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A SURVEY OF AUTOMATED TELLER MACHINE USAGE IN NORTH INDIA

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ABSTRACT
A machine that hand out cash or executes several banking services at a swipe of Automated Teller Machine (ATM) card in it. An ATM is a machine is use to withdraw cash using a debit card issued by a bank to the consumer(s). An ATM card is issued by a financial organization that permits user to access an Automated Teller Machine (ATM) such as to deposit amount, cash withdrawals, to check account information, etc. It is now preferred to cash by a large majority of the urban population in many cities of India, who use it to take out when necessary. This survey is conducted in a state of India i.e., Uttar Pradesh. This survey paper is based on the questionnaire which covers the problems of ATM and Satisfaction & dissatisfaction level toward internet banking. This survey communicates that the ATMs facilitates people's life but same way there are several problems and vulnerabilities which fraudster are taking advantage.

KEYWORDS: ATM security, ATM Services, Problems of ATM, Confidentiality, Information security, ATM frauds

I. INTRODUCTION
The new generation of young consumers is not prone to carrying cash but plastic (credit/debit cards). As such, ATMs prove to be of great use to such people, because they serve this very purpose [1]. ATM provides several services, i.e., cash withdrawal, fund transfer etc. ATM is also known as cash machines, have been one of the most influential technological innovations of the twentieth century. ATM Card is a plastic card with a magnetic stripe containing relevant details of the Card Holder. A cardholder is identified by inserting a credit/debit with a magnetic strip contain a unique number and Personal Identification Number (PIN) in the ATM machine. Personal Identification Number (PIN) is a 4 Digit Number [2].

However, with the growth of ATM machines, not only the facilities but also frauds have grown along with it. This paper analyses the satisfaction levels of the customers of ATMs and also the various problems they face while engaging with them through a survey.The new generation of India is not prone to carrying cash but plastic (credit/debit cards). As such, ATMs prove to be of great use to such people, because they serve this very purpose. India is turning towards digitalisation which is promoting ATM and plastic money [3]. This paper analyses the satisfaction levels of the customers of ATMs and also the various problems they face while engaging with them through a survey. This paper is organized as: Section II states the research methodology; Section III gives the results of the survey i.e., problems of ATM and the user satisfaction achieved; Section IV-shows the findings of the paper; and at last V concludes the paper.

II. RESEARCH METHODOLOGY
This survey is conducted in a state of India i.e., Uttar Pradesh. The sample was collected based on the method on purposive selection/sampling and consisted of a hundred respondents in all. It was so because the respondents were proving to be relevant to the topic in concern and were fairly easily available survey questionnaire [3].

III. RESULTS OF THE SURVEY
Result of the survey is divided in two parts, given below**:**

1. **Problem occurs in ATM**

The following graph diagram illustrates the various problems that the respondents faced during the process of engaging an ATM:
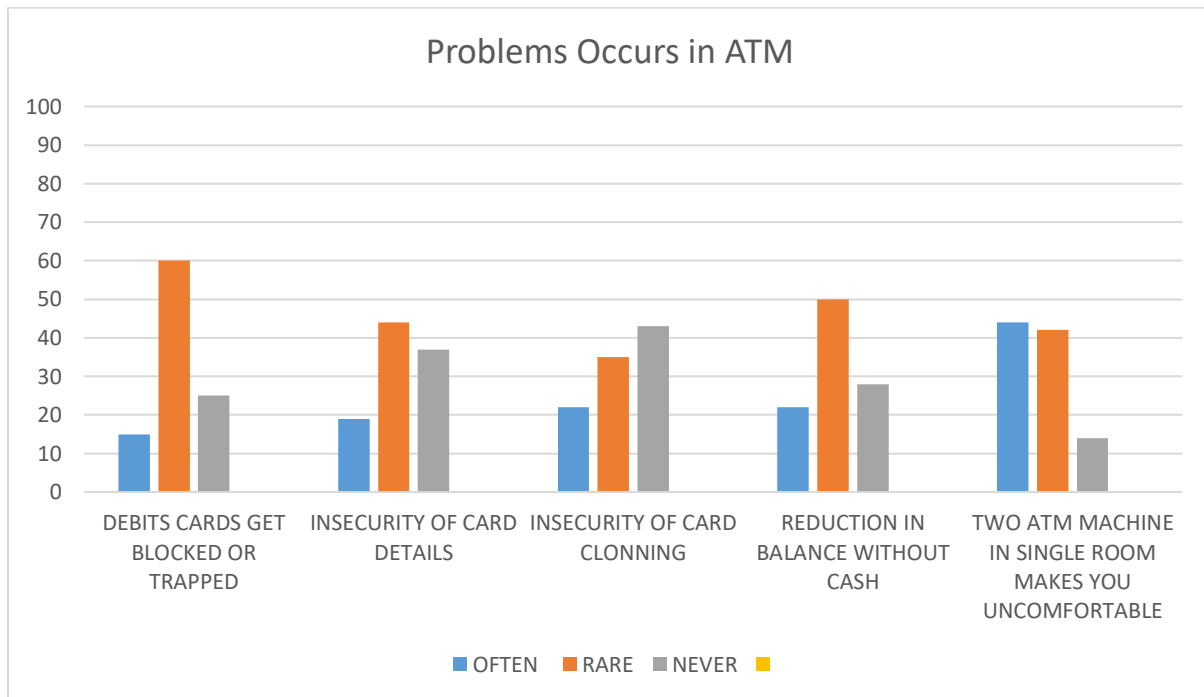

Graph 1: Problems Occurs in ATM

The problem faced most often by the user was two ATMs in a single room (44%), indicating the fact that the feeling of vulnerability runs high among the users of these transaction machines. The second most often faced problems were cash getting stuck in the machine but the transaction showing as being done, and insecurity about card cloning (both at 22%). The former problem can be handled by the person concerned through meeting with the bank employee in person with an application; while the second case can be dealt with increasing the security facilities at rooms with ATMs [4]. Most often, the CCTVs placed in rooms, and chips placed in the ATMs itself, lead to cloning of the cards, but they can be dealt with, if worked intelligently [3].

Paradoxically, though, the problems rarely faced by the respondents were cards getting blocked inside the ATMs (60%), and no cash generation from the machine (50%). [5]

2. **User Satisfaction**

The subsequent graph diagram presents an analysis of the respondents based on their satisfaction levels achieved through the usage of ATMs:
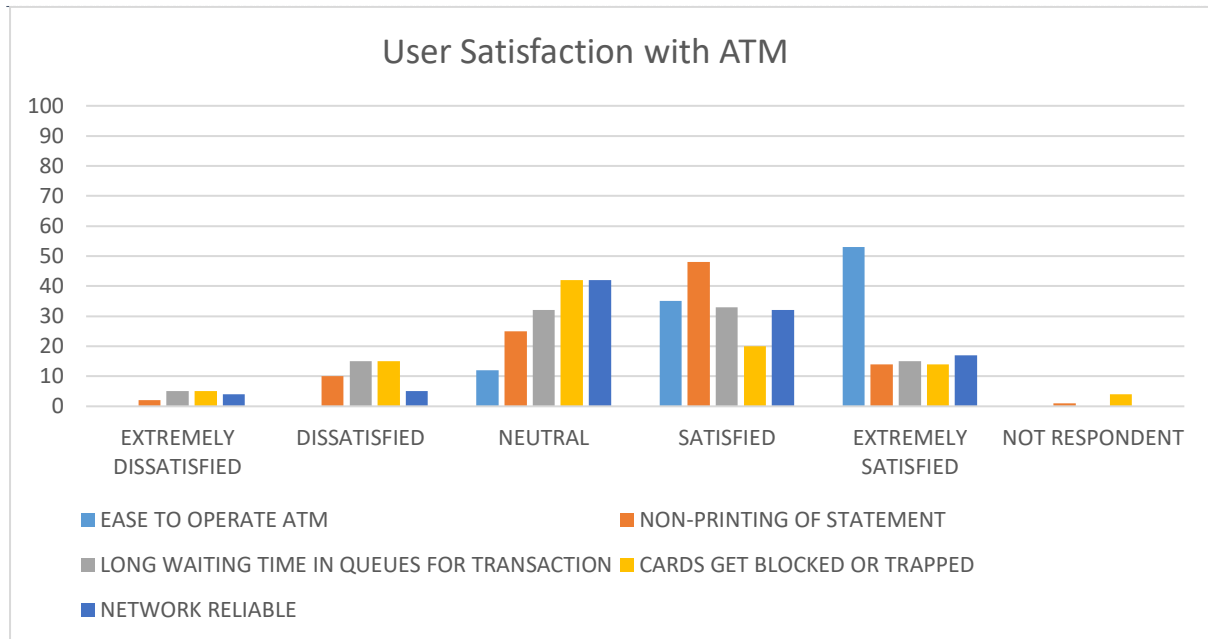
Graph 2: User Satisfaction with ATM

The levels of extreme satisfaction and satisfaction achieved by the respondents ran in the following descending order:

1. Ease of operating (54%)
2. Reliable Networks (19%)
3. Long waiting time in queues (15%)

However, a very large relative percentage of people were satisfied of all the measures considered (ease of use, 35%; non-printing of statements, 48%; long waiting time in queues, 33%; cards getting trapped, 20%, reliable networks, 32%).

Overall, the respondents, on an average, were most content **(satisfied and extremely satisfied)** with:		
1.	Ease of Operating	44.5%
2.	Reliable Networks	25.5%
3.	Long waiting time in queues	24%
While on the other hand, the respondents, on an average, were most discontent **(dissatisfied and extremely dissatisfied)** with:		
1.	Cards getting blocked	10%
2.	Long waiting time in queues	10%
3.	Non-printing of statement	6%

IV.   OBSERVATION AND FINDINGS

The data of this survey is deep observed and analysed also give rise to contradictions; compared to physical processes required for monetary transactions, the respondents seemed content; but while comparing on an intra-factorial basis, they were not at ease with waiting in queues and hence left transactions unfinished; presenting a paradoxical relationship between the data; like, while 24% of the respondents were content with waiting in queues, 10% of the respondents were not. This might be attributed to factors, both relative and independent. When compared to physical processes required for monetary transactions, the respondents seemed content; but while comparing on an intra-factorial basis, they were not at ease with waiting for long hours in queues.

The Reliability towards a particular channel of banking transaction arises from it being user friendly, secure, delivering on privacy and consistent et al. It is this one factor that will lead to an increase or decrease in the number of users of alternate banking channels. [5] Dependability, as per the results of my survey has a maximum figure of 55% on ATMs. Thus, it is clear enough that it has to increase. It can be done through providing to the people, an environment, free of the problems mentioned in Figure.1
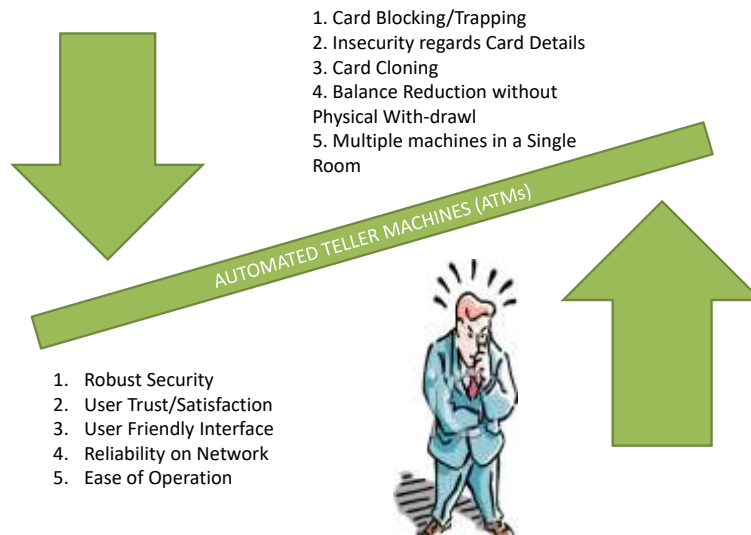

1. Card Blocking/Trapping
2. Insecurity regards Card Details
3. Card Cloning
4. Balance Reduction without Physical With-drawl
5. Multiple machines in a Single Room

AUTOMATED TELLER MACHINES (ATMs)

1. Robust Security
2. User Trust/Satisfaction
3. User Friendly Interface
4. Reliability on Network
5. Ease of Operation

Figure.1 Reliability Factor of ATM

India's advent of digitalising the Indian economy, ATMs will reach many people, both urban and rural, though that might be late. People will need to adopt to the changing situations – there will be less of what is called hard cash. But, the parameters need to be kept in mind – adaption to ATMs will be smooth and convenient for people when they see vigorous security measures, an easy interface to work with, maximized network connectivity, and of course, now that one often comes to hear of it, presence of hard cash in the ATMs itself, which means ATMs not going 'dry.' Embracing such change will depend on the people themselves, because what the Indian government can do is to provide people with ATMs fitted with the services/comforts that they need and want, but people might still not make use of them, fearing insecurity such as card cloning, cards being trapped/stuck inside the teller machines, not receiving transaction receipts, balance-reductions without a withdrawal having happened and fear of being overlooked.ATMs are prone to many problems, one of which is "insecurity/cloning of cards." All problems considered under usage of ATMs, many often facing one or the other problem (cards getting blocked; insecurity; cloning of cards; many machines in a single room). These problems need to be solved in a convenient, time-bound manner that results in better services to a largely growing population shifting towards.

V. CONCLUSION

ATMs prove simpler than carrying large amounts of cash in hand, there are deleterious points to their usage too. ATMs are prone to many problems, one of which is "insecurity/cloning of cards." All problems considered under usage of ATMs, many often facing one or the other problem (cards getting blocked; insecurity; cloning of cards; many machines in a single room). These problems need to be solved in a convenient, time-bound manner that results in better services to a largely growing population shifting towards ATM usage rather than cash usage. The digitalisation of the Indian economy is a move, aimed at a bright future, and with helping people adopt to newer measures of configuring transactions than in the past, but it needs to be guarded with security, and the people need to be gratified of their wants, without which such a measure will not see the light of day or will be short-lived at best.Thus, It become necessary to patch the ATM problems and vulnerabilities to reduce fraudulent activities.

VI.   REFERENCES

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