

A COMPARATIVE STUDY ON THE USAGE OF E-PAYMENT SYSTEM IN VARIOUS AGE GROUPS

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ABSTRACT

After the Demonetization and various government initiatives like Digital India, there has been tremendous growth in the e-commerce industry and the e-payment system. Electronic Payment System (EPS) is a technique to make the payment for the goods and services purchased through an electronic medium. Now the scenario of offline retail outlets has been shifted to the online retail outlets. Today is the era of digitalization, where a consumer can purchase anything and at any time directly at their mentioned address. There are various reasons for this shift i.e., from commerce to e-commerce, like convenience, greater variety, shop 24/7 services, save time, price comparison and many more. Peoples are preferring online payment modes to make their life easy and stress free. The main objective of this study is to find the customer orientation towards e-payments system in the various age groups. The usage of e-payment depends on the consumer's perspective regarding the trust and security attached to the EPS. In this study, both primary and secondary methods are used to collect the data. A sample of 136 respondents were collected through an online questionnaire and get it filled by respondents who belong to different age groups including friends, families and neighbours living in Delhi NCR.

Keywords: E-commerce, E-payment, Digitalization, Demonetization, Consumer Preferences, Adoption.

Introduction

In the era of digitalization, the use of internet has increased substantially. Every individual belongs to any age group are using the internet in great extent. The increase in the e-commerce industry also results in increase in the demand for e-payment system. Earlier, e-commerce industries started cash on delivery facility to attract the customers towards online purchase and focus on gaining customer's trust towards the organization. Then, later on, when people started purchasing online, they introduced various online payment platforms. Electronic Payment System (EPS) is a technique to make the payment for the goods and services purchased through an electronic medium. As the payment can be made online via debit card, credit card, digital wallet, etc. the buyer and seller not need to meet physically. It is convenient and time saving because the buyer or user not needs to stand in a long queue for long hours to make the payment. Due to the advancement in technologies, digitalization and increasing usage of the internet, large number of people prefer online purchase instead of going to offline retail outlets because of the convenience and also companies are now investing in building the trust of their customers by providing complete privacy and security for their online transactions. People are using different e-payment system options as per their convenience, which can be through credit card, e-wallet, smart card, debit card, net banking, etc.

Literature Review

Manikandan & Jayakodi (2017) concluded that the demonetization plays an important role in the adoption and the usage of mobile wallet. Due to the demonetization, it is spread amongst the people in India. The acceptance of mobile wallet increases as issues related to security are given prior consideration and risk factors are also reduced.

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Gupta T., Chaudhery U.(2019) depicted that there will be a tremendous growth in adoption of e-payment systems in near future and today also the people have started using it as now a days the shopping sites are giving secure payment systems and handle the complaints too.

Singh & Rana made an attempt to understand customer perception towards digital payment. It was found that demographic factors except education do not have much effect on the adoption of digital payment. It was also found that there was no significant difference is perceived by the respondents on the basis of gender, age, profession and annual income. The only factor is the education level of the respondents where there is significant difference is perceived by the respondents. It indicates that adoption of digital payment is influenced by the education level of the users.

Shaun O'Brien in his study on Consumer Preferences and the Use of Cash: Evidence from the Diary of Consumer Payments Choice mentioned some determinants of cash usage for small value payments, and specifically what consumers expressed about payment instrument preference and the amount of the purchase affect their propensity to use cash. Participants who stated a cash preference have probability of a cash payment of 80 percent overall. The result indicate that cash continues to play an important role as a payment instrument especially in lower value transactions for all demographic groups.

Dr. Hem Shweta Rathore in her research paper "Adoption of Digital wallet by consumers "have analysed about the factors that affects consumers in adoption of digital wallet and he concluded that customers are adopting digital wallet mainly due to convenience and easy to us. In the coming future years, digital wallet will gain more worldwide acceptance.

Poonam Painuly and Shalu Rathi (2016) in their research paper "Mobile wallet :An upcoming mode of business transaction "have analysed that there are some of the benefits of wallet which include ease of transaction ,secured profile and convenience in handling application are money and it is also inferred that business sectors like banking ,retail, hospitality etc., are also using wallet money and mobile payment options including contactless and remote payment in the customers-to-business areas and customers to customers areas.

Research Methodology

- **Objective of the Study**

- To find the customer orientation towards e- payments system (EPS) in the various age groups.
- To find the perspective of customers lives in Delhi NCR about EPS
- To understand the future perspective about Mobile Payments

- **Research Approach**

This refers to the techniques or methods used by the researcher to solve his/her research problem. For this study, quantitative approach was used and various tools were to used to collect and analyse the data.

- **Data Collection**

There are basically two sources through which a researcher can collect the data i.e., one is Primary data and another is Secondary data

- **Sources of Data Collection**

For this research, both Primary and secondary data has been used to collect the data. Primary data were collected by circulating the questionnaire via social apps like WhatsApp while, the secondary data were collected through various published research papers and websites.

- **Sample Size**

A sample of 136 respondents was taken under consideration.

- **Research Instrument**

- Online Questionnaire were sent to friends, families and known people.
- It comprised of 13 questions and were designed to know the orientation of different people about the topic.

- **Tools or Analysis**

Questionnaire were formed with the help of Google Forms and the response were analysed with the help of SPSS Software

- **Hypothesis**
 - **Null Hypothesis:** There is no relationship between customer’s orientation towards usage of e-payment system and their age groups.
 - **Alternate Hypothesis:** There is a relationship between customer’s orientation towards usage of e-payment system and their age groups.
- **Limitations of the Study**

The various limitations of the study are:

 - Sample size is not very large according to the population of Delhi NCR
 - The information can be biased due to the use of questionnaire
 - Due to time and cost constraint study is conducted in only area of Delhi NCR
 - Some persons were not so responsive.

Results and Discussion

As the questionnaire were circulated to the various respondents and the responses were analysed by applying various test like correlation and regression analysis. The below tables show the correlation exists between different variables.

- **Correlation Analysis**

Table 1: Correlation between Age, Preference, Payment and Expectation related to online payment

		Correlations			
		Which age group do you belong to?	Do you prefer online payment modes?	Do you make payments using your mobile phone/ smartphone?	Do you think Mobile Payments are expected to continue with continuous growth?
Which age group do you belong to?	Pearson Correlation	1	-.274**	-.272**	.382**
	Sig. (2-tailed)		.001	.001	.000
	N	136	136	136	136
Do you prefer online payment modes?	Pearson Correlation	-.274**	1	.622**	.084
	Sig. (2-tailed)	.001		.000	.333
	N	136	136	136	136
Do you make payments using your mobile phone/smartphone?	Pearson Correlation	-.272**	.622**	1	.047
	Sig. (2-tailed)	.001	.000		.590
	N	136	136	136	136
Do you think Mobile Payments are expected to continue with continuous growth?	Pearson Correlation	.382**	.084	.047	1
	Sig. (2-tailed)	.000	.333	.590	
	N	136	136	136	136

** Correlation is significant at the 0.01 level (2-tailed).

Inference

- The correlation between age group and preference for online payment modes is -.274 which is negative correlation of low order.
- The correlation between age group and users for making payment online is -.272 which is negative correlation but it is of low correlation.
- The correlation between age group and expectation of continuous growth about mobile payment is .382 which is positive correlation of low order.

From the above inferences and the above table, we came to the conclusion that the degree of association between age group along with other variables are both positive and negative.

- **Partial Correlation**

Table 2: Partial Correlation Age, Preference, Payment and Expectation related to online payment where age is a control variable

Control Variables		Correlations			
			Do you prefer online payment modes?	Do you make payments using your mobile phone/ smartphone?	Do you think Mobile Payments are expected to continue with continuous growth?
Which age group do you belong to?	Do you prefer online payment modes?	Correlation	1.000	.592	.212
		Significance (2-tailed)	.	.000	.014
		df	0	133	133
	Do you make payments using your mobile phone/ smartphone?	Correlation	.592	1.000	.169
		Significance (2-tailed)	.000	.	.050
		df	133	0	133
	Do you think Mobile Payments are expected to continue with continuous growth?	Correlation	.212	.169	1.000
		Significance (2-tailed)	.014	.050	.
		df	133	133	0

These is the table of partial correlation in which age of the respondent is a control variable. On putting the age as constant variable, the relationship between age group and preference for online payment is .592, which is a positive correlation of moderate order. Also, the relationship between age group and user for making online payment is .592, which is a positive correlation of moderate order. But the relationship between age and expectation of continuous growth about mobile payment is .212, which is positive but it occurs by chance.

- **Regression Analysis**

- Analysis using linear regression for age group with preference of respondent for online payment modes

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.274 ^a	.075	.068	.350

a. Predictors: (Constant), Which age group do you belong to?

ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	1.332	1	1.332	10.866	.001b
	Residual	16.425	134	.123		
	Total	17.757	135			

a. Dependent Variable: Do you prefer online payment modes?

b. Predictors: (Constant), Which age group do you belong to?

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.034	.065		31.487	.000
	Which age group do you belong to?	-.136	.041	-.274	-3.296	.001

a. Dependent Variable: Do you prefer online payment modes?

Inference

Table of model summary provides the R and R² values. The R value represents the simple correlation and it is 0.274, which indicates a low degree of correlation. The value of R² indicates how much total variation in the dependent variable, can be explained by independent variable. In the case, 7.5% can be explained, which is very low.

The computed value of F is 10.866 at 5% significant level. The tabulated value for $_{134}F^1$ at 5% level is 3.90. As our F value is 10.866 and this value is high with respect to tabulated value which means the hypothesis is accepted. The table of Coefficient provides us with the necessary information to predict the preference for online payment from age of respondent, as well as determine whether preference for online payment statistically significantly to the age group. Furthermore, we can use the values in the 'B' column under the "Unstandardized Coefficients" column as shown above;

To represent the Regression equation as:

Preference = 2.034 - .136 (age)

This means that with increase in the age, there is a decrease in preference for online payment.

- Analysis using linear regression for age group with respondent who make/or not make online payment

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.272 ^a	.074	.067	.285

a. Predictors: (Constant), Which age group do you belong to?

ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	.870	1	.870	10.709	.001 ^b
	Residual	10.887	134	.081		
	Total	11.757	135			

a. Dependent Variable: Do you make payments using your mobile phone/smartphone?

b. Predictors: (Constant), Which age group do you belong to?

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.057	.053		39.106	.000
	Which age group do you belong to?	-.110	.034	-.272	-3.272	.001

a. Dependent Variable: Do you make payments using your mobile phone/smartphone?

Inference

Table of model summary provides the R and R² values. The R value represents the simple correlation and it is 0.272, which indicates a low degree of correlation. The value of R² indicates how much total variation in the dependent variable, can be explained by independent variable. In the case, 7.4% can be explained, which is very low.

The computed value of F is 10.709 at 5% significant level. The tabulated value for $_{134}F^1$ at 5% level is 3.90. As our F value is 10.709 and this value is high with respect to tabulated value which means the hypothesis is accepted.

The table of Coefficient provides us with the necessary information to predict the users for making online payment from age of respondent, as well as determine whether users for making online payment statistically significantly to the age group. Furthermore, we can use the values in the 'B' column under the "Unstandardized Coefficients" column as shown above;

To represent the Regression equation as:

e-Payment = 2.057 - .110 (age)

This means that with increase in the age, there is a decrease in the users for making online payment.

- Analysis using linear regression for age group with respondent's expectation of continuous growth about mobile payment

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.382 ^a	.146	.139	.585

a. Predictors: (Constant), Which age group do you belong to?

ANOVA^a

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.811	1	7.811	22.840	.000 ^b
	Residual	45.828	134	.342		
	Total	53.640	135			

a. Dependent Variable: Do you think Mobile Payments are expected to continue with continuous growth?

b. Predictors: (Constant), Which age group do you belong to?

Coefficients^a

	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.095	.108		10.146	.000
	Which age group do you belong to?	.329	.069	.382	4.779	.000

a. Dependent Variable: Do you think Mobile Payments are expected to continue with continuous growth?

Inference

Table of model summary provides the R and R² values. The R value represents the simple correlation and it is 0.382, which indicates a low degree of correlation. The value of R² indicates how much total variation in the dependent variable, can be explained by independent variable. In the case, 14.6% can be explained, which is very low. The computed value of F is 22.840 at 5% significant level. The tabulated value for F_{134}^1 at 5% level is 3.90. As our F value is 22.840 and this value is very high with respect to tabulated value which means the hypothesis is accepted. The table of Coefficient provides us with the necessary information to predict expectation of continuous growth about mobile payment from age of respondent, as well as determine whether expectation of continuous growth about mobile payment statistically significantly to the age group. Furthermore, we can use the values in the 'B' column under the "Unstandardized Coefficients" column as shown above;

To represent the Regression equation as:

$$\text{Expectation} = 1.095 + .329 (\text{age})$$

This means that with increase in the age, there is an increase in the expectation of continuous growth about mobile payment.

From the above inferences, it is concluded that the null hypothesis is accepted i.e., there is no relationship between customer's orientation towards usage of e-payment system and their age groups. The result shows that the usage of e-payment does not depend on the age of a person rather it shows that usage of e-payment system depends on the education and knowledge a person has about different online platforms. If payment process is taught to an old age person, then he/she can also make the payment. It was found that there were few youngsters who were aware about digital payment but didn't prefer it to make payment online.

Findings

- After analysing the data collected from 136 respondents, it is revealed people belong to 15-35 age group prefers to use e-payment system to the great extent.
- There are various reasons for adoption for an online payment platform but the two most important reasons are convenience and time saving.
- In spite of privacy and security concern, 90.4% people are still using e-payment systems.
- Paytm is the most preferable digital wallet which is used by respondents to make online payment.
- Somewhere Demonetization is an important reason which influence the people to use online payment.
- It is found that there were around 94.5% (Strongly agree- 47.7% and Agree- 46.8%) respondents who said that mobile payment will continue with continuous growth in coming years.
- There were people as well who strongly disagree and believe that it will not be possible to completely vanish the usage of cash for payment.

Conclusion

Due to the demonetization and various government initiatives like Digital India, the usage of e-payment system increases tremendously. Every individual whether young or old, are using or are trying to adopt online payment platforms because they know the benefits of using e-payment system. The survey shows that 90.4% of the respondents make online payment. E-payment system offers a variety of benefits including convenience, time saving, quick payment, on date payment without any delay in bills and many more. Demonetization is the most prominent factor which influence people to adopt online payment platforms and others factors are friends, advertisement and family respectively. Paytm is the most popular digital wallet and used by maximum number of people followed by google pay for online payment. On the basis of investigation, the following conclusions are made:

- People belong to 15 to 35 age group are more comfortable with the usage of e-payment system.
- Around 84.2% people who lives in Delhi NCR prefers online payment modes. In spite of security and privacy concern, large number of people is using online payment platforms because somewhere they have developed their trust towards companies' privacy policies and e-payment system.
- The future scope of mobile payment is very bright. As 94.5% (Strongly Agree- 47.7% & Agree- 46.8%) of people believes that mobile payment will continue to grow in the coming future.

Suggestions

- As the biggest concerns while adopting an e-payment system are security, privacy and fraud cases, companies can use sophisticated technologies and different software to maintain that privacy. These concerns can be solved by building a trust factor between the company and its existing and prospective customers.
- Companies can use more than one e-payment system facility to increase the usage of online payment because sometimes customers are selective pay via online one payment platform.
- Strong advertisement and awareness campaign can change the mindset of the people who don't like to make payment online.
- As people have strong expectation towards future of mobile wallet, proper considerations should be given on privacy, security, and trust factor.

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