SHIFTING TOWARDS CASHLESS ECONOMY BY COLLEGE STUDENTS DURING CORONA

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ABSTRACT

KEY WORDS:	The paper analyses factors influencing the choice of e-payment usage among college going students in rural area. Exploratory factor analysis has been used to statistically determine the factors. Digital Expertise, General Motives for Digital Payment, Corona Specific Motives for Digital Payment and Obstacles for Digital Platform are the four identified factors.
EFA, Cash less economy, Digital payment	

INTRODUCTION

Now a day e-payment payment system is getting more popularity, especially among youngsters and students. But in general observation, e-payment usage among college students seems to be less in rural areas. This study focuses to know the change that came in the attitude of youngsters towards the usage of electronic payment system in the Covid -19 terrible days in Idukki district, a remote hilly district of Kerala state in India. The objectives of the study were:

1.   To findout the factors influencing the choice of e-payment usage

2.   To analyse the demographic difference in the factors influencing e-payment usage

Methodology

Primary data collected through structured closed end questionnaire circulated through Google form on social networks of college students' groups. This study has 3 strata's namely government aided colleges, autonomous college, Private or self-study. In Idukki district there are three government colleges, one autonomous college, twenty-five self-finance colleges and three aided colleges. Researcher selected 88 respondents through stratified random sampling method and convenient sampling method.The data has been collected in the month of November 2020.Samples were collected from 88 students in the District. Exploratory Factor Analysis, Maan-Whitney rank test,Levene's Test for Equality of Variances,t-test and Kruskal Wallis Test has been used for analysis.

HISTORY

The origin of digital payment can betraced back to the beginning of the internet. The internet history began in 1969 with ARPANET, the /military network that was meant to be communication network during the Vietnam War period. (Evan Andrews, 2013). However, the main turning point occurred in 1989 when Tim Berners-Lee discovered the so-called "pages" or "sites" that made it easier to access and publish information on the internet(Briggs & Angela Scott, 2016).The Internet was started in India by VSNL (Videsh Sanchar Nigam Ltd) with an average speed of 9.6 Kbit/s in 1995(Department of Telecommunications, 2020). In 1998, PayPal began as a mobile payment firm with wireless transactions on Palm Pilots in USA. (Briggs & Angela Scott, 2016). In September 29, 1999, Indiaplaza.com launched India's first e-commerce website namedFabmart, which later led to the launch of India's first ecommerce platform, India plaza. (Kashyaap, 2019). However, the advent of e-businesses demanded a new online payment system that can be used easily by the consumers. India's first-ever payment aggregator "BILLDESK" launched its operations in India, in 2000 (Billdesk, 2001). In 2007 a start-up called Flipkart opened online for business (Dalal, 2019).

In 2016,Govt of India and NPCI (National Payments Corporation of India)launched UPI – Unified Payment Interface. It enables the transfer of money from one account to any account without entering bank details. Even by scanning a QR code, transfer of money is possible. The NPCI, which launched the RuPay network, had launched this to promote digital payments by harnessing the iniquitousness of smartphones (Economic Times, 2019). A $1 trillion digital market is expected by 2025 in India(Economic Times, 2019).

Data Analysis

Twenty questions were asked to the respondents through a structured questionnaire, using rating scale of 5 points, to collect information about their changing e-payment behaviour during the corona pandemic. Questions were asked to get information about Change towards cashless economy by respondents during corona pandemic. The data so collected have been put for 'Exploratory Factor Analysis' (EFA) to identify the underlying factors that are measured by the observed variables. EFA also helps to find out the underling variables or factors.

KMO and Bartlett's Test

KMO test was conducted to determine the sampling adequacy to determine if the responses given with the sample are adequate or not to proceed for EFA. Kaiser (1974) recommend 0.5 (value for KMO) as minimum (barely accepted), values between 0.7-0.8 acceptable, and values above 0.9 are superb. The given below table 3.8 shows the results

Table 1

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.831
Bartlett's Test of Sphericity	Approx. Chi-Square	843.048
	df	190
	Sig.	.000

Looking at the table 3.8, the KMO measure is 0.831, which is more than of 0.5 and can be accepted for EFA.

Bartlett's test of sphericity

Bartlett's test of sphericity was conducted to test whether the correlation matrix is an identity matrix. The significance value more than 0.05, indicatesidentity matrixthat is unsuitable for structure detection. In the above table 3.8, the significance value is 0.00 and hence it is concluded that the data is not an identity matrix and is suitable for EFA.

Communalities

Table 2 is the table of communalities showing the variance in the variables accounted for by the extracted factors. The communality values more than 0.5 are to be considered for further analysis. The researcher has removed 4 variables from further steps factor analysis. The table of communalities, after removing the variables with less than 0.5, is given below. These variables are taken for further analysis of EFA.

Table 2

Communalities

Variables	Initial	Extraction
I consider myself as an e-payment user	1.000	.740
For me e- payment methods are more flexible and easier than traditional methods	1.000	.553
E Payment applications are Easy to install and work	1.000	.591
Service charges are less than in traditional methods	1.000	.546
Recommendations from close friends induce me for e-payment	1.000	.599
I fond e-payment as Convenient and faster	1.000	.591
Digital methods are maintained for long	1.000	.643
Transparency is ensured in e-payment services	1.000	.624
I am not an expert in using it	1.000	.663
I don't have a smartphone	1.000	.563
I don't have any requirements for e-payment with me	1.000	.831
I don't have the habit of saving money in my bank account.	1.000	.634
I am not much confident in e-payment	1.000	.564
I am not interested at all. That's it.	1.000	.660
There is an increase in my online payment during corona pandemic	1.000	.552
Online payment helps to keep social distancing	1.000	.744

Extraction Method: Principal Component

3.4.1.3 Rotated Component Matrix

The table 3.1 below shows the loadings (extracted values of each item under 4 factors) of the 20 variables on the factors extracted. This means that 20 variables are divided into 4 variables (factors), according to similar responses. Most important items with similar responses are displayed in component 1 and simultaneously in component 2, 3, and 4. In order to makes the interpretation of the analysis easier, rotated component matrix is used. It reduces the number factors on the variables under investigation. Rotation does not change anything. These 4 factors are used as variables for further analysis.

TABLE 3

Rotated Component Matrix

Variables	Component			
	1	2	3	4
I don't have any requirements for e-payment with me.	**0.898**	-0.153	-0.007	0.045
I don't have the habit of saving money in my bank account.	**0.774**	-0.141	-0.122	0.005
I am not interested at all. That's it.	**0.757**	-0.1	-0.095	-0.26
I don't have a smartphone	**0.739**	-0.022	0.025	-0.126
I am not much confident in e-payment	**0.693**	-0.135	-0.158	-0.203
I am not an expert in using it	**0.524**	0.071	0.048	-0.617
Precaution from infection is possible in digital world is the reason for my preference	-0.012	**0.854**	0.089	0.101
I prefer Online payment because avoiding transportation, crowd and waiting in long ques	-0.098	**0.815**	0.183	0.118

Online payment helps to keep social distancing	-0.269	**0.787**	0.208	0.096
There is an increase in my online payment during corona pandemic	-0.142	**0.644**	0.249	0.235
Recommendations from close friends induce me for e-payment	-0.085	-0.096	**0.762**	0.036
Digital Records canbe maintained for long time	-0.15	0.298	**0.658**	0.314
I fond e-payment as Convenient and faster	-0.08	0.401	**0.649**	0.051
Applications provide Cashbacks, rewards, discounts and exciting offers	0.025	0.16	**0.628**	0.007
Transparency is ensured in e-payment services	-0.102	0.263	**0.625**	0.392
Online payments increase my pride. I consider Digital payment as modern	-0.1	0.446	**0.497**	-0.138
I consider myself as an e-payment user	-0.115	0.102	0.049	**0.845**
For me e- payment methods are more flexible and easier than traditional methods	-0.331	0.346	0.165	**0.545**
E Payment applications are Easy to install and work	-0.073	0.172	0.515	**0.539**
Service charges are less than in traditional methods	-0.002	0.199	0.489	**0.517**

Method of Extraction: Principal Component Analysis.

 Rotation Method: Varimax with Kaiser Normalization

a. Rotation converged in 6 iterations.

The extracted factors are given suitable titles for further analysis of the data. The values of corresponding variables of each factor were averaged to compute the target variable. Table 3.11 shows the end results of Factor analysis as descriptive statistics.

Table 4

 Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
1. Digital Expertise	88	3.9631	.73748	1.25	5.00
2. General Motives for Digital Payment	88	3.9754	.63905	2.50	5.00
3. Corona Specific Motives for Digital Payment	88	4.3381	.71623	1.75	5.00
4. Obstacles for Digital Platform	88	2.4375	.97324	1.00	5.00

Source: Compiled from tables of EFA

The above table shows leads to the following model of analysis.

Digital Expertise, General Motives for Digital Payment and Corona Specific Motives are the major factors that influence shifting towards cashless economy. Obstacles for Digital Platform stand as a limiting factor towards digital economy.

Interpretation;

Digital Expertise has mean value of 3.9631, so we can understand that Digital Expertise is an influencing factor to make online payments. General Motives for Digital Payment have mean value of 3.9754, it is understandable that general payment motives are easily satisfied towards e-payment which increases usage of digital payments methods in respondents. Corona Specific Motives for Digital Payment has a mean value of4.3381, from which it is clear that respondents make a massive move towards Digital Payment System as because of Corona Pandemic. Obstacles for Digital Platform have only a mean value of 2.4375,

so it is clear that various obstacles in field digital payment have decreased the number of digital payments.

Test of Normality

To determine the test (parametric or nonparametric) to be conducted, normality of the data has been checked through 'Kolmogorov-Smirnova' and 'Shapiro-Wilk' tests. Data is assumed as normal if significance value (P Value) is more than 0.05. The results are given in table 5,

Table 5

Tests of Normality

	Statistic	df	Sig.	Statistic	df	Sig.
Digital Expertise	.140	88	.000	.941	88	.001
General Motives for Digital Payment	.088	88	.092	.963	88	.012
Corona Specific motives for Digital Payment	.203	88	.000	.847	88	.000
Obstacles for Digital Platform	.098	88	.035	.961	88	.010

a. Lilliefors Significance Correction

Shapiro-Wilk test is considered as most suitable for small samples from 50 to 2000. Hence a. Lilliefors Significance Correction

Shapiro-Wilk test is considered as most suitable for small samples from 50 to 2000. Hence it is taken as a land mark for fixing the normality. As per the above table P values of all variables are less than 0.05. Hence non parametric tests would be used for testing the hypotheses.

Influence of Gender on Change towards cashless economy

The following sub hypotheses were formulated to analyse the influence of change of Gender of respondents towards cashless economy during corona pandemic:

Major Hypothesis

HO1: Gender of the respondents does not significantly influence Digital Expertise, General Motives for Digital Payment, Corona Specific Motives for Digital Payment and Obstacles for Digital Payment

H01a: Gender of the respondents does not significantly influence the Digital Expertise of students.

H01b: Gender of the respondents does not significantly influence the General Motives for Digital Payment of students during Corona Pandemic

H01c: Gender of the respondents does not significantly influence the Corona Specific Motives of Digital Payment

H01d: Gender of the respondents does not significantly influence Obstacles of Digital Payment during Corona Pandemic

The non-parametric test 'Maan-Whitney' test has been conducted to test H01a to H01d. The test results are given in Tables 6.

Table 6

Mann-Whitney Test

Test Statistics

	Digital Expertise	General Motives for Digital platform	Corona Specific Motives for Digital Payment	Obstacles for Digital Platform
Mann-Whitney U	712.500	909.000	873.500	876.500
Wilcoxon W	1987.500	1650.000	2148.500	1617.500
Z	-2.014	-.347	-.656	-.620
Asymp. Sig. (2-tailed)	.044	.729	.512	.535
Result	**Reject H$_O$**	**Accept H$_O$**	**Accept H$_O$**	**Accept H$_O$**

Grouping Variable: Gender

Interpretation:

Since the P values are >.05, for General Motives for Digital Payment, Corona Specific Motives for Digital Payment and Obstacles for Digital Payment null hypotheses are accepted. And in case of Digital expertise, H0 is Rejected.

Hence it is concluded that gender of the respondents does not significantly influence General Motives for Digital Payment, Corona Specific Motives for Digital Payment and Obstacles for Digital Payment and Gender influences the Digital Expertise of respondents.

FINDINGS

Factors influencing choice of e-payment usage

1. Among the four identified factors, Corona Specific Motives for Digital Payment has a mean value of 4.3381, General Motives for Digital Payment has mean value of 3.9754 and Digital Expertise have a mean value of 3.9631. Hence these factors are most influential among the factors influencing choice of e-payment usage during pandemic.

2. The factor, Obstacles for Digital Platform have a mean value of 2.4375, so it has a comparatively limited influence on the digital economy

Influence of Gender

1. Gender of the respondents significantly influences the Digital Expertise of students.

2. Gender of the respondents does not significantly influence the General Motives for Digital payment of students during Corona Pandemic.

3. Gender of the respondents does not significantly influence the Corona Specific Motives of Digital Payment.

4. Gender of the respondents does not significantly influence the obstacles of digital payment during corona pandemic

CONCLUSION

The Indian government has been promoting online payments aggressively, starting with demonetization back in 2016. 'Digital India' had been the guiding force of many economic and financial decisions that pushed Indians to switch to online payments.The covid 19 pandemic put people into a situation for compulsory adaption of digital technology. This adaptation happened almost instantly with the lockdown coming into effect. Obstacle of digital platform has little influence on the online payment of youth. Hence providing more compulsory outlets will help the youth to move towards cash less economy.The usage among people increased during these days. Study concludes that students in Idukki are moving towards a cashless economy slowly and covid 19 pandemic increase that wave faster but some obstacles are pulling the growth down or challenging the growth.

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