Perception of Bank Customers about Automated Teller Machine (ATM) Service Quality

Amar Dhungel
Research-Fellow, Think Tank Foundation, Jorpati, Nepal
Associate, CSC and Company, Chartered Accountants
Email: amardhungel11@gmail.com

Banodita Acharya
Researcher, Think Tank Foundation, Jorpati, Nepal

Kshitiz Upadhyay-Dhungel
Director, Research and planning, Think Tank Foundation, Jorpati, Nepal

ABSTRACT

Banks are increasing their technology-based service options to remain competitive. Automated Teller Machine (ATM) is one of such services. Number of ATM cardholders is increasing and is expected to increase at the increasing rate in future in Nepal. As service providers all banks should know how their customers perceive about the ATM facilities provided by them. However, research in this regard is rare in Nepal and there is still a gap, which this study wishes to fulfill. This study is conducted to draw a profile of urban ATM cardholders, know the level of their awareness about ATM services, and identify the problems and prospects regarding the use of ATM.

A semi-structured questionnaire was developed to collect data about the habits and perceptions of the customers, after proper literature review. Data were analyzed and presented in the tabular/graphical form for easy understanding and elaboration of the findings of this study. Based on the findings, some suggestions and recommendation were made that could be useful for the banks.

First, the use of ATM is expected to increase at an increasing rate but banks should explore potential for attracting those users not accustomed to use ATM. The cost of ATM cards should be minimized for the mutual benefit of banks and their customers, especially in the wake of cheque clearing charges due to establishment of private cheque clearing company. Other problems in the use of ATM services and concerns of the customers should be solved as well as customers' satisfaction should be at the heart of any solutions proposed by the banks in this regard. Possibility of depositing money at ATM machines and probability of scope of use of ATM cards such as for shopping etc should be explored for enhancing the business of banks.

INTRODUCTION AND BACKGROUND OF THE STUDY

Excellence in quality has become an imperative for organizational sustainability in this competitive and fast moving world (Lewis et al., 1994). On top of that, the changing customers" perception of quality poses unique challenges. Management of

customer orientation and service quality is the most effective means of building a trust and competitive position in service industries like banks (Athanassopoulos, 2000). Any customer of this era including bank customer is more oriented to the ease, reliability, and faster services. They want autonomy in transactions, so they prefer self-service delivery systems (Khan, 2010).

In 2008, Bill Gates announced that "banking is essential, banks are not." This announcement from a great information technology business icon means that the traditional bank branch is going to vanish in order to be surrogated by electronic banking which continues to attract new users (Baten and Kamil, 2010). The development of information and telecommunication technologies has enabled organizations to provide superior services for customers" satisfaction (Surjadjaja et al 2003). Banks are increasing their technology-based services options to remain competitive. ATM facilities are one of such services.

An ATM is a computerized telecommunication device that provides the customer of a financial institution with financial transaction facility without the need for a human clerk or bank teller. It was first developed by De la Rue in 1967 in United Kingdom (Abdulwahab, 2010). Cards (debit or ATM) otherwise known as "Plastic money" is widely used by the consumers all around the world. They provide convenience and safety to the consumers. They are a good substitute of cash and cheque. It saves the time and inconvenience of going to the bank for cash withdrawals. It is enough for the cash holder to carry only card with her/him while shopping, travelling, etc.

The introduction of the ATM cards brought up dramatic changes in withdrawing money in Nepal also. The country has witnessed a rapid growth in banking transaction with the introduction and diffusion of information and telecommunication technologies in its banking sector. Baten and Kamil mentioned in their paper that, in Nepal, ATMs are the most popular electronic delivery channel for banking services (Baten and Kamil, 2010). Number of ATM cardholders is increasing and is expected to increase much more in Nepal (Bhatta, 2011). Therefore, as a service provider all banks should know how the consumer perceives about the ATM facilities provided them. However, research in this regard is rare in Nepal and there is still a gap, which this study wishes to fulfill. This study is conducted to know the perception about ATM services, their advantages and disadvantages, and the areas of customers inconvenience while using ATM card and services. The objective of the study is outlined below:
1. To draw a profile of urban ATM cardholders;
2. To find the level of awareness about the ATM facility among consumers;
3. To identify prospects and problems concerning the use of ATM;
4. To provide necessary suggestions and recommendation to the banks regarding the future of ATM and things to keep in mind for future development in this regard.

MATERIALS AND METHODS
Survey tool: A self-designed semi-structured questionnaire was developed to collect data about the habits and perceptions of the bank customers, after proper literature review. The questionnaire was distributed to around 200 persons. The

data was collected by contacting people door to door in Jorpati VDC, Kathmandu, Nepal. Each alternate home was chosen for distributing the printed questionnaire. Maximum of two persons were contacted from a single house, whosoever is available on the day of visit. In case of illiterate respondents, the first author himself filled the questionnaire on their behalf. The questionnaire has two components. First section is to collect the demographic information of the respondents and the second section to enquire about respondent's perception about ATM and some other related information.

Survey population: The study was conducted in Jorpati VDC, Kathmandu, Nepal.

Sample size: Questionnaire was distributed to a total of 201 participants. Out of that 150 participants filled and submitted the questionnaire (Response rate 75%).

Consent: Objective of the research was explained to the respondents and their consent was taken for the participation. They were free to not to submit back the questionnaire.

Limitation of the study
1. Study cannot authenticate the validity of response obtained from respondents.
2. This study assumes that the individuals who respond to this survey are truthful.
3. In Nepalese environment, the customer is not willing to share genuine information.
4. Although samples were collected purposively, the efforts are made to enhance the quality of research for increasing its generalization for wider set of population.

RESULTS AND DISCUSSION
This study was conducted in Jorpati VDC, a sub-urban population in Kathmandu, capital of Nepal. A total of 150 participants filled the questionnaire and returned (response rate of 75%). The demographic of the respondents is shown in Table (1). Out of 150 respondents, 114 possess ATM card (76%). The study has wide range of respondents. They belong to age from 18 to 72 years, married and unmarried, and male and females. They are having different occupations from students to service-holders, and self-employed to retired persons. The sample has non-earning respondents to respondents having income greater than Nepalese Rupees six hundred thousand per year. Twenty seven percent of the respondents do not wish to disclose their income. Few of them seem to be from higher income groups while other seems to be low income (based on Authors perception during data collection).

Table 1: Demographics of the respondents

Parameters		Number Of Respondents (%)
Have ATM Cards		114 (76)
Male	Married	49 (33)
	Unmarried	13 (9)
Female	Married	35 (23)
	Unmarried	53 (35)
Education	Undergraduate	46 (31)
	Graduate	60 (40)
	Post Graduate	27 (18)
	Vocational Degree	13 (9)
	Illiterate	4 (3)
Age	Less than 20	18 (12)
	21-30	71 (47)
	31-40	27 (18)
	41-50	21 (14)
	51-60	10 (7)
	60 And Above	3 (2)
Occupation	Homemaker	9 (6)
	Service	61 (41)
	Self Employed	48 (32)
	Retired	5 (3)
	Student	27 (18)
Per Year Income	Less Than 1 Lakh	32 (21)
	One-Four Lakh	47 (31)
	Four-Six Lakh	8 (5)
	More than Six Lakh	7 (5)
	Yet To Make Money	15 (10)
	Do Not Disclose	41 (27)

Figure (1) shows 90% of the respondents in the age group 21-30 years have at least one ATM with them while persons at higher age, that is, above 50 years of age uses it less commonly. Of the respondents of age group 31-40 years of age 81% have ATM. Wan et al. from their study in Hong Kong showed that age has significant effect on pattern of use of technology-based services (Wan et al., 2005). Usually youth prefer to use technology-based and innovative service delivery channel like ATMs. People of higher age group are reluctant in using ATMs because of perceived risk of failure, complexities, lack of knowledge, lack of awareness program by the banks, and security reasons (Moutinho, 1992).
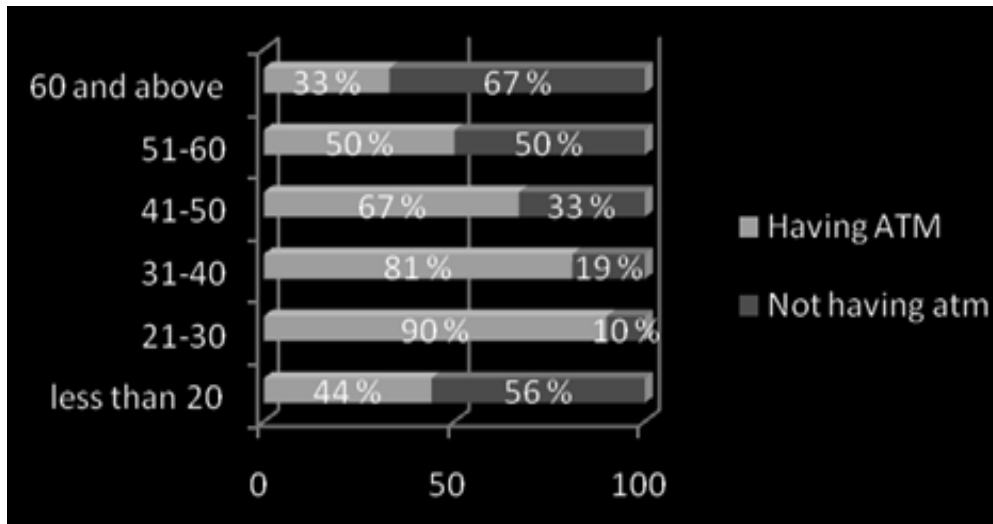
Figure 1: Age-wise distribution of the participants having and not-having ATM Cards

Table (2) depicts the age wise distribution of the ATM users. The person belonging to age 21-40 years (group 21-30 years and 31-40 years) uses ATM more commonly. This shows that the younger generations are using ATM more commonly and banks should focus on their demand and orientation while deciding about such facilities. Older generations are more reluctant to use ATM (Mutinho, 1992). However, for growing the business banks should come up with some schemes that may attract these groups of people (old-aged) to use ATM.

Table 2: Distribution of respondents having/not having ATM among different age group

Age	Number of respondents	Number having ATM card (%)*
Less than 20	18	8 (44 %)
21-30	71	64 (90%)
31-40	27	22 (81%)
41-50	21	14 (67%)
51-60	10	5 (50%)
Above 60	3	1(33%)

* Percentage represents the percent of respondents having ATM

Figure (2) shows that the service holders are the one who is using ATM mostly. Service holders are the regular earners so are using ATM mostly. Homemakers and retired persons use the ATM less often respectively. The study also found that even the students, having less income as well as irregular income, are using ATM more than above two groups. This may shot the potential for ATM's future.
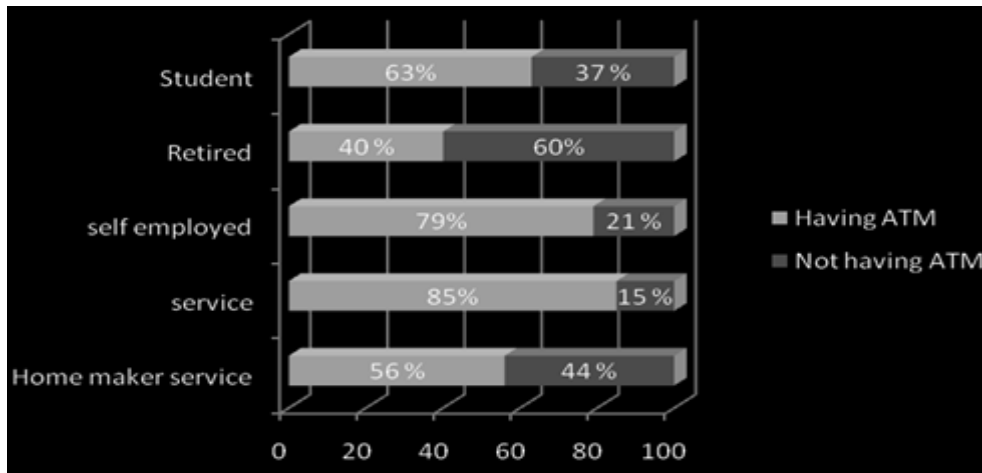
Figure 2: Occupation-wise distribution of the participants having and not-having ATM Cards

Table (3) shows that service holders are the one who is using ATM mostly followed by self-employed. Service holders (85%) followed by self employed (79%) are the group who is using ATM mostly. Retired persons use ATM service least. Sixty percent of retired person do not use ATM. This shows the reluctance of retired person to use ATM. Mutinho argued that old age persons are reluctant to use ATM due to technical complexities and security reasons or may be due to fear of failure (Mutinho, 1992) may be due to the fact that during their service time they were using cheques as ATM services came late in Nepal and are still comfortable with cheques than the ATM services.

Table 3: Distribution of respondents among different occupational group

Occupation	Number of respondents	Number of respondents having ATM card (%)*
Home maker	9	5 (56%)
Service	61	52 (85%)
Self employed	48	38 (79%)
Retired	5	2 (40%)
Student	27	17 (63%)

* Percentage represents the percent of respondents having ATM

Among ATM users, high numbers of people were under-graduate and graduate (Table 4) but if we observe the percentage of ATM users among each group on table 4, we can see that 85% of post-graduate respondent uses ATM whilst relatively less percentage of graduate and undergraduate uses ATM. The "r" value, coefficient of correlation between education level and percentage of respondent having ATM at that level was found to be +0.85, that is, highly positive correlation was found among these variables which means as educational status increases, the tendency of using ATM increases.

Table 4: Distribution of respondents among different educational level

Education	Number of respondents	Number of respondents having ATM card (%)*	Correlation coefficient (r)
Illiterate	4	1 (25%)	+ 0.85
Schooling only	13	9 (69%)	
Undergraduate	46	34 (74%)	
Graduate	60	47 (78%)	
Postgraduate	27	23 (85%)	

* Percentage represents the percent of respondents having ATM

Figure (3) give the information about ATM users in different income groups. The person having income from four to six Lakh Nepalese rupees uses ATM more frequently. Even respondents falling on group "I am yet to make money" use ATM (67%). They usually are college students and they are comfortable using ATM. May be certain provision for students like students discount on ATM charges and surcharges may enhances their ATM-uses and increase the banks deposit and transaction. In Nepal, many students stay at Kathmandu, the capital and education hub for their study, but their parents are staying on other parts of Nepal. Parents can deposit the money on the account of their children from their own town and their wards can withdraw it from their nearby ATM-vendor. This has become possible due to ABBS (Any Branch Banking Services) provided by the banks and shows that technological advancement can enhance the business of the banks. Therefore, banks can explore this area for enhancing their business.
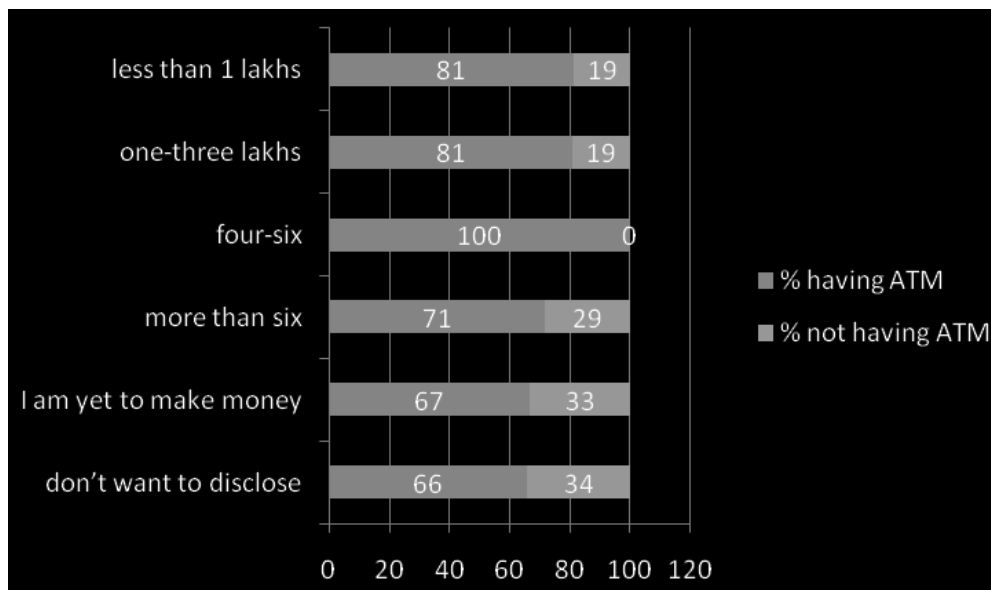

Figure 3: Income-wise distribution of the respondents for having and not-having ATM Cards

Only 27% of the respondents use ATM several times in a week (more frequently) and 12% uses it very rarely or less often (Figure 4). This means that some person having ATM do not use it much or has not used it even once. Usually many banks

to attract customer (deposit) gives different facilities, among them ATM facilities is the common one. So, as an offer, customers or account holders get ATM for free for first year. So, it showed that the person receives ATM cards may not necessarily use it. Either banks has to encourage such person to use ATM services by disseminating knowledge about its use (method of using, advantages, precaution, rules and regulation, etc) or may minimize their costs and resources by providing these services only to the prospective customers who are willing to use it.
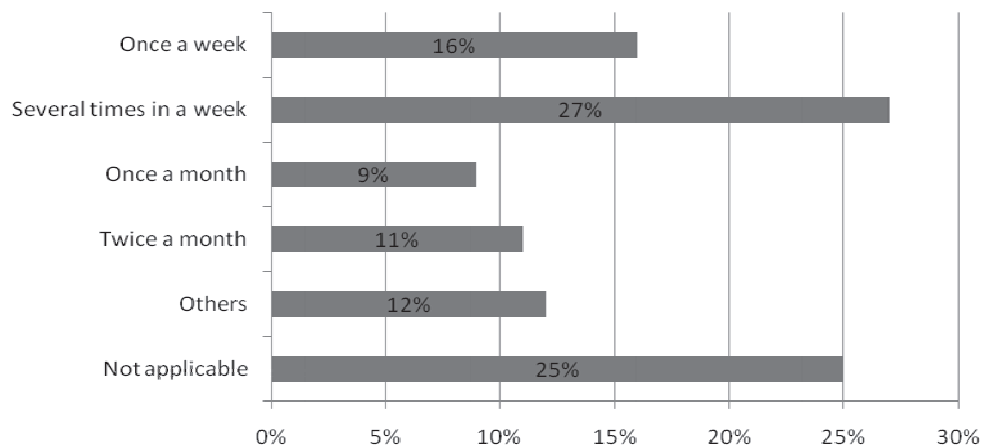

Figure 4: Frequency of ATM use by respondents

Similarly, Figure (5) gives the respondents opinion about ATM services. Of the total respondents, about 73% prefer ATM banking to the traditional method of financial transactions. This may be because they like it due to several reasons that will be discussed later on, but 16% do not prefer ATM because they prefer cheques, and 11% are undetermined may be because they are using both cheques and ATM cards in different occasions or since these two instruments have different use. Of the total respondents around 72% find ATM operation comfortable but 19% do not find it comfortable, it may be due to different technical problems that will also be discussed later. Also, 23% expressed that they do not find ATM service reliable whilst 67% find the service reliable. According to Khan (2010) in his study on ATM service quality and customer satisfaction, the reliability means providing promised services accurately at all times and is one of the major components of customer satisfaction. He further elaborates it as: ATM users want to receive the right quantity and right quality of services at all the times, as promised by banks. They also prefer accurate billing of their accounts. Of the total respondents 65% want guard to be present at ATM vendor for security while 31% say they do not prefer it. We can see that at several ATM Vendors, guards are not present all the time but since most of the customer wish that guards be present, this issue needs to be addressed by the banks.
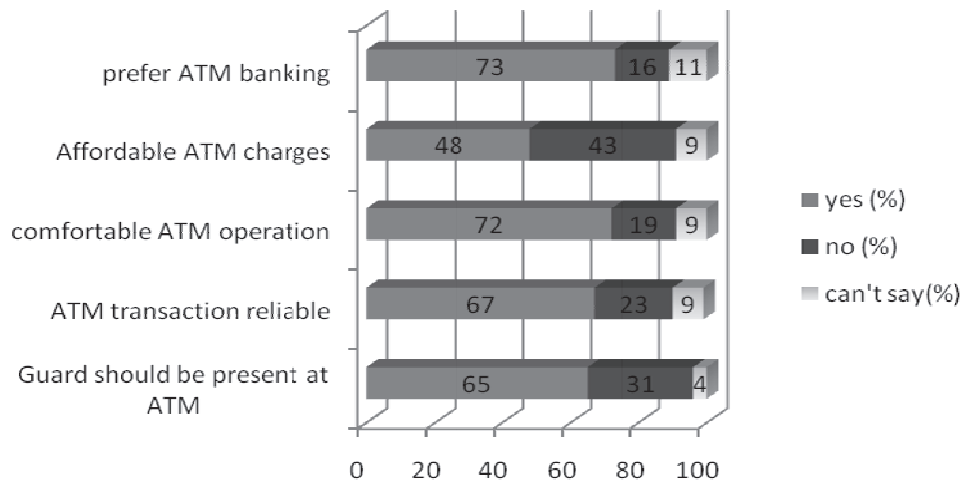
Figure 5: Respondents opinion regarding ATM use

Figure (6) shows that 5% of respondent have more than three ATM cards of different banks and 76% have at least one ATM card with them. The analysis why they have more than one card is beyond the scope of study, but could be a good topic for study in our context. But at least it shows that customers are willing to have more than one cards and that the market for ATM growth is expected to be bright.
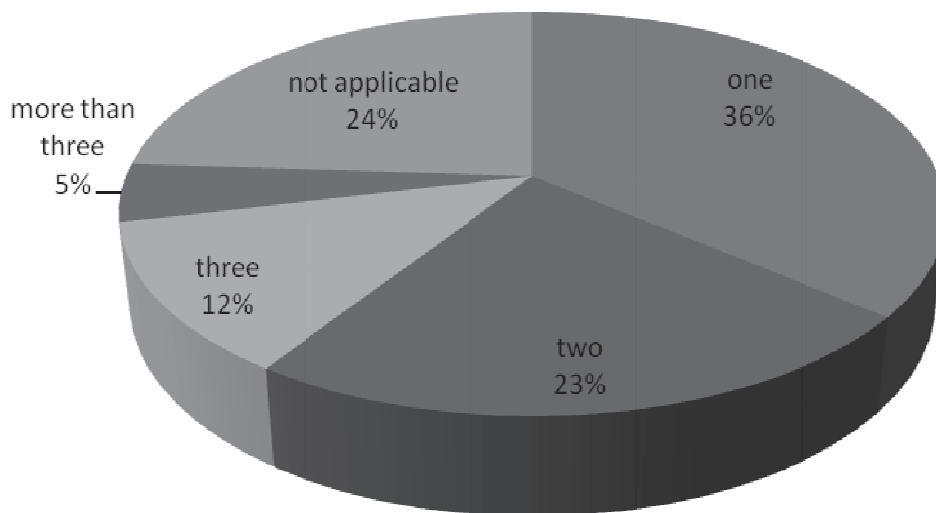

Figure 6: Distribution of respondents according to the number of ATM Cards

Of the total respondents 72% were aware of the charges need to be paid per transaction while using an ATM not owned by the bank, while 23% were unaware

of about the charges, 5% of the respondents did not disclose their opinion in this regard (Figure 7). Bhatta (2010) in his study in Nepal has shown that greater than 50% of the respondent of his study were unaware about the Cost and Service Charges for the use of ATM services. The price or charges and surcharges are essential aspects of customer satisfaction also. It affects the customers' perception of ATM service quality (Surjadjaja et al., 2003; Iqbal et al., 2003). The higher charges give an impression of injustice and non-competitiveness and monopoly of service providers and may lead to switching of service provider bank (Mboma, 2006; Colgate and Hedge, 2001).
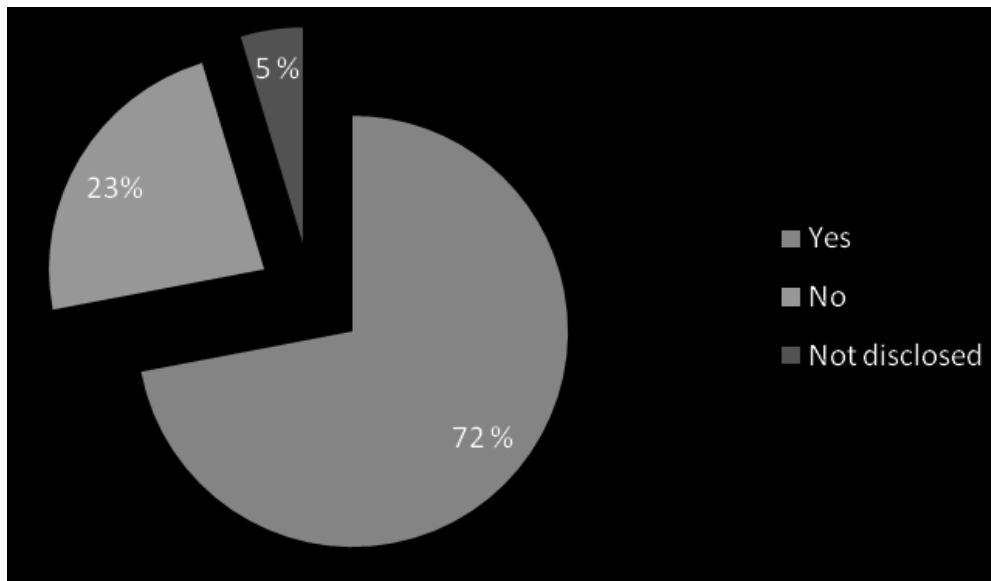

Figure 7: Knowledge about service-charges of ATM services

In Figure (8), the problem regarding ATM services has been presented. Around half of the respondents have at least faced the lack of one or more of the ATM facilities at the time of need frequently, and 35% have faced the problem of trapping of their card by ATM vendor machine. False debiting and the time consuming process of correcting the problem of false debiting in part of customer is one of the major discomfort faced by ATM users in our study and also the major concern shown by them. Several other problems have been presented and these are the points where bankers should focus on to remain competitive among themselves and enhance the quality of service provided by them. Again, around 31% of the respondents said they had complained to the bank regarding problem of ATM service to which only 22% of the respondents complain was promptly addressed. This shows that bank customer rarely complain about the problems although bank are found to responds promptly on the customers' complains. Such response should go up to 100% if the banks are concerned about customer satisfaction and motives of remaining competitive. Some previous researchers also found that the customers always prefer to resolve their complains expeditiously (Karajaluoto et al., 2002). Several other studies also have shown that responsiveness is crucial to sustain service

quality and facilitates in building long-term relationship between service provider and customers (Long and Mc Mellon, 2004; Bauer et al., 2006).
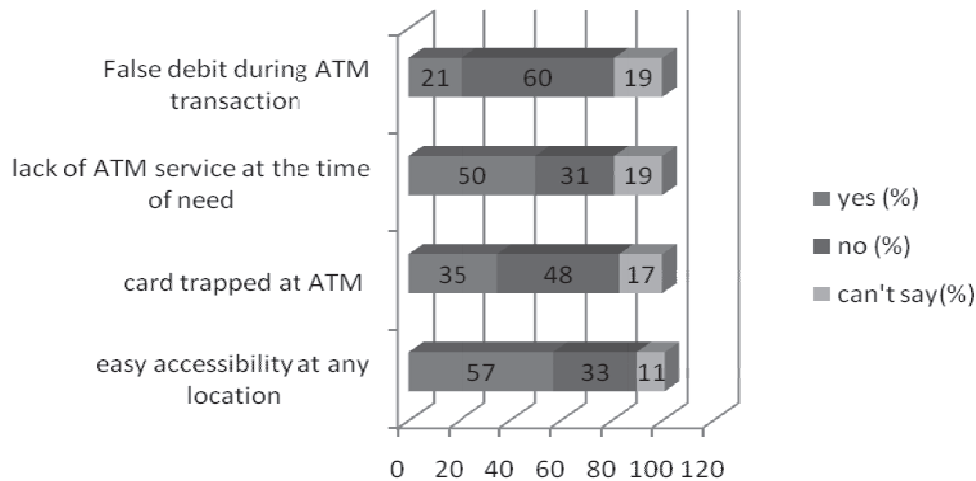

Figure 8: Distribution of the respondents" opinion according to areas of discomfort regarding ATM Service

The advantages of ATM service of banks as perceived by the respondents are presented in Table (5). Ease of transaction, saving of time, safety and portability, network among other banks are the major advantages of ATM, as perceived by the customers. Lucy (2006) from her study in Tanzania established that ATM services enhance operations and customer satisfaction in terms of flexibility of time. It also adds value in terms of speedy handling of voluminous transactions which traditional services were unable to handle efficiently. But since at present several ATMs were closed in non-banking hours or during holidays, it creates some type of discomfort to the customers. It would have been better if the banks explore the possibility of opening the ATM twenty four hours per day and seven days per week.

Table 5: Respondents perception regarding advantages of ATM use

Responses	Number of Respondents
Easy transaction	47
Time saving	24
Safety and portable	21
Networking with other Banks	2
Others	4

Lucy (2006) also established that the level of satisfaction is reduced by technological and processing failures. Somewhat similar is the responses of our respondents regarding disadvantages. The disadvantages of ATM services as perceived by the respondents are presented in Table (6). Technical difficulties, lack of proper services, long queues, limit of transaction, unnecessary charges are some of the major disadvantages quoted by the respondents. It can be seen from the

table that the customers has perception that the bank is charging unnecessary charges like charges for statement, transaction charges with other network , yearly charges, etc to the ATM users. Some of the study has established that the perception of customer that the service delivery mode is expensive and insecure creates customer dissatisfaction (Lucy, 2006).

Cost and service charges is one of the areas where lots of work needs to be done. One of the study by Humphrey et al. (2003) in 12 European countries established that the ratio of operating cost of providing banking services to total assets has decreased considerably because of electronic payments and use of ATMs. However, one of the previous studies by the same author in 1994 has shown that ATMs have not reduced banks' costs. Humphrey and Vale (2004) have stated that the shift to electronic based payments led to remarkable cost savings. As there is remarkable cost saving as shown by majority of studies, ultimately the consumer will get benefit and have to spend less time and money for each transaction. In context of Nepal, due to electronic cheque clearing initiated by Nepal clearing House Pvt. Ltd. and the service charge associated with it, the cost of using cheque is certain to increase in future, because the service and technology charges of electronic cheque clearing will ultimately be passed on to the end users. On top of it, hassles in the use of cheques will reduce its use. Hence, it will become not only easy but also cheap to use ATM cards in the future and upgrading its quality is a must for banks, at least for competitive necessity if not for competitive advantages. However, from our respondents it seems that bankers have failed to convince their customer that ATM service is cheaper for costumer than the use of cheques or any other means of transaction. At present ATM cost seem to be very high although cheques are usually provided free of charge till now.

Around 38 respondents of our study mentioned various technical problems faced by them and it seems to be major disadvantages of ATM. Among the Technical problems: Trapping of the card, frequent out of service messages, machine not properly functioning, no back up during load-shedding, system problem and software problem, were the major technical problems mentioned. Several studies have shown that technical complexities and lack of knowledge are the major disadvantages of the ATM (Bhatta, 2010; Lucy, 2006; Khan, 2010). Besides above problems, the researcher has grouped the disadvantages (mentioned by customers) like short expiry date, blocking not done through SMS/phone, minimum balance withheld, some banks having no network with other banks, and so on as "lack of proper services". These are the area where the bankers should take care of to satisfy their customers. Many responses regarding disadvantages were there in less frequency and are grouped under "others", but some pertinent issue has also been raised which are to be mentioned here as: "rumor of loss of money", "misuse by fraudsters in banking system itself", "intruder can enter during transaction", "cannot deposit money through ATM", "not in convenient place", "no security guards" are some of the important and pertinent comments made by the respondents. These area also needs focus by the banks. Apart from many disadvantages similar to our research, a study by Lucy (2006) focused that the ATM service provided in Tanzania has not considered the people with disabilities such as blindness and people in

wheel chair which negates the role of self-serving customers. Similar is the case in Nepal too.

Table 6: Respondents perception regarding disadvantages of ATM use:

Responses	Number of Respondents
Technical difficulties and problems	38
Lack of proper service	19
Long queue	15
Limit on transaction	14
Unnecessary charge	5
Others	28

CONCLUSION AND RECOMMENDATION

To sum up, this study provides the demographic details of ATM users in one of the sub-urban areas in the Kathmandu district, the capital of Nepal. Majority of the people in the selected area preferred ATM service to branch banking, which shows that there is a need of expanding the establishment of ATM vendor machine to include several more areas. Younger generations and educated people are more comfortable using ATM while older generations are reluctant to ATM use and are comfortable with traditional method of branch banking. So, it also gives the picture of customers' perception about using newer technology like ATM, their perceived usefulness, their perceived risks, and inconvenience they face while using the ATM. Depending upon age, occupation, income, and other demographics this research found that a certain group of users are more used to the ATM services and some other groups are not. Such as we can see from our research that educated, high income, young, service holders are the majority using ATM but opposite to it less educate, less income, old, retired and home makers are using ATM services less. So, it is recommended that banks should develop a strategy to motivate non-users through awareness, education, demonstrating the function of ATM through personalized services and through other means.

Most of the respondents have faced technical problems and have reported several technical problems like trapping of the card, out of service machines, machines not properly functioning, no back up during load-shedding, system problem and software problems. Besides, short expiry date, regular renewal and charges for renewal, blocking not done through SMS/phone when ATM card is lost, withheld of minimum balance, some banks having no network with other banks are also some issues of concern. These are the area where the bankers should take care of to satisfy their customers. Besides, although not raised by many respondents due to lack of knowledge of such facilities, but the possibility of ATM machines where deposits could also be done as found in some developed countries as well as that used by some banks in the past should be explored and the problem, if any, in implementing this should be solved with stakeholders. It has been learnt that due to the quality of currency notes, direct deposit of cash has not been possible, if show the Nepal Rastra Bank (NRB), the central bank, should solve this problem in order to promote use of technology in the banking sector.

One of the major issues is also related to cost. Since by the use of ATM, customers are using less of the cheques, that means reduced cost of printing cheques, banks should give a second think to waive the yearly cost of possessing an ATM card. This will also send positive message to the NRB, in the time when the attitude of NRB and the relationship between NRB and banks are like the competitors, in the sense that NRB is trying its best to reduce the costs associated with depositing the money that are the major source of fund for the banks from which they earn their profits. Besides, due to the establishment of electronic clearing of cheques through the newly established company in the initiation of NBA and NRB, it is highly like that the customers are required to pay for cheque transactions. Hence, from the economic perspective also the use of ATM cards will be cheaper, especially for those customers who have to withdraw cash frequently and that also for the personal use. Banks could think of better alternatives to reduce the cost burden for both them and their customers. One of the alternatives is to make ATM a way of living: that is making its use for more and more activities. For instance, use of ATM cards for shopping could be helpful and some agreements between banks and businesses may be helpful. It may also reduce the cost for customers and is beneficial for banks since more transactions were made through them (formal means) as well as for businesses since they could have peace of mind for safety of their money and reduced possibility of fraud by employees.

At last, this study being a first study in Nepal regarding ATM and is a preliminary one, we recommend further studies to be carried out to examine the factors that influence customers (ATM users) satisfaction. More systematic empirical study is needed to establish the predictors of ATM service quality of banks and to examine the extent to which it enhances or diminishes these variables in our context.

ACKNOWLEDGEMENTS

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APPENDIX

Questionnaire

Surname: Age: Gender: Marital status:

Education: a) Undergraduate   b)Graduate   c)Postgraduate   d)Other occupational degree

Occupation: a) Homemaker   b) Service   c) Self employed   d) Retired   e) Student

Per year income group:
  a) Less than one lakh per annum
  b) One lakh to 3 lakh per annum
  c) Four to 6 lakh per annum
  d) More than 6 lakh per annum
  e) I am yet to make money
  f) Don't want to disclose

1. Do you already have an Automated teller machine (ATM) card?
2. For how many account do you have ATM?
   a. one
   b. two
   c. three
   d. more
3. Do you prefer ATM to branch banking?
4. Is operating on ATM comfortable?
5. Can you access ATM at any location?
6. How often do you use an ATM?
   a. Several times in a week
   b. Once a week
   c. Once a month
   d. Twice a month
   e. Less often
   f. Other (specify)
7. Do you find it necessary for a guard to be present in ATM post?
8. Are you aware of the fees/charges you need to pay while using an ATM not owned by your bank?
9. Do you find the charges for ATM affordable?
10. What are the inconvenience you have encountered while using an ATM
    a. Long queues
    b. Limit on daily withdrawal
    c. Difficulty in inserting card
    d. Not being able to read from the screen
    e. The slip provided is unreadable
    f. Others
    g. None
11. Do you find ATM transaction reliable?
12. Did your ATM machine ever trap your card during transaction?
13. Has it happened that your ATM machine could not provide you the service when you needed?
14. Did your ATM machine ever debit your account without actually giving physical cash?
15. Have you ever complained about ATM machine to your bank?
16. If yes, has your complain been promptly addressed?
17. If not using ATM, what factor can motivate you to use such instrument?
18. What problem do you face while using ATM?
19. Please list the Advantages of ATM
20. Please list the Disadvantages of ATM