Determinants of using Cashless Payments- An Empirical Study

Dr. D.Padmavathi
Professor & Head, Department of Commerce
Sri Ramakrishna College of Arts & Science for Women
Sidhapudur, Coimbatore- 641044
Tamil Nadu, India.
padmavathi.eleven@gmail.com
Mobile: 98422 82263

Monisha Matanjini.I
M.Phil (Commerce)
Sri Ramakrishna College of Arts & Science for Women,
Sidhapudur, Coimbatore- 641044
Tamil Nadu, India.
monishaimmanuel18@gmail.com
Mobile: 99943 08702

Aryashree.B
Research Scholar, Ph.D. (Commerce)
Sri Ramakrishna College of Arts & Science for Women,
Sidhapudur, Coimbatore- 641044
Tamil Nadu, India.
aryashree.b@gmail.com,
Mobile: 94429 76064

Abstract

The current generations are living with the world of social media and e-commerce. The internet and other technological transformations have brought a massive change in the day today life of every individual. In the current scenario, information and communication technology sector plays an important role in the development of the country's economy. Digitalization is found everywhere from manufacturing, purchase to payments. Even India is moving towards digital economy by launching digital programmes in order to transform India to a digitally enhanced society. The purpose of the study is to appraise the determinants of cashless transactions with regard to the respondents of Coimbatore city. Although with the developments in technology in the form of big data, internet of things, etc. they also have a dark sided effect in terms of security and privacy of the consumers is now in greater risks. Therefore, this study is an attempt to identify the consumer's perception towards cashless transactions.

Keyboard: cashless transactions, e-payments, determinants,

1. INTRODUCTION

The current economy is also called as digital economy or internet economy. Digitalization is found everywhere from manufacturing, purchase to payments. Cashless money matters are those that use mostly plastic or digital money and thus minimal cash or money in paper form. The ease of conducting financial transaction is probably the biggest motivator to go digital. From the evolution of cashless payments, it has eased various financial activities of the people. It has paved way by reducing the time of the transaction and also reduces paper work.

It plays a quiet but central role in the life of upcoming entrepreneurs where they can restrain from fraudulent activities.

The cashless payment is soon becoming the most preferred option and there are a number of benefits of going cashless. The digital or electronic transaction of the capital by using net banking, credit cards etc. is called cashless transfer. People can easily pay their bills online, shop and schedule transactions and manage all the finances using their laptops or Smartphone. This helps to curb corruption and the flow of black money which results in an increase of economic growth. The expenditure incurred in printing and transportation of currency notes is reduced. In a nation like India, cashless transactions are not widespread, and this is due to the technology gap and the lack of proper education. The study develops a conceptual framework to understand the working of cashless economy.

From the evolution of cashless payments, it has eased various financial activities of the people. It has paved way by reducing the time of the transaction and also reduces paper work.

It plays a quiet but central role in the life of upcoming entrepreneurs where they can restrain from fraudulent activities.

The cashless payment is soon becoming the most preferred option and there are a number of benefits of going cashless. The digital or electronic transaction of the capital by using net banking, credit cards etc. is called cashless transfer. People can easily pay their bills online, shop and schedule transactions and manage all the finances using their laptops or Smartphone. A few examples of cashless modes and payments are Mobile wallet, plastic money and net banking. A user or a consumer makes payment instantly from anywhere and anytime without physical presence in the bank branches. The parties who want to use these systems directly and indirectly benefitted in many ways such as less time is required for settlement of transactions, faster transactions, convenience and lower risk, easy for tax calculation, more transparency and accountability and it minimizes the maintenance costs.

1.1. Problem Statement.

An extension of demonetization process, the cashless transaction system has an impact on payment behaviour of consumers. In India most of the consumers are heavily dependent only on the cash economy, but the cashless transaction forced the consumers to switch from cash to cashless electronic transaction. In the

context of the above, this study makes an attempt to understand the determinants of cashless payments in India.

1.2. Objectives of the study

- To define the demographic profile of the respondents
- To analyse the determinants for using cashless payment modes.

1.3. Research Methodology

Research methodology is a systematic process to solve the research problem. It is the science of studying how research is systematically done. To know the various steps those are generally adopted by a researcher in studying the research problem along with the logic behind them.

The research design used in this study is descriptive type of research where the researcher has no control over the variables. The study area is limited to Coimbatore city only. The data was collected from 228 respondents by using convenience sampling techniques. The collected data has been analyzed with the help of statistical tool such as mean score analysis and ANOVA.

2. LITERATURE REVIEW

Neelu Tiwari, Naveen Kumar Singh (2019)[1] the massive adoption of information and communication technology, in the field of digital payment systems, this exploratory research is the first to test consumer satisfaction level towards cashless payment systems through two leading companies (Paytm and BHIM), providing digital payment platform. The primary objective of the current research study is to identify the factors affecting adoption of cashless payment services and consumer satisfaction in India through survey method. Cashless payment provides focus not only on the adoption of cashless payment systems but also the satisfaction of the consumers in India. The study also presents a model for enhancing the rate of customer satisfaction with respect to e-wallets in India. Through comparative analysis it is found that BHIM to be a much more secure platform as compared to Paytm since it is a government-owned platform .however paytm aids in providing an instant solution to problems but has a few disadvantages.

K Vinitha ,SVasantha (2018)[2] The article discussed about the E-payments were E-payments is a technology which doesn't involve physical cash here the payments is done through the electronic medium. But all the modes of e-payment are not used by all. This paper is focused to examine the factors influencing consumer's intention to adopt digital payment. The finding of this study it is clear that customer have to move farther to get more acquainted with this system. More we use the new technology more it will be friendlier with us. Hence the need to enlighten digital payment system is a necessity.

M.Bhuvana&Dr.S.Vasantha (2017)[3] the demonetization is high value currency notes is one of the memorable economic occurrences in our country. This study has done an investigation on the drivers that determines the usage of cashless payment system among the people in Chennai city. The study has examined

the cause & effect relationship between the study variables and analysed the mediating effect of demonetization of high value currency notes between attitude and behavioural intention to use cashless payment system. The findings from the study has enabled that demonetization of high value currency notes has increased the acceptance of cashless payment system among the respondents. High quality of cashless payment systems with best practices has to be built by the government and people have been practiced for adopting cashless payment system.

Varsha R and M Thulsiram, (2016)[4] undertook a study to ascertain the acceptance of E-wallet among the potential users. They found that the price related factor namely 'cost saving' and discount benefits seemed to be low considered by the respondents whereas secured privacy and secured transaction are more primary reasons for e-wallet preference. More than ninety-five percentage of the respondents had possible apps in the mobile phones for making e-payments.

Babita Singla & Manish Bansal (2015)[5] this paper attempts to identify different factors affecting consumers on adoption of debit card payment with reference to shopping at retail stores. The entire analysis shows that debit card payment behaviour among consumer varied. Study also concludes that most significance factor influencing their debit card payment behaviour was perceived ease to use and usefulness of card. Finally, the Study also concludes that the consumers are satisfied with debit card usage, and the non-debit card users are interested to use the card for purchases and intend to use the card in near future. The awareness level is also high but marketers and bank authorities are not paying greater attention to increase such debit card use. Moreover, the research highlights the problems faced by consumers while using the card for payment.

BabitaSingla, Manish Bansal (2015)[6] in their investigation the creators have supported that the shoppers are happy with plastic use, and the non-platinum card clients are intrigued to utilize the card for buys and mean to utilize the card in not so distant future. The mindfulness level and nature with such installment framework is additionally high however advertisers and bank experts are not giving careful consideration to increment such charge card utilize. Additionally, the exploration highlights the issues confronted by customers while utilizing the card for installment. The most critical element impacting their check card installment conduct was seen convenience and helpfulness of card.

Jashim khan, Margaret Craig-lees (2014)[7] in their research paper titled "Cashless' transactions: their effect on purchase behaviour" have revealed that that when a credit card based payment is used, the volume, value and type of products purchased increase. This is due to the credit element, or to the cashless element of the transaction. The notion that the tangibility of cash influences perceptions is not novel, but it is untested. The perception may well have a direct impact on purchase behaviour.

Ashish Das, and Rakhi Agarwal, (2010)[8] studied the cashless payment system in India. They suggested that the cash payment is an expensive proposition to the government and so the nation must step towards the cashless payment system which reduced the track transactions, currency management cost, eliminates tax

avoidance, fraud etc. Moreover, it widens and encourages financial inclusion and integrate the parallel economy to the main steam.

3.ANALYSIS AND RESULTS

Demands for cashless payments were increasing day by day. There are several determinants that we generally go with the cashless payments. Now the consumers have a wide variety of option to choose more and more options based on their requirements.

This section focuses on the consumers determinants for generally going through the cashless payments. Each and every consumer have different characteristics on using the cashless payment. There are various cashless payment applications available in the society and the factors that influence the usage of one of these varies from customer to customer.

For this research, few items were selected from the literature review to measure the construct – the consumer reasons for generally going through the cashless payment convenience of not carrying cash, ease of usage, safety, time saving, record keeping, privacy, rewards and offers, status symbol. The respondents were asked to record their opinion regarding the consumers determinants for generally going with the cashless payments on a five-point scale namely strongly agree, agree, neutral, disagree, strongly disagree. Likert scaling technique was used to measure this qualitative aspect and scores were assigned as 5,4,3,2, and1.

Section 3.1 – Determinants of Usage of Cashless Payments – Mean Score

Mean score was used to measure the reason for generally using the cashless payments and the results were presented in the following table:

Table 3.1.1
Determinants of Usage of Cashless Payments - Mean Score

Reason for using cashless payments	Mean Score	Rank
Convenience of not carrying cash	4.48	**1**
Ease of usage	4.42	**2**
Safety	4.23	**3**
Time saving	4.07	**6**
Record keeping	4.11	**4**
Privacy	4.06	**7**
Rewards and offers	4.05	**8**
Status symbol	4.08	**5**

The above table shows the determinants of cashless payments as follows: convenience of not carrying cash secured the first place with a mean score of 4.48, easy of usage in the second place with a mean score of 4.42, safety with the mean score of 4.23, record keeping with the mean score of 4.11, followed by status symbol with the mean score of 4.08, time saving with the mean score of 4.07, privacy with the mean score of 4.06 and finally rewards and offers with a mean score of 4.05.

In studying the determinants of cashless payments using mean score analysis, it was understood that the respondents were using cashless payments mainly for convenience in not carrying cash, followed by easy of usage, safety, record keeping, status symbol, time saving, privacy, rewards and offer.

Section 3.2: Differences in the determinants of using cashless payments among the groups of respondents classified based on their demographic profile

In this section, the variance in the determinants for using cashless payments among the different groups of respondents based on their demographic characteristics is analysed using Analysis of Variance (ANOVA). For this purpose, the following hypothesis is framed:

3.2.1: Difference in the gender groups for determinants of using cashless payment

The following table shows the results of the analysis of variance (ANOVA) that was performed based on the data collected about the user's determinants for using cashless payment and demographic profile in the group gender.

H_{O6}: There is no significant difference in the determinants of using cashless payment among the gender groups of respondents.

Table 3.2.1

Difference in the gender groups for determinants of using cashless payment - ANOVA

ANOVA						
		Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
Convenience of not Carrying Cash	Between Groups	.314	2	.157	.381	.683
	Within Groups	92.616	225	.412		
	Total	92.930	227			
Ease of Usage	Between Groups	.178	2	.089	.274	.761
	Within Groups	73.400	225	.326		
	Total	73.579	227			
	Between Groups	.282	2	.141	.370	.691

Safety	Within Groups	85.858	225	.382		
	Total	86.140	227			
Time Saving	Between Groups	1.761	2	.881	2.469	.087
	Within Groups	80.252	225	.357		
	Total	82.013	227			
Record Keeping	Between Groups	2.227	2	1.113	2.040	.132
	Within Groups	122.808	225	.546		
	Total	125.035	227			
Privacy	Between Groups	1.173	2	.586	.805	.449
	Within Groups	163.968	225	.729		
	Total	165.140	227			
Rewards and offers	Between Groups	1.044	2	.522	.706	.495
	Within Groups	166.325	225	.739		
	Total	167.368	227			
Status Symbol	Between Groups	9.522	2	4.761	6.262	**.002***
	Within Groups	171.057	225	.760		
	Total	180.579	227			

*Level of significance 5%

The result of the analysis of variance test performed in order to analyse the differences in the user's determinants for cashless payment among the male and female respondents is presented here.

The result reveals that with respect to status symbol, the f value is significant at 5% level of confidence; in this case, the hypothesis is rejected, there is significant difference between male and female respondents in their determinants for cashless payment.

With regards to the convenience of not carrying cash, ease of usage, safety, time saving, record keeping, privacy, rewards and offers, the f value is not significant and hence the hypothesis is accepted. There is no significant difference between male and female respondents in their consumers determinants for cashless payment.

3.2.2: Difference in the age groups for determinants for using cashless payment

The following table shows the results of the analysis of variance (ANOVA) test that was performed based on the data collected about the user's determinants for using cashless payment and demographic profile in the age group.

H_{O7}: There is no significant difference in the determinants for using cashless payment modes among the age groups of respondents.

Table 3.2.2

Difference in the age groups for determinants of using cashless payments – ANOVA

ANOVA						
		Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
Convenience of not Carrying Cash	Between Groups	17.951	4	4.488	13.348	**.000***
	Within Groups	74.979	223	.336		
	Total	92.930	227			
Ease of Usage	Between Groups	10.760	4	2.690	9.549	**.000***
	Within Groups	62.819	223	.282		
	Total	73.579	227			
Safety	Between Groups	3.241	4	.810	2.179	.072
	Within Groups	82.900	223	.372		
	Total	86.140	227			
Time Saving	Between Groups	2.881	4	.720	2.030	.091
	Within Groups	79.132	223	.355		
	Total	82.013	227			
Record Keeping	Between Groups	5.336	4	1.334	2.485	**.045***
	Within Groups	119.699	223	.537		
	Total	125.035	227			
Privacy	Between Groups	13.651	4	3.413	5.024	**.001***
	Within Groups	151.489	223	.679		
	Total	165.140	227			
Rewards and offers	Between Groups	21.168	4	5.292	8.072	**.000***
	Within Groups	146.201	223	.656		
	Total	167.368	227			
Status Symbol	Between Groups	16.027	4	4.007	5.430	**.000***
	Within Groups	164.552	223	.738		
	Total	180.579	227			

*Level of significance 5%

The result of the analysis of variance test performed in order to analyse the differences in the user's determinants for cashless payments among the different age groups is presented here.

The result reveals that with respect to convenience of not carrying cash, ease of usage, record keeping, privacy, rewards and offers, status symbol the f value is significant at 5% level of confidence; in this case, the hypothesis is rejected there is significant difference in the users 'determinants for cashless payments among

the group of respondents classified based on their age.

With regards to the safety and time saving, the f value is not significant and hence the hypothesis is accepted. There is no significant difference in the users' determinants of their cashless payments among the different age groups.

3.2.3: Difference in the education groups for determinants for using cashless payment

The following table shows the results of the analysis of variance (ANOVA) that was performed based on the data collected about the user's determinants for using cashless payment and demographic profile in the group education.

H_{O8}: There is no significant difference in the determinants for using cashless payment modes among the education groups of respondents.

Table 3.2.3

Difference in the education groups for determinants for using cashless payments – ANOVA

ANOVA						
		Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
Convenience of not Carrying Cash	Between Groups	13.980	4	3.495	9.872	**.000***
	Within Groups	78.950	223	.354		
	Total	92.930	227			
Ease of Usage	Between Groups	6.286	4	1.572	5.208	**.000***
	Within Groups	67.293	223	.302		
	Total	73.579	227			
Safety	Between Groups	5.010	4	1.253	3.443	**.009***
	Within Groups	81.130	223	.364		
	Total	86.140	227			
Time Saving	Between Groups	3.741	4	.935	2.665	**.033***
	Within Groups	78.272	223	.351		
	Total	82.013	227			
Record Keeping	Between Groups	6.163	4	1.541	2.890	**.023***
	Within Groups	118.872	223	.533		
	Total	125.035	227			
Privacy	Between Groups	14.678	4	3.669	5.438	**.000***
	Within Groups	150.463	223	.675		
	Total	165.140	227			
Rewards and offers	Between Groups	19.431	4	4.858	7.323	**.000***
	Within Groups	147.937	223	.663		
	Total	167.368	227			
Status Symbol	Between Groups	10.558	4	2.640	3.462	**.009***
	Within Groups	170.021	223	.762		
	Total	180.579	227			

*Level of significance 5%

The result of the analysis of variance test performed in order to analyse the differences in the user's determinants for cashless payment among the education respondents is presented here.

The result reveals that with respect to convenience of not carrying cash, ease of usage, safety, time saving, record keeping, privacy, rewards and offers and status symbol their f value is significant at 5% level of confidence; in this case, the hypothesis is rejected there is significant difference in the users' determinants for cashless payments and education of the respondents.

3.2.4: Difference in the occupation groups for determinants for using cashless payment

The following table shows the results of the analysis of variance (ANOVA) that was performed based on the data collected about the user's determinants for using cashless payment and demographic profile in the group occupation.

H_{O9}: There is no significant difference in the determinants for using cashless payment modes among the occupation groups of respondents.

Table 3.2.4

Difference in the occupation groups for determinants for using cashless payments – ANOVA

ANOVA						
		Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
Convenience of not Carrying Cash	Between Groups	1.861	4	.465	1.140	.339
	Within Groups	91.068	223	.408		
	Total	92.930	227			
Ease of Usage	Between Groups	1.373	4	.343	1.060	.377
	Within Groups	72.206	223	.324		
	Total	73.579	227			
Safety	Between Groups	.349	4	.087	.227	.923
	Within Groups	85.792	223	.385		
	Total	86.140	227			
Time Saving	Between Groups	3.273	4	.818	2.317	.058
	Within Groups	78.741	223	.353		
	Total	82.013	227			
Record Keeping	Between Groups	2.513	4	.628	1.143	.337
	Within Groups	122.522	223	.549		
	Total	125.035	227			
Privacy	Between Groups	1.954	4	.489	.668	.615
	Within Groups	163.186	223	.732		
	Total	165.140	227			

Rewards and offers	Between Groups	1.318	4	.329	.442	.778
	Within Groups	166.051	223	.745		
	Total	167.368	227			
Status Symbol	Between Groups	.616	4	.154	.191	.943
	Within Groups	179.963	223	.807		
	Total	180.579	227			

*Level of significance 5%

The result of the analysis of variance test performed in order to analyse the differences in the user's determinants for cashless payment among the occupation respondents is presented here.

With regards to the convenience of nor carrying cash, ease of usage, safety, time saving, record keeping, privacy, rewards and offers, status symbol, the f value is not significant and hence the hypothesis is accepted. There is no significant difference between the various determinants and the occupation of the respondents in the usage of cashless payment.

3.2.5: Difference in the monthly income groups for determinants for using cashless payment

The following table shows the results of the analysis of variance (ANOVA) that was performed based on the data collected about the user's determinants for using cashless payments and demographic profile in the group monthly income.

H_{O10}: There is no significant difference in the determinants for using cashless payment modes among the monthly income groups of respondents.

Table 3.2.5

Difference in the monthly income groups for determinants for using cashless payments – ANOVA

ANOVA						
		Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
Convenience of not carrying cash	Between Groups	2.141	3	.714	1.760	.156
	Within Groups	90.789	224	.405		
	Total	92.930	227			
Ease of Usage	Between Groups	.782	3	.261	.802	.494
	Within Groups	72.797	224	.325		
	Total	73.579	227			
Safety	Between Groups	1.499	3	.500	1.322	.268
	Within Groups	84.642	224	.378		
	Total	86.140	227			
Time Saving	Between Groups	.839	3	.280	.772	.511
	Within Groups	81.174	224	.362		
	Total	82.013	227			
Record Keeping	Between Groups	.792	3	.264	.476	.699
	Within Groups	124.243	224	.555		

	Total	125.035	227			
Privacy	Between Groups	5.427	3	1.809	2.537	.058
	Within Groups	159.714	224	.713		
	Total	165.140	227			
Rewards and offers	Between Groups	1.403	3	.468	.631	.596
	Within Groups	165.966	224	.741		
	Total	167.368	227			
Status Symbol	Between Groups	3.214	3	1.071	1.353	.258
	Within Groups	177.365	224	.792		
	Total	180.579	227			

*Level of significance 5%

The result of the analysis of variance test performed in order to analyse the differences in the user's determinants for cashless payment among the monthly income of the respondents is presented here.

With regards to the convenience of not carrying cash, ease of usage, safety, time saving, record keeping, privacy, rewards and offers, and status symbol, the f value is not significant and hence the hypothesis is accepted. There is no significant difference between the various determinants and the monthly income of the respondents with regards to usage of cashless payments.

4. RESULTS AND DISCUSSION

In studying the determinants of cashless payments using mean score analysis, it was understood that the respondents were using cashless payments mainly for convenience in not carrying cash, followed by easy of usage, safety, record keeping, status symbol, time saving, privacy, rewards and offers.

In an effort to study the differences in the determinants of cashless payments among the groups of respondents classified based on their demographic profile, variance analysis (ANOVA) was applied. The results of the same revealed that the male and female respondents exhibited differences in the factor status symbol as a determinant of cashless payments. The respondents belonging to different age groups showed differences in factors such as the convenience of not carrying cash, ease of usage, record keeping, privacy, rewards and offers, and status symbol. With respect to the groups of respondents belonging to different education levels showed differences in all the factors such as the convenience of not carrying cash, ease of usage, safety, time saving, record keeping, privacy, rewards and offers, and status symbol.

Under the determinants of usage of cashless payment, the respondents have given a clear indication that it is being used by them because of the convenience and safety purposes. Hence to increase the coverage of cashless transactions, the bankers, policy makers and businesses floating cashless products can focus on these factors. It is also evident from the analysis that rewards and offers do not have any significance in determining the usage of cashless payments which can be given less importance in policy making.

5. CONCLUSION

Social media has become an important part of our lives. It has now become important to understand how people behave on the cashless payment on spending behaviour and the way they use their payments regularly. Payments are now rapidly changing their spending behaviour through cashless payment in most of the places the cashless payment has become one of the options to do all the payments without cash.

References:

1. Neelu Tiwari & Naveen Kumar Singh (2019) "Factor Affecting Consumer Satisfaction in Cashless Payment Systems in India with Respect to Paytm and BHIM", ***International Journal of Recent Technology and Engineering***, 8 (3S2), 10-15.

2. Vinitha. K &Vasantha. S (2018) "Factors Influencing Consumer's Intention to Adopt Digital Payment Conceptual Model", ***Indian Journal of Public Health Research and Development***, 8(3),171-175.

3. Bhuvana. M & Vasantha. S (2017) "A Mediating Effect of Demonetization of Currency Notes Towards Adopting Cashless Payment System", ***International Journal of Civil Engineering and Technology***, 8 (6),699-707.

4. Varsha. R & Thulsiram. M (2016) "Acceptance of E-wallet Services: A Study of ConsumerBehaviour",***InternationalJournalofInnovativeResearchinManagementStudies***,1(4),133-141.

5. Babita Singla & Manish Bansal (2015). "Consumer Behaviour Towards Debit Card Payment Mode Will Shopping at Retail Stores", ***An International Journal of Engineering Sciences*** 16 (3), 121-126.

6. BabitaSingla, Manish Bansal (2015). "Consumer Behaviour Towards Debit Card Payment Mode While Shopping at Retail Stores", ***An International Journal of Engineering Science***, 6(16), 121-126.

7. Jasgim Khan, Margaret Craig-Lees(2014). "Cashless Transaction: Their Effect on Purchase Behaviour", ***International Business and Economic Review***,64(7), 687-692.

8. Ashish Das & Rakhi Agarwal (2010). "Cashless Payment System in India- A Roadmap", ***Journal of Banking and Finance***, 30(6), 1631-1652.