International Journal of Research in Economics and Social Sciences(IJRESS)
Available online at: http://euroasiapub.org
Vol. 8 Issue 8, August- 2018
ISSN(o): 2249-7382 | Impact Factor: 6.939 |

A Study on the Perception of Consumers Regarding Cashless Paymentswith Specific Reference to Pune Region

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Abstract

In the rapid changing environment, financial modes of payments are playing a vital role in emerging economy. In India Digital mode of payments are highly promoted and pushed on the general population. Even the recent activity of demonetization which was a huge revolutionary decision taken by government to track and recycle the existing money in the market. This research paper is focused on identifying the perception of public regarding cashless payments. Many financial institutions and fintech firms are focused on digital payments. Since the inception of credit and debit cards in 1990s, more ATMs were established by banks all over the country. Banks and other financial institutes were promoting these cards as plastic money. Due to fast change in technology most companies have started introducing different ways of payments. Especially companies like VISA, MasterCard, etc. are having global presence across the world. Because of convenient mode of financial transactions world has come closer but simultaneously cyber security is also causing a major issue. Many cases have come up regarding account blocking, snatching money from customer's bank account, suspicious activities etc while doing online transactions. As far as our economy is considered 30 percent of the population is under poverty line and to push the entire population for cashless payments is a big challenge.

Keywords: - Cashless payments, plastic money, demonetization, Digital India, cyber security, cashless economy, digital payments, online transactions, M-wallets.

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Introduction

Cashless payments comprise of payment modes which are totally dependent on technology. Currently there are various options available in the market for processing cashless payments. Banks have also introduced different getaways for making cashless payments such as NEFT, IMPS, RTGS, intra bank transfers, interbank transfer, etc. Mobile apps such as PAYTM, BHIM, ZEbpay, PhonePay are becoming most popular for online transactions. Even all government undertaking banks have launched their apps and doing well in the market. Most probably mobile apps with better UI (user interface) are seen with exponential growth.

Indian government is also playing vital role in initiating cashless payments as government's objective is to track each and every financial transactions that are made through electronic medium. Although tracking financial records and tax collections is not easy job. For preventing all these government announced immediate demonetization on November 8th 2016. High value currency notes (500 and 1000) were banned and were publically announced to deposit these currency notes in bank and other government under taking financial institutes. This is the first time that government had banned high value currencies. As government objective was clear regarding demonetization: - (a) To trace black money within and across the country. (b) Restrict cash flow to terrorist organizations and to curb funding to other suspicious activities that are carried out against the country. (c) To promote cashless transactions. **(http://www.madhyam.org.in)**

As per the world payments report 2017, Indian government and National payment Council of India (NPCI) will help cashless transactions to grow GARG of 26.2% till the year 2020. Further the government has an aggressive target of 25 billion non-cash transactions for 207-2018 with priority areas being m-payments, government schemes and payments on small platforms. **(https://www.worldpaymentsreport.com/)** The overall transactions will be carried out from three gateways- (a) Debit and credit card (b) Mobile transfers and (c) online transfers through websites. Due to demonetization, Indian government had led to increase in cashless transactions, but after few months, when enough cash was available in market people again shifted back to traditional mode of payments.

Risk of fraud and other suspicious activities are also main concerns which can be termed as a biggest hurdle in cashless transactions. It has been observed that many companies sell customer's confidential data to other parties for earning profits. Even banks cannot assure full security to customers. In India because of financial illiteracy many people are hunted by hackers and fraud telephone callers asking to share credentials to steal the money from their bank accounts. Also real time transaction is also affected due to poor internet connection which led to delays in transfer of the amounts. Now a day's many people reveal their personal details on social media platforms which becomes easier for fraudsters to hack customers account. Smart phones are widely used for

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cashless payments. Someone can easily send the suspicious file for downloading and hackers or fraudsters can easily steal the data from smartphones. Duplicate debit and credit cards are also created to steal the money from accounts. As government is promoting cashless transactions many mobile wallets, e-commerce websites are giving cashback offers to attract customers to make cashless payments.

Literature Review

The cashless payments are widely accepted all over the world. In India, after demonetization cashless payments are used on large scale. Cashless payments also comprise of DDs and cheque which is used by consumers for making high amount of payments. There are many benefits of being cashless. One can track their spendings. It will also help in filing income tax returns. As each transactionis recorded, it will help for budgeting. There are various tools and mobile apps which can analyze the spending behavior and gives better suggestions on reducing your expenses. As far as risk is considered, if stolen by anyone, it is easy to block all your cards and mobile wallets. Government of India has taken a very good initiative as a part of Digital India Programme to promote cashless transactions. To convert India in cashless economy various ways of digital modes are introduced and made available to consumers.

1. **Bank Cards:** There are various types of cards such as debit cards, credit cards, shopping cards, travel cards, etc. These cards give more power and options to purchase goods both online and offline. Banks and other financial institutes provide may cashback offers on online purchase and offline purchase to build loyalty and trust in the minds of customer. Banks provide authentic pin number and OTP (one time passwords) to secure the transactions. In credit cards bank may offer more credit depending upon credit ratings which is directly connected to purchasing pattern of the customers.
2. **Unstructured Supplementary Service Data (USSD):** This is one of the innovative services launched by Indian government to promote cashless payments. One can avail this service by just dialing *99#. There is no any specific need of smart phone or internet connectivity to avail this service. By dialing this number bank customer can check the account balance, can transfer the funds to another account, and can see account balance. This service is available in more than 12 different languages and currently 51 banks are providing this facility as on 30th November 2016. **(Source: NPCI).**
3. **Aadhaar Enabled Payment System (AEPS):** This service is provided by various banks totransfer the money from one account to another. This service is totally dependent on PoS(Point of Sale)/ Micro ATM. To avail this service a person should have Aadhar card. Biometric device is connected to this machine. While transferring the amount one should know the Aadhar number and thumb impression should match the Aadhar card number. Fund transfer limit is totally dependent on

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information available with bank. **(Source: NPCI).**

4. **Unified Payments Interface (UPI):** It is a system in which bank customer can linkmultiple bank accounts into a single mobile app. Every bank has its own UPI application on Google play, iOS and Windows operating system on mobile. UPI system is developed by National Payments Corporation of India (NPCI). The only condition is your mobile number should be linked with bank account. **(Source: NPCI).**
5. **Mobile Wallets:** Mobile Wallets are widely used by consumers. A person can transfer the funds to the mobile wallet and can spend wherever digital payments are accepted. We can also link credit/ debit cards to the mobile wallets. Most banks have their own bank wallets. Currently there are several mobile wallet apps available in the app stores like Paytm, Freecharge, Mobikwik, Airtel Money, Jio Money, itz Cash, Citrus Pay, Vodafone M-Pesa, Axis Bank Lime, SBI Buddy , ICICI Pockets, etc.
(Source: http://cashlessindia.gov.in/mobile_wallets.html)
6. **Internet Banking:** It is also known as online banking, e-banking or virtual banking. In thistype of banking, bank customer can transfer funds to another bank account, or merchants. Customer can avail this service by simply using credentials provided by banks. There are various types of online transactions such as National Electronic Fund Transfer (NEFT), Real Time Gross Settlement (RTGS)**,** Electronic Clearing System (ECS)**,** and Immediate Payment Service (IMPS).
(Source: **http://cashlessindia.gov.in/digital_payment_methods.html**)

The Global Perspective

As India is emerging market for cashless payments. According to World Payments Report 2017, Indian government and National Payments Council of India (NPCI) will help to boost non cash transactions to grow at CARG (compound annual growth rate) of 26.2% during the year 2016-2020. NCPI's next goal is to focus on contactless transactions for public transports. In countries like Thailand and Taiwan where payments through mobiles are expected to grow with increased in card payments. China is expecting a stable growth around 36% adoptions of mobile payments. Chinese shopkeepers mostly prefer mobile payments as they expect higher growth rate in the mobile usage. Currently cashless transactions through mobile are highly concentrated in cities. Rural market in China is still untapped. But in nearby future in rural areas also people will start using mobile payments due to low cost on electronic goods. Latin America will also start making cashless transactions as most of the financial institutes and banks are moving towards technology leaving behind the traditional way of payments. Financial technology firms from India and other countries may start to export their services. E-Payments are estimated to grow at a CARG of 17.6% due to other convenient options of payments. In future E-payments (payments made

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through websites) will definitely slow down due to adoption of M-payments. **(Source- https://www.worldpaymentsreport.com/)** User interface also pays a vital role in cashless transactions. Many fintech companies across the world are more focused on making user friendly interface for cashless payments.Virtual currencies such as Bitcoin, Litecoin, Ethereum, Zcash, Monero Dash, Ripple which are decentralized based on peer to peer network are widely accepted in many countries. Indian government has not legalized these cryptocurrencies till date.**(source - https://www.investopedia.com)**

Risk Factor and Awareness

Due to increasing availability of mobile phones and feasible data charges cashless payments are done on large scale, especially through mobile wallets. Simultaneously cyber security is also a major factor while making cashless payments. Government is taking initiative to educate general population though various ways. Government has launched television channel named "DigiShala" to educate people regarding various ways of cashless payments. **(http://digitalindia.gov.in/digishala)** From last few years cyber-attacks are witnessed on many sectors such as e-commerce, health care, manufacturing, government services, financialinstitutions, telecom, etc. Stealing information from internet enable mobiles has become a major problem as many consumers store their bank details on mobile while performing cashless transactions.

As cyber risk is not limited to specific geographical area government bodies and private entities are more concern about security and cyber-attacks. Phishing exploits of vulnerability, spam, malware cyber espionage, social engineering, identity theft, and merchant fraud and by many ways where people are attacked by cyber thieves to snatch financial details.**(KPMG Digital Payments- Analyzing the Cyber Landscape)** Cyber security is not one time activity, it requires continuous improvement as every time consumer has to face new threats.

Research Methodology

The study was carried in Pune city (Urban area) and nearby areas (Pimpri-Chinchwad, Wakad, Akurdi and Ravet). A sample set of 150 respondents of different age group, socioeconomic class; people working in different sectors (IT, manufacturing and college students) participated in the study. The objective of the study is to identify the perception of consumers regarding cashless payments. A set of questionnaire was designed and circulated among the consumers making cashless payments.

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Analysis Demographic Profiles

1. The respondent of the questionnaire with respect to gender are as follows-

Gender	Respondents
Male	116
Female	34

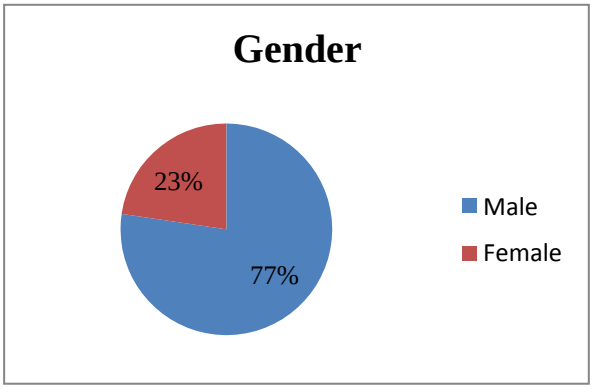

Fig- 1 Graphical representation of gender respondent

2. The respondent of the questionnaire with respect to age is as follows-

Age	No. of respondents
18 to 24 years	53
25 to 34 years	84
35 to 44 years	13

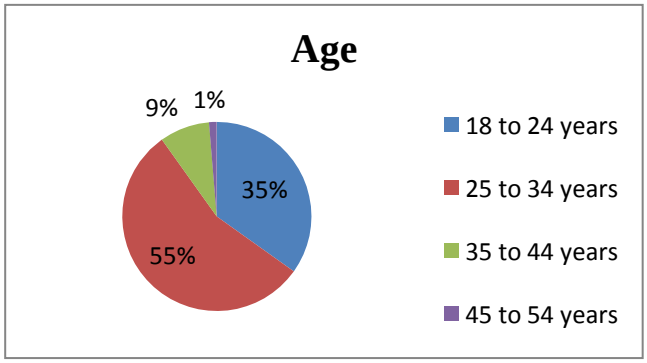

Fig- 2 Graphical representation of age respondent

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3. The respondent of questionnaire with respect to educational qualification is as follows:-

Educational Qualification	No. of respondents
Doctorate	2
Post-graduate	102
Graduate	39
Under Graduate	5
Others	2

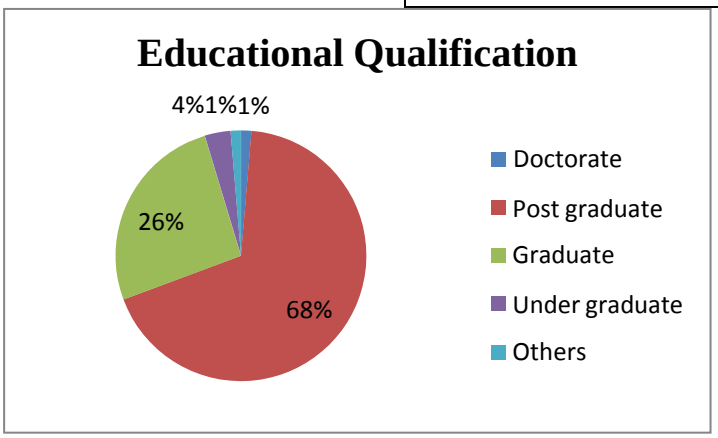

Fig- 3 Graphical representation Educational Qualification respondent

4. The respondent of the questionnaire with respect to monthly income is as follows-

Monthly Income	No. of respondents
Less than 10,000	57
10,000 to 25,000	17
25,000 to 35,000	21
35,000 to 45,000	34
More than 50,000	21

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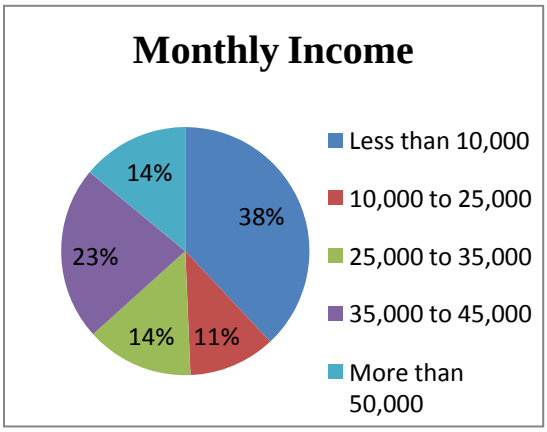

Fig- 4 Graphical representation of monthly income respondent

5. The respondent of the questionnaire with respect to occupation is as follows-

Occupation	No. of respondents
Student	63
Employee	75
Self-employed	5
Businessman	4
Others	3

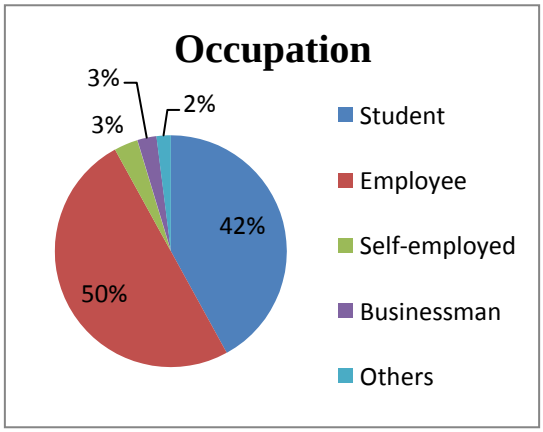

Fig- 5 Graphical representation of occupation respondent

Reliability Analysis- This test is usually taken to measure the overall consistency of samplesize. Overall sample size is 150.

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Reliability Statistics

onbach's Alpha	N ofItems
.849	15

Table -1

Cronbach's Alpha value is considered to measure the consistency of the sample size. As per the reliability test, (Table-1) value is more than 0.5 (0.849>0.5). Hence data is reliable for the research. Summary of reliability statistics for cashless payments are user interface, awareness, speed of online transaction, convenience, satisfaction, safety and flexibility which are dependent variables.

Normality Test- It is usually done to check whether the data is equally distributed or not. Here we are considering value of Skewness and Kurtosis.

Statistics

Valid	150
Missing	53
Skewness	-.193
Std. Error of Skewness	.198
Kurtosis	-.259
Std. Error of Kurtosis	.394

Table -2

Value of Kutosis : -0.259 and Skewness : -0.193(Table -2). Value is between +1 and -1. Therefore data seems to normally distribute which is good.

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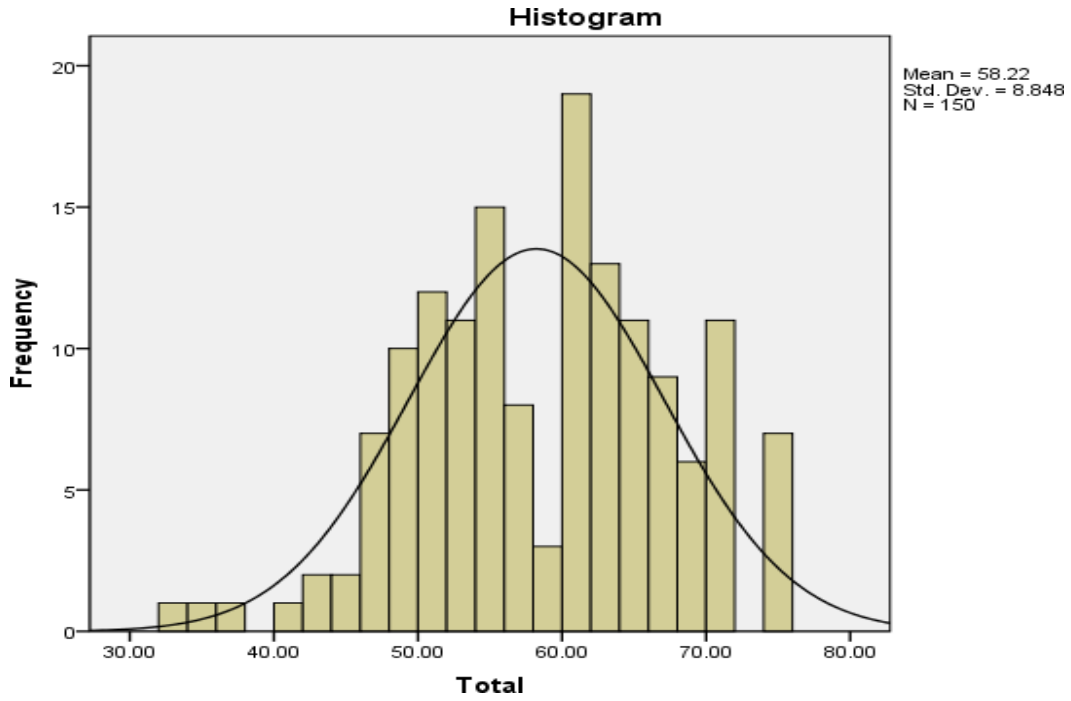

Fig- 6

Above fig no-5 shows the histogram of the available sample size. Graph shows bell shape curve which means that distribution of data is normal.

1) Hypothesis 1

H(a)1: There is no significant difference in the perception of gender regarding cashless payments.
H(b)1: There is significant difference in the perception of gender regarding cashless payments.

Group Statistics

gender		N	Mean	Std. Deviation	d. ErrorMean
Total	1	116	58.7155	9.04847	.84013
	2	34	56.5294	8.02358	1.37603

Table-3

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Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Total	Equal variances assumed	0.695	0.406	1.269	148	**0.206**	2.18611	1.72207	-1.2169	5.58913
	Equal variances not assumed			1.356	59.803	0.18	2.18611	1.61223	-1.0391	5.41126

Table-4

As there are only two variable in gender therefore, we use T-test for the analysis. If the value of P is less than 0.05 then the test fails to reject the hypothesis H(a)1. But the output of the test explains that P value 0.206 (table- 4) is greater than 0.05 (0.05 <0.206), Therefore we use EVA (Equal variances assumed) that is 0.206. Hence we fail to reject the null hypothesis H(a)1. Therefore we can state that there is no significant difference in the perception of gender regarding cashless payments H(a)1.

2) Hypothesis 2

H(c)2: There is no significant difference in the perception of consumers regarding cashless payments with respect to different age group.

H(d)2: There is a significant difference in the perception of consumers regarding cashless payments with respect to different age group.

Test of Homogeneity of Variances

Levene Statistic	df1	df2	Sig.
1.913	3	146	0.13

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Table-5

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1779.899	3	593.3	8.762	**0**
Within Groups	9885.841	146	67.711		
Total	11665.74	149			

Table-6

As age is dependent variable we use ANOVA test for the analysis. As per the ANOVA test conducted with reference to different age group, significance value is less than 0.05 that is 0.0 (0.05>0), hence we reject the null hypothesis H(c)2 Therefore we can state that there is significant difference in the perception of consumers regarding cashless payments with respect to different age groups H(d)2.

3) Hypothesis 3

H(e)3: There is no significant difference in the perception of consumers regarding cashless payments with respect to income.

H(f)3: There is a significant difference in the perception of consumers regarding cashless payments with respect to income.

Test of Homogeneity of Variances

Levene Statistic	df1	df2	Sig.
1.147	4	145	0.337

Table-7

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ANOVA

Total

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	353.294	4	88.323	1.132	**0.344**
Within Groups	11312.4	145	78.017		
Total	11665.7	149			

Table-8

As income is dependent variables, we use ANOVA test to conduct the analysis. If the value is less than 0.05, then we reject the H(e)3 hypothesis. But as per the ANOVA test conducted with reference to Income, value 0.344 (table-8) is greater than 0.05 (0.344>0.05), therefore the test fails to reject the null hypothesis H(e)3. Hence there is no significance difference in the perception with respect to income regarding cashless payments H(f)3.

4) Hypothesis 4

H(g)4: There is no significant difference in the perception of consumers regarding cashless payments with respect to educational qualification.

H(h)4: There is a significant difference in the perception of consumers regarding cashless payments with respect to educational qualification.

Test of Homogeneity of Variances

Total

Levene Statistic	df1	df2	Sig.
1.537	4	145	.195

Table-9

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ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
BetweenGroups	983.131	4	245.783	3.336	**.012**
Within Groups	10682.609	145	73.673		
Total	11665.740	149			

Table-10

As educational qualification is dependent variable, we use ANOVA test to conduct the analysis. If the value is less than 0.05, then the we reject null hypothesis H(g)4 hypothesis. As per the ANOVA test conducted with reference to educational qualification, value 0.012 (table-10) is less than 0.05 (0.012<0.05). Hence we reject the null hypothesis H(g)4satisfies the test. Therefore there is a significance difference in the perception of consumers regarding cashless payments with respect to educational qualification H(h)4.

5) Hypothesis 5

H(i)5: There is no significant difference in the perception of consumers regarding cashless payments with respect to occupation.

H(j)5: There is a significant difference in the perception of consumers regarding cashless payments with respect to occupation.

Test of Homogeneity of Variances

Levene Statistic	df1	df2	Sig.
0.585	4	145	0.674

Table-11

ANOVA

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	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	194.409	4	48.602	0.614	**0.653**
Within Groups	11471.3	145	79.113		
Total	11665.7	149			

Table-12

As occupation is dependent variable, we use ANOVA test to conduct the analysis. If the value is less than 0.05, test rejects the null hypothesis H(i)5 hypothesis. But as per the ANOVA test conducted with reference to occupation, value 0.653(table-12) is greater than 0.05 (0653>0.05) Hence the test fails to reject the null hypothesis H(i)5 fails. Therefore there is no significance difference in the perception of consumers regarding cashless payments with respect to educational qualification H(i)5.

Conclusion:

The objective of the research paper is to identify the perception of consumer regarding cashless payments. This paper comprises of overall awareness, security, and most preferred platform for cashless payments. As far as gender is considered there is no significant difference in the perception regarding cashless payments. With respect to different age groups there is a significant difference in the perception regarding cashless payments. With reference to different income groups there is no significant difference in the perception regarding cashless payments. In terms of different education groups there is a significant difference in the perception regarding cashless payments. With respect to occupation of consumers there is no significant difference in the perception regarding cashless transactions.

Since there is no significant difference regarding the perception of cashless payments with respect to gender, income groups and occupational groups, however there is a significant difference

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regarding cashless payments with respect to different age and educational groups, so for designing customized cashless payment platforms these parameters should be considered. In the past there were many research conducted to identify the perception of consumers regarding cashless payments. Among the general population, youngsters prefer to make cashless payments, whereas other people don't prefer to make cashless payments because of technical illiteracy and belief in the traditional mode of payments that is hard cash. Indian government is taking many initiatives to educate people regarding cashless payments.

Summary of Hypothesis:

Sr.No.	Hypothesis	Parameter	Null Hypothesis	Accepted Hypothesis
1	Hypothesis 1	Gender	Fail to reject	H(a)1
2	Hypothesis 2	Age	Reject	H(d)2
3	Hypothesis 3	Income	Fail to reject	H(e)3
4	Hypothesis 4	Educational Qualification	Reject	H(h)4
5	Hypothesis 5	Occupation	Fail to reject	H(i)5

Table-14

The above table (table-14) shows the overall summary of the results which were conducted during the research regarding cashless payments. All hypotheses were tested with respect to gender, income, educational qualification and occupation.

Recommendations:

Consumers are keen towards risk and security as it should be first priority before creating platforms for cashless payments. Physical infrastructure supporting the digital payments should be revamped continuously. Most of the consumers prefer to make cashless payments through m-wallets. Government should introduce more convenient ways to make cashless payments. Other than mobile wallets, debit/credit cards are widely used for online payments, some online transactions are made through thumb impression (biometric). Banks and Fintech service providers should focus more on building robust infrastructure without any security breach and reducing dependability on cards and mobiles - like eye recognition application based services should be installed in ATMs with pin number or other convenient ways to reduce transaction time. It will definitely help those consumers who are unaware of cashless payments or not willing to make cashless payments. Of course security and suspicious activities should be given more importance than any other aspect because money is the blood line of every country's economy.

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