FROM CASH-CENTRIC TO CASHLESS ECONOMY- A STUDY ON USER'S AWARENESS TOWARDS DIGITAL PAYMENT SYSTEMS

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ABSTRACT

The purpose of this study is to examine the level of awareness, perception, and the level of satisfaction about different modes of cashless transactions i.e., UPI, mobile wallets, net banking, various cards etc. and to explore those areas for which the government and the service providers can formulate various plans to increase the adoption of cashless modes. The exploratory research is based on primary data collected with the help of a structured questionnaire and informal interviews from 400 respondents from three districts of India using a stratified random sampling technique. The collected data were converted into data matrix using SPSS 23.0 software and inferential analysis was done through percentage analysis and ANOVA. Awareness level about various modes of cashless payments is found to be significantly high in almost every group of the respondents. People are aware about security and convenience benefits of cashless modes. They feel satisfied when they make their transaction in cashless mode. The study is limited to three districts of India for a specified set of factors which are considered relevant for user's awareness and satisfaction. This study offers fresh understanding about present level of awareness and associated satisfaction with the various modes of cashless payments, which can be used to bridge the gaps between adoption pattern of cashless modes among different sections of the demography.

Keywords: Cashless society, Digital payments, UPI, E-wallets, Awareness.

INTRODUCTION

With a vision to transform India as a Digitally Empowered Society and knowledge economy, Govt. of India started its flagship program that is 'Digital India Program' in 2015 under the Ministry of Electronics & Information Technology. The mission of Cashless India is propelled by PM Narendra Modi with a vision of reducing country's reliance on hard core cash and to bring the bulks of reserved dark money in homes into the financial system. Demonetisation on 8th November 2016 was a great step in the direction of digitalisation of payment system.

Nevertheless, the move of demonetization gave a big push to individuals and businessmen towards adoption of digital modes of transactions. India is rapidly moving towards a cashless economy from the cash-centric economy by significantly shifting to digital and electronic modes of payments like debit card, credit card, net banking, mobile wallets, UPI, Point of Sale swipe etc. (Khurana, 2017) Digital payments are easily traceable, effectively accessible, bringing transparency in the system ruling out the corruption associated with dark cash. India is the 2nd largest telecom market in the world with 915 million wireless subscribers till 2017 and 1.2 billion as of June 2021 and world's 3rd largest Internet market with almost 259 million broadband users (Manikanta, 2017). Jan Dhan yojana, BHIM App, check on leakages in public distribution system, Direct Benefit Transfer (DBT), and UPI are some financial inclusion initiatives of the

Govt (Mukhopadhyay, 2016).

As per the Economic Survey Report 2023, in 2022, Indian economy has recorded digital transactions worth Rs. 126 lakh crore which are 7400 crores in numbers through UPI. Transactions through UPI have jumped to four times from the FY 2020 worth Rs. 33.88 lakh crores. Digital payments have clocked significant increase of 91% in value and 76% in transactions. Government provides subsidy to banks to promote UPI services and restricts them to charge any transaction fees on UPI. As per and Union Budget 2023, Financial support of India's government for cashless payment sector is expected to get doubled to Rs. 2,137 crores in fiscal year 2023-24, from the amount of Rs. 1,044 cores spent in fiscal year 2022.

This paper will comparatively analyse the level of awareness about cashless modes based upon different demographic factors such as age, gender, education, marital status, occupation, urbanization etc.

LITERATURE REVIEW

Benefits and Challenges of Digital Payments

Digital wallets are playing a significant and responsible role in developing a virtual India. India has a large potential for the growth and development with cashless society. Service providers still need to work in the direction of strengthening the security and safety of funds and information (Ali & Gopalan, 2018). Mobile payment services are far convenient and simpler as that can be used with simple password or biometric authentication. But the challenges associated with these fintech services related to the security of payments are yet to be met to be covered up (Kang, 2018). Hurdles in flawless digital payments are resistance to change, financial illiteracy, poor infrastructure, Insecure payments, Inefficient modes of payments, unstructured markets, accounts in several banks etc(Ikpefan & Ehimare, 2012). Cashless transactions not only put a check on corruption but also help the government in increase in revenue (Setor et al., 2021).

Government has taken many initiatives such as implementation of GST, demonetization of Rs. 500 and Rs. 1000 currency notes, Aadhar based authentication, BHIM app, Direct benefit transfers, e-sevakendra etc., to promote digitalisation in payment system (Singhal, 2020). Number and volume of digital payments made through e-wallets is still limited. People mainly use e-wallets for online buying of goods. Security concerns and lack of international fund transfer facility are observed as the limitations in the way of using e-wallets (Kumar Tyagi et al., 2018). Using more than one mode for payments and careful adoption of digital payments is necessary to maintain efficiency and security of funds management. Businesses are adopting digital payment modes because of its ease of use and convenience. In the old generation, cash is still a preferred mode of payment as the users find it the safest mode of transactions. While choosing any mode of payment, one should be fully aware of its user technique, benefits and associated challenges (Subaramaniam et al., 2020).

Attitude, Perception and Level of Awareness of People

Perceived usefulness of mobile wallets has high impact on trust, attitude, and intention to use it. Security plays a major role in determining the trust. Study provides some recommendations that all the stake holders of mobile wallets such as financial institutions, govt., e-wallet service providers, security experts etc. should propose strong

guidelines for better security and safety in online transactions (Chawla & Joshi, 2019). User's experience of making peer to peer payments are highly affected by social relationships. Social connections which are set up only for making online payments hardly leads to real social relationships. Users normally disconnect the connection after successful transactions. People find it more comfortable and fun involved while making online payments than conventional mode of payments (Tang et al., 2019). E-wallets are losing user's base because of complex process of use and UPI system of payments are gaining popularity as it enables direct transaction from bank account, skipping the intermediate process of e-wallets. Google's Tez is able to secure good volume of transaction just after its launch (Bajpai et al., 2018).

Study revealed that majority of population is being comfortable with the use digital payment system because of convenience and incentives but some negative perceptions such as poor internet connection, data security issues, high cost of transitions, lack of merchant's willingness, delayed refund in case of default in transactions, defunct Point of Sale machines, financial illiteracy etc. are holding back many people from adopting cashless transactions. Govt of India and Banking industry need to properly handle the issues related to safety and security to make the Indian economy cashless (Podile & Rajesh, 2017). It is discovered in the study that males, persons of middle age group, persons living in metro cities, persons with higher qualification are more likely to use digital modes of transactions. People of lower income group, homemakers, unemployed and self-employed respondents prefer to use cash for payments. Past online frauds demotivate people from using cashless payment system and they rationally use a mix of cash and cashless modes. Trust involved in payment system drives the people to adopt them. Limitation of this study is the respondents selected for the respondents were educated, digitally literate and economically sound. Hence, their Reponses cannot be generalized (Shree et al. 2021).

Gaps in the Existing Literature

The review of existing literature shows that no previous study has comparatively analysed the present level of awareness about different modes of cashless payments based upon demographic factors. Moreover, with the penetration of android phones and internet connections the level of awareness is significantly increasing throughout the world. There is an immense need to evaluate what people think about cashless modes of payments. The author has tried to address the said gaps in the available literature.

RESEARCH OBJECTIVES

This research study is carried out to comparatively analyse the awareness about various modes of cashless payments based upon demographic factors i.e., gender, marital status, level of education, and the district people live in.

Hypotheses

For the purpose of better understanding, following hypotheses is formulated:

H01: *The awareness level among different modes of cashless payment is not significantly different based upon demographic factors.*

Ha1: *The awareness level among different modes of cashless payment is significantly different based upon demographic factors.*

Scope of the Study

➢ **Area to be covered**

For the purpose of primary data collection, samples will be selected from three districts of Rajasthan i.e., Nagaur, Ajmer and Jaipur.

➢ **Modes of Cashless Payments to be considered**

Banking cards, UPIs, Mobile Wallets, Internet Banking, Mobile Banking, and other modes which makes the transactions cashless.

RESEARCH METHODOLOGY

The research methodology adopted to find out the answers of research problems is as follows:

a. **Research design:**

This study is based on both the quantitative and qualitative data. Exploratory research design is adopted to solve the research problem.

b. **Sampling Technique:**

The sample was selected using a stratified random sampling technique, with the population stratified based on gender, age, income, and education level.

c. **Sample size:**

The sample size was determined using a sample size calculator, with a confidence level of 95% and a margin of error of 5%. The sample size is approximately equal to 385 (after round off will keep 400)

As per the latest census data, the population of selected districts where, Jaipur is having population of 66.26 lakh, Nagaur 33.08 lakh, while Ajmer is having population of 25.83 lakh.

d. **Type of data and their collection methods:**

This study is based on primary data which is collected through structured questionnaire including five-point Likert scale and non-structured interview.

e. **Data Analysis Tools**

Data is analysed and presented using percentage analysis and ANOVA.

RESULTS AND DISCUSSION

This section of the study represents results analysis and their interpretations with respect to hypothesis.

Table 1 DEMOGRAPHIC ANALYSIS OF THE RESPONDENTS			
Frequencies of Gender			
Levels	Counts	% Of Total	Cumulative %
Female	160	40.0 %	40.0 %
Male	240	60.0 %	100.0 %

Source: Researcher's own compilation.

The Table 1 shows that there were 160 females, which represents 40.0% of the

total, and 240 males, which represents 60.0% of the total.

Table 2 FREQUENCIES OF DISTRICT			
Levels	Counts	% Of Total	Cumulative %
Ajmer	81	20.3 %	20.3 %
Jaipur	214	53.5 %	73.8 %
Nagaur	105	26.3 %	100.0 %

Source: Researcher's own compilation.

The Table 2 shows that there were 81 records in the Ajmer district, which represents 20.3% of the total, 214 records in the Jaipur district, which represents 53.5% of the total, and 105 records in the Nagaur district, which represents 26.3% of the total.

Table 3 FREQUENCIES OF MARITAL STATUS			
Levels	Counts	% Of Total	Cumulative %
Married	305	76.3 %	76.3 %
Unmarried	95	23.8 %	100.0 %

Source: Researcher's own compilation

The Table 3 shows that there were 305 individuals who were married, which represents 76.3% of the total, and 95 individuals who were unmarried, which represents 23.8% of the total.

Table 4 FREQUENCIES OF AGE (IN YEARS)			
Levels	Counts	% Of Total	Cumulative %
Below 20 years	21	5.3 %	5.3 %
20 to 40 years	308	77.0 %	82.3 %
40 to 60 years	63	15.8 %	98.0 %
Above 60 years	8	2.0 %	100.0 %

Source: Researcher's own compilation.

The Table 4 shows that there were 21 individuals below 20 years of age, which represents 5.3% of the total, 308 individuals between 20 and 40 years of age, which represents 77.0% of the total, 63 individuals between 40 and 60 years of age, which represents 15.8% of the total, and 8 individuals above 60 years of age, which represents 2.0% of the total.

Table 5 FREQUENCIES OF EDUCATIONAL STATUS			
Levels	Counts	% Of Total	Cumulative %
Up to Senior Secondary	31	7.8 %	7.8 %
Graduation	43	10.8 %	18.5 %
Post-Graduation	191	47.8 %	66.3 %
Professional Degree	135	33.8 %	100.0 %

Source: Researcher's own compilation.

The Table 5 shows that there were 31 individuals with educational status up to Senior Secondary, which represents 7.8% of the total, 43 individuals with Graduation level education, which represents 10.8% of the total, 191 individuals with post-Graduation level education, which represents 47.8% of the total, and 135 individuals with a Professional Degree, which represents 33.8% of the total.

Table 6 FREQUENCIES OF ANNUAL INCOME (IN RS.)			
Levels	Counts	% Of Total	Cumulative %
Up to Senior Secondary	31	7.8 %	7.8 %
Graduation	43	10.8 %	18.5 %
Post-Graduation	191	47.8 %	66.3 %
Professional Degree	135	33.8 %	100.0 %

Source: Researcher's own compilation

The Table 6 shows that there were 27.5% individuals with an annual income below 2 Lakh Rs, 15% individuals with an annual income between 2 Lakh and 5 Lakh Rs, 30% individuals with an annual income between 5 Lakh and 10 Lakh Rs, 27.5% individuals with an annual income above 10 Lakh Rs.

Table 7 FREQUENCIES OF OCCUPATION			
Levels	Counts	% Of Total	Cumulative %
Businessman	60	15.0 %	15.0 %
Housewife	35	8.8 %	23.8 %
Other	15	3.8 %	27.5 %
Retired	16	4.0 %	31.5 %
Serviceman	242	60.5 %	92.0 %
Student	32	8.0 %	100.0 %
Businessman	60	15.0 %	15.0 %
Housewife	35	8.8 %	23.8 %

Source: Researcher's own compilation.

The Table 7 shows that there were 60 Businessmen, which represents 15.0% of the total, 35 Housewives, which represents 8.8% of the total, 15 individuals with other occupation, which represents 3.8% of the total, 16 Retired individuals, which represents 4.0% of the total, 242 Servicemen, which represents 60.5% of the total, and 32 Students, which represents 8.0% of the total.

H01: *The awareness level among different modes of cashless payment is not significantly different based upon demographic factors.*

Ha1: *The awareness level among different modes of cashless payment is significantly different based upon demographic factors.*

Table 1 GROUP DESCRIPTIVES (BASED ON GENDER)					
	Gender:	N	Mean	SD	SE
Awareness Level	Male	240	4.67	0.358	0.0231
	Female	160	4.17	0.631	0.0499

Source: Researcher's own compilation.

In the Table 8, based on the data provided, the mean awareness level for males is 4.67 with a standard deviation of 0.358 and a standard error of 0.0231, while the mean awareness level for females is 4.17 with a standard deviation of 0.631 and a standard error of 0.0499. The sample size for males is 240 and for females is 160. Given that higher mean values represent higher levels of awareness, it can be concluded that males have a higher awareness level than females in this study.

Table 9 ONE-WAY ANOVA (WELCH'S)				
	F	df1	df2	p
Awareness Level	82.8	1	227	< .001

Source: Researcher's own compilation.

In the Table 9, the result of the one-way ANOVA using Welch's test for the awareness level variable shows a F-value of 82.8 with 1 degree of freedom for the numerator and 227 degrees of freedom for the denominator, and a p-value of less than 0.001, which indicates that there is a statistically significant difference in the means of the awareness level variable between the groups being compared.

Table 10 GROUP DESCRIPTIVES (BASED ON MARITAL STATUS)					
	Marital Status	N	Mean	SD	SE
Awareness Level	Married	305	4.54	0.510	0.0292
	Unmarried	95	4.24	0.591	0.0606

Source: Researcher's own compilation.

As per Table 10, based on the provided data, the mean awareness level for married individuals is 4.54 with a standard deviation of 0.510, and the mean awareness level for unmarried individuals is 4.24 with a standard deviation of 0.591. The standard error for the mean is 0.0292 for married individuals and 0.0606 for unmarried individuals.

Based on the provided Group Descriptives table, the mean awareness level for married individuals is 4.54, while for unmarried individuals, it is 4.24. Given that higher mean values represent higher levels of awareness, it can be concluded that married individuals have a higher awareness level than unmarried individuals in this study.

Table 11 ONE-WAY ANOVA (WELCH'S)				
	F	df1	df2	p
Awareness Level	19.1	1	140	< .001

Source: Researcher's own compilation.

The Table 11 presents the results of a Welch's one-way ANOVA test,where The F-value (19.1) is the test statistic calculated in the ANOVA. It represents the ratio of the between-group variability to the within-group variability. A larger F-value suggests that there is more variation between the group means compared to the variation within each group. These are the degrees of freedom for the numerator (df1 = 1) and the denominator (df2 = 140). The p-value (< .001) is the probability of obtaining an F-value as extreme or more extreme than the observed F-value, assuming that the null hypothesis is true (i.e., no significant difference between the group means). A small p-value (typically less than 0.05) indicates that there is a statistically significant difference between the group means, and we can reject the null hypothesis. Based on the provided table, the Welch's one-way ANOVA test shows a significant difference between the means of the groups being compared (p < .001). This suggests that there is a significant difference in the awareness levels across the groups being studied.

Table 12 GROUP DESCRIPTIVES (BASED ON DISTRICT)					
	District:	N	Mean	SD	SE
Awareness Level	Jaipur	214	4.59	0.445	0.0304
	Ajmer	81	4.28	0.531	0.0589

Nagaur	105	4.37	0.668	0.0652

Source: Researcher's own compilation.

The Table 12 shows descriptive statistics for the Awareness Level variable across three districts: Jaipur, Ajmer, and Nagaur. The sample size (N), mean, standard deviation (SD), and standard error (SE) are provided for each district. The mean awareness level was highest in Jaipur (4.59), followed by Nagaur (4.37) and Ajmer (4.28). However, the standard deviation was highest in Nagaur (0.668), indicating greater variability in awareness levels in that district. The standard error represents the precision of the mean estimate and is lowest in Jaipur (0.0304). Given that higher mean values represent higher levels of awareness, it can be concluded that the Jaipur district has the highest awareness level among the three districts in this study.

Table 13 ONE-WAY ANOVA (WELCH'S)				
	F	df1	df2	p
Awareness Level	13.1	2	168	< .001

Source: Researcher's own compilation.

The Table 13 shows the results of a one-way ANOVA using Welch's correction to test for differences in Awareness Level across three groups. The F-statistic is 13.1, indicating that there is a significant difference between at least one of the groups. The degrees of freedom (df1 and df2) are 2 and 168, respectively. The p-value is less than .001, indicating that the difference between the groups is statistically significant.

Table 14 GROUP DESCRIPTIVES (BASED ON LEVEL OF EDUCATION)					
	Educational Status	N	Mean	SD	SE
Awareness Level	Senior Secondary	31	3.99	0.556	0.0999
	Graduation	43	4.27	0.722	0.1102
	Post-Graduation	191	4.46	0.523	0.0379

Source: Researcher's own compilation.

The Table 14 shows descriptive statistics for the Awareness Level variable across four levels of Educational Status: Senior Secondary, Graduation, Post-Graduation, and Professional Degree. The sample size (N), mean, standard deviation (SD), and standard error (SE) are provided for each level. The mean awareness level was lowest among those with Senior Secondary education (3.99) and highest among those with a Professional Degree (4.65). The standard deviation was lowest among those with a Professional Degree (0.402), indicating less variability in awareness levels in that group. The standard error represents the precision of the mean estimate and is lowest in the Professional Degree group (0.0346).

Given that higher mean values represent higher levels of awareness, it can be concluded that individuals with a Professional Degree holders have the highest awareness level among the four educational statuses in this study.

Table 15 ONE-WAY ANOVA (WELCH'S)				
	F	df1	df2	p
Awareness Level	16.1	3	91.0	< .001

Source: Researcher's own compilation.

The Table 15 shows the results of a one-way ANOVA using Welch's correction to test for differences in Awareness Level across four groups based on Educational Status.

The F-statistic is 16.1, indicating that there is a significant difference between at least one of the groups. The degrees of freedom (df1 and df2) are 3 and 91.0, respectively. The p-value is less than .001, indicating that the difference between the groups is statistically significant.

CONCLUSION

It can be concluded from the study that rising financial support of Indian government towards digital payments and increasing penetration of smart phones and internet are pushing the economy towards a cashless economy. Out of all the available modes of cashless payments, mobile wallets and UPI based modes are getting highest popularity. Digitalisation in payment system is rapidly making its roots in small towns also. Adoption of cashless modes is still dominated in urban areas. This adoption is also affected by the level of education, income, marital status, age, and occupation.

People of middle age group, people who are in servicemen, people who are more educated are more aware about cashless modes. For going more cashless, government still has opportunities to work for those sections of the demography which is still scared in adoption of online payment modes. In India, the level of awareness about cashless modes, associated benefits and satisfaction have increased significantly. There is found a strong association between satisfaction derived and adoption of cashless modes. There is a strong need of strengthening the security system of cashless payments for their wider and fearless adoption.

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