



ASSESSING CUSTOMER'S PERCEPTION OF NETWORK FAILURE ON AUTOMATED TELLER MACHINE (ATM) TECHNOLOGIES

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ABSTRACT: *Network failure is inevitable in every service organization. Though, network failure could affect customer satisfaction and re-patronage intentions negatively, it could also provide opportunities for service firms to prove their responsive ability (network recovery efforts), which in turn can surprise, and satisfy customers more than ever. Thus, this study assesses customers' perceived rate of network failure on automated teller machines in Minna, metropolis. The study is basically a survey research and relied on consumer's perceptions within Minna and its environs as the population of the study. The questionnaire instrument was used to generate data from 200 consumers (being the sample size), and the data was subsequently analyzed using descriptive statistics. The study finds that there is perceived high network failure rate among the Automated Teller Machines (ATM) in Minna. The study also finds that most of the banks network recovery management is has been good and satisfactory. The study, therefore, recommends that banks should purchase high quality technologies that will aid faster and rapidly response to customer complaints resulting from network failure to minimize customer's frustrations assessing ATMs.*

KEYWORDS: Customer Perception, Network Failure, Service Organisation, ATM, Customer Satisfaction

INTRODUCTION

Upon the introduction of the Central Bank of Nigeria (CBN) new capitalization exercise in 2005, the Nigerian banking sub-sector went through market-induced consolidation phase. Most commercial banks in the country to advantage of that raised money from the capital market through Initial Public Offers (IPO) and public offers for investment purposes. The aftermath of this was rapid expansion of commercial banks' branches, massive recruitment of employees to manage the newly established branches, adoption of modern technologies for service delivery above all (Ennew and Schoeffer, 2003). One fundamental problem resulting from these is on technologies used in providing banking services usually fails during operations. Anderson, Bagett and Widener (2007) studies argued that unlike manufacturing firms where internal quality controls and inventory can safeguard customer from some operation failures, in banking sector, network operations failure are very evident to their customers.

Lovelock, Sandra and Barbara (1996) corroborates these adding that the distinctive service characteristics in terms of providing real-time performance, customer involvement, seeing people as part of the production process, and difficulty in evaluation greatly increase the chance of perceived network failures. With this, the handling of complaints and resolving problems become an important activity to be able to retain customers and to avoid negative word-of-mouth, especially since the acquisition of new customers is generally costlier than



the retention of the current ones. The foregoing has thrown customers within and around Minna metropolis to also embraced electronic banking to enhance better service delivery. The automated teller machines (ATM) were installed to facilitate mobile banking transactions, all day and all time banking to reduce congestion in the banking hall, and to attract, satisfy and retain banks' customers overtime. Experience has often indicated that the ATMs cannot dispense cash and the bank's officials do not respond promptly even after complaints are laid by customers thereby exacerbating tension, frustration and dissatisfaction from customers. Studies in the past indicates that network failure is undoubtedly too pronounced in most service organization (specifically banking sectors). To this, a poor service or network failure result in customer dissatisfaction and this in turn prompt a variety of responses which include complaining, negative word-of-mouth and decisions not to purchase (Ennew and Schoeffer, 2003).

This study is an attempt to assess the extent of network failure occurring during service delivery in commercial banks. The study specifically will access consumers' perceived rate of network failure, and access customer's perception banks network recovery method of ATMs technology that is aimed to improve service delivery, satisfaction and improved patronage.

LITERATURES REVIEW

Ennew and Scoefer (2003), posit that service failure arises when customers experience dissatisfaction because the service was not delivered as originally planned or expected. This impliedly means that service failure arises from the customer's perception of a service experience and not from what the organization believes it has provided. According to Anonymous (2007), organizations and their managers are often obsessed by success. He, however, advised that they should focus on service failure. It could be rightly argued that the greatest learning comes not from success but from failure. Buffet (2008) again, observed that every business should study where its staffs go astray and why things do not work.

The term 'service recovery' implied an attempt by a service organization to restore any partial or total failure in its services. Scholastically, 'service recovery' is usually concerned with process of addressing service failure (Ennew and Schoeffer, 2003). In another vain, it is referred to actions taken by an organization in response to a service failure (Boshoff, Peelen, Hoogendoorn, and Kraan, 2005). They added that it is a thought-out, planned process for returning aggrieved customers to a state of satisfaction with the firm after a service or product has failed to live up to expectations.

Ennew and Schoefer (2003) posits that 'service recovery' should be concerned with productive handling of complaints and include all actions taken by a service provider in order to try to resolve the problem a customer has with their organization. Gronroos seems to be saying that unless customer's forward complaints to the service organization, it (the service firm) may be unaware of that problem existing and unable to appease unhappy customers. Thus, this shows that complaints are necessary to provoke and institute recovery efforts. However, service recovery can take place before the occurrence, on the spot, during the delivery of the service, or after a complaint has been lodged, and it can be related to a specific transaction or to the business relationship in general.



Many scholars specifically in field of marketing have advance different but overlapping dimensions on 'service recovery' as a solution to network failures (Anderson, Bagett and Widener, 2007). Boshoff (1999) developed a six dimensions' instrument for service recovery. These are (*communication, empowerment, feedback, atonement, explanation or reason, and tangibles*). Similarly, Bell and Zemke (1987) further identify another five dimensions for measuring service recovery it. These are: '*apology, urgent reinstatement, empathy, symbolic atonement, and follow ups*'. The literatures are clear about service failures and their effect on the level of customer satisfaction (Anderson, Bagett & Widener, 2007; Tsikriktsis and Heineke, 2004). Findings from the works of Behn and Riley (1999), and Tsikriktsis and Heineke (2004) show that operational or service failure influences customer satisfaction.

Tsiros, Mittal and Ross (2004) assert that while, service failure negatively affect customer evaluation and repurchase intentions. They further stress that a positive and appropriate response from an employee can help overcome the negative effects of a service failure. Boshoff et al (2005), examining it using a different approach to the understanding 'service recovery' agreed that the overall satisfaction with the repurchase intention and behavior thus, indicating that service recovery pays off. This was corroborated in earlier research by (Smith and Bolton, 1998) concluding that satisfaction is key to ensuring effective 'service recovery' to contribute positively to the company and for customers' re-patronage intentions.

METHODOLOGY

This study adopted a survey research approach using a convenient sampling technique to identify, select and distribute questionnaire to selected customers of the bank. The approach is chosen to deliberately drawn its sample from the research study area (Minna, Niger State). The population of the study comprises all customers that have receive banking services from bank. A sample size of 200 customers was used based on convenient sampling technique and presumably large enough for adequate representation given the time and cost constraints for this study. Furthermore, purposeful sampling technique were used to pick the customers around Minna metropolis as respondents into the sample. Hence, the adoption of this instrument facilitated the collection of data.

Measurement of Variables

In measuring service failure, a (ten) 10-item scale was adopted from the consumer perspective. The variables or items were measured using a nominal scale of 5-point likert rating scale. The likert scale ranges from 1 to 5, where '1' stand for 'strongly disagree', '2' for 'disagree', '3' for 'undecided', '4' for 'agree', and '5' for 'strongly agree'. These numbers (or weights) were multiplied with the frequency of responses, and their mean values obtained. Consequently, any mean or average value equal to or greater than 3.00 but less than 3.50 was considered to indicate low level of service failure, while an average value that lies between 3.50 to 5.00 was considered to indicate a high level of service failure. In contrast, mean score that lied between 1.00 to 2.99 was considered as rare or negligible extent of service failure (i.e. service failure rate is almost nil). For service recovery, a (six) 6-item scale was adopted. The variables or items were measured using a nominal scale of 5-point likert rating scale. The likert scale ranges from 1 to 5, where '1' stand for 'strongly disagree', '2' for 'disagree', '3' for 'undecided', '4' for 'agree', and '5' for 'strongly agree'. Hence,



responses to all the items were aggregated and averaged for each respondent to obtain an index of perceived network failure, patronage and recovery effort of banks. Consequently, any mean or average value equal to or greater than 3.00 but less than 3.50 was considered to indicate 'good', an average value that lies between 3.50 to 4.49 was considered to indicate a 'very good', and 4.50 to 5.00 as 'excellent'. In contrast, mean score that lied between 2.00 to 2.99 was considered as 'poor', and 1.00 to 1.99 as 'very poor'.

STUDY FINDINGS

Respondents Having Business Relations with Bank

As shown in Table 1, concerns customers' business relationship with banks. The table shows that out of 200 respondents surveyed, the majority of the respondents 88 or 44% have been doing business with the banks between 2 to 4 years, followed by 63 or 31.5% respondents with less than 2 years' business relationships with the bank. Only 30 or 15% and 19 or 9.5% respondents have been operating with the bank between 4 – 6 years past and more than 6 years ago respectively. Of the 200 respondents surveyed, 99 or 49.5% operate both current and savings accounts, 56 or 28% operate current account, and 45 or 22.5% savings account.

Furthermore, the research data revealed that a majority of the respondents (98 or 49%) describe their frequency of transaction with the bank as 'just frequent', 87 or 43.5% as 'very frequent', 9 or 4.5% as 'rarely', and 6 or 3% as 'undecided' in that descending order. In addition, an attempt to ascertain the customer's mode of transaction with the banks revealed that majority of the respondents (94 or 47%) transact with the banks via 'teller', followed by 80 or 40% respondents that transact with the banks via 'ATM', and 26 or 13% respondents use both ATM and tellers equally. The impact of the above table show that a considerable number of the respondents have conducted business with the banks for quite a number of years, have a wealth of experiences on its major products (current and savings account), and have transacted business via teller and ATM machines technologies. Thus, the respondents can reliably assess the banks service encounters to describe the banks service failure situations and service recovery efforts experienced.

Table 1: Respondents Business Relationship with the Banks

DESCRIPTION	CATEGORY	FREQUENCY	PERCENTAGE
Number of years doing business with the banks	Less than 2 years	63	31.5
	Between 2 – 4 years	88	44
	Between 4 – 6 years	30	15
	6 years and above	19	9.5
Type of account	Current account	56	28
	Savings account	45	22.5
	Deposit account	0	0



	Current & savings accounts	99	49.5
	Current, savings & deposit account	0	0
Frequency of transaction with the banks	Very frequent	87	43.5
	Just frequent	98	49
	Undecided	6	3
	Rarely	9	4.5
	Not at all	0	0
Mode of transaction with the banks	Mostly via ATM	80	40
	Most via Tellers	94	47
	Use ATM & Tellers equally	26	13

Source: Survey Data (2018).

Perceived Level of Service Failure

Table 2 similarly indicates the respondents' perception of service failure in the banking operations. Generally, the perceived service failure rate in banks is perceived low having a (group mean = 3.4511). This indicates that network services are not always available in banks ATM' and 'when network services are available in ATMs, it is usually very slow'. Again, the tellers often complain of slow network with banks staffs not readily available to assist whenever problem arises with the 'ATMs' which most times debit account without dispensing cash' have average group mean scores of (4.1250, 3.9550, 3.6750, 3.6050, and 3.5200) respectively.

This indicates perceived high rate of service failure. In contrast, banks ATM does not dispense cash always', banks staff are often slow in responding to customers' complaints', and 'the tellers often complain of "network failure" while withdrawing cash with cheques or withdrawal slip have average scores of 3.0350, 3.3750, and 3.1100 which is an indication of low rate of service failure for each of the item stated. One of the scale items indicates that tellers often leave their seats when customers are queued for transaction has an average score of 2.6600 indicating absence of service failure.

Table 2: Perceived Level of Service Failure in Banks

S/NO	DESCRIPTION	MEAN	SAMPLE MEAN	MEAN DEVIATION
A	Network services is not always available in banks ATM.	4.1250	3.4511	0.6739
B	When network service is available in ATMs, it is usually very slow.	3.9550	3.4511	0.5039
C	Banks ATM does not dispense cash always	3.0350	3.4511	-0.4161



D	The ATMs at times debit my account without dispensing cash.	3.5200	3.4511	0.0689
E	Banks staff are readily available to assist whenever I encounter problem using ATM	3.6050	3.4511	0.1539
F	Banks staff are often slow in responding to customers' complaints	3.3750	3.4511	-0.0761
G	The tellers often complain of "network failure" while withdrawing cash over the counter.	3.1100	3.4511	-0.3411
H	The tellers often complain of "slow network."	3.6750	3.4511	0.2239
I	Tellers often leave their seats when customers are queued for transaction.	2.6600	3.4511	-0.7911

Source: Survey Data (2018)

Perceived Rate of Service Recovery & Management

Table 3 considered pertinent to assess banks service recovery efforts. Data analysis revealed that the service recovery policies and implementation of the bank is very good (i.e. sample mean = 3.5425). Precisely, the banks have *excellent* service recovery management in entertaining complaints and observations from customers (mean = 4.5750). The banks also have *very good* service recovery policy implementation in operating a customer care unit (mean = 4.4900) and in apologizing to customers whenever service failure occurs (mean = 3.6750).

The bank's service recovery effort as it relates to 'sparing to explain to customers why service failure occurred' and 'finding out from customers the effectiveness of the bank's services' is perceived as *good* (mean = 3.1850 and 3.1300 respectively). However, the bank's service recovery effort as it concerns 'compensating customers for the losses it caused them during service failure' is perceived as *poor* (mean = 2.2000).

Table 3: Perceived rate of service recovery and management

S/NO	DESCRIPTION	MEAN	SAMPLE MEAN	MEAN DEVIATION
A	The bank operates "customer care units" as a department.	4.4900	3.5425	0.9475
B	The bank encourages customers to forward complaints and observations concerning its service delivery.	4.5750	3.5425	1.0325
C	The bank spares time to explain to customer why service failure occurred.	3.1850	3.5425	-0.3575



D	The banks find out from customers about the effectiveness of its services.	3.1300	3.5425	-0.4125
E	The bank often apologizes to customers whenever “network failure” occurs.	3.6750	3.5425	0.1325
F	The bank compensates customers for the losses caused them during service failure.	2.2000	3.5425	-1.3425

Source: Survey Data (2018)

DISCUSSIONS, CONCLUSION & RECOMMENDATIONS

The technologies used in providing banking services are likely to fail and when this occurs, transactions will be interrupted and customers naturally unhappy and dissatisfied. The researcher observed recurrence of such service failure in most commercial banks. It is against this background that the study was carried out and the findings revealing a considerable number of the customers have conducted business with the bank for quite a number of years, have a wealth of experiences on its major products or services, and have transacted business via teller and ATM machines technologies. Furthermore, the study confirmed the recurrence of service failure in the banks and consumer’s perceived rate of service failure in banks ‘low’.

The findings show that the bank operates a customer care department and is doing well in terms of entertaining complaints from customers, informing customers why service failure was experienced at certain times and with certain staff operating machines, and apologizing to customers for service failure situation. The bank, however is careless about compensating customers for non-financial losses (delays, frustration, and dissatisfaction) it caused customers. Above all, the study findings, the study shows a good business relationship exist with the bank which is remarkable. Similarly, the patronage of the banks is average with service failures in banks having recurring problem as findings indicated. Nonetheless, the banks’ ability to manage the services failures is commendable as well. Hence, the study recommends the following:

- i. Service failure as it relates to non-availability of network services in banks ATMs, slow network services in ATMs, slowness of network use by tellers, availability and willingness of staffs to assist customer whenever they encounter problems using ATMs, be improved upon by banks to boost customer satisfaction, patronage, loyalty, and retention.
- ii. Given the fact that the customers are not compensated for non-financial losses incurred, the bank should note that such policy and attitude can lead to customer defection. Thus, the study further recommends that the bank to go beyond offering ‘mere apology’ to customers but should as well compensate customers with promises of better future services (non-financial compensation).
- iii. In order to enhance effective generalization of studies of this nature, it is necessary to expand the scope in terms of the sample size and the selection strategy. The study be



replicated using a much larger sample cutting across different age, status, sex, and occupations of customers.

- iv. The service failure and service recovery rate are most likely to differ among different banks. Hence, there is need to have a comparative assessment of the perceived level of service quality and service recovery effort by different banks.

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