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Executive Summary

A study on Digital Literacy and the usage of Internet and Mobile Banking wrt Self-Help Groups – Mumbai

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Research Article

1.0 Introduction

The entire universe is at present advancing towards digitalization and every life is connected with digital technology. The banking industry is no exception. Core Banking has upgraded from "Anywhere, Anytime Banking" to mobile banking and then to crypto currency and digital currency for the customer convenience ". The third edition of the Digital Evolution Scorecard ranked India among "Break-Out Economies". The Deloitte report (2020) predicts for 2025 that transactions will be contactless as automation and blockchain deepen the financial operations of the bank and financial institutions.

Self-help groups are a small but an essential element in our society. The microfinance concept has been successful by targeting self-help groups. SHGs financial inclusion is worth an incredible $40 billion. Government of India has initiated the programs like NRLM and PMJDY to elevate the SHGs.

1.1 Problem Statement

SHG members still rely on conventional approaches for financial transactions. SHG women believe in daily earnings and cash payments. Although, all stakeholders have taken initiative to support these women, but they have not taken advantage of the schemes provided by GOI and Banks. The research team took upon itself to choose this area of study. The team of researchers decided to conduct a survey on SHGs women and their awareness & usage of internet or mobile banking to understand their profound insights in this ever-happening domain.

2.0 Review of Literature

An in-depth analysis revealed that the non-adoption to digital or online or mobile transactions is related to psychology, studied by many researchers under the theory of "technology acceptance model".

The evolution in this direction started with 'Diffusion of Innovation Theory' (Roger, 1960). Though 16 new theories or models were introduced till 2009, Fred Davis (1989) introduced a robust, powerful and well-established model for predicting user acceptance called as 'Technology Acceptance Model' (TAM). In subsequent years TAM 2 and TAM 3 were developed by adding more relevant constructs to predict future behavioural intention.

2.1 Construct or Variables under TAM

TAM 1 Variables (1989) – Perceived usefulness, perceived ease of use and behavioural intention.

TAM 2 (2000) - Social influence, subjective norm, voluntariness, image, job relevance, output quality, and result demonstrability.

TAM 3 (2008) - Individual differences, system characteristics, social influence, facilitating conditions, self-efficacy, perceptions of external control, computer anxiety, and computer playfulness and adjustment variables (perceived enjoyment and objective usability). experience and voluntariness act as modifiers of behavioural intention.

In 2003, Venkatesh, Morris, and Davis created a concise model called 'Unified Theory of Acceptance and Use of Technology (UTAUT)' for the better understanding of the drivers of technology acceptance. It has four key constructs namely "performance expectancy, effort expectancy, social influence and facilitating conditions".

The team of researchers examined all the studies concerning TAM with its two extensions and UTAUT model. From 2010 to 2019 and three studies from 2020 were considered for the in-depth review. Out of 100 studies 96 research studies have undertaken behavioural intention as dependent variable and executed techniques such as correlation, regression, structural equation modelling or neural network modelling. One or two studies performed t-test or ANOVA or MANOVA to determine the difference within the group or between groups.

2.2 Research Gap

Most of the studies conducted in Asian countries, but very few studies analysed the effect of the region or location surrounded by the respondents. Only two studies have highlighted the impact of national culture. One study clearly indicated that the culture of the country influenced consumer perceptions and intentions about mobile banking.

Some studies from Zimbambay, Denmark and India have focused on rural issues and intentions. However, not a single study being conducted on the usage of the internet or mobile banking services with respect to regional differences within urban regions or cities.

Anecdotal research has pointed out that the use of technology will be easier for youth. However, in the context of the internet or mobile banking, very few studies have dealt with age and the various issues encountered during the financial transaction.

In summary, India is moving towards digital evolution, and it is mandatory to investigate digital awareness in terms of banking transactions for all sects of society. Instead of comparing rural and urban areas, it is important to take a closer look in urban cities such as Mumbai. Very few studies have undertaken the analysis of the financial transactions of women members of the SHG based in Mumbai and its suburbs. Hence, the present study is focused on the women members of the SHG, their online or mobile transactions, challenges face, and future behavioural intent to adopt internet or mobile banking. The study also sheds light on the age factor and the adoption of technology in banking services.

3.0 Research Methodology

After comprehensive review of literature, around 20 constructs were found related with usage of internet or mobile banking services. So, the team of researcher conducted pilot study to shortlist the constructs relevant to SHGs women members located at Mumbai and its suburbs. Hence, with the help of selected construct and research gap the following methodology were adopted.

3.1 Aim of the Research

The aim of the research was to study overall awareness and usage pattern of internet /mobile banking by SHGs women of Mumbai.

3.1.1 Objectives of the Study

a) To find out the awareness of internet and/or mobile banking services of SHGs women of Mumbai.
b) To identify the range of perceptions of factors/issues that contribute to usage or non-usage of internet and/or mobile banking services by SHGs women.
c) To investigate the practices of usage or non-usage of internet and/or mobile banking services in relation to diverse regions of Mumbai.
d) To examine the pattern of usage or non-usage of internet and/or mobile banking services according to age of SHGs women members.
e) To predict the relationship between the perception of various factors and the behavioral intention of usage in the future.

3.2 Hypotheses of the Study

Three broad hypotheses were divided in to 19 sub-hypotheses based on multiple variables and subgroups.

There is no significant difference in the mean score of Individual Issues; Surroundings; Feeling of Insecurity; Banking Process or Operational Issues; Cost Issues, and Future Intention of SHGs women with reference to ***regions*** *of Mumbai.*

There is no significant difference in the mean score of Individual Issues; Surroundings; Feeling of Insecurity; Banking Process or Operational Issues; Cost Issues and Future Intention with reference to ***age*** *of the SHGs women.*

There is no significant correlation between Behavioural intention and Performance Expectancy, Effort Expectancy, Perceived Credibility, Social Influence, Perceived Financial Cost, Facilitating Conditions, Trust, and Perceived Self Efficacy.

3.3 Research Design and Process

The descriptive designed research has undertaken the following process -

Table No. 01: Research Process

Epistemology	Theoretical perspective	Methodology	Methods	Analysis
Objectivism	Positivism	Survey Research	▪ Sampling ▪ Questionnaire ▪ Observation	Statistical analysis

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3.4 Sampling Design

The scope of the study was Mumbai and its suburbs. The researcher adopted 'Multi-stage Probability Sampling'. The jurisdiction of the Municipal Corporation of Greater Mumbai was tracked during SHGs selection. For greater clarity, the 'Indian Railway map of Mumbai Local' has been referred and identified four regions by adopting the Stratified Sampling technique.

Four regions are listed below –

a) Mumbai Town consists of CST/ Churchgate to Sion, Dharavi and Mahim – 7 SHGs (59)
b) Mumbai Central Line consists from Sion to Mulund – 23 SHGs (71)
c) Mumbai Western Line consists of Bandra to Borivali – 16 SHGs (83)
d) Mumbai Harbour Line consists of Kurla -Tilak Nagar to Mankhurd – 11 SHGs (52)

The researcher selected a minimum of 7 and maximum of 23 SHGs to represent each region using a Simple Random Sampling method. However, the researcher not considered the region of Navi Mumbai or Thane District. The sampling design summarized in Table and provided in Annexure -1

3.5 Sampling Framework Based on Pilot Study

A large number of members were not using the internet and mobile banking services. When the team asked them why, it became clear that there were two groups of non-users. Some women were very keen to use, but they sought a bit of training and support. The other group was absolutely hesitant to use it. They were determined never to learn nor use in the future. Amazingly, it was also noticed that the reasons for non-use were different for both groups. As a result, the research team referred to these three groups as User Groups, Resistance Groups and Willingness Groups. The researcher thus decided to draw up three sets of questionnaires with some common factors.

3.6 Details of Instrument

The first section of the tool focused on respondent demographics. To identify the usage pattern 11 items were asked related to internet or mobile banking transactions. Based on three respondents' groups three questionnaires were prepared (Annexure 2). The exploratory factor analysis technique and Cronbach Alpha technique were performed to confirm the reliability and validity.

4.0 Data Collection

From November 2019 to February 2020 the data were collected from the SHGs women. Unfortunately, due to the spread of COVID-19 and subsequent lockdown, it was impossible to visit slum in Mumbai. As a result, there were a lower number of respondents in the user group.

4.0 Data Analysis

Table No. 02: Structure of Variables and Techniques Used in Study

Conceptual Framework	**Digital Literacy, Awareness, & Usage: Internet or Mobile Banking**		
Groups	**Resistant Group**	**Willingness Group**	**User Group**
Number of SHGs	**34**	**34**	**13**
Number of Respondents	**118**	**125**	**22**
Variables	Individual Issues (11 Items)	Personal Issues (3 Items)	Performance Expectancy (4 Items)
	Surroundings (3 Items)	Security Issues (3 Items)	Effort Expectancy (4 Items)
	Feeling of Insecurity (11 Items)	Infrastructure Issues (9 Items)	Perceived Credibility (4 Items)
	Banking Process or Operational Issues (8 Items)	Bank Related Issues (7 Items)	Social Influence (4 Items)
	Cost Issues (6 Items)	User's Surroundings (3 Items)	Perceived Financial Cost (4 Items)
	Future Intention (3 Items)	Learning Intention (1 Item)	Facilitating Conditions (4 Items)
			Trust (2 Items)
			Perceived Self Efficacy (4 Items)
			Behavioural Intention (3 Items)
Total Number of Items	**6 Variables – 42 Items**	**6 Variables – 26 Items**	**9 Variables – 33 Items**
Number of Hypotheses	**7**	**6**	**8**
Analysis Techniques	Descriptive Analysis	Descriptive Analysis	Descriptive Analysis
	Kruskal-Wallis H Test - Region	ANOVA One Way - Region	Pearson Product-Moment Correlation
	Multivariate Analysis of Variance - Age	Multivariate Analysis of Variance - Age	
Number of Hypotheses - Rejected	**5**	**1**	**6**
Number of Hypotheses Retained	**2**	**5**	**2**

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Note: For Hypotheses Testing Refer Annexure 3

Table No. 03: Consolidated Table for Digital Literacy

Digital Literacy of the Respondents			
Groups	**Resistant Group**	**Willingness Group**	**User Group**
Number of Respondents	*118*	*125*	*22*
Use of Smart Mobile Devices	48.3%	80%	96%
Use of PC or Laptop or Tab	1.7%	25.6%	90%
Use of Internet or Wi-Fi	28.8%	64.8%	100%

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Table No. 04: Consolidated Table Awareness

Awareness of Internet/Mobile Banking			
Groups	**Resistant Group**	**Willingness Group**	**User Group**
Number of Respondents	*118*	*125*	*22*
Awareness about Internet Banking or Mobile Banking	64.4%	66.4%	100%
Usage of Mobile Wallet	0%	0.08%	100%
Preference Mode of Payment	Cash -91.5%	Cash – 64.8%	Cash – 0%

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Table No. 05: Consolidated Table for Usage

Usage of Internet/Mobile Banking			
Groups	**Resistant Group**	**Willingness Group**	**User Group**
Number of Respondents	118	125	22
Internet Banking or Mobile Banking Transactions	0%	4.8%	100%
To check account statement	0%	4%	91%
To transfer money	0%	1.6%	100%
To make utility payment	0%	4.8%	82%
To make RTGS/NEFT	0%	0%	23%
To pay EMI	0%	0%	50%
Loan Repayment	0%	0%	23%
Credit Card payment	0%	0%	17%
For Shopping	0%	4.8%	91%
Change User ID and Passwords	0%	0%	59%
For Income Tax payment	0%	0%	9%
To manage Fixed Deposit	0%	0%	37%

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5.0 Findings and Conclusion of the Study

5.1 Findings - Resistance Group

Some of the respondents were using smartphone and internet & Wi-Fi. They knew that their bank offered internet or mobile banking services, but they preferred to use cash for any payment. It is confirmed that they do not use online, digital or mobile transactions on their own or for SHGs purpose.

The primary reason for their non-usage of internet or mobile banking was their personal issues namely lack of knowledge and technical skills, cognitive abilities, and mental obstruction. Most of them had insufficient funds at the bank. They have a sense of insecurity about their own ignorance, confidentiality and fraud. They criticized the banking processes and their website. They believed that the usage of internet or mobile banking would impose an extra financial burden on them. The Resistance group clearly demonstrated that their living and working environment did not encourage them to use internet or mobile banking services. Ultimately, they do not want to learn and use internet or mobile banking now and in the future as well.

The western region of Mumbai from Bandra to Borivali has been seriously confronted with individual issues, security issues, banking operational issues, cost issues compared to the other three regions. However, environmental problems were severely faced by Mumbai Harbour Line from Tilak Nagar to Mankhurd. The future intention of non-utilization was similar across all regions.

There was no significant impact of age on all of the aforementioned issues.

5.2 Findings - Willingness Group

Almost all have smart phones with internet or Wi-Fi and a one fourth of respondents used PCs, Laptops or Tabs. Most of them were aware of the internet or mobile banking services provided by their bank and some of them were using debit/credit card. However, they never used a mobile wallet. Less than 5% of respondents occasionally used online banking for checking balance, utility payments or shopping.

The Willingness group has severely encountered personal issues in relation to the lack of knowledge and skills. This group has also blamed the banking process and the design of websites or mobile

applications. They kindly admitted that their surrounding was not encouraging them to use internet or mobile banking services.

Although they perceived infrastructure issues but at a moderate level. They have suspicions regarding security matters. Yet, they are keen to learn internet and mobile banking.

The inferential statistics derived that security issues, infrastructure issues, bank related issues and surrounding issues were similarly perceived across the four regions of Mumbai. Respondents in the Mumbai Central Line region (Sion to Mulund) strongly perceived personal issues for the usage of the internet or mobile banking services compared to the other three regions.

Nonetheless, the perception of internet and mobile banking non-usage issues was similar across all age groups.

5.3 Findings - Users Group

This group comprised of graduates, with 86% respondents falling below 40 years. They all have smartphones, internet and Wi-Fi. They also use PC, Laptop and Tab. They also utilized the mobile wallet, debit card and credit card. They were often used to verify the balance, make purchases, make utility payments and transfer funds. However, for other services such as loan repayment, EMI payment, tax payment, credit card payment and fixed deposit management, their use of the internet or mobile services was significantly less frequent.

The User group reported a positive and high-level perception for Performance Expectancy, Effort Expectancy, Perceived Credibility, Social Influence, Facilitating Conditions, Trust, Perceived Self Efficacy, and Behavioural Intention. However, they had a moderate perception for the Cost Issues.

There was a moderate, positive and statistically significant correlation found between 1) Behavioural Intention and Social Influence and 2) Behavioural Intention and Facilitating Conditions. These two variables can predict the future intention to use and learn the internet and mobile banking.

6.0 Discussion

With respect to the findings of regional differences within urban areas the literature was not available. However, age related findings were contradictory with many earlier research studies. Our findings are similar to those of previous studies in Asia on social influence, which was the significant factor related to behavioural intent. However, significant relationship between behavioural intention and facilitating conditions remained consistent with some the studies. The perception of personal issues was the fundamental factor for the non-usage of internet and mobile banking.

The respondents were women belonging solely to the lower strata of society. They were educated at or below the HSC level. Most of these respondents are from slums or chawls. Few of these were in the reservation category. Most of them were either domestic servants or involved in small businesses. They had incomes below the poverty line or just above the poverty line. Many of them do not have a smartphone, PC or any other device.

The primary observation was that these women have a specific frame of mind or attitude. They were mainly worried about their daily income and their situation is from hand to mouth. They were least bothered about digitalization. Most of them have opened the bank account under PMJDY, but they don't have enough funds in the bank. As a result, online and mobile transactions are not necessary for them.

It is also noted that this impoverished group is concerned even for Rs. 10. They feel by saving Rs 10, they may buy vegetables for their family dinner. In general, transaction fees are deducted from the account at a rate of 10 percent and cash transactions do not cost anything. This makes them feel that the digital payment method is expensive.

In addition, if one visits the banks located in Mumbai in the morning, there is a huge crowd. Even for the deposit of money, it takes more than one hour. These women believe that why waste time to deposit money at the bank in order to pay digitally.

A further observation was comments from family members – (In Marathi)
Mobile payment shikun to kaay dive lavanar ahe? This means the son or husband does not allow them to learn and operate online or mobile banking services.

These women were involved in manual labour and the employer did not allow them to use mobile phones during working hours. Consequently, they were not supported at the workplace. The support of colleagues is also absent.

Mumbai City respondents lived in Chawl and the other respondents from the suburbs were slum residents. Consequently, the perception of problems may vary due to the environment.

Issues related to perception of privacy and security are more related to confidence. Many respondents expressed that their family members instilled fear in their brains about the use of mobile or internet banking. The typical Marathi statement is, '*Tula he jamnar nahi, tu karu nakos, mi karun deto*.' Instead of allowing women to transact, the son or husband prevents them from learning and using the mobile payment. As well, the Cyber Police awareness campaign maximizes fear in the mind.

Most young people have complained the lack of funds at the bank. They have no right to spend the money.

With regard to banking operational issues, the entire Mumbai may have encountered some or other issues related to the Bank's procedure. All the citizens of Mumbai have experienced the issues such as server down, non-acceptance OTP or password, transaction failure after several attempts, difficulty in website navigation. Oftentimes there was a deduction of payment from the account and the bank was not willing to accept their own fault. Rather than cooperation, bank employees harassed customers. It is more difficult for the client to persuade the bank about the loss of money. Moreover, all time banks trouble customers for KYC formalities, signature issues and subsequently deduction of penalty.

In many parts of suburban Mumbai, there are huge problems with Internet or Wi-Fi and speed. While India is advancing towards 5G technology but in such slums, even 2G is not working properly.

Last but not least, there is a need to change the psychological approach or attitudes of these women. Fundamentally, their attitude prevents them from using internet or mobile banking services. In Hindi, the saying is – *'soch badlo, sab badlega'*.

7.0 Suggestions and Recommendations

7.1 Policy Makers

7.2 Bank

7.3 Telecommunication Companies

7.4 Mahila Ayaog

7.5 SHGs