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A Study on Effectiveness of Digital Transactions Using Mobile Applications

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ABSTRACT

The banking sector has undergone drastic changes in its modus operandi in the past decade due to the change in technological advancements. After demonetization and digitalization banking services are made more feasible with the aid of mobile applications. Design: The study is descriptive in nature. Findings: The study has analyzed that digital transactions are more convenient, easy to use, and is encrypted with security. The cons of this system are the savvy level of the users. Novelty of the study: Attempt has been made to identify the acceptance of the consumers with regard to the mobile applications as an alternate mode of banking services.

Key Words: **DPS, internet and mobile banking, IMPS, RTGS, NEFT.**

INTRODUCTION

In India, banking industry moves toward financial innovation, which moves the sector from traditional banking service to digital service. In a traditional economy notes, coins are the medium of sending and receiving the payments having a direct link between the banker and the customer. This sector has changed due to technological innovation applied in the various countries which motivates the Indian banking sector to be a competitor in the market. Moving from cash to cashless economy gives birth to face many challenges and opportunities in the sector. In this section helps to achieve the satisfaction level of the consumer by providing various service qualities which inbuilt trustworthiness among the users. The conversion happened from ATM withdrawals using plastic cards such as debit cards and credit cards and the inclusion of RTGS, NEFT transfer. These technology upgradation increases use of which leads to digital payment systems. Mobile phones have become a source of non-cash payment system than consumer swiping their cash. This system saves space and time constraints from various banking transactions. Users of the smart phone were induced to do the digital transaction using a different mode of mobile banking application such as Paytm, Freecharge, Mobikwik, Phonepe, google Tez, SBI buddy, ICICI pockets, Oxigen etc,

OBJECTIVES OF THE STUDY

1. To analyze the factors which influence the usage of Digital payments through mobile applications.
2. To analyze the users perception on the Mobile Banking application.

HYPOTHESES

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1. There is no association between the age group of the respondent with the biggest issues which influence in using digital transaction.
2. There is no significant difference between the user of the digital transaction and their satisfaction level. While Using Mobile Banking for Digital Transaction.
3. There is no significant difference between the education level of the user in and perceived easy to use of the digital transaction.

RESEARCH METHODOLOGY

The study is Descriptive in nature. A cross sectional study is undertaken on the users of the mobile banking application to analyze their perceptions about these applications. The study is based on primary data collected with a structured questionnaire from the sample of 100 respondents. Random sampling method has been used to select 100 respondents within Tiruchirappalli Corporation.
The questionnaire was divided into two parts. part-I was proposed to collect the respondents' demographic information such as gender, age, level of education, occupation and annual income level of the respondent and a total of six questions were included in this part. Part II has 18 questions. The respondents were required to give their rating on their perception using a five-point Likert Scale.

ANALYSIS OF DATA

The collected response is coded and the data tabulated for the purpose of analysis and the data have been scrutinized by using Statistical Package for Social Science (SPSS) with appropriate coding for drawing the inference. Tools like simple percentage, ANOVA, chi-square, factor analysis, and independent sample t-test are applied to analyze the data.

REVIEW OF LITERATURE

Drew M. Anderson, Alexander Strand, and J. Michacl Collins (2017), "The impact of electronic payment for Vulnerable consumers: evidence from social security", in this paper the study to identify the size and characteristics of the population by their shift and administrative data on social security payments. The researcher investigates the participants that majority of unbanked social security recipients are small overall and they took the experience with payment cards and lacked in recent updations. The shift from paper to electronic payments does not clearly explain the increase in banking. However certain recipients update to e-payments but still, it's a slow process among the most valuable householders

Abhipsa Pal, Sai Dattathrani, and Dr. Rahul De' (2017), "Security in mobile payment: A report on user issues," this article focus on the risk factor associated with Indian mobile phone payment system. The study put forth that the confidentiality issue plays a vital role in the mobile payment system except for USSD. However risk factors high lights the user adoptions of new technology. The developers provide various tools to avoid risk but still, security is concerns. There are serious privacy concerns with the services and the application demands the user for private data without providing clear information about why it is required. So certain concerns become a drawback for these technologies which was unable to adopt by the users in a fully trusted farm.

Aditya Samant, Mukesh Kumar (2016) "cashless transaction enabled by technology and improvement in the quality of services," the concept behind this cashless economy to push the public to adopt new technology for making payment other COD so that which will go a long run to realize gains and accountability. The

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researcher found that while people are getting contented with cashless payments, some attitude issues are holding back many from the implementation of the newer platforms. The findings also suggest that the usage behaviors of those who have taken to cashless modes could be sensational towards security threats.

Deepak Mathue (2016), "A survey of awareness about security in E-Payment system", in this study, the researcher would like to explain the awareness about the security provided in EPS. EPS is secure; there should be no threat to the user. An efficient payments system reduces the cost of exchanging goods and services. After analyzing and comparing various modes of EPS, it reveals that it is impossible to suggest which payments systems are best in security and privacy policy. Some EPS modes are similar and differ in the same minor details. The consumer should get technological knowledge before updating the use of any payment system.

Elisa Tauilla (2015), "A case study in mobile: paving the way for mobile payment in Thailand", this study conduction to analysis the key drivers of mobile payment adoption along with the challenges faced in this technology in Thailand. The researcher reveals that consumer adoption relies on the promotion of technology will increase the usage of electronic and mobile payment it also involves the credibility to users and industry stakeholder plays a major role in collaborating or infrastructure development and policy modification to facilitate acceptance of mobile payment system. Consumer's usage of smart phone increase that penetrates the developer to concentrate on consumers banking and purchasing part focus to use this new technology on. Increase in security and privacy policy will definitely increase the trust and confidence level and using mobile payment and electronic system.

Akhavan Saffar, H. Mohammad Zadeh Moghadam (2012), "The quality of the services provided through online portals of electronic banks in the country", this article would like to evaluate the quality of the internet banking services. Electronic banking system ensures with the network channels and the website developed by the organization for ease move with banks. The Study finds that customers are satisfied with the following factors such as trustworthiness, accessibility, security, accountability, and cash performances but application not user-friendly due to technological changes and lack of informative. The future study should on concern with transaction failure and updating in banking sites

ANALYSIS AND INTERPRETATION OF DATA

TABLE 1 SHOWING DEMOGRAPHIC PROFILES OF THE RESPONDENTS

SL. No	Particulars	Frequency	%	SL. No	Particulars	Frequency	%
	GENDER				**AGE**		
1	Male	42	42.0	1	Under 18 years	-	-
2	Female	58	58.0	2	19to 25 years	50	50.0
	OCCUPATION			3	26 to 32 years	32	32.0
1	Professors	34	34.0	4	Above 33 years	18	18.0
2	Engineers	12	12.0		**EDUCATION**		
3	Bankers	2	2.0	1	Not studied	-	-
4	Lab assistant	8	8.0	2	Up to 12^{th} standard	2	2.0
5	Private job	20	20.0	3	Diploma	6	6.0

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6	Government job	2	2.0	4	Graduate degree	38	38.0
	INCOME LEVEL			5	Master's degree	46	46.0
1	Below 10000	10	10.0	6	Professional course	8	8.0
2	10001 to 20000	22	22.0		**NO. OF MEMBERS IN A FAMILY**		
3	20001 to 30000	44	44.0	1	2 Members	10	10.0
4	30001 to 40000	18	18.0	2	3 Members	16	16.0
5	40001 to 50000	6	6.0	3	4 Members	48	48.0
	MODES OF DPS			4	More than 5 Members	26	26.0
1	Pay tm	32	32.0		**PURPOSE OF MB**		
2	MobikWik	2	2.0	1	Purchase of online products	30	30.0
3	SBI PAY	16	16.0	2	Fund transfer	40	40.0
4	Free charge	2	2.0	3	Recharge	14	14.0
5	BHIMUPI	9	9.0	4	Utility payments	8	4.0
6	Google Tez	2	2.0				

Source: primary data

From the above table 3.1 it is observed that out of 100 respondents. 58 percent of the respondents are female and 42 percent of the respondents are male. Fifty percent of the respondents fall under the group to 19 to 25 years, 46 percent of the respondents are post graduates, 44 percent of the respondents monthly income is between Rs. 20001 to 30000, 48 percent of the respondents mention that they have 4 Members in a family and 94 percent of the respondents use mobile phones for digital Transaction and 32 percent of the respondents use paytm app for various transaction.40 percent of the respondents use Mobile banking apps for transferring fund and 30 percent of the respondents use to purchase online products through mobile transaction.

TABLE 2 : FREQUENY OF USAGE OF MOBILE BANKING APPLICATIONS

S.NO	PARTICULARS	FREQUENCY	PERCENTAGE
1	Once a Week	30	30.0
2	More than once a Week	24	24.0
3	Less than 4 transactions in a month	42	42.0
4	Viewing balance in accounts	4	4.0
TOTAL		100	100.0

Sources: Primary Data

From the above table 3.3 it is observed that out of 100 respondents. 42 percent of the respondents use Mobile banking for making less than four transactions and 30 percent of the respondents use once a week and 24 percent of the respondents use more than once a week and four percent of the respondents use them for only viewing balance in accounts.

TABLE 3: FACTORS WHICH INFLUENCE USAGE OF MOBILE BANKING APPLICATIONS

S.NO	PARTICULARS	FREQUENCY	PERCENTAGE
1	Convenience	30	30.0
2	Cost efficient	4	4.0

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3	Ease to use	48	48.0
4	Technology upgradation	10	10.0
5	Discount/Cash back	8	8.0
TOTAL		100	100.0

Sources: Primary Data

From the above table 3.4 it is observed that 48 percent of the respondents feel that the application is easy to use and 30 percent of the respondents feel it is more convenient for usage and 10 percent are convenient with the technical advancement and eight percent of them are influenced by the discount available in using the application and four percent consider them to be cost effective.

Table 4: VALIDITY TEST

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	0.660
Bartlett's Test of Sphericity Approx. Chi-Square	0.000

Source: computed from primary data

Bartlett's Test of Sphericity is used to Measure of sampling Adequacy .637.The test is based on a chi square transformation of the determinant of the correlation matrix. The chi square value shows that the variables are appropriate for factor analysis.

Table 5 COMMUNALITIES

Variables	**Extraction**
Mobile banking is easy to use	.596
Using mobile banking should be an Affordable service	.566
Using mobile banking enable me to utilize banking services more quickly and enhance effectiveness	.520
My interaction with app was clear and understandable	.772
Mobile banking provide anywhere payment of bills.	.649
It provide facility to transfer money from one bank to another bank account	.486
The mobile number must be registered for mobile banking and the should be used for m-payment.	.092
Using Mobile payment enhance effectiveness in learning	.392
Instructions for using mobile banking are easy to follow.	.701
Services are safe	.691
Digital transaction helps the retailer to have transparency and accountability in recording the entries.	.795
Payment modes have two factor authentications to add extra layer of security.	.649
It create a culture of cashless transaction to reach digital economy	.712
The technology involved is not adaptable to uneducated people	.534
Education and training help merchants become familiar with digital services.	.754
Innovative features of mobile banking motivate me to adopt it.	.626
Mobile banking is cost effectiveness as compared to branch banking.	.671

Extraction Method: Principal Component Analysis.

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The amount of variance a variable shares with all other variables included in the analysis can be inferred from the communalities table. Variables with higher extraction values show higher association with other variables. Variables which have high extraction shows high correlation value such as easy to use, provides affordable services, quick transfer, interaction in apps are clear, helps in payment of utilities bills, instructions are clear , safe and security are well designed, culture of saving funds, cost effectiveness, innovation motivated to adopt mobile banking system, helps retailers and merchants become familiar with the apps system. Variables such as effectiveness in learning, registering the mobile number, facilities to transfer (transaction cost) show very low extraction indicates low correlation value.

Diagram 1

The scree plot denotes the number of factors which can be extracted from the seventeen variables used in the study. It denotes that the point at which the scree begins refers to the number of factors which can be extracted from the total variables. The scree tapers from component 5 to 17 which implies that four factors can be extracted to determine the attributes that influence the effectiveness of digital transaction using mobile banking application.

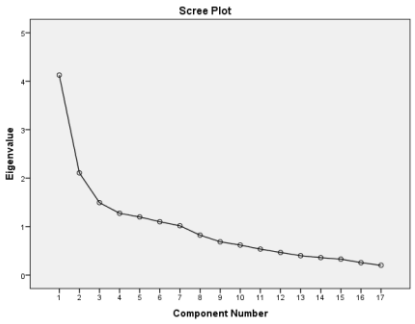

Table 3: Factors influencing effectiveness of digital transaction using mobile banking application.

Factors	(%) of Variance Explained	Loading	Variables Included in the Factor
F1	**Perceived usefulness**	.754	Education and training help merchants become familiar with digital services.
	(24.280)	.534	The technology involved is not adaptable to uneducated people
		.626	Innovative features of mobile banking motivate me to adopt it.
		.671	Mobile banking is cost effectiveness as compared to branch banking.
		.649	Payment modes have two factor authentications to add extra layer of security.
		.712	It create a culture of cashless transaction to reach digital economy
F2	**Perceived credibility**	.596	Mobile banking is easy to use

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	(12.404)	.566	Using mobile banking should be an Affordable service
		.520	Using mobile banking enable me to utilize banking services more quickly and enhance effectiveness
		.649	Mobile banking provide anywhere payment of bills
		.392	Using Mobile payment enhance effectiveness in learning
F3	**Compatibility**	.701	Instructions for using mobile banking are easy to follow.
	(8.792)	.691	Services are safe
		.795	Digital transaction helps the retailer to have transparency and accountability in recording the entries.
F4	**Technology savvy**	.772	My interaction with app was clear and understandable
	(7.499)	.486	It provide facility to transfer money from one bank to another bank account
		.092	The mobile number must be registered for mobile banking and the should be used for m-payment.

The seventeen variables are reduced to four factors having eigen values greater than 1.0. All together the four factors explained fifty two per cent of the total variance. The table lists the factors in the order in which they were extracted. The factors are identified with the variables having the highest loading under each factor.

CONCLUSION AND RECOMMENDATIONS

Mobile banking has been a dramatic surge in India. The facilities used in mobile banking application are money transfer through IMPS, UPI, NEFT and RTGS, mobile recharge, utilities bill payment and purchase of goods and services through online payment. These features are applied through one touch process. The study formulates four dimensions such as perceived usefulness, perceived credibility, compatibility and tech-savvy which influence the user's perception and adoption of digital transaction.

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