-131

Dabholkar, P.A., D.C. Shepherd and D.I. Thorpe, 2000. A Comprehensive Framework for Service Quality: An Investigation of Critical, Conception and Mearsurement Issues through a Longitudinal Study, Journal of Retailing, 76(2): 139-73.

Diana, L., Haytko, Christina S. Simmers, 2009. "What's your preference?: An exploratory examination of the effect of human vs ATM vs online interactions on overall consumer satisfaction with banking services", Management Research News, 32(4): 337-353.

Dilijonas, D., D. Krikšciunien, V. Sakalauskas, & R. Simutis, 2009. Sustainability Based Service Quality Approach for Automated Teller Machine Network. Retrieved.

Fassnacht, M. & I. Koese, 2006. Quality of electronic services: conceptualizing and testing a hierarchical model. Journal of Service Research, 9(1): 19-37.

Gill, J.M. (ed), 1997. Domestic Telecommunication Terminals: Access by People who are Blind or have Low Vision. COST 219 UK Group.

Helena, R., Snee, M.H. Mark, Goode, Luiz A Moutinho, 2001. Modelling satisfaction with ATMs: A cross-country comparison Journal of Financial Services Marketing, 5: 238-245. doi:10.1057/palgrave.fsm.4770022

Howcroft, J.B. 1991.Customer satisfaction in retail banking. Service Industry Journal, January, 11-17.

Joseph, M., & Stone, G. 2003. An empirical evaluation of US bank customer perceptions of the impact of technology on service delivery in the banking sector. International Journal of Retail & Distribution Management, 31(4): 190-202.

Laderman, E.S. 1990. The public policy imp lications of state laws pertaining to automated teller machines. Federal Reserve Bank of San Francisco Economic Review, 1: 43-58.

Lewis, *et al.*, 1994. "Service quality: students' assessment of banks and societies", International Journal of Bank Marketing, 12(4): 3-12.

Lo Liang Kheng, M. Osaman, T. Ramayah & R. Masahab, 2010. The impact of service quality on customer loyalty: A study of banks in Penang, Malaysia. International Journal of Marketing Studies, 2(2).

Mc Andrews, J. James, 2003. Automated Teller Machine Network Pricing – A Review of the Literature,Federal Reserve Bank of New York, Review of Network Economics, 2: 2-146.

Mobarek, A., 2007. E-Banking Practices and Customer Satisfaction - A Case Study in Botswana.

Moutinho, L. & D.T. Brownlie, 1989. Customer satisfaction with bank services: a   multidimensional space analysis. International Journal of Bank Marketing, 7(5): 23-7.

Polatoglu, V.N. & S. Ekin, 2001. An Empirical Investigation of the Turkish Consumers' Acceptance of Internet Banking Services. International Journal of Bank Marketing, 19(4): 156-165.

Rogers, E.M., 1995. Diffusion of innovations (4th ed.). The Free Press: NewYork.

Rogers, E.M., 2003. Diffusion of innovations (5th ed.). The Free Press: New York.

Rogers, A., A.D. Fisk, S.E. Mead, W. Neff & E.F. Cabrera, 1996. Training older adults to use automatic teller machines. Hu man Factors, 38.

Sekaran, U., 2003. Research methods for business: A skill building approach. New York: John Wiley & Sons, Inc.

Singh, R. & A. Chhabra, 2005. Tracing the evolution of ATM banking, the objectives and needs they satisfy, and what the future holds. Weatherhead School of Management.

Safeena, R., *et al.*, 2010. Customer perspective on E-business value: case study on internet banking. Journal of Internet Banking and Commerce, 15(1).

Singh, S. & Ms. Komal, 2009. Impact of ATM on customer satisfaction. Business Intelligent Journal, 2(2).

Sultan Singh, Ms. Komal, 2009. Impact Of ATM On Customer Satisfaction.(A Comparative Study of SBI, ICICI & HDFC bank) Business Intelligence   Journal August. Page 276.

Surjadjaja, H., S. Ghosh & J. Antony 2003. Determining and assessing the determinants of e- service operations. Managing Service Quality, 13(1): 39-53.

Tong, Y.K. 2009. A study of e-recruitment technology adoption in Malaysia. Industrial Management & Data Systems, 109(2): 281-300.

Zeithaml, V.A., A. Parasuraman and L.L. Berry, 1990. Delivering quality service – balancing customer perceptions and expectations. New York: The Free Press.