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## ANALYSIS OF CONSUMERS PERCEPTION TOWARDS DIGITALIZATION IN BANKING SECTOR WITH SPECIAL REFERENCE OF ICICI BANK

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**Abstract:** This era is predominated by the hyper-connected, highly informed, value driven young customers who expect real-time responses and quick services. The concept of going to a physical bank for teller-controlled transactions might seem old and archaic. On the other end of the spectrum are the people who believe in the age-old method of pen-paper banking where everything is written down. With time, however, there is a major growth in the first segment and a decline in the number of the second segment. To entice the former segment, banking sector has created their own digital banking program to reinvent branch model and also to remodel the customer engagement. Banks in India are no longer only a brick and mortar delivery channel. With the inclusion of Internet banking and other technologies, it has revolutionized the concept of “Anytime, Anywhere”. A Bank in your Pocket and every facility is available at your door step. There has been a sea of changes in the banking industry in the past two decades including the entry of private players to increased regulatory surveillance to changing the delivery channels to implementing technology. These changes have made the industry more agile, efficient and resilient. With the entry of payments bank and the increasing focus on the digital side of things, we are yet to see further transformation in the industry.

Researcher has presented all the findings from the present study in order to measure the significant effect of Digitalization in banking sector in special reference to ICICI Bank.

**Keywords:** Digitalization, Efficient, hyper-connected, Resilient, Value driven.

**Introduction:** With the varying customer practices, growing desires, demand for multichannel seamless experience and growing digitization in today’s civilization and market, as a whole has resulted in the introduction of a term called “the digital arms race in the banking sector”. Different banks all over the world are understanding the fact that how investing in the digital technologies can have a crucial part for satisfying the customer demands and their purchase.

The introduction of new technology has been changing the attire of banking in ICICI Bank as well as in other banking sector also. The brick-and-mortar banking is slowly giving place to click of the mouse banking. Technology is aiding globalization and integration of financial markets across the globe. Customer’s expectations for new products and alternatives delivery channels have been rising. Banks are under pressure to offer today, what customers would be expecting tomorrow. Thanks to innovations and spread of new technology, banks today offer the customer a choice to conduct his business across the counter, over phone or via a computer. The Rangarajan Committee (1988) report is the first step for the introduction of computers. The Saraf Committee (1994) on Technology issues relating to payments, cheques clearing and securities settlements made several recommendations to improve the quality of service. The introduction of new instruments such as ATM, retail Electronic Funds Transfer (EFT) and Electronic Clearing Services (ECS) have all helped in developing an effective, efficient and speedy payment and settlement systems.

The subject of this study has a relevance in today’s society as digitalization has a great impact on most industries and is widely debated especially in the banking industry. The respondents agree that this is a subject that is up to date and that we are facing changes along with the digitalization the study’s practical contribution consists of the methodology for collecting data that reflects the theories presented in the thesis theoretical framework. The managerial implications of this study are that the banks have different approaches to work internally with digitalization, and there is no one-size-fit-all solution for an ultimate strategy. Further implications of this study suggest that digitalization can be put in a much larger perspective in the modern’s society of the bank industry than in the past. As mentioned earlier, there are plenty of articles that highlights the importance digitalization, however, none of them gave us an answer of how the ICICI bank is working internally with digitalization. However, this study will contribute with a deeper understanding of how the Private banking industry differ in their internal approach working with digitalization, along with the future perspective of digitalization in the banking industry.

### Literature Review

For the purpose Researcher has gone through more literatures also to know about the scenario of different analytical part related to Digitalization in banking sector

**Santiago Carbo - Valverde (2017) the article entitled “The Impact on Digitalization on Banking and Financial Stability”.** In this article an attempt has been made to discuss the impact of digitalization on banking activities and challenges that imposes for



financial stability. The study found that, digitalization is an opportunity to reduce marginal costs and increase productivity in financial services.

**Sinha and Mukherjee, 2016, P-27-31** studied and explored regarding why off branch e managing an account in India is not very acknowledged when contrasted with cutting edge nations. They incorporated develops from the innovation acknowledgment demonstrate (TAM), dispersions of advancement (DOI) model and trust hypothesis models. Data gathered through review was investigated utilizing different relapse strategy. They found that trust on innovation, trust on bank, saw convenience, saw handiness, many-sided quality fundamentally influences customer to use off branch e saving money in India aside from saw hazard.

**Neena Brar & Jaspreet Singh (2012)** While investigating all the variables and the responses by consumers, this study reveals that the perception of the consumers can be changed and can be made positive by awareness program, friendly usage, fewer charges, proper security, and the best response to the services offered.

**Rahmath Safeenaet.al, (2012)** in his study “Technology Adoption and Indian Consumers: Study on Mobile Banking” identified that the evolution of e-banking started from the use of Automatic Teller Machines (ATMs) and telephone banking (tele-banking), direct bill ayment, electronic fund transfer and the revolutionary online banking transformation from the traditional banking to e-banking has been a 'leap' change.

**V. Raja, Joe A. (2012), “Global e-banking scenario and challenges in banking system”**, This paper is an attempt to explore the various levels of internet banking services provided by banks using the secondary data. It also compares the traditional banking systems with net banking. It lists out the various advantages of internet banking and the successful security measures adopted by different banks for secured banking transactions. It also analyzes how E-banking can be useful for banking industry during this global financial meltdown.

**Van B., Paul, Veloso, Francisco M. and Oliveira, P., (2012), “Innovation by Users in Emerging Economies: Evidence from Mobile Banking Services”**, This paper examined the extent to which users in emerging economies innovate, and whether these innovations are meaningful on a global stage. To study this issue, the researcher conducted an empirical investigation into the origin and types of innovations in financial services offered via mobile phones, a global, multi-billion-dollar industry where emerging economies play an important role. Analysis of this study shows that 85% of the innovations in this field originated in emerging markets. The researcher also concludes that at least 50% of all mobile financial services were pioneered by users, approximately 45% by producers, and 5% jointly by users and producers. Additionally, services developed by users diffused at more than double the rate of producer-innovations. Finally, the researcher observed that three- quarters of the innovations that originated in emerging markets have already diffused to OECD countries and that the (user) innovations are therefore globally meaningful.

**Nel J., Boshoff C., Raleting T., (2012), “Exploiting the technology cluster effect to enhance the adoption of WIG mobile banking among low-income earners”**. This study investigated the attitude formation of low-income, non-users of Wireless Internet Gateway (WIG) mobile banking, by including use of the Short Message Services (SMS) as a moderator of attitude formation. A non-probability sample of 465 South African non-users of mobile banking was drawn and clustered into High users and Low users of the SMS, based on the average number of text messages sent in a week. The moderating effect of "use of the SMS" was investigated by means of a structural equation modelling multi-group analysis. The findings revealed that the influence of Ease of use on Attitude and of Self-efficacy on Ease of use were stronger for High users and significantly different from Low users, while the opposite was true for the influence of Facilitating conditions on Usefulness.

**Oliveira P., Eric V. H., (2011), “Users as service innovators: The case of banking services”**. Fond that 55% of today's computerized commercial banking services were first developed and implemented by non-bank firms for their own use, and 44% of today's computerized retail banking services were first developed and implemented by individual service users rather than by commercial financial service providers. Manual precursors to these services – manual procedures that carried out functions similar to computerized services in our sample – were almost always developed by users as self-services. **Mas I., Dan R., (2011), “Scaling Mobile Money”**,

Retail payment systems require scale to get off the ground and struggle to grow incrementally. This is due to three factors: (i) Network effects: when it comes to payment systems, the value of joining a network is directly proportional to the number of people already on it; (ii) Chicken-and-egg trap: in order to grow, these systems must aggressively attract both customers and cash-in/cash-out merchants in tandem, otherwise, merchants will stop offering the service due to low transaction revenue and customers will not join the system because they cannot access a convenient outlet; (iii) Trust: customers have to become comfortable going to non-bank retail outlets to meet their cash-in/out needs and initiating transactions through their mobile phones. Until a deployment serves a large number of customers, people will lack trust in the new system, because they know few who can vouch for it. To overcome these barriers, mobile money deployments need to reach a critical mass of customers as quickly as possible, lest they get stuck in the ‘\_sub-scale trap’. To do



this, they need to get three things right. First, they must create enough urgency in customers' minds to learn about, try and use the service. Second, they must invest heavily in above and below the line marketing to establish top of mind awareness of (and trust in) the service among a large segment of the population. And, third, they must incur considerable customer acquisition costs (beyond marketing and promotion) to ensure that their cash-in/out merchants are adequately incentivized to promote the service.

**Traynor P., Amrutkar C., Rao V., Jaeger T., McDaniel P., Porta T. L., (2011), "From mobile phones to responsible devices"**

Mobile phones have evolved from simple voice terminals into highly-capable, general-purpose computing platforms. While people are becoming increasingly more dependent on such devices to perform sensitive operations, protect secret data, and be available for emergency use, it is clear that phone operating systems are not ready to become mission-critical systems. Through a pair of vulnerabilities and a simulated attack on a cellular network, we demonstrate that there are a myriad of unmanaged mechanisms on mobile phones, and that control of these mechanisms is vital to achieving reliable use. Through such vectors, mobile phones introduce a variety of new threats to their own applications and the telecommunications infrastructure itself. In this paper, we examine the requirements for providing effective mediation and access control for mobile phones. We then discuss the convergence of cellular networks with the Internet and its impact on effective resource management and quality of service. Based on these results, we argue for user devices that enable predictable behavior in a network—where their trusted computing bases can protect key applications and create predictable network impact.

**Ahmed S. M, Shah J. R., Md. A. I., Samina M., (2011), "Problems and prospects of mobile banking in Bangladesh"**. This study revealed that 61 % respondents think it saves time than traditional banking, the highest number of respondents use mobile banking for "Air-time top-up" service, that is 21%, out of 120 respondents 56% replied it is less costly than traditional banking, 100% respondents did agree that it is speedy, and 38% respondents are upper class. Although this concept is new in Bangladesh but its potentiality is high. From this research, other researchers and policy makers will get an insight about the problems and prospects of mobile banking in Bangladesh.

## Research Methodology

### Research Design

In this research Researcher has used Exploratory Research along with Descriptive Research.

When there are no earlier studies or very few refer to an exploratory design is framed for research problem. The focus is on finding insights for later investigation or to find the solution when problems are in a preliminary stage of research

The goals of exploratory research can be described in following way:

- a. To have Familiarity with basic details, settings and concerns.
- b. To frame out clearly described picture of the situation being developed.
- c. To define Generation of new ideas and assumption and to develop tentative theories or hypotheses.
- d. To determine that whether feasibility of study is there in the future.
- e. To get the issues refined for proper and systematic investigation and formulation of new research questions.
- f. To develop Direction for future research and techniques

### Objective

The Major Objective of this research is to understand the psychological behaviour of consumers towards digitalization in private banking sector in reference to ICICI Bank

### Database

In this research both primary and secondary sources of data will be used:

**Primary source** of data is consumer of ICICI Bank in north-west Delhi. To measure the perception of respondent's questionnaire will be used as data collection tool. Dependent and independent variables will be measured by carefully designed questionnaire based on Lickert's type scale.

**Secondary data** is the data collected from already been used or published information like Journals, diaries, books, etc. In this study secondary source used were various journals and website of various online journals as well as mainly the information collected from website and online articles of ICICI bank

### Sampling

For this study it is decided to use stratified random sampling of registered digital banking customers of ICICI banks in north-west Delhi.



Total number of branches of ICICI Bank in Delhi are 282. A list of branches along with branch addresses of NORTH WEST DELHI is obtained by requesting a manager of the regional processing centre of ICICI bank. The total number of 8 branches of NORTH WEST DELHI is accounted for research work according to which total population is 40000.

To calculate sample size of total population 95% confidence interval is taken, the error level is 0.05. The minimum sample size is calculated by using the Yamane method:

$$n_{Yamane} = N / (1 + Ne^2)$$

The calculation follows:

$$\begin{aligned}
&= 40000 / (1 + 40000(0.0025)) \\
&= 40000 / 1 + 100 \\
&= 40000/101 \\
&= 396.03
\end{aligned}$$

According to above calculation Sample should be 400. So,It is required to get at least 800 Questionnaire filled so that at 400 relevant samples can be taken. 410 Relevant Samples collected.

After analysis of 410(four hundred ten), it was found that 152 consumers are using ATM Services, 120 Consumer are using Internet Banking and 128 consumers are using IMobile services. It was also analyzed that 25 consumers are commonly using all these services.

So, T-test was used for these 25 consumers for hypothesis purpose.

**Hypothesis (H0):** Theremay be Selective perception of consumers towards services provided by ICICI Bank.

**(H1):** Theremay not be Selective perception of consumers towards services provided by ICICI Bank.

T test is used on 25 consumers who are commonly using all the digital service to find out the satisfaction level regarding the various service quality dimensions. Analysis was made on the basis of dimensions such as tangibility, reliability, Responsiveness, assurance, empathy, accuracy and security.

1. **T test for Tangibility:**

T test is used on 25 consumers who are commonly using all the digital service to find out the satisfaction level regarding the various service quality dimensions. Analysis was made on the basis of **Tangibility**.

$\mu = \text{Mean of the Series} = 56$  as at 7 likert scale 08 parameters of Tangibility were considered for analysis purpose.

X	$\bar{x}$	$x - \bar{x}$	$(x - \bar{x})^2$
45	49	-4	16
45	49	-4	16
46	49	-3	9
51	49	2	4
52	49	3	9
51	49	2	4
51	49	2	4
46	49	-3	9
52	49	3	9
50	49	1	1
51	49	2	4
51	49	2	4
46	49	-3	9
50	49	1	1
51	49	2	4
51	49	2	4



50	49	1	1
46	49	-3	9
46	49	-3	9
51	49	2	4
46	49	-3	9
52	49	3	9
46	49	-3	9
53	49	4	16
46	49	-3	9
$\Sigma X=1225$			$\Sigma(x-\bar{x})^2=182$

$$\sigma = \sqrt{\frac{\sum (x - \bar{x})^2}{n}}$$

$\sigma$  = standard deviation

$\Sigma$  = sum of

$x$  = each value in the data set

$\bar{x}$  = mean of all values in the data set

$n$  = number of value in the data set

$$\sigma = \sqrt{\frac{182}{25}} = 2.69$$

$$\bar{x} = \frac{1225}{25} = 49$$

$\mu$  = Mean of the Series = 56 as at 7 likert scale 08 parameters of Tangibility were considered for analysis purpose.

$$t = \frac{\bar{x} - \mu}{s/\sqrt{n}}$$

$$t = \frac{49 - 56}{2.69/\sqrt{25}}$$

$$= -7/0.53$$

$$= -13.20$$

From the table of t distribution, the value of t (0.05) for degree of freedom 25-1=24 is 1.711 so the rejection region are  $t < 1.711$  so the null hypothesis is accepted.

**Interpretation:** At 5% level of significance we conclude that There may be selective perception of consumer towards Tangibility as quality dimension in private banking sector in reference to ICICI Bank because From the table of t distribution, the value of t(0.05) for degree of freedom 25-1=24 is 1.711 so the rejection region are  $t < 1.711$  so the null hypothesis is accepted.

**2.T test for Reliability:** T test is used on 25 consumers who are commonly using all the digital service to find out the satisfaction level regarding the various service quality dimensions. Analysis was made on the basis of **Reliability**

$\mu$  = Mean of the Series = 28 as at 7 likert scale 04 parameters of Reliability were considered for analysis purpose



X	$\bar{x}$	$x - \bar{x}$	$(x - \bar{x})^2$
20	24	-4	16
25	24	1	1
23	24	-1	1
22	24	-2	4
24	24	0	0
22	24	-2	4
26	24	2	4
23	24	-1	1
25	24	1	1
22	24	-2	4
25	24	1	1
27	24	3	9
27	24	3	9
27	24	3	9
22	24	-2	4
22	24	-2	4
25	24	1	1
26	24	2	4
22	24	-2	4
20	24	-4	16
23	24	-1	1
24	24	0	0
22	24	-2	4
28	24	4	16
28	24	4	16
$\Sigma X=600$			$\Sigma(x-\bar{x})^2= 134$

$$\sigma = \sqrt{\frac{\sum [x - \bar{x}]^2}{n}}$$

$\sigma$  = standard deviation

$\Sigma$  = sum of

$x$  = each value in the data set

$\bar{x}$  = mean of all values in the data set

$n$  = number of value in the data set

$$\sigma = \sqrt{\frac{134}{25}} = \sqrt{5.36}$$

2.315

$$\bar{x} = \frac{600}{25} = 24$$



$\mu$  = Mean of the Series = 28 as at 7 likert scale 04 parameters of Reliability were considered for analysis purpose.

$$t = \frac{\bar{x} - \mu}{s/\sqrt{n}}$$

$$t = \frac{24 - 28}{2.315/\sqrt{25}}$$

$$= -4/0.463$$

$$= -8.63$$

From the table of t distribution, the value of t (0.05) for degree of freedom 25-1=24 is 1.711 so the rejection region are  $t < 1.711$  so the null hypothesis is accepted

**Interpretation:** At 5% level of significance, we conclude that There may be selective perception of consumer towards Reliability as quality dimension in private banking sector in reference to ICICI Bank because from the table of t distribution, the value of t (0.05) for degree of freedom 25-1=24 is 1.711 so the rejection region are  $t < 1.711$  so the null hypothesis is accepted.

As mentioned above Analysis was made on the basis of dimensions such as tangibility, reliability, Responsiveness, assurance, empathy, accuracy and security and it was concluded There may be selective perception of consumer towards different service dimensions in private banking sector in reference to ICICI Bank

**Conclusion:** In the present Scenario of Digitalization this is the need of all to be the part of change From the above Analysis which was made on the basis of dimensions such as tangibility, reliability, Responsiveness, assurance, empathy, accuracy and security at 5% level of significance we conclude that There may be selective perception of consumer towards services provided by private banking sector in reference to ICICI Bank and the objective, To understand the psychological behaviour of consumers towards digitalization in private banking sector in reference to ICICI Bank was fulfilled in a positive manner to further give more wings to Digitalization

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