



EFFECTIVENESS OF THE E-PAYMENT SYSTEM AND ITS IMPACT ON CUSTOMER'S SATISFACTION IN MADURAI CITY

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Abstract

Digital India is the main goal of the Indian government and its vision is to transform India into a digital nation. Digital business, e-commerce and e-banking are now used internally and externally through new technologies and global connections, especially the internet. Increasing internet usage, electronics and government initiatives such as Digital India, whose vision is to transform India into a digital society through cashless transactions. The world is moving towards the electronicization of everything. The digital revolution has changed the way people live their daily lives. The power of the World Wide Web and digital payments play an important role in helping us stay connected and easily pay anytime, anywhere. Despite its benefits, the system can only be successful if it can ensure customer's satisfaction and therefore customer loyalty. Electronic payments are about to replace cash payment methods. With the introduction of electronic payment systems, sales and services have increased and electronic payment has become an important form of payment. Merchants sell products to customers, and customers pay for the products through electronic payments. Electronic payments have many benefits for payers, creditors, e-commerce, banks, organizations and governments. These benefits can help promote the use of electronic payments worldwide. The main objective of this study is to find out the Effectiveness of the E-Payment System and its Impact on Customer's Satisfaction in Madurai City. The data for this study was collected from the customers using electronic payment in Madurai city.

Key words: Electronic payment, customer's satisfaction, cashless transactions

1. Introduction

"Digital India" is the main goal of the Indian government and its vision is to transform India into a digital nation. "Faceless, paperless, cashless" is one of the demands of digital India. Digital business, e-commerce and e-banking are now used internally and externally through new technologies and global connections, especially the internet. Increasing internet usage, electronics and government initiatives such as Digital India, whose vision is to transform India into a digital society through cashless transactions. The world is moving towards the electronicization of everything. The digital revolution has changed the way people live their daily lives. The power of the World Wide Web and digital payments play an important role in helping us stay connected and easily pay anytime, anywhere. Despite its benefits, the system can only be successful if it can ensure customer's satisfaction and therefore customer loyalty. Electronic payments are about to replace cash payment methods. With the introduction of electronic payment systems, sales and services have increased and electronic payment has become an important form of payment. Merchants sell products to customers, and customers pay for the products through electronic payments. In the offline world, the payments are made with cash or cheque. Electronic payments have many benefits for payers, creditors, e-commerce, banks, organizations and governments. These benefits can help promote the use of electronic payments worldwide.

2. Statement of the Problem

The aim of this study is to understand the effectiveness of electronic payment and its impact on customer's satisfaction. Electronic payment is a form of direct payment and direct deposit that does not require physical presence. The development of electronic payment has reduced operating and payment costs and promoted the use of online commerce and online electronic services. In the cashless economy, digital payment methods like debit cards/ATMs, credit cards, internet banking and digital wallets and Paytm, BHIM app etc. various payment applications such as are becoming widespread. However, their operation has many problems. It is affected by security threats such as cyber fraud and cybercrime. E-literacy and access to the internet also influence the use of electronic payments. This study aims to understand customer's satisfaction and the problems customers face when using electronic payment systems.

3. Importance of the Study

The payment method can be used both financially, such as foreign exchange fees, travel, security, insurance fees, as well as invoices, deposit slips, etc. It consists of non-financial fees such as Just as traditional methods have certain costs, electronic methods also have costs. This study helps identify factors that influence consumers when they use various electronic payment methods by analyzing these factors, home payments, e-commerce, payment electricity and the like. Since it is included, it is possible to understand customer's satisfaction and daily use of electronic devices. The convenience of using smartphones to manage purchases, payments and prepare financial transactions at home, work or anywhere reduces black money and corruption by reducing the need for printing receipts and their transportation. This study also helps society understand the advantages and disadvantages of electronic payment systems and what affects the use of electronic payment systems. This study will also help identify the limitations of electronic payment systems and provide recommendations for their use.

4. Scope of the study

Internet innovations have impacted the financial process due to their ability to improve financial performance. There are many innovations happening today. The most important of these will be the change in payment. With the advancement of innovations and the widespread use of the Internet, another payment base - electronic payment - became available. This study aims to understand different types of

electronic payments in e-commerce. The main purpose of this study is to determine the consumer's understanding of the use of electronic payment systems. For the present study the data has been collected from the customers using electronic payment system in Madurai city.

5. Significance of the study

This study aims to clarify the various benefits that electronic payments provide to consumers in Madurai city and highlight the different problems people face while making payments. The study also provides an overview of consumer preferences across multiple platforms such as credit cards, debit cards, smart cards, e-wallets and internet banking. This allows citizens to pay more easily and effectively.

6. Objectives of the Study

The following are the main objectives of the study

- i. To analyse and evaluate the perception and preference of the customers.
- ii. To determine the impact of demographic variables on making electronic payment
- iii. To understand the satisfaction level of electronic payment methods.
- iv. To identify the problems faced by the customers in terms of using electronic payment system.

7. Research Methodology

Primary and secondary data were used in the research. Collecting data through appropriate channels is very important for research. This study aims to find out the benefits of e-payment system to the consumers of Madurai city. The research objectives were achieved through the following methods:

7.1. Primary data

For this study, it is necessary to obtain information from E-payment users. To do this, it needs to primary data. A survey was used to collect data. Data collection was done through personal surveys. The survey consisted of open-ended and closed-ended questions. A total of 150 respondents filled out the survey.

7.2. Secondary data

Secondary data was collected from previous reports, reference books and online sources. In addition to the primary data obtained in the research, secondary data were also used. Secondary data mainly includes existing data on the benefits of electronic payments. These were collected from newspapers, magazines and online sources for this study.

7.3. Research design

The study was conducted based on the customers using E-payment system. Convenience sampling method is adopted to collect the information from the customers.

7.4. Sampling

In this study sample unit is commoners who use online payment in Madurai City. The sampling area is related to Madurai City. The sample size for this study is 150 individuals. Sampling procedure used in this study is convenience sampling. Convenience sampling model was chosen due to its simplicity.

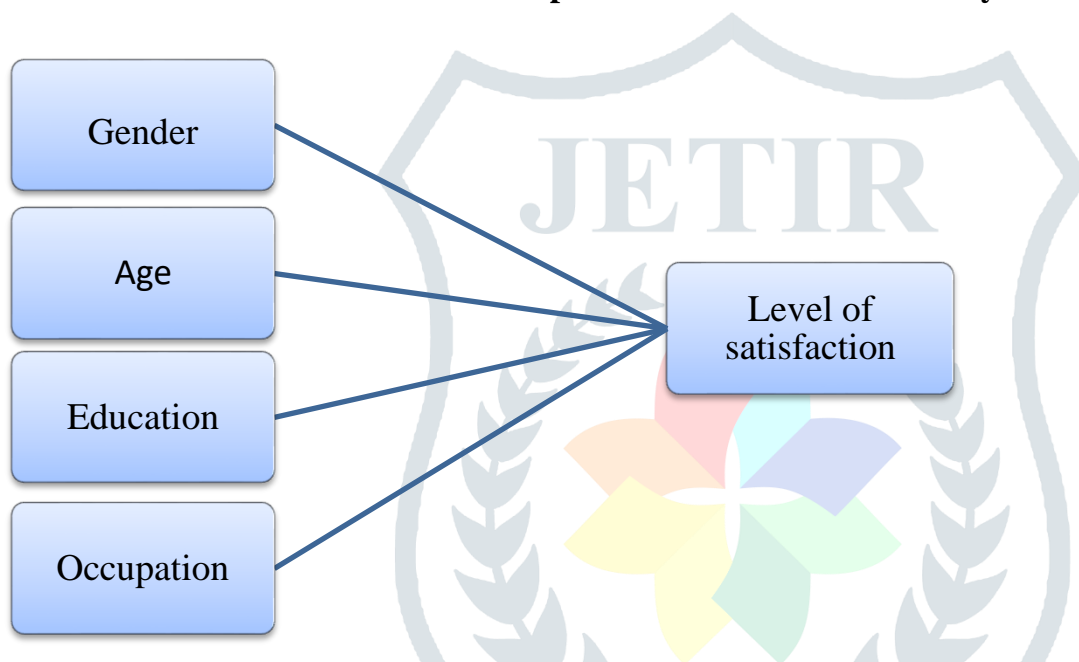
7.5. Period of Study

The field survey was conducted out from November 2023 to February 2024 for the collection of primary data.

8. Conceptual Framework of the Study

This study was carried out within a predetermined framework covering the factors influencing the level of satisfaction in the use of electronic payment system. One endogenous variable is called level of satisfaction, and four exogenous variables are factors that influence the level of satisfaction with electronic payment system.

Figure 1
Conceptual Framework of the Study



There are four factors that measure electronic payment satisfaction: gender, age, education level and occupation. Each factor consisted of five items to better measure the participant's perception of adoption. A five-point Likert scale ranging from 5 (strongly agree) to 1 (strongly disagree) was used to rate participants' opinions. To test the reliability and validity of the data collection scale, the researchers have conducted an experiment with 30 samples. Some participants requested clarification of some questions, and revisions were subsequently made to improve the accuracy of the survey.

9. Findings and discussion

Respondents were classified according to their demographic characteristics. This simple distribution is important for understanding the distribution of sample size across a wide range of respondents. Gender, age, education and occupation are the main factors in respondents' use of electronic payment systems. Therefore, survey participants were classified according to the basic characteristics of the population. Table 1 below shows the demographic profile of the survey respondents.

Table 1
Demographic profile of the Respondents

Demographic Profile	Category	No. of Customers	Percentage
Gender	Male	84	56.0
	Female	66	44.0
	Total	150	100
Age	Below 18	33	22.0
	18-25	43	28.7
	25-35	29	19.3
	35-45	27	18.0
	Above 45	18	12.0
	Total	150	100
Educational Qualification	Illiterates	7	4.7
	School level	35	23.3
	Graduate/Diploma	50	33.3
	Post Graduate	37	24.7
	Professional	21	14.0
	Total	150	100
Occupation	Business people	62	41.3
	Government	32	21.3
	Private sector	19	12.7
	Professional	37	24.7
	Total	150	100

Table 1 depicts that the demographic profile of the respondents in the study area. The majority of the respondents are male, 56.0 percent, and Female, 44.0 percent. The majority of the respondent is in the age group between 18-25 years old, 22.0 percent are below 18 years old, 19.3 percent are between 25-35 years old, 18 percent are between 35-45 years old, and 12 per cent are above 45 years old. 33.3 percent of the respondents have education level up to Graduation/Diploma, 24.7 percent have completed Post Graduate, 23.3 percent have education qualification up to School level, 14 percent have education qualification up to professional and only 4.7 per cent do not have a proper education. Most of the respondent is from the business community 41.3 percent, followed by professional category are 24.7 percent, Government employees are 21.3percent, and only 12.7 per cent employees are working in private sector. The following Table 2 exhibits the details of Model summary.

Table 2
Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.458 ^a	.209	.188	.70438

a. Predictors: (Constant), Occupation Status, Educational Qualification, Gender Wise Classification of the Respondents, Age Wise Classification of Respondents

b. Dependent variable : level of satisfaction

The result of multiple regression analysis and the model summary indicated that the overall model of the four independent variables is significantly related to the level of satisfaction to use e-payment. In this study, the dependent variable is level of satisfaction and independent variables are Gender, Age, Educational Qualification and Occupational status. The following Table 3 explains the ANOVA results.

Table 3
ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	19.052	4	4.763	9.600	.000 ^a
	Residual	71.941	145	.496		
	Total	90.993	149			

a. Predictors: (Constant), Occupation Status, Educational Qualification, Gender Wise Classification of the Respondents, Age Wise Classification of Respondents

b. Dependent Variable: Level of satisfaction

The multiple correlation coefficient is 0.458 measures the degree of relationship between the actual values and the predicted values of the level of satisfaction to use e-payment. Because the predicted values are obtained as a linear combination of Gender, Age, Educational Qualification and Occupational status the coefficient value of 0.458 indicates that the relationship between level of satisfaction and the four independent variables is quite strong and positive. The value of R square is 0.209 simply means that

about 20.9 percent the predictors accounts the variation in level of satisfaction to use e-payment and R square value is significant at 1 % level. Table 4 explains the details of Coefficients.

Table 4
Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.516	.294		5.151	.000
	Gender Wise Classification of the Respondents	.248	.118	.158	2.098	.038
	Age Wise Classification of Respondents	-.115	.045	-.194	-2.546	.012
	Educational Qualification	-.045	.053	-.063	-.849	.397
	Occupation Status	.266	.048	.416	5.536	.000

Source: Primary Data

a. Dependent Variable: Level of Satisfaction

The above Table 3 shows the regression results. The general liner equation for these studies is as follows:

$$Y = .248X_1 + -.115X_2 + -.045X_3 + .266X_4 + 1.516$$

Here, Y is a dependent variable called Level of Satisfaction, X₁-Gender Wise Classification of the Respondents, X₂-Age Wise Classification of Respondents, X₃- Educational Qualification, X₄-Occupation Status.

P – value of Gender Wise Classification of the Respondents is 0.038 which is less than 0.05 the null hypothesis is rejected at 5 percent level of significance. Hence, Gender Wise Classification of the Respondents factor in e-payment system is positively associated with the Level of Satisfaction to use e-payment.

P – value of Age Wise Classification of Respondents is 0.012 which is less than 0.05 the null hypothesis is rejected at 5 percent level of significance. Hence, Age Wise Classification of Respondents in e-payment system is positively associated with the Level of Satisfaction to use e-payment.

P – Value of Educational Qualification is 0.397 which is more than 0.05 the null hypothesis is accepted at 5 percent level of significance. Hence, Educational Qualification in e-payment system is not positively associated with the Level of Satisfaction to use e-payment.

P – Value of Occupation Status is 0.000 which is less than 0.05 the null hypothesis is rejected at 5 percent level of significance. Hence, Occupation Status in e-payment system is positively associated with the Level of Satisfaction to use e-payment.

Chi-square between Occupational Status of the Respondents and Types of electronic payment service

H₀: There is no significant impact on Occupational Status of the Respondents and Types of electronic payment service.

H₁: There is significant impact on Occupational Status of the Respondents and Types of electronic payment service.

Table 5
Occupational Status and Types of electronic payment service - cross tabulation

Sl. No.	Occupational Status of Respondents	Types of electronic payment service					Total
		Credit Card	Debit Card	Smart Card	E-Wallet	Net Banking	
1.	Business people	14	9	13	23	3	62
2.	Government	11	17	3	0	1	32
3.	Private sector	5	2	5	6	1	19
4.	Professional	15	9	6	7	0	37
Total		45	37	27	36	5	150

Table 6
Occupation Status and Types of electronic payment service - Chi-Square Test

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	34.693 ^a	12	.001
Likelihood Ratio	41.261	12	.000
Linear-by-Linear Association	5.464	1	.019
N of Valid Cases	150		

The Table 6 of Chi-Square Tests shows that different the Occupational wise classification of the Respondents does influencing types of electronic payment service in the study area, and they have a positive relation with the Occupational Status of the Respondents and Types of electronic payment service, as the Chi-square is 34.693. The significance level of 0.001 indicates that this Chi-square is statistically significant. So that we reject null hypothesis H₀, and accept alternative hypothesis H₁, hence there is significant impact on Occupational Status of the Respondents and Types of electronic payment service.

According to Table 5 of Cross Table 23, the electronic payment service of businessmen is e-wallet, followed by 14 businessmen in the same group who use credit cards as types of electronic payment service. As a result, most business people in the region are learning to use e-wallets and credit cards as a form of electronic payment.

10. Suggestions for the study

To improve electronic payment, the researchers have made the following suggestions:

- The government more efforts need to be made to ensure people's payment security.
- Promotion and awareness programs should be implemented in rural areas to benefit from the same opportunities.
- E Wallet Company should try to attract people of aged people.

- iv. Due to poor internet, people of rural area cannot have access to E-payment and therefore companies need to pay attention to this.
- v. Problem due to Bank server is the major reason of obstacle faced by customer.
- vi. Without harassing the users or customer conducting of speedy transaction.
- vii. Train customers to use online payments effectively.
- viii. Build customer loyalty and trust and ensure the security of customer accounts.

11. Conclusion

Electronic funds transfer has been around for years, and businesses are greatly benefiting from this technological advancement. Electronic payments such as credit cards make financial transactions easier and also provide a way to finance everyday purchases through credit. But the risk of identity theft, trading excitement and privacy concerns will remain. As history shows us, new technologies can lead to conflict, increased efficiency, and ultimately financial loss. But the new financing has not yet been finalized and could be very costly. But with innovation and the right application, fintech can be the key to managing the money effectively. This study investigates the effectiveness of electronic payments and their impact on customer's satisfaction. EFTs have been around for several years and the country has benefited greatly from this technological advancement. Usage and convenience have become more widespread. Promote the development of electronic payments. People can pay online, which makes people's lives easier.

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