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Consumer perception towards Online food delivery apps	Harsimar Singh (1918) Vinayak Bansal (1922) Jasjit Singh (1936) Akshit Singh (1943) Jasjeet Singh (1944)	Ms. Garima Malhotra
Wage Analysis of Daily Wage Construction Workers in India	Amshu Jain (1928) Yashaswi Agarwal (1930) Shubh Vashisht (1955) Jatin Singh (1941)	Ms. Garima Malhotra
Factors affecting Happiness Index	Harpreet Kaur (1947) Harshit Arora (1948) Jaskeerat Singh (1942) Manas Ahuja ( 1956)	Ms. Garima Malhotra
How Malnutrition, Pollution & health expenditure affect Infant mortality rate	Gurmehar Kaur (1919) Japnain Kaur (1924) Rijak Singh (1925) Sajal Sharma ( 1950) Harleen Kaur (1953)	Ms. Garima Malhotra

A study on consumer's Smartphone buying patterns in India	Kartik Bhargava(1954) Tushar Mittal(1939) Abhinav Singhal(1957) Harsh Singhal(1935)	Ms. Garima Malhotra
Factors affecting the Literacy in different states of India	Arya ( 1916) Kartikay (1906) Pranjal (1949) Himanshu (1921)	Ms. Garima Malhotra

# **SAMPLE PROJECT**



**DEPARTMENT OF BUSINESS ECONOMICS**  
**SRI GURU NANAK DEV KHALSA COLLEGE**  
**UNIVERSITY OF DELHI**

# **IS INDIA READY FOR** **CASHLESS ECONOMY?**

## **PREPARED BY:-**

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**UNDER THE GUIDANCE OF**  
**MRS.GARIMA BABBAR**

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# **DECLARATION**

We hereby declare that the thesis entitled **“IS INDIA READY FOR CASHLESS ECONOMY”** submitted by us is a record of bonafide work carried out by me under the supervision of **MrsGarimaBabbar**.

We further declare that the work reported in this thesis has not been submitted and will not be submitted, either in part or in full, for the award of any other degree or diploma in this institute or any other institute or university.

**PLACE : NEW DELHI**  
**DATE(MM/YYYY) :04/2021**



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Nothing is ever possible without our parent's support. Their blessings and their moral support have made this project a possibility and we cannot thank them enough.

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# ABSTRACT

✚ The objective of this study is to examine **the significant challenges that are faced by Indians on the way towards cashless.** It's an ardent effort to move towards a cashless transaction economy by minimizing the use of physical cash .This research examines **the impact of implementation of a cashless payment policy on economic development and gradual transition to a cashless economy in India.** Cashless policy will reduce cash related corruption and attract more foreign investors to the country. In many countries introduction of cashless economy can be seen as steps in the right direction.

✚ A **MAJOR OBSTACLE** for the quick adoption of alternate mode of payment is mobile internet penetration, which is crucial because point of sale terminal works over mobile internet connection, while banks have been charging money on card-based transaction which is seen in hurdle.India has been using electronic payment system for many year now, However **the retail sector still has predominance of cash transaction** and payment through cash is yet to pick up card is the one of the most secure, convenient mode of cashless payment in retail market

✚ For this study, the focus is on the time period from **2010 to 2018.****One of the offshoots of 2016 demonetization of Indian high denomination bank currency notes is that the country can progress towards becoming a cashless economy.** Several countries around the world are trying cashless transactions in one form or the other for various reasons and with reasonable success.

## ✚ **THE QUESTIONS THAT ARISES ARE AS FOLLOWS :**

- 1. Do the factors such as (age, gender, occupation, income levels and problems) impact customers to do a transaction in cashless mode?**
- 2. What are the major deterrents for making a cashless transaction?**
- 3. What can various stakeholders such as the public, banks and financial institutions, regulators, central banks and governments do to accelerate India to turn into a fully cashless economy?**

These are problems are examined and suggestions for the same are provided.

- ✚ The data used for this study are **tele-transfer, through credit or debit card payment, check payment, and E-money on Indian economic growth. The study has employed the panel vector error correction model, Padroni residual co integration, and the hypothetical prototypical method.**  
The leading advantage of building a cashless economy is elimination of black money, in an attempt to curb-out black money, money laundering, and to have a sound economy, the central government of India has embarked on the cashless economy.
- ✚ The use of a cashless policy on Indian economic development in **the short term will be negative, whereas in the long term it will impact positively.**  
Hence, any kind of economic strategy that endorses a cashless payment system cannot have positive impact on the economic development directly.
- ✚ Both the **PRIMARY&SECONDARY DATA** have been collected for the research. The **primary data** has been collected through **questionnaires** and the **secondary data through articles.** The data collected through questionnaires has been classified as per the relations to a fixed end factor and the data has been tabulated and analyzed to understand the perception of individuals towards cash, less cash and cashless economy.
- ✚ Willingness to accept a transition towards a less cash economy is also observed. Hence this research aims at understanding on an **individual level, the mindset of the citizens of the nation regarding the shift from cash based to a more digital economy.** To conduct the survey, **the sample population has been chosen by Non-Probability Convenient Sampling.** Electronic banking will be made banking transaction to be easier by bringing services closer to its customers hence improving banking industry performance. The financial safety over the digital payment channel is important for pushing the cashless economy idea.

# INTRODUCTION

India is a country where people are living in an economy consist of monetary system built by currency notes and coins .Circulation of the currency notes is far higher than other large economies. In India, too much of transactions are made through cash. Less than 5% of total payments happen through electronically. India made an enthusiastic effort to move towards a cashless transaction economy by minimizing the use of corporal cash.

A Cashless economy is a situation in which all the financial transactions are made by digital currencies rather than physical currencies. Cashless India means the cashless transaction.

By the 2010's cash had become actively disfavored in some kinds of transaction which would historically have been very ordinary to pay with physical tender and larger cash amounts where in some situations treated with suspicion, due to its versatility and ease of use in money laundering and financing of terrorism and actively prohibited by some suppliers and retailers, to the point of coining the expression of a "war on cash".

**"WE WANT TO HAVE ONE MISSION AND TARGET: TAKE THE NATION FORWARD DIGITALLY AND ECONOMICALLY" -SHRI NARENDRA MODI.**

Prime minister, Mr. Narendra Modi launched the Programme "Digital India" on 8th November, 2016 with a vision to transform India into a digitally empowered nation and creating a cashless, paperless economy. The basic requirement for making the Cashless transaction is to have a smart phone with network connection. Prime Minister Narendra Modi asked the people to consider mobile phone as a wallet and bank.

As per the current status of India, only 7% or 8% of all the payments are taking place electronically. Narendra Modi's government scrapped currency notes of INR 500 and INR 1000 denominations, which is seen as an unprecedented measure, through a giant leap towards curbing corruption and forged currency.

The trend towards use of non-cash transactions and settlement began in daily life during the 1990's, when electronic banking became popular. By the 2010's digital payment method was widespread in many countries with examples including intermediaries such as PayPal, digital wallet systems operated by companies like Apple, contactless and NFC payments by electronic card or smart phone and electronic bills and banking, all in wide spread use.

In 2012, former Prime Minister Manmohan Singh brought this to reduce the corruption in India. Later the steps taken by the Indian Prime Minister Narendra Modi Digital India Initiative and also the 2016 demonetisation to remove the black money for improving the cashless transaction.

Even the RBI has also recently revealed a document "Payments and Settlement Schemes in India: Vision 2018" setting out a plan to inspire electronic payments and to permit India to move to a cashless society or economy in the medium and long term.

The depletion in cash due to demonetization has pushed digital and e-transaction to the forefront; e-banking, e-wallets, and other transaction apps becoming prevalent. A cashless economy is secure, it is clean. Digitalization is a process which may help the economy towards a cashless society.

In the 21st Century, cash has been reduced to a very small part of the money supply. Cash has been mainly replaced by electronic payment systems. Cash is now used only by individuals who do not wish to be a part of any other system or for very small transactions.

A society having an economic state where financial transactions are conducted using electronic representation of money and other forms of digital transactions rather than with money in the form of physical bank notes is considered a cashless economy. Earlier, cashless societies were based on barter system and possibilities for other cashless societies have arisen because of digital currencies such as bit coin . Economists believe that this is a concept that exists in theory alone.

### **Challenges in Transitioning to a Cashless Society**

- Acceptance infrastructure and digital inclusion
- Financial Inclusion Digital and Financial Literacy
- Cyber Security
- Changing habits and attitude
- Urban – Rural Divide

After demonetization the country is moving towards the cashless economy. To encourage the move towards cashless transaction the government has come up with a special discounts and freebies on digital transactions. There is no need for standing and waiting in queues, no need for interacting with bank staff and thus the customers get satisfied. A cashless economy can reduce the instances of tax avoidance, black money, corruption, money laundering, makes the life easier and stimulate economic growth.

# LITERATURE REVIEW

Many empirical studies have been conducted on the project of “CASHLESS ECONOMY” in India and Abroad. The major emphasis of research has been on various issues like frauds, security, usage patterns, new method of e-payment, etc.

From the review of literature, it was found that hardly there was a study which examined the perception of both users and traders on the usage of cashless transaction. Also many studies concentrated on individual cards, for instance, debit or credit card and neglected the joint effect and new innovative cards like smart card, charge card and check card.

**MANDEEP KAUR AND KAMALDEEP KAUR (2008), DEVELOPMENT OF PLASTIC CARDS MARKET;** past, present and future scenario in Indian banks found that plastic money in the form of cards has been actively introduced by banks in India in 1990's. But it was not very popular among Indian consumer at the time of its introduction. The change in demographic features of consumers in terms of their income, marital status, education level, etc. and up gradation of technology and its awareness brought the relevant changes in consumer preference.

**BANSI PATEL AND URVI AMIN (2012)** in their research paper “plastic money: Road way towards cashless society” discussed that now a days in any transaction plastic money becomes inevitable part of the transaction and with it life becomes more easy and development to take better place and along with the plastic money it becomes possible that control the money laundry and effective utilization of financial system would become possible with would also helpful for tax legislation.

**MR. PRADEEP H. TAWADE (2017), "FUTURE AND SCOPE**

**OFCASHLESSECONOMY IN INDIA."** This paper helps in assessing the future trends and the impact of going cashless in the Indian economic scenario. After the study was conducted it was seen that the Government of India should consider many more steps in digitalizing India. And payment methods should be made more secure and risk-free.

**Dhanda and Arora (2017), Genesis of cashless society:** A study on growing acceptability towards plastic money. This paper is aimed towards studying the factors responsible for the rapid increase in acceptability of plastic card in the recent years. After the study was conducted it was seen that use of plastic cards is a matter of great pride among teenagers and is considered safe and free from any frauds.

**Dr. RashmiGujrati (2017), India's march towards faceless,paperless, cashless economy.** The paper is aimed towards creating a sense of awareness about cashless economy, its benefits, challenges and the steps taken by government toward cashless economy. After the research conducted it was seen that cashless economy comes with various benefits but brings in a lot more challenges with it.

**Dr. Asha Sharma (2017), Potential for cashless economy in India.** The study was conducted to find the scope of India becoming a cashless economy, challenges and opportunities related to cashless economy. The study shows that there is a significant scope of Cashless India as we can abolish various problems we face today but we must be prepared for the challenges and problems which cashless economy will bring.

**Dominic, Saranya, and Rajani (2018), A study on transformation in behaviour of individual towards cashless economy.** The study is aimed towards studying the behavioural changes in individual towards cashless economy. After the study conducted it was seen that many individuals have already moved or are moving towards a cashless nation but there is still a long way for India to become cashless.

**Mr. Bharat Khurana (2015), Dream of cashless India: Benefits and challenges.** The paper studies the benefits and challenges India might face if it becomes a cashless nation. It also helps in assessing the meaning of digital India and steps taken by government towards achieving the dream of cashless India. After the study no matter how much the government had done for fulfilling the dream of digital India but there is still a lot more that can be done to achieve that dream.

**Metri and Jindappa (2017), Impact of cashless economy on common man in India.** The study focusses on effect of going cashless on a common man living in India and the challenges related to going cashless. The study shows that India can never turn into a fully cashless economy as cash has been the dominating factor and always will be. Going cashless will only be feasible for a very small section of the society but not the whole nation.

**Kumari and Khanna (2017), Cashless payment:** a behavioural change to an economic growth. The paper aims to study how a behavioural change led to an economic growth in the Indian economic scenario. After the study conducted it was seen that various factors were responsible for such a change as people were finding various benefits and opportunities by adopting such a change.

# **METHODOLOGY**

For this study qualitative and quantitative both research methods are used. Data for study was collected from primary as well secondary sources.

## **RESEARCH AIM**

Points of focus under research aim:

- Cashless economy got popular after demonetization where plastic money was widely used. The study is aimed towards studying the level of awareness among the citizens about cashless economy.
- The study also helps in determining the factors which influence the people to switch from cash towards cashless payments and what are the benefits people avail by using other means of payments.
- The current study work is therefore aimed at filling the gap in the current body of information on changing rural people's perception of cash-to-cash-free transaction. This element is similarly crucial when one thinks about the country's cashless economy and contributes to the Digital India Programme. The following goals will be created to fill this gap.
- Understanding on an individual level, the mindset of the citizens of the nation regarding the shift from cash based to a more digital economy.
- RBI'S effort to encourage this new varieties of payment and settlement facilities aims to achieve the goal of a 'less cash' society.

# **RESEARCH OBJECTIVES**

## **A. PRIMARY OBJECTIVES**

- To study consumer awareness on cashless transactions.
- To assess the customer trust and confidence in cashless transactions.
- To study benefits of cashless economy.
- To analyse future trends of cashless transactions.

## **B. SECONDARY OBJECTIVES**

- To understand the factors influencing the customer moving towards cashless economy.
- To illustrate the steps taken by government to fulfill the dream of digital India.
- To assess the preparedness of Indian Government for implementing the cashless economy.
- To study the socio-economic impact of cashless economy on the society.

# RESEARCH DESIGN

This research is mainly based on the survey research. It is based on the questionnaire which was conducted to study the response towards cashless economy. The questionnaires responses were 200 respondents, survey was measured by using 14 questions.

Since the population of the study is vast, it is not possible to conduct a complete study of each and every unit of our population, therefore we have designed our study to conduct a the sample population has been chosen by **Non-Probability Convenient Sampling** and prepared a survey to gather the data. The research is analytical and descriptive in nature. The researcher for the purpose here had made use of primary data and secondary data.

Following are the steps involved in the research approach:

- ❖ Developing a hypothesis from a theory.
- Planning out the hypothesis in working terms and suggesting relationships between causal variables.
- Assessing the hypothesis with the help of various methods, which are quantitative methods like regression, ANOVA, Chi-square tests and descriptive stats.
- Studying the outcome, and interpreting the results in confirming or rejecting the theory.
- ❖ The data was collected and was analysed by using SPSS Software.

Descriptive Statistics was done by using Mean, Standard Deviation, Frequency and inferential statistics was used like correlation, regression and ANOVA.

# **SAMPLING TECHNIQUES**

❖ In our research we have employed convenience sampling under non-probability sampling techniques i.e., data is collected from respondents (friends, family members, colleagues) who could easily be tapped. The objective was to obtain information quickly and inexpensively. Thus we selected the sampling units or the respondents as per our convenience i.e., convenience of the researcher.

## **SAMPLE SIZE:**

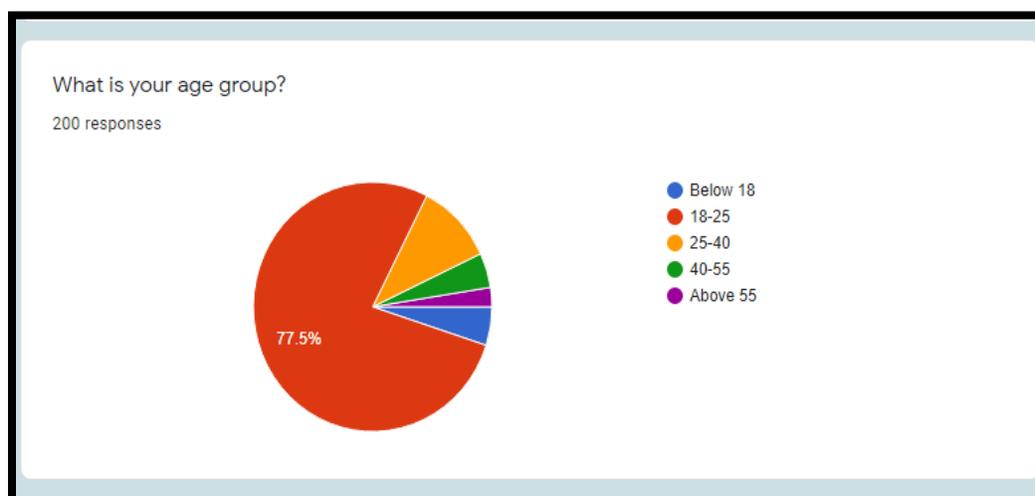
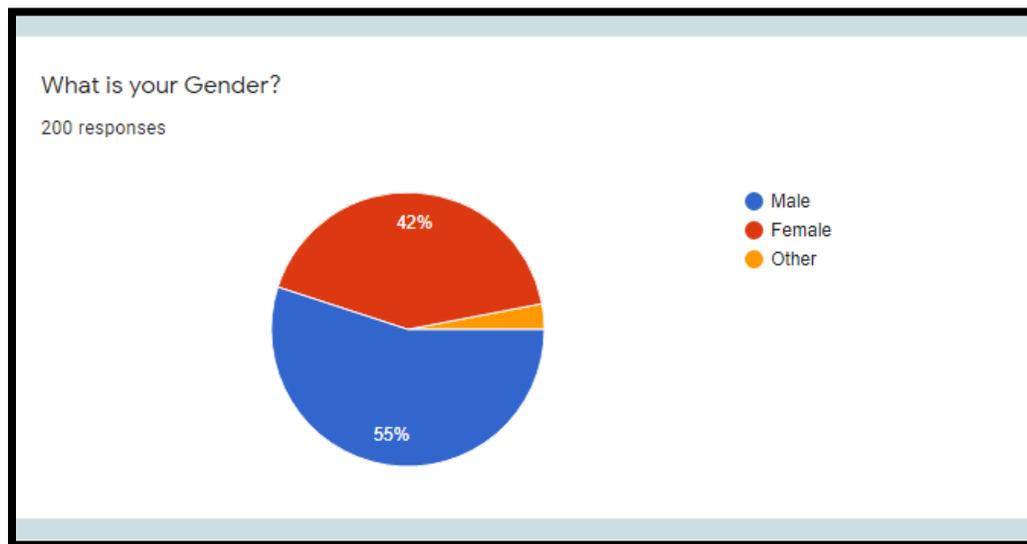
- ❖ The study has been conducted by using the sample of 200. The majority of this sample belonged to the 18-25 years age group and were residents of Delhi- NCR.
- ❖ The major current employment status were that of students .Major respondents had one bank account.

# **DATA COLLECTION**

The data were collected by using a structured questionnaire, which contains demographic characteristics of the respondents, benefits of cashless economy and problems of cashless economy. The data for this research is collected from both primary source of data and secondary sources of data. The primary data is the data that a researcher collects themselves using various techniques like questionnaires, interviews, observation, etc .For our research we have used questionnaires as a mode of collection of data. Various articles have been used as secondary data for the research .Non-probability and convenience sampling method was utilized in this study .Secondary data was gathered from various sources viz: books, reports, journals ,published papers.

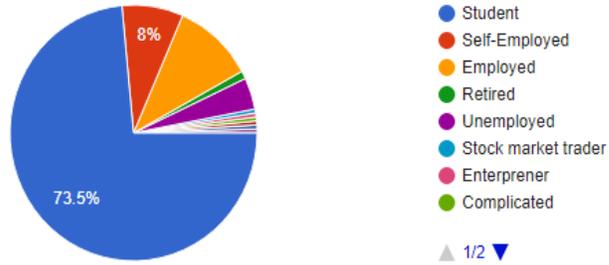
# OVERVIEW OF QUESTIONNAIRE

The questionnaire has been developed with the motive of understanding the demographics of the consumers as well as the factors which affect their buying decision. Under the demographics, their age, gender, occupation, monthly amount of spending were studied in order to gauge the relationship between these variables and their spending behavior.



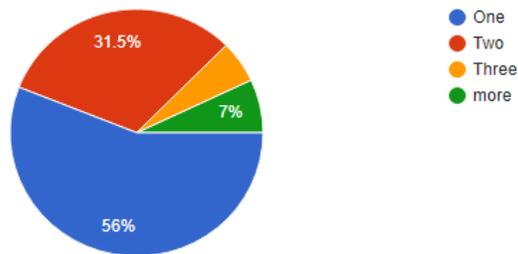
### What is your current employment status?

200 responses



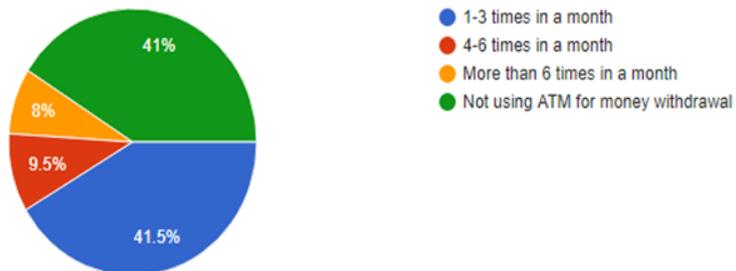
### How many bank accounts do you have?

200 responses



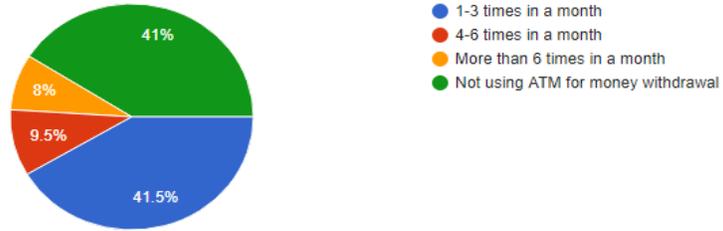
### How frequently do you withdraw money from ATM?

200 responses



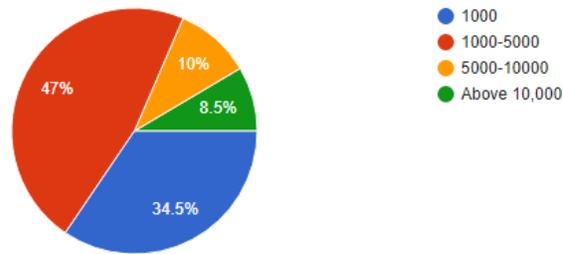
How frequently do you withdraw money from ATM?

200 responses



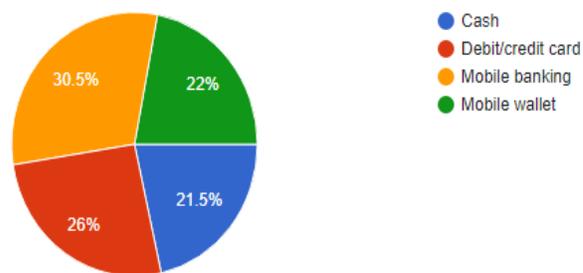
How much cash do you prefer to have in hand?

200 responses



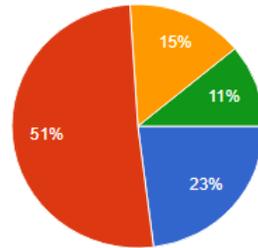
How do you prefer to make payment of your monthly bill?

200 responses



How frequently do you use online payment/ mobile banking?

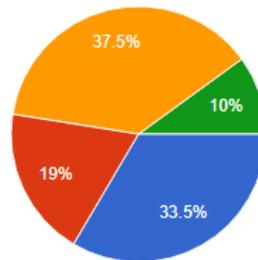
200 responses



- Once a week
- More than once a week
- Less than 4 transactions in a month
- Not using online banking for payments

Which type of payment do you use more often?

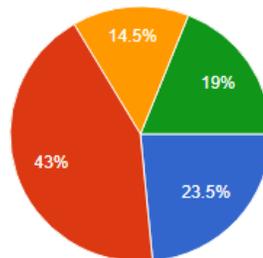
200 responses



- Online transaction
- Payment through card
- Payment through apps
- Other method

What is the average amount spent in a month through e-payment?

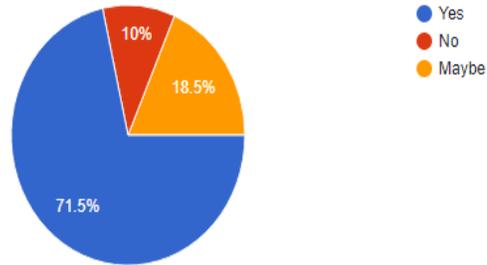
200 responses



- 1000
- 1000-5000
- 5000-10000
- Above 10,000

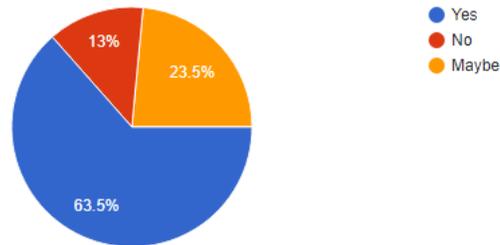
Do you think Cashless transactions are more convenient than cash transaction?

200 responses



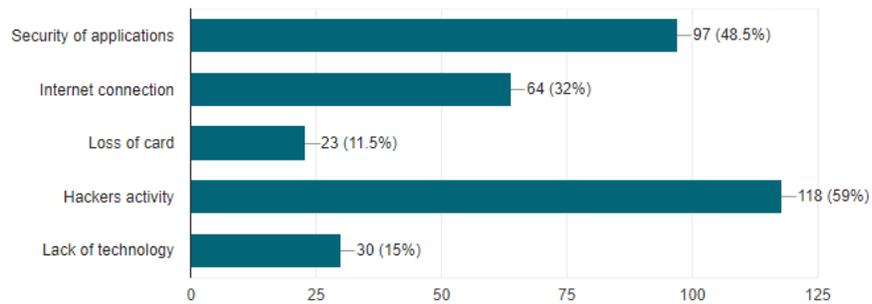
Are you willing to switch to cashless transaction?

200 responses



What worries you more to switch into cashless transaction?

200 responses



# **DATA ANALYSIS AND RESULTS**

## **MULTIPLE REGRESSION ANALYSIS**

The multiple regression is used to find the relationship between a dependent variable and various Independent variables. It tells us how the independent variables relate to the dependent variable and the importance of each of these predictors.

Moreover, it provides an equation to determine the value of the dependent variable for a given set of values of the independent variables

### **The regression model will look like:**

$$Y = B_0 + B_1X_1 + B_2X_2 + B_3X_3$$

Using SPSS, the regression equation comes equivalent to:

$$Y = 1.525 + (-0.048) X_1 + (0.613)X_2 + (-0.035)X_3 \text{ REGRESSION}$$

$$SE ( 0.295)(0.036)(0.065)(0.048)$$

WHERE, Y= DEPENDENT VARIABLE (WILLINGNESS)  
X<sub>1</sub>, X<sub>2</sub>, X<sub>3</sub> = INDEPENDENT VARIABLES

ASSUME SIGNIFICANCE LEVEL = 0.05

# HYPOTHESIS

This study focused on impact of various factors that influence a consumer to make cashless transaction. Based on these factors, the following hypotheses are derived:

- ❖ **Null Hypothesis (H0):** Explanatory variables will have no or little significant relationship with willingness of consumer to perform cashless transaction.
- ❖ **Alternate Hypothesis (H1):** Explanatory variables have positive significant relationship with willingness of consumer to perform cashless transaction.

After establishing the relationship between the dependent and independent variables, through the regression equation we have checked whether the percentage of variance in the dependent variable due to independent variables i.e.,  $r^2$  is significant or not.

# INTERPRETATIONS

- As stated in model summary  $R^2$  (Regression Coefficient) is equivalent to 0.333 that is 33% approx. therefore independent variable in our study explains 33.3% of the variation in dependent variable that is, willingness of consumer to perform cashless transactions.
- As per our  $R^2$  analysis it can be depicted that there are certain uncontrollable variables or several other independent factors that have an important role towards consumer willingness to perform cashless transactions. This can be seen as the value of  $R^2$  is not significant.
- Also as given in the annexure the regression coefficient that explains the amount of variation in data is between 61.3% and 3.5% where 61.3% is for convenience 4.8% is for withdrawal and 3.5% is for preference.

# **ANNOVA INTERPRETATION**

Our annova table check the significance of R<sup>2</sup> using F test as per the annova given in annexure our P value comes out to be 0.000 approx. as the P value is less than assume level of significance that is 0.05 therefore, we have the required evidence to reject to null hypothesis.

**Hence, Null hypothesis gets rejected**

**The data reveals that there is statistically significant positive correlation between independent variables and the dependent variable.**

## **DURBIN WATSON AUTO-CORRELATION**

As per the Derbin Watson analysis the value for Derbin Watson Analysis comes out to be 1.994 that is approximately 2, hence we can conclude that there exists no auto correlation.

### **Note:**

In Derbin Watson analysis the value less than 2 signifies positive auto correlation, the value above 2 signifies negative auto correlation and value approximately 2 signifies no auto correlation.

## **MULTICOLLINEARITY**

As per the VIF test given in coefficient table is less than 10 and close to 1 in all independent variables hence there is no multi collinearity between explanatory variables.

## **T-TEST**

In T test we have taken test value as 3.5 that signifies that majority of respondents from our data set have willingness to perform cashless transaction as per the one sample table our P value comes out to be 0.096, that is more than the assume level significance (0.05) and hence we do not sufficient evidence to reject null hypothesis hence our null hypothesis gets accepted that is willingness of majority of consumer to perform cashless transactions.

# LIMITATIONS OF THE STUDY

Despite of all efforts and dedication towards this study there are some limitations to this research which are as follows:

1. **Sample size:** The sample size considered for this study is very small to represent country like India.
2. **Method of primary data collection:** Primary data obtained through questionnaire and personal interviews, there is possibility of personal bias or due to any other reason respondent not provided true data.
3. India's population resides in the rural areas, and the research is limited only to the urban population.
4. Confined to only the people of a geographical area in the urban India.
5. The sample size is also limited to only 200 samples which also restricts the research.
6. The time taken for the research also acts as a restraint for the research.

# CONCLUSION

We can conclude that there is a long way for India to become a cashless economy. People still lack trust and confidence while using digital payment methods. A lot of development in the field of infrastructure is required to make the dream of Digital India a reality. There are many people who are still not aware about the cashless economy not only in India but outside of India.

Government has faced a lot of criticism in the past from the public for the various plans implemented on the public. There are a lot of challenges in fulfilling the dream of digital India but in the long run cashless economy will help in growth and will bring a lot of benefits and opportunities with it.

The future of the cashless India looks pretty promising as the response of the country people towards this move of the government and the support towards it is a clear indication that the government's move is likely to succeed.

The transparency in the economy will increase through the e-commerce transactions and the digital payment gateways which will increase the GDP of the economy. This will increase the credibility of the country and make a rise in investments. This step of cashless is truly going to create ripples of big success and it will help to attain vision of Prime Minister Modi's vision of Digital India.

A Cashless economy is a situation in which all the financial transactions are made by digital means rather than physical currencies. After demonetisation the country is moving towards the cashless economy. To encourage the move towards cashless transaction the government has come up with a special discounts and freebies on digital transactions. From the study, it is observed that much has already been aware of cashless economy and that a sizeable proportion of the people

are actually awaiting the introduction of the cashless economy. The result revealed that the cashless economy has a positive impact on prevention of money laundering and stimulation of economic growth.

The government has developed unique discounts and freebies on electronic transactions to promote the step towards cashless transactions. From the study, it is observed that there is not too much awareness of cashless transactions and that a significant proportion of people are actually waiting for the cashless transaction to be introduced. The outcome indicated that the cashless economy has a beneficial effect on preventing money laundering and stimulating economic growth, but the research area's people are not conscious of the cashless transaction due to many of the problems mentioned above and also debated how to remove these difficulties.

Indian economy is primarily to be driven by the use of cash and less than 5% of all payments happen electronically. This is largely due to the lack of access to the formal banking system for a large part of the population and as well as cash being the only means available for many. Large and small transactions continue to be carried out via cash. Even those who can use electronic payments, use cash. Indians traditionally prefer to spend and save in cash and a vast majority of the more-than 1.2 billion population doesn't even have a bank account. Indian economy is primarily driven by the informal sector and it relies heavily on cash based transactions.

The main goal of current research was to ascertain the potential of Indian economy tend towards cashless. India has huge capacity for development through man, material, natural resources, generating and adopting new way and thoughts. Due to various factors discussed in the paper, it is found that Indian economy is developing. It's GDP is among first top ten countries. It istend to be cash to cashless. It has great potential for moving towards cashless.

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# QUESTIONNAIRE

How many bank accounts do you have? \*

- One
- Two
- Three
- more

How frequently do you withdraw money from ATM? \*

- 1-3 times in a month
- 4-6 times in a month
- More than 6 times in a month
- Not using ATM for money withdrawal

How much cash do you prefer to have in hand? \*

- 1000
- 1000-5000
- 5000-10000
- Above 10,000

How do you prefer to make payment of your monthly bill? \*

- Cash
- Debit/credit card
- Mobile banking
- Mobile wallet

How frequently do you use online payment/ mobile banking? \*

- Once a week
- More than once a week
- Less than 4 transactions in a month
- Not using online banking for payments

Which type of payment do you use more often? \*

- Online transaction
- Payment through card
- Payment through apps
- Other method

What is the average amount spent in a month through e-payment? \*

- 1000
- 1000-5000
- 5000-10000
- Above 10,000

Do you think Cashless transactions are more convenient than cash transaction? \*

- Yes
- No
- Maybe

Are you willing to switch to cashless transaction? \*

- Yes
- No
- Maybe

What worries you more to switch into cashless transaction? \*

- Security of applications
- Internet connection
- Loss of card
- Hackers activity
- Lack of technology

# ANNEXURE

## Descriptive Statistics

	Mean	Std. Deviation	N
Y_Willingness	3.40	.845	200
X1-Withdrwal	3.49	1.382	200
X2_Convenience	3.53	.789	200
X4_Preference	3.53	1.061	200

## Correlations

		Y_Willingnes s	X1-Withdrwal	X2_Convenie nce	X4_Preferenc e
Pearson Correlation	Y_Willingness	1.000	-.133	.570	.093
	X1-Withdrwal	-.133	1.000	-.099	-.046
	X2_Convenience	.570	-.099	1.000	.233
	X4_Preference	.093	-.046	.233	1.000
Sig. (1-tailed)	Y_Willingness	.	.031	.000	.095
	X1-Withdrwal	.031	.	.082	.259
	X2_Convenience	.000	.082	.	.000
	X4_Preference	.095	.259	.000	.
N	Y_Willingness	200	200	200	200
	X1-Withdrwal	200	200	200	200
	X2_Convenience	200	200	200	200
	X4_Preference	200	200	200	200

### Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics			Sig. F Change	Durbin-Watson
						F Change	df1	df2		
1	.577 <sup>a</sup>	.333	.323	.695	.333	32.585	3	196	.000	1.994

a. Predictors: (Constant), X4\_Preference, X1\_Withdrawal, X2\_Convenience

b. Dependent Variable: Y\_Willingness

### ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	47.254	3	15.751	32.585	.000 <sup>b</sup>
	Residual	94.746	196	.483		
	Total	142.000	199			

a. Dependent Variable: Y\_Willingness

b. Predictors: (Constant), X4\_Preference, X1\_Withdrawal, X2\_Convenience

### Coefficients<sup>a</sup>

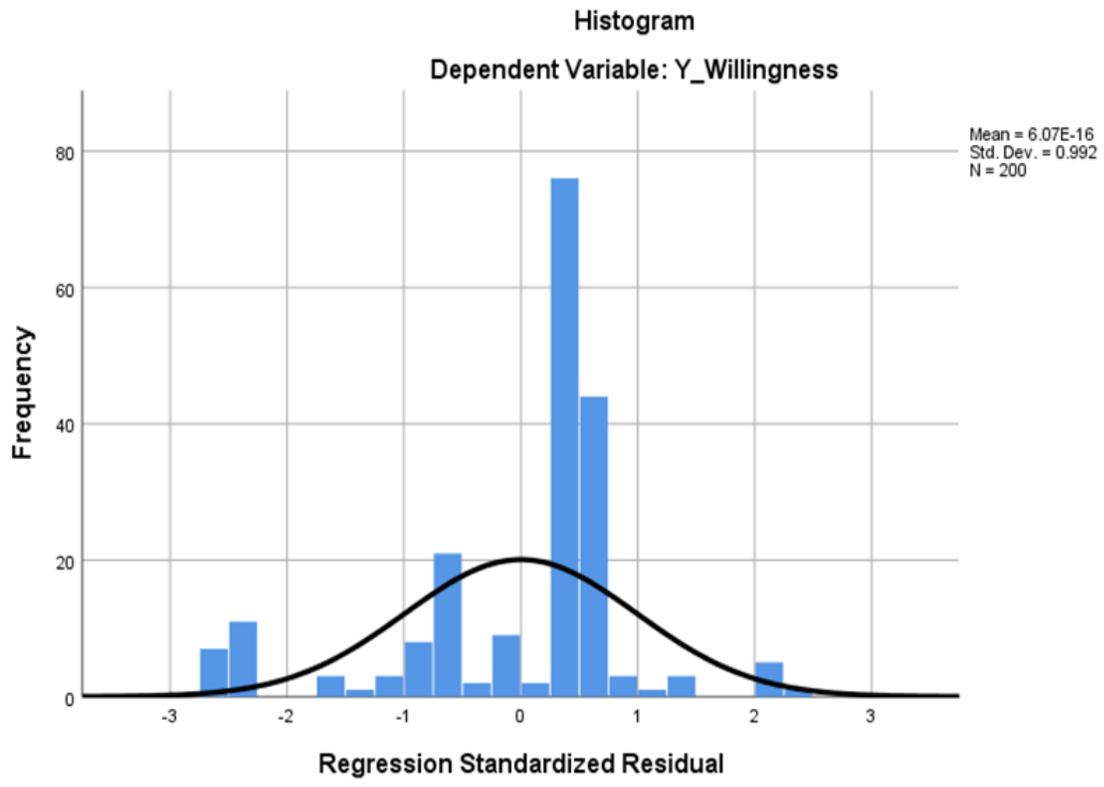
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	1.525	.295		5.175	.000	.944	2.106		
	X1_Withdrawal	-.048	.036	-.078	-1.332	.185	-.118	.023	.990	1.010
	X2_Convenience	.613	.065	.573	9.506	.000	.486	.741	.938	1.066
	X4_Preference	-.035	.048	-.044	-.734	.464	-.129	.059	.945	1.058

a. Dependent Variable: Y\_Willingness

### Residuals Statistics<sup>a</sup>

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	2.34	3.81	3.40	.487	200
Residual	-1.813	1.592	.000	.690	200
Std. Predicted Value	-2.180	.847	.000	1.000	200
Std. Residual	-2.607	2.290	.000	.992	200

a. Dependent Variable: Y\_Willingness



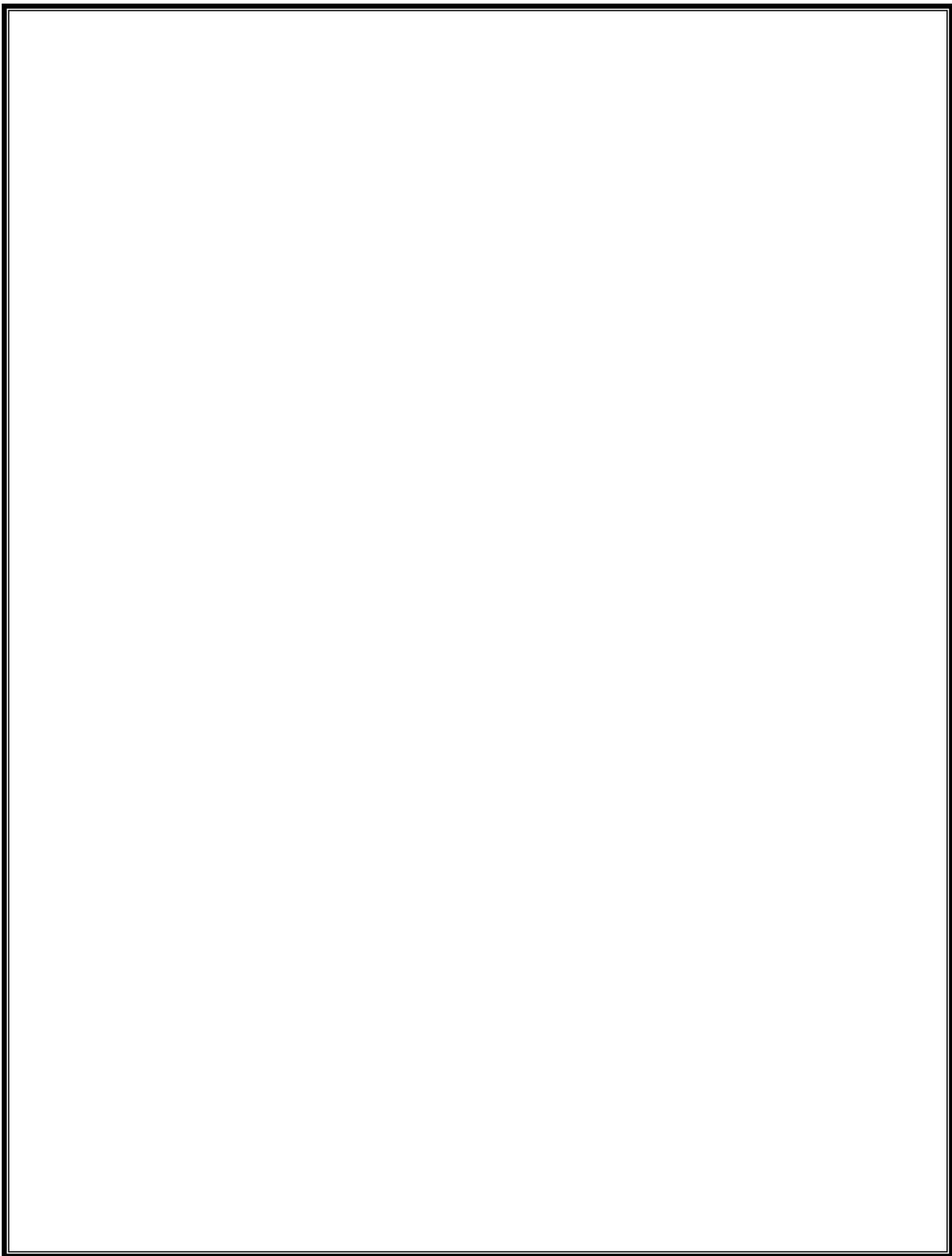
### One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Y_Willingness	200	3.40	.845	.060

### One-Sample Test

Test Value = 3.5

	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Y_Willingness	-1.674	199	.096	-.100	-.22	.02



# **SAMPLE PROJECT**

## **2**

# **FACTORS AFFECTING THE LITERACY IN DIFFERENT STATES OF INDIA**

**By:**

**Arya – 1916**

**Kartikay – 1906**

**Pranjal – 1949**

**Himanshu- 1921**

**Under the able guidance of:**

**Mrs. Garima Babbar**

**Department of Business Economics**

**SGND Khalsa College**



## **ACKNOWLEDGEMENT**

It gives us immense pleasure to present the project report on Factors affecting Literacy Rate in different states of India. This project enabled us to venture beyond books and understand the application of the concepts of Basic Econometrics as well as understand the usage of various software like SPSS and MS-Excel.

We would like to extend our gratitude to Mrs. Garima Babbar ma'am, Assistant professor, Sri Guru Nanak Dev Khalsa College, whose constant able guidance supported us all through. Her valuable insights played a fundamental role in shaping the research project the way it will be presented to you.. This project wouldn't have been possible without her useful guidance and supervision.

We are thankful to our friends and colleagues whose for their cooperation and unremitting support which enabled us to complete the project on time.

## **ABSTRACT**

This research paper is an attempt to understand the factors that play an instrumental role in the determination of the Literacy Rates in various states of India. The literacy rate in India varies considerably with the highest being 94%

according to 2011 consensus and the lowest being 63%. Hence there must be some pivotal factors responsible for such large variation in Literacy Rates within the states. Here key demographic indicators that might be answerable to the variation across the states such as the Sex Ratio, Per Capita Income, No. Of people Below Poverty Line (as a percentage of total population) and the number of Government Schools within a state; have been examined to see their effects on the Literacy Rate of the states.

## **INTRODUCTION**

Literacy rate is the Total number of literate persons as expressed as a percentage of population. Literacy in India is a key for socio-economic progress. Despite government programs, India's literacy rate increased only "sluggishly".

But what are the factors, which affect this important indicator of a country's socio economic progress itself?

This is the main topic of our research (which has been explained by asking questions)

What factors affect the literacy rate statistics of India?

The possible factors (under consideration, here) are:

- **Sex Ratio**: It is defined as the number of females per 1000 males in a state.

- **Per Capita Income:** It is defined as the a measure of the amount of money earned per person in a nation or geographic region (states, here). Per capita income helps determine the average per-person income to evaluate the standard of living for a population.

Is Literacy rate of a state dependent on The Per Capita Income of the State? Is it dependent on the Number of Of Government schools within the state? Can the sex ratio of a state affect its Literacy rate too? Or does the number of people living Below Poverty Line affect it?

Can all these factors account for the Literacy rate of the given states?

These are the questions we attempt to answer through our Research.

## **LITERATURE REVIEW**

1. Regional disparities in per capita income in India: convergence or divergence? By [\*\*Rowan Cherodian &A. P. Thirlwall\*\*](#)

The paper looks at the latest evidence on what has been happening to regional disparities in per capita income (measured as gross state domestic

product per capita) in India over the first decade of the twenty-first century (1999/2000 to 2010/2011) by estimating cross-section equations for unconditional and conditional beta ( $\beta$ ) convergence and sigma ( $\sigma$ ) convergence across thirty-two regions (twenty-eight states and four union territories). There is no evidence of unconditional convergence, but weak evidence of conditional convergence controlling for population growth, credit growth, male literacy, the share of agriculture in state GDP, and state expenditure as a share of state GDP. Sigma divergence has increased continuously, except among the poorest states.

Citations: 63

## 2. Education and gender bias in the sex ratio at birth: Evidence from India By [Rebeca A. Echávarri](#) & [Roberto Ezcurra](#)

The empirical validity of the proposed model is examined for the case of India, using district-level data. In this context, our econometric analysis pays particular attention to the role of spatial dependence to avoid any potential problems of misspecification. The results confirm that the relationship between the sex ratio at birth and education in India follows an inverted U-shape. This finding is robust to the inclusion of additional explanatory variables in the analysis, and to the choice of the spatial

weight matrix used to quantify the spatial interdependence between the sample districts.  
Citations:69

### 3. Inequality and correlation between literacy and sex ratio in India: A geographical analysis By Pakhare R.P.

Literacy. Generally literacy is defined as the ability to read and write. There is a close relation between literacy and economic status of the region. Sex ratio is defined as the number of females per thousand males. It depends on rate of birth, death and migration. The sex ratio is found less due to negligence of girl child, early marriage, preference for boy child etc. Sex ratio in our country since long period had remained unfavorable to females. The main objectives of the present paper are to study the variation in literacy and sex ratio in India and find out correlation between them. The present work is based on secondary sources of data and collected from census of India 2011. The two variables i.e. literacy and sex ratio of India has been taken into consideration for the study.

Citations: 2

4. Is wealthier always healthier in poor countries? Health implications of income, inequality, poverty and literacy in India

By [KeertichandraRajan](#)  
[JonathanKennedy](#) & [LawrenceKing](#)

Standard policy prescriptions for improving public health in less developed countries (LDCs) prioritise raising average income levels over redistributive policies since it is widely accepted that ‘wealthier is healthier’. It is argued that income inequality becomes a significant predictor of public health only after the ‘epidemiological transition’. This paper tests this theory in India, where rising income levels have not been matched by improvements in public health. We use state-, district-, and individual-level data to investigate the relationship between infant and under-five mortality, and average income, poverty, income inequality, and literacy. Our analysis shows that at both state- and district-level public health is negatively associated with average income and positively associated with poverty.

But, at both levels, controlling for poverty and literacy renders average income statistically insignificant. At state-level, only literacy remains a significant and negative predictor. At the less aggregated district-level, both poverty and literacy predict public health but literacy has a stronger effect than poverty. Inequality does not predict public health at state- or district-levels. At the individual-level, however, it is a strong predictor of self-reported ailment, even after we control for district average income, individual income, and individual education. Our analysis suggests that wealthier is indeed healthier in India – but only to the extent that high average incomes reflect low poverty and high literacy. Furthermore, inequality has a strong effect on self-reported health. Standard policy prescriptions, then, need revision: first, alleviating poverty may be more effective than raising average income levels; second, non-income goods like literacy may make an important contribution to public health; and third, policy should be based on a broader understanding of societal well-being and the factors that

promote it.

5. Status of Women in India with Particular Reference to Gap in Male Female Literacy Rate in India By Swati Pathak and Dr. Arti Gupta

Womanly education ensures not only better development of civilization, but to teach after that generation too. Education is landmark of women empowerment since it facilitates them to responds to the challenges, to confront their customary appearance and revolutionize their living. Gender disparity in education sector is a dilemma for a nation like India, where women constituting more than 50% of the country's human capital, still faces literacy – gender- gaps as 16.68%. The present study is an attempt to evaluate the correlation of female education with Human Development Index (HDI), based on the statistics procured from secondary sources. This manuscript also explains the significance of women education in the social and economic development of India.

## **OBJECTIVE**

The Objective of this research is:

To study the dependence of factors; Per Capita Income and Sex Ratio in a state on the Literacy Rate of the states.

## **HYPOTHESIS**

**Null Hypothesis:** Factors such as -Sex Ratio and Per Capita Income affects the Literacy Rate of the States.

**Alternate Hypothesis:** Factors such as -Sex Ratio and Per Capita Income do not affect the Literacy Rate of the States.

## **DATABASE**

We have referred to the census of 2011-2012 for Literacy Rate, Per Capita Income, Sex Ratio, and People Below Poverty Line statistics, state wise.

1. **Literacy Rate** is represented in percentage, indicating the overall Literacy within the state.

2. **Sex Ratio** has been expressed as the Number Of Females per 1000 males.
3. **Per Capita Income** is the income obtained in Rupees and is the data pertaining to the year 2011.

## **METHODOLOGY**

The research is a quantitative and structured. Present study is based on secondary data collected from census of India 2011. The data has been collected from various websites along with which several research papers have been studied thoroughly and served as aids during the research.

We have deployed the method of Linear Regression. Here,

**Dependent variable:** Literacy Rate

**Independent Variables:**

- Sex Ratio
- Per Capita Income

The software used as tools in research are:

1. **MS Excel:**

The dataset was prepared in MS excel and was imported to The PSPP Software, which we used for critical analysis.

## **2. PSPP:**

Using the software PSPP, we build a Regression Equation (Model) that explains the relationship between these variables.

The concept put in use:

Using the software PSPP we consider the goodness of fit of the fitted regression line to a set of data; that is, we shall find out how “well” the sample regression line fits the data.

$r^2$  indicates the extent to which the variation in Y is explained by the variation in X via regression

$$0 \leq r^2 \leq 1.$$

Closer  $r^2$  is to 1, better is the variation in Dependent Variables explained by the Independent variables.

## **MAJOR FINDINGS**

1. After applying the multiple regression, it was found that explanatory variables/ factors such as Sex Ratio, Per Capita Income, No. Of People Below Poverty Line, No. Of Government

Schools affect the Literacy Rate. We hence reject the Null Hypothesis.

2. With the assumed confidence interval of 95%, the significance (p value) is 0.042 for Sex Ratio and 0.008 for Per Capita Income, which is less than 0.05, which implies that variable, is significant, and hence we can readily neglect the reject the Null Hypothesis.
3. When we look at the t-values, it is 2.24 for Sex Ratio and 3.09 for Per Capita Income, which is significantly greater than zero. This implies that we can reject the Null Hypothesis.
4. The R square came out to be 0.66 which means 66% of the variation in Literacy rates of the states is explained by the factors/variables Per Capita Income and Sex Ratio

## **LIMITATIONS**

- The data considered for analysis is for the year 2011 which is ten years back from now as fresh census appears impossible in this deplorable situation due to COVID.
- A few states have been omitted from consideration because of either unavailability of data or discrepancy in the sources.

## **CONCLUSION**

The Literacy Rate of a state is considered as the important aspect of population study. Education is necessary for personal and national development.

Factors such as Per Capita Income, Sex Ratio, No. of Government Schools in state, Percentage of Population BPL should be worked upon to increase the overall Literacy Rate of the state.

