



## Electronic Payment Systems Influence In Retail Management System

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<b>Article History</b>	<b>Abstract</b>
<p>Received: Revised: Accepted:</p>	<p>Digital payment, often known as microelectronic compensation, is the process of transferring monetary value from one payment account to another using a digital device, such as a cell phone. An automatic compensation refers to a digital transaction that takes place between two parties. The many forms of e-compensation include line and bank allocations, cards, mobile payments, and other methods. Various factors can influence industries in determining the most effective type or types of automated payment systems for their merchants. Numerical recompense facilities are platforms that facilitate transactions between two parties, the spender and the acceptor, using electronic means to exchange funds. Electronic prices are increasing the accessibility of expenditure and financing. Electronic payments are rapidly enhancing the efficiency of transactions. The objective is to minimize the expenses and challenges associated with cash management, enhance the convenience of online transactions, and promote transparency in financial transactions between individuals. The digital payment system is a significant factor in the rapidly expanding commercial landscape. The majority of organizations are actively engaging in digitalization. The majority of significant company operations and transactions have transitioned into the era of digitalization. The key objective of research is to analyses different modes of electronic payment systems, identify the factors influencing the adoption of robotic expense systems in retail operations, investigate the implementation and components of electronic payment in the city of Chennai, and assess the practices and preferences of respondents regarding payment methods, as well as the impact of electronic payment on retail operations. The results indicate that electronic payment methods are beneficial for retail businesses.</p>
<p>CC License CC-BY-NC-SA 4.0</p>	<p><b>Keywords: Cashless transactions, E-business, E-Payment, Online, Retail shop</b></p>

## Introduction

Electronic commerce refers to the selling and buying of services and goods, as well as the transfer of payments or information, using a microelectronic network, mostly the internet, and utilizing a digitalized system. In India, the majority of transactions occur electronically [1]. Most clients do not carry cash, yet simultaneously, all of them possess smartphones and debit/credit cards. This demonstrates that individuals can meet their demands and conduct all commercial operations by utilizing electronic devices or digital payment methods, without the need for actual currency. In modern society, it is impossible to engage in any financial transaction without incurring expenditures and obtaining clearances. Reimbursement systems can be seen as one of the most influential and prominent social institutions [2]. Expenditures constitute an increasingly substantial portion of compensation systems. They enable rapid global connectedness in the financial realm, ensuring monetary inclusivity for the unbanked, facilitating fast cross-border transactions, ensuring security and protection of expenses, and promoting cost reductions [3].

The rapid expansion of online offers and distribution networks is expected to bring about changes in merchandising. These platforms can be accessed and utilized from many locations such as workplaces, educational institutions, hostels, cars, or aero planes. Amazon and Dell are examples of electronic retailers. Amazon specializes in selling books online, while Dell focuses on selling computers online. Nevertheless, they have become significant participants in the market by acquiring several small retailers. The majority of retailers are currently reassessing all aspects of their operations, including merchandising, order fulfillment, customer service, store design and advertising. In addition, suppliers are also evaluating technology-based solutions to reduce costs and improve their efficiency in producing goods.

Electronic payment methods have had a profound and transformative effect on retail management in a number of ways [6]. The way businesses and consumers make purchases has been completely transformed by electronic payment systems. Customer transactions are now more convenient because to electronic payment systems like credit cards, online payment platforms, mobile wallets and debit cards [7]. Consumers can now swiftly and conveniently make payments online and in real places without the need for actual currency. Retailers have experienced a notable surge in sales due to the elimination of barriers in the purchasing process, enabled by electronic payment options. When consumers are relieved of the burden of carrying cash or writing checks, they are more likely to make impulsive purchases and increase their purchasing behavior [8]. Having electronic payment choices makes shopping better overall. The ability for customers to choose their preferred payment method facilitates transaction completion and helps keep things moving more quickly. This raises client satisfaction and encourages repeat business. Retailers no longer have to spend as much on security procedures and cash management, which can be expensive [9]. This is a reference to the expenses incurred by counting, storing, and moving actual currency. The risk of theft and fraud that is frequently connected to handling actual currency is decreased when payments are made electronically. Inventory management software and electronic payment systems frequently work together to provide stores with optimal product replenishment and effective stock level tracking. This lessens the likelihood of having too much inventory or running out of highly desirable items. Electronic payment systems generate transaction data that retailers can use for analysis. With the use of this data, organizations can gain a thorough grasp of customer preferences, buying trends, and demographics. As a result, it gives companies the ability to decide on pricing, marketing, and inventory management with knowledge. Tokenization and other enhanced security features offered by several electronic payment methods, such as chip and PIN cards, lessen the risk of payment fraud [10]. Businesses can also choose to incorporate extra security measures to safeguard client information. Online shopping (or e-commerce) has grown significantly thanks in large part to the development of electronic payment methods. They make it possible for safe online transactions, and the expansion of digital storefronts and online marketplaces has allowed businesses to reach a wider audience than just physical locations [11]. The shopping experience has been enhanced by the use of contactless payment technologies and mobile payment applications. Consumers can make purchases using wearable technology and mobile phones, which is particularly helpful during the COVID-19 pandemic since it lessens the need for direct interaction with payment terminals. It is not too difficult to integrate consumer loyalty programmes with electronic payment systems [12]. By analyzing a customer's payment history, preferences, and behavior, retailers can provide them with customized discounts and promotions [13].

The impact of electronic payment systems on retail management has been substantial, since they have enhanced customer convenience, increased sales, reduced costs, and provided crucial data for decision-making purposes [14]. The advancement of technology is anticipated to catalyze transformations in the retail industry, namely in the domain of electronic transactions. The industry will be considerably impacted by the development of novel payment mechanisms and the utilization of data analysis [15]. This study aims to

identify the factors influencing the electronic payment system in retail management and to examine the implementation and components of electronic payment in the city of Chennai. This study examines the practices and payment methods used by the respondents, as well as the effects of electronic payment on retail management.

## Methodology

Information was gathered via a survey. The survey instrument employed in this investigation is questionnaires. This uncovers crucial information pertaining to the investigation. The cheese data models were created by surveying respondents in various regions of Chennai to see if they utilize any forms of alphanumeric payments, such as mobile payment systems, net banking, debit cards, mobile wallets, or credit cards. The survey considers consumers who utilize any of the digital payment methods as the respondents. Both primary as well as secondary data are utilized to collect the information. The collection of primary data involves the use of a structured questionnaire, whereas the collection of subordinate data involves referencing publications and websites. The process of data analysis will involve the utilization of descriptive statistics. The association will be assessed using percentage analysis, chi-square test, mean and standard deviation and ANOVA. The analysis will be conducted by means of statistical software SPSS version 23.0. The study utilized a sample size of 157 respondents.

## Results and Discussion

Table-1 reveal that 58.1% of them are in the manly order, while, 41.9% of them are in the womanish order, 23% of them are falling into 19 – 29 times, while, and 24% of them are falling in the 30-39 times, 26% of them are falling into the 40-59 times, and 50-60 Times 7.8%, Above 60 is 18.4%. Education qualifications are School education 21.7%, Diploma 24%, UG 42%, PG 12%, Marital Status is Single repliers are 58.1% and married is 41.9%, Below 10000 is 56.2%, Below 20000 is 28.6%, Above 20000 is 15.2% Area of residency Rural is 49.8%, Urban is 50.2%, Nature of the respondents are medical shops is 7.8%, Grocery shops is 21.7%, Tailoring shops is 23.5%, Beauty parlor is 12.4%, Vegetable shops is 4.6%, Bakery is 15.2%, Stationery shops is 14.7%. Usage of Digital payment Daily is 51.2%, Weekly is 22.6%, Monthly is 15.7%, Annually is 10.6%, Payment Method are Google Pay is 1.8%, Phone Pay is 4.6%, Paytm is 29.5%, Other UPI ID is 49.3%, Internet Banking is 14.7%.

**Table 1:** Profile of Defendants

Factors	Classification of the Variables	Incidence	Percent
Gender	Male	126	58.1
	Female	91	41.9
Age	19-29	50	23.0
	30-39	52	24.0
	40-49	58	26.7
	50-60	17	7.8
	Above 60	40	18.4
Education qualification	School education	47	21.7
	Diploma	52	24.0
	UG	92	42.4
	PG	26	12.0
Marital status	Single	126	58.1
	Married	91	41.9
Monthly Salary	Below 10000	122	56.2
	Below 20000	62	28.6
	Above 20000	33	15.2
Area of residency	Rural	108	49.8
	Urban	109	50.2
Nature of the respondents	Medical shops	17	7.8
	Grocery shops	47	21.7
	Tailoring shops	51	23.5
	Beauty parlor	27	12.4
	Vegetable shops	10	4.6
	Bakery	33	15.2

	Stationery shops	32	14.7
Usage of Digital payment	Daily	111	51.2
	Weekly	49	22.6
	Monthly	34	15.7
	Annually	23	10.6
Payment Method	Google Pay	4	1.8
	Phone Pay	10	4.6
	Paytm	64	29.5
	Other UPI ID	107	49.3
	Internet Banking	32	14.7

**Table 2:** Mean and Normal Deviation of Impact of Electronic Mode of Payment

Options	Mean	Standard Deviation
E-Payment is time-saving	1.42	.495
It made the payment system more convenient	1.45	.499
It helped to increase the customer volume	1.39	.488
Ease of payment	1.40	.491
Fast	1.45	.498
<b>Mean Score</b>	<b>7.11</b>	<b>2.471</b>

Table 2 signifies the mean and normal deviation of the impact of the electronic mode of payment are E-Payment is time-saving is 1.42 (.495), It made the payment system more convenient by 1.45 (.499), It helped to increase the customer volume by 1.39 by (.488), Ease of payment 1.40 (.491), Fast 1.45 (.498). Reason for highest value E- payments is fast and convenient for the user. The highest value of the mean is 1.45 and the overall mean score value is 2.471.

**Table 3:** Mean and Typical Deviation of Factors That Influenced E-Payment System

Options	Mean	Standard Deviation
It is better than the outdated sum system	4.46	.928
It is more well-organized than the out-of-date payment classification	4.47	.805
It is most trusted than the old-style recompense system	4.22	1.274
It is a user-approachable system for payment	4.46	.876
It generates more revenue	4.38	1.030
It increases confidence	4.44	.792
<b>Mean Score</b>	<b>26.43</b>	<b>5.705</b>

Table 3 represents the mean and normal deviation, factors that influenced the e-payment system It is better than the old-style sum system 4.46 (.928), It is more well-organized than the out-of-date payment system 4.47 (.805), It is most trusted than the traditional payment system 4.22 (1.274), It is a user-welcoming system for payment 4.46 (.876), It generates more revenue 4.38 (1.030), and it increases confidence 4.44 (.792). The uppermost value of the mean is 4.47 and the overall mean score value is 26.43.

**Table 4:** Mean and Normal Deviation of Elements in E-Payment System

	Mean	Standard Deviation
Security	4.29	.910
User experience	4.31	.983
Functionality	4.32	.814
Data Integrity	4.41	.944
Performance	4.46	.928
<b>Mean Score</b>	<b>21.79</b>	<b>4.579</b>

Table 4 represents the mean and normal deviation, elements consider for the e-payment system, Security 4.29 (.910), User experience 4.31 (.983), Functionality 4.32 (.814), Data Integrity 4.41 (.944), Performance 4.46 (.928) The uppermost value of the mean is 4.46 and the overall mean score value is 21.79.

**Table 5:** Mean and Usual Deviation of Problems in Digital Payment

	Mean	Standard Deviation
Fear of fraud	4.47	.805
Lack of knowledge	4.53	.872
Server problems	4.46	.876
Connectivity issues	4.33	.844
Fear of hacking	4.02	1.122
Technical problems	4.29	.910
Absence of physical cash	4.34	.934
Need to keep the phone constantly charged	4.21	.865
<b>Mean Score</b>	<b>34.65</b>	<b>7.228</b>

Table 5 represents the mean and usual deviation, problems of digital payment, Fear of fraud 4.47 (.805), Lack of knowledge 4.53 (.872), Server problems 4.46 (.876) Connectivity issues 4.33 (.844) Fear of hacking 4.02 (1.122), Technical problems 4.29 (.910), Absence of physical cash 4.34 (.934), Need to keep the phone constantly charged 4.21 (.865). The uppermost value of the mean is 4.53 and the overall mean score value is 34.65.

**Hypothesis 1:** There is no large change in the nature of the respondents

**Table 6:** Nature of Respondents

One-Sample Statistics				
	N	Mean	Standard Deviation	Std. Error Mean
Nature of the respondents	217	4.81	2.079	.141

One-Sample Test						
	t	DF	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Nature of the respondents	34.096	216	.000	4.811	4.53	5.09

The above table 6 mentioned the one-sample T-Test, the factor is Nature of the respondent's difference is 216 and the t value is 34.096 and finally, the significant value of 2 tailed test is 0.00 is a slighter sum than the p-value of 0.05. The significance is false. Therefore, the hypothesis is rejected.

**Hypothesis 2:** There is no big variation in the Usage of Digital payment

**Table 7:** Usage of Digital Payment

One-Sample Statistics				
	N	Mean	Standard Deviation	Std. Error Mean
Usage of Digital payment	217	1.86	1.038	.070

One-Sample Test						
	t	DF	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Usage of Digital payment	26.365	216	.000	1.857	1.72	2.00

The above table 7 mentioned the one-sample T-Test, the factor is Usage of Digital payment difference is 216 and the t value is 26.365 and finally, the significant value of 2 tailed test is 0.00 is a slighter sum than the p-value of 0.05. The significance is false. Therefore, the hypothesis is rejected.

**Hypothesis 3:** There is no large disparity in the Payment Method

**Table 8: Payment Method**

One-Sample Statistics				
	N	Mean	Standard Deviation	Std. Error Mean
Payment Method	217	4.71	.842	.057

One-Sample Test						
	t	DF	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Payment Method	82.319	216	.000	4.705	4.59	4.82

The above table 8 mentioned the one-sample T-Test, the factor is Payment Method difference is 216 and the t value is 82.319 and finally, the significant value of 2 tailed test is 0.00 is a slighter sum than the p-value of 0.05. The significance is false. Therefore, the hypothesis is rejected.

**Hypothesis 4:** There is no striking dissimilarity between the Education qualification and Payment Method

**Table 9: Striking Dissimilarity between the Education Qualification and Payment Method**

Education Qualification * Payment Method Cross Tabulation							
Count							
		Payment Method					Total
		Google Pay	Phone Pay	Paytm	Other UPI ID	Internet Banking	
Education qualification	School education	0	4	18	19	6	47
	Diploma	1	2	12	23	14	52
	UG	3	2	29	52	6	92
	PG	0	2	5	13	6	26
Total		4	10	64	107	32	217

Chi-square Tests			
	Value	DF	Asymptotic Significance (2-sided)
Pearson Chi-square	21.501 <sup>a</sup>	12	.044
N of Valid Cases	217		

The above tables 9 represent the chi-square Education qualification and Payment Method. The education qualification of the respondents is School education, Diploma, UG, and PG. Payment Method factors are Google Pay, Phone Pay, Paytm, Other UPI ID, and Internet Banking. Therefore, the sig value is .044 and the value of significant is less than 0.05. Hence the hypothesis is rejected.

**Hypothesis 5:** There is no implication variation between Gender and the Usage of Digital payment

**Table 10: Implication Variation between Gender and Usage of Digital Payment**

Gender * Usage of Digital payment Cross Tabulation						
Count						
		Usage of Digital payment				Total
		Daily	Weekly	Monthly	Annually	
Gender	Male	56	26	27	17	126
	Female	55	23	7	6	91
Total		111	49	34	23	217

Chi-square Tests			
	Value	DF	Asymptotic Significance (2-sided)
Pearson Chi-square	11.882 <sup>a</sup>	3	.008
N of Valid Cases	217		

The above table 10 represents the chi-square Gender and Usage of Digital payment. The Gender of the respondents is male and female. Usage of Digital payment factors is Daily, Weekly, Monthly, and annually. Therefore, the sig value is .008 and the value of significant is less than 0.05. Hence the hypothesis is rejected.

**Hypothesis 6:** There is no crucial change in the age of the respondents and the Factors that influenced the e-payment system

**Table 11:** Momentous Change between Age of Respondents and Factors Influenced E-Payment System

ANOVA						
		Sum of Squares	DF	Mean Square	F	Sig.
It is better than the traditional payment system.	Between Groups	12.804	4	3.201	3.922	<b>.004</b>
	Within Groups	173.030	212	.816		
	Total	185.834	216			
It is more competent than the outdated payment system	Between Groups	7.710	4	1.927	3.086	<b>.017</b>
	Within Groups	132.401	212	.625		
	Total	140.111	216			
It is most trusted than the old-style payment system.	Between Groups	20.609	4	5.152	3.308	<b>.012</b>
	Within Groups	330.211	212	1.558		
	Total	350.820	216			
It is a user-responsive system for payment.	Between Groups	12.813	4	3.203	4.438	<b>.002</b>
	Within Groups	153.021	212	.722		
	Total	165.834	216			
It generates more revenue.	Between Groups	13.171	4	3.293	3.234	<b>.013</b>
	Within Groups	215.843	212	1.018		
	Total	229.014	216			
It increases confidence	Between Groups	12.107	4	3.027	5.204	<b>.001</b>
	Within Groups	123.303	212	.582		
	Total	135.410	216			

Table 11 determines the age of the respondents and the Factors that influenced the e-payment system. Factors like it are better than the outmoded payment system, it is more effective than the dated payment system, and it is most trusted than the traditional payment system. It is a user-friendly system for payment; it generates more revenue, and increases confidence. Out of six factors, all the factors are less than the significant value of 0.05. Therefore, the intention is rejected.

**Hypothesis 7:** There is no substantial change between the age of the respondents and the Problems of Digital payment

**Table 12:** Momentous Change between Age of Respondents and Problems of Digital Payment

ANOVA						
		Sum of Squares	DF	Mean Square	F	Sig.
Fear of fraud	Between Groups	4.966	4	1.241	1.947	.104
	Within Groups	135.145	212	.637		
	Total	140.111	216			
Lack of knowledge	Between Groups	9.338	4	2.335	3.199	<b>.014</b>
	Within Groups	154.717	212	.730		
	Total	164.055	216			
Server problems	Between Groups	1.432	4	.358	.462	.764
	Within Groups	164.402	212	.775		
	Total	165.834	216			
Connectivity issues	Between Groups	4.127	4	1.032	1.462	.215
	Within Groups	149.643	212	.706		
	Total	153.770	216			
Fear of hacking	Between Groups	18.333	4	4.583	3.832	<b>.005</b>
	Within Groups	253.593	212	1.196		
	Total	271.926	216			
Technical problems	Between Groups	12.506	4	3.127	3.988	<b>.004</b>
	Within Groups	166.204	212	.784		
	Total	178.710	216			
Absence of physical cash	Between Groups	9.789	4	2.447	2.904	<b>.023</b>
	Within Groups	178.654	212	.843		
	Total	188.442	216			
Need to keep the phone constantly charged	Between Groups	7.812	4	1.953	2.691	<b>.032</b>
	Within Groups	153.857	212	.726		
	Total	161.668	216			

Table 12 determines the age of the respondents and the Problems with Digital payment. Factors are Fear of fraud, Lack of knowledge, Server problems, Connectivity issues, Fear of hacking, Technical problems, Absence of physical cash, and the Need to keep the phone constantly charged. Out of eight factors, five factors are less than the significant value of 0.05. Therefore, the intention is rejected.

## Conclusion

The numerical structure is one of the overwhelming technologies recognized by the banking sector. This has benefited many consumers in an increased number. But most of the program's digital payment modes are not known by all the customers. But at the identical time, the customers also are aware of all the transactions, if anything goes wrong in their account, So that necessary actions can be taken. Alertness and safety are very important while using digital payment systems. As mentioned in the research objectives, the results of this investigation also contribute several implications that would be useful to marketers, customers, and future research. All we can say is E-commerce is playing important role in today's world. It has made working very easy in terms of Payment, working. It has made working very easy. E-Trade or Microchip technology Business sites use automated payment although automatic compensation refers to paperless economic communications. Occupational dispensation is attained by reducing administration, transaction costs, and labour costs. Being user-friendly and time-consuming Ming than physical dispensation helps professional governments to expand their shop reach/expansion. Some of the manners of automatic outflows are the following: Credit Card, Debit Card, Smart Card, and E-Money. Thus, we can say e-commerce has made it easy working in today's world.

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