

AN EMPIRICAL INVESTIGATION INTO THE AWARENESS OF DIGITAL PAYMENT SYSTEMS AND THEIR INFLUENCE ON THE SAVING BEHAVIOUR OF SALARIED EMPLOYEES.

¹Dr. B. Poornima, ²Dr. T. Prabu Vengatesh, ³Dr. Eveline Vijaya, ⁴Dr. Lydia Nikkolaus, ⁵Dr. A. Marlyn Rose

¹Assistant Professor, Department of Commerce with CA, Sri Ramakrishna College of Arts & Science, Coimbatore. drpoornimab89@gmail.com

²Assistant Professor & Head, Department of Commerce with A&F, Sri Ramakrishna College of Arts & Science, Coimbatore. prabucell1122@gmail.com

³Assistant Professor and Head, Department of MA Human Resource Management, Nirmala College for Women, Redfields, Coimbatore.
evelinevijaya@gmail.com

⁴Dean School of Management, Associate Professor and Head, Department of Business Administration, Nirmala College for Women, Redfields, Coimbatore.
lydianikki1012@gmail.com

⁵Assistant Professor, Department of Commerce with B&I, Sri Ramakrishna College of Arts & Science, Coimbatore. marlynrosephd2021@gmail.com

ABSTRACT

This study examines the impact of digital payment systems on the saving habits of salaried individuals in Coimbatore. With the increasing use of smartphones and internet-based financial services, digital payments have become an essential part of everyday transactions. The study is based on a sample of 610 respondents selected using a stratified sampling method. Both primary and secondary data were used for analysis. The study applies descriptive analysis, factor analysis, and multiple regression techniques to understand the relationship between digital payment usage and saving behavior. The findings reveal that awareness of digital payment modes varies significantly across demographic factors such as age, education, occupation, income, and marital status, while gender and type of family show no significant difference. Factor analysis identifies two major dimensions explaining awareness levels. The regression results indicate a strong relationship between saving habits (before adopting digital payments) and factors like motivation, preferences, and usage. After adoption, awareness emerges as the most influential factor in increasing saving habits, while issues in the payment process and negative attitudes reduce savings. Overall, the study highlights the importance of awareness and motivation in shaping financial behavior in the digital payment environment.

Keywords *Digital Payment Systems, Financial Literacy, Saving Behaviour, FinTech Adoption, Salaried Employees*

INTRODUCTION

Digital payments have become an important part of today's financial system, changing the way people make transactions and manage money. With the growth of smartphones and internet access, digital payments are widely used because they are convenient, fast, and secure for both individuals and businesses. Compared to traditional methods like cash or cheques, digital payments are easier to use. People can make payments anytime and from anywhere without waiting in lines or going to banks. Digital wallets also make transactions quicker by securely storing payment details. In addition, digital payments reduce the risks associated with handling cash. As technology continues to develop, digital payment systems are expected to become even more advanced, further transforming the financial sector and supporting the growth of the digital economy. This study focuses on understanding how the use of digital payment systems influences the saving habits of users.

OBJECTIVES OF THE STUDY

- To study about the socio-economic factors of the respondents
- To analyze the level of awareness towards digital payment modes.
- To evaluate the impact of saving behavior of the respondents

HYPOTHESIS OF THE STUDY

- There is a significant difference between the demographic and sociographic variables of the respondents and their level of awareness towards digital payment modes.
- There is a significant difference between the demographic and sociographic variables of the respondents and their preferences towards digital payment modes.

RESEARCH METHODOLOGY

This study is conducted in Coimbatore, often called the "Manchester of Tamil Nadu" due to its strong industrial base, growing IT sector, and motor industries. The city has a large number of salaried individuals who are increasingly using digital payment methods. The study focuses on how these digital payments influence their saving habits.

A descriptive research design is used to analyze the objectives of the study. A stratified sampling method is adopted to ensure proper representation from different zones of the city. The total sample size is 610 respondents, collected from five zones: North, South, East, West, and Central. The study is based on both primary and secondary data. Primary data is collected through an interview schedule, while secondary data is gathered from the internet, journals, periodicals, and websites. Tools were used for this study Descriptive statistics, Factor analysis, Multiple Regression Analysis.

REVIEW OF LITERATURE

Baidulloeva Zuhro Bakhtiyorovna (2023) The study explores the adoption of digital mobile payment systems among youth in Calicut district, analyzing preferences, challenges, and driving factors. Results show widespread use of UPI and mobile wallets, with Google Pay being the most popular. Recommendations include simplifying app installations, enhancing security, and enabling international transactions.

Olalekan Akinrinola(et.al) (2023) The study found that ATM, web pay, and mobile pay positively impact household savings in Nigeria, while POS usage negatively affects savings. It recommends limiting POS usage to avoid unplanned expenses and promoting balanced use of digital financial tools to enhance financial stability and savings among Nigerian households.

Anna P.G & Joseph Joy (2023) The study explores the impact of UPI payments on millennials' saving behavior, focusing on factors influencing adoption and strategies for enhancing their savings. Data was collected from 100 respondents using primary and secondary tools. The study found that UPI's ease of use, security, and convenience have improved savings habits. The findings contribute to the literature on UPI adoption and its impact on savings.

Comparison between the Demographic Variables (Age of the Respondent, Education, Occupation, Marital Status, Type of Family, Monthly Income of the Respondent, Number of earning Members in the Family) of the Respondents and their Level of Awareness towards Digital Payment Modes

Demographic variables	Particulars	N	Mean	SD	F	Sig
Age of the respondent	18-25 Years	175	3.29	1.436	4.351	.005
	26-35 Years	200	3.70	1.305		
	36 -45 Years	127	3.22	1.429		
	Above 45 Years	108	3.31	1.279		
	Total	610	3.41	1.377		
Education	SSLC	131	3.48	1.393	5.711	.000
	Higher secondary	121	2.90	1.348		

	UG	149	3.48	1.354		
	PG	181	3.62	1.349		
	Diploma	28	3.61	1.259		
	Total	610	3.41	1.377		
Occupation	Corporate Employee	191	3.24	1.439	3.059	.016
	Health care Employee	87	3.58	1.327		
	Education sector employee	143	3.24	1.475		
	Information Technology Employee	79	3.73	1.163		
	Finance sector Employee	110	3.56	1.257		
	Total	610	3.41	1.377		
Marital Status	Single	225	3.20	1.428	9.943	.000
	Married	358	3.60	1.324		
	Divorced	25	2.39	0.851		
	Widowed	2	5.00	0.000		
	Total	610	3.41	1.377		
Type of Family	Joint- Family	234	3.33	1.395	1.410	.245
	Nuclear Family	317	3.50	1.363		
	Single parent Family	59	3.26	1.365		
	Total	610	3.41	1.377		
Monthly Income of the respondent	Upto15000	215	2.98	1.438	13.653	.000
	Rs.15001-30000	240	3.53	1.213		
	Rs.30001-45000	118	3.88	1.364		
	Above 45000	37	3.70	1.388		
	Total	610	3.41	1.377		
Number of earning members in the family	One	163	3.27	1.435	5.603	.001
	Two	213	3.61	1.293		
	Three	113	3.04	1.282		
	More than three	121	3.60	1.446		
	Total	610	3.41	1.377		

There is a significant difference between the type of family (0.245) of the respondents and their level of awareness towards digital payment modes. There is no significant difference between the age (0.005), education (0.000), occupation (0.016), marital status (0.000), monthly income (0.000) and number of earning members in the family (0.001) of the respondents and their level of awareness towards digital payment modes.

Comparison between the Demographic Variables (Gender of the Respondents, Residential Status) of the Respondents and their Level of Awareness towards Digital Payment Modes

Demographic variables	Particulars	N	Mean	SD	Z	Sig
Gender of the respondents	Male	329	3.49	1.395	1.550	.695
	Female	281	3.32	1.351	1.554	
Residential Status	Rural	325	3.16	1.392	-5.010	.001
	Urban	285	3.70	1.301	-5.033	

There is no relationship between the gender (0.695) of the respondents and their level of awareness towards digital payment modes. There is a relationship between the residential status (0.001) of the respondents and their level of awareness towards digital payment modes.

Residential status

Respondents dwelling in urban areas (3.70) have a higher level of awareness towards digital payment modes.

FACTOR ANALYSIS

The factor analysis is employed to examine the level of awareness among respondents toward various digital payment modes. This statistical approach is a way of condensing the information contained in a no of original variables into a smaller set of dimensions (factors) with a minimum loss in respect to the information collected.

Before applying the Factor Analysis, the data adequacy test for factor analysis was checked using KMO and Bartlett's Test.

In the present study, the Principal Component analysis was used as the extraction method on the correlation matrix of 10 statements and the result was rotated using Kaiser's Varimax criteria. First and foremost, the Kaiser Meyer Olkin (KMO) measure for sample adequacy and Bartlett's Test of Sphericity were assessed.

KMO and Bartlett's Test for the Level of Awareness of the Respondents towards Digital Payment Modes

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.908
Bartlett's Test of Sphericity	Approx. Chi-Square	3.220E3
	Df	45
	Sig.	.000

The high KMO value of 0.908 and the significant result from Bartlett's Test (p-value = 0.000) confirm that the dataset is well-suited for factor analysis. These tests suggest that the data related to awareness levels of digital payment modes is suitable for identifying underlying factors or dimensions that influence respondents' familiarity and engagement with different payment systems. As the data is highly reliable and internally consistent, it was further subjected to principal component method of factor analysis with 'varimax rotation'. The result of the factor analysis is presented and the following table shows Eigen value of 'varimax rotation' for all the statements

Total Variance Explained for the Level of Awareness of the Respondents towards Digital Payment Modes

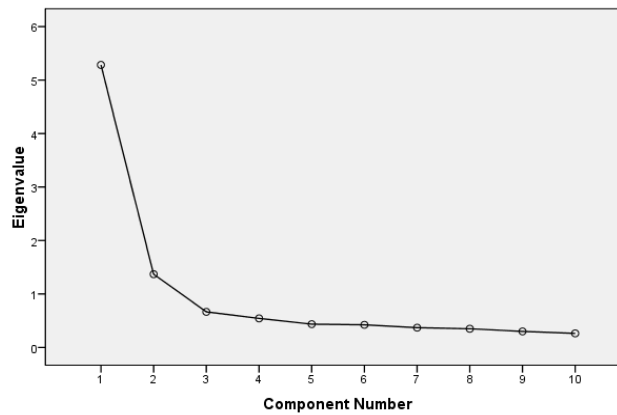
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.284	52.839	52.839	5.284	52.839	52.839	4.676	46.763	46.763
2	1.370	13.700	66.539	1.370	13.700	66.539	1.978	19.776	66.539
3	.665	6.652	73.191						
4	.543	5.428	78.619						
5	.435	4.355	82.973						
6	.422	4.224	87.198						
7	.369	3.688	90.886						
8	.349	3.490	94.376						
9	.300	2.999	97.374						
10	.263	2.626	100.000						

Extraction Method: Principal Component Analysis.

Out of 10 components, Eigenvalues of more than 1 are taken for factor rotation. Only two components have Eigenvalues greater than 1, which means they are the only components retained for further analysis. First component contributes 52.839% and the second component contributes 13.7% with a total of 66.539% of the variance in the dataset. This indicates that these two components capture the majority of the variability in awareness towards digital payment modes.

Scree Plot for the Level of Awareness of the Respondents towards Digital Payment Modes

Scree Plot



The Scree Plot suggests that only the first two components (Component 1 and Component 2) are important for explaining the variance in the data, as their eigenvalues are above 1. After the second component, the eigenvalues drop significantly and remain close to or below 1, indicating that the remaining components contribute little additional value.

Rotated Component Matrix for the Level of Awareness of the Respondents towards Digital Payment Modes

Rotated Component Matrix ^a		
	Component	
	1	2
Unified Payment system UPI	.842	-.144
Aadhaar enabled payment services (AEPS)	.600	.286
Immediate Payment service (IMPS)	.784	.155
Internet Banking	.855	.033
Mobile Wallets	.669	.408
Banking cards	.820	.044
Mobile Banking	.832	.081
Unstructured supplementary service data (USSD)	.397	.731
Point of sale (POS)	.454	.685
Other Modes	.293	.719

Extraction Method: Principal Component Analysis.

Rotation Method: Quartimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

It shows the factor loadings produced by the factor analysis. It is understood that each statement corresponding to the highlighted factor loading is correlated with the factor corresponding to that factor loading. It is understood that Eigen value is more than one for first two factors. Higher the factor loading, stronger is the correlation between the factors and the statements. In the rotated component matrix, only those common variables that had a factor loading which is greater than 0.5 for all 10 statements were grouped under their respective derived factors for further analysis.

MULTIPLE REGRESSION

Model Summary for finding impact of saving habit before adopting the digital payment system and Dimensions related to digital payment system

b									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.813 ^a	.799	.734	.395	.734	4.096	7	602	.000

a. Predictors: (Constant), Problems during the Process of Digital Payment Services, Motivational Factors in usage of Digital Payment Services, Preferences towards Digital Payment Modes, Level of awareness towards Digital Payment Modes, Attitude towards Digital Payment Services, Usage of Digital Payment Services, Customer Satisfaction towards Digital Payment Modes

b. Dependent Variable: Saving habit before adopting the digital payment system

The regression analysis shows a strong and meaningful relationship between saving habits (before using digital payments) and factors related to digital payment services. The R value of 0.813 indicates a strong positive connection. The R² value of 0.799 means that about 79.9% of the changes in saving habits can be explained by these factors. The adjusted R² value of 0.734 also confirms that the model is reliable, even after considering the number of variables used.

The standard error (0.395) is low, which means the model's predictions are quite accurate. The R² change (0.734) and F-change value (4.096 with p < 0.001) show that the factors included in the model significantly influence saving habits. Overall, factors like payment problems, motivation, preferences, awareness, attitude, usage, and customer satisfaction have a strong impact on saving habits.

Coefficients for finding impact of saving habit before adopting the digital payment system and Dimensions related to digital payment system

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.162	.082		14.252	.000
	Level of awareness towards Digital Payment Modes	-8.487	.014	.000	-.006	.995
	Attitude towards Digital Payment Services	-.001	.021	-.002	-.052	.958
	Preferences towards Digital Payment Modes	.045	.022	.098	2.042	.042
	Usage of Digital Payment Services	-.042	.018	-.115	-2.294	.022
	Motivational Factors in usage of Digital Payment Services	.050	.014	.148	3.653	.000
	Customer Satisfaction towards Digital Payment Modes	.018	.020	.046	.904	.366
	Problems during the Process of Digital Payment Services	-.060	.020	-.121	-2.925	.004

a. Dependent Variable: Saving habit before adopting the digital payment system

Constant: The intercept value of 1.162 indicates the baseline level of saving habit when all predictors are set to zero. This value is statistically significant (p < 0.001).

Level of Awareness towards Digital Payment Modes: The unstandardized coefficient (-8.487) is very small and not statistically significant (p = 0.995), suggesting that awareness has no meaningful impact on saving habits. Attitude towards Digital Payment Services: The coefficient (-0.001) is also insignificant (p = 0.958), indicating that attitude does not significantly influence saving habits. Preferences towards Digital Payment Modes: The coefficient (0.045) is positive and statistically significant (p = 0.042), implying that a preference for digital payment modes has a small but significant positive effect on saving habits.

The regression results show that the baseline level of saving habit is 1.162, which is statistically significant. Factors like awareness and attitude towards digital payments do not have any meaningful impact on saving habits. However, preference for digital payment modes has a small but significant positive effect. On the other hand, higher usage of digital payment services slightly reduces saving habits. Motivational factors play an important role in improving saving habits, as they have a strong positive influence. Customer satisfaction does not show any significant effect, while problems faced during digital payment processes negatively affect saving habits.

Model Summary for finding impact of Increase in saving habit after adopting digital payment system and dimensions related to digital payment system

Model Summary ^b									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.290 ^a	.084	.074	.469	.084	7.905	7	602	.000

a. Predictors: (Constant), Problems during the Process of Digital Payment Services, Motivational Factors in usage of Digital Payment Services, Preferences towards Digital Payment Modes, Level of awareness towards Digital Payment Modes, Attitude towards Digital Payment Services, Usage of Digital Payment Services, Customer Satisfaction towards Digital Payment Modes

b. Dependent Variable: Increase in saving habit after adopting digital payment system

The model suggests that dimensions related to digital payment systems—such as problems during the process, motivational factors, preferences, awareness, attitude, usage, and satisfaction—have a small but significant impact on the increase in saving habits after adopting digital payment systems. While the model's explanatory power is limited, it highlights that these factors should not be overlooked in understanding behavioral changes related to savings. Further analysis is needed to identify which dimensions contribute most to this relationship.

Coefficients for finding impact of Increase in saving habit after adopting digital payment system and dimensions related to digital payment system

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.300	.097		13.414	.000
Level of awareness towards Digital Payment Modes	.081	.016	.228	4.948	.000
Attitude towards Digital Payment Services	-.071	.025	-.123	-2.896	.004
Preferences towards Digital Payment Modes	.064	.026	.116	2.450	.015
Usage of Digital Payment Services	-.038	.022	-.086	-1.753	.080
Motivational Factors in usage of Digital Payment Services	.044	.016	.106	2.671	.008
Customer Satisfaction towards Digital Payment Modes	-.002	.023	-.005	-.107	.915
Problems during the Process of Digital Payment Services	-.074	.024	-.123	-3.030	.003

a. Dependent Variable: Increase in saving habit after adopting digital payment system

The regression analysis shows that several factors influence the increase in saving habits after adopting digital payments. Awareness of digital payment modes has the strongest positive effect, meaning better awareness leads to higher savings. Motivational factors and preferences also have a positive and significant impact, though their effects are smaller. In contrast, negative attitudes and problems faced during digital payments reduce saving habits. However, usage of digital payments and customer satisfaction do not have a significant effect. Overall, improving awareness and motivation while reducing problems and negative attitudes can help increase saving habits.

FINDINGS OF THE STUDY

Descriptive Analysis: The descriptive analysis shows that the level of awareness towards digital payment modes varies across different demographic factors. Significant differences are observed based on age, education, occupation, marital status, monthly income, and number of earning members, indicating that these factors influence awareness levels. However, type of family and gender do not show any significant difference. Residential status plays an important role, with urban respondents having higher awareness compared to rural respondents.

Factor Analysis: The factor analysis confirms that the data is suitable and reliable, as indicated by a high KMO value (0.908) and a significant Bartlett's test. The analysis reduces the variables into two major factors with eigenvalues greater than one, which together explain about 66.53% of the total variance. This shows that awareness of digital payment modes can be grouped into two key underlying dimensions, capturing most of the information from the original variables.

Multiple Regression Analysis: The multiple regression analysis reveals a strong relationship between saving habits before adopting digital payments and factors related to digital payment services, with a high explanatory power ($R^2 = 0.799$). Motivational factors and preferences positively influence saving habits, while usage and problems during transactions negatively affect them. Awareness, attitude, and customer satisfaction do not show a significant impact. In terms of increased saving habits after adopting digital payments, the model shows a weaker but significant relationship ($R^2 = 0.084$), where awareness has the strongest positive effect, followed by motivation and preferences, while negative attitude and transaction problems reduce saving habits.

CONCLUSION

The study concludes that digital payment systems play a significant role in influencing the saving habits of individuals. While digital payments offer convenience and efficiency, their impact on savings depends largely on user awareness, motivation, and experience. The results show that higher awareness and positive motivation encourage better saving habits, whereas technical issues and negative attitudes act as barriers. Although digital payment usage is increasing, it does not always directly lead to improved savings, especially when users face difficulties or lack proper understanding. Therefore, efforts should be made to improve awareness, enhance user experience, and reduce transaction-related problems. Policymakers and financial institutions should focus on educating users and promoting secure and user-friendly digital payment systems. In conclusion, digital payments have the potential to positively influence saving behavior, but their effectiveness depends on how well users understand and utilize these technologies.

REFERENCES

- <https://ddnews.gov.in/en/india-accounts-for-nearly-half-of-the-global-digital-payments-rbireport/#:~:text=Digital%20payments%20in%20India%20have,lakh%20crore%20in%202023%2D24.>
- <https://www.npci.org.in/PDF/npci/knowledge-center/partner-whitepapers/The-Rise-and-Evolution-of-India's-Digital-Finance.pdf>.
- Baidulloeva Zuhro Bakhtiyorovna (2023) A Study On Digital Mobile Payment Systems Adoption Among Youth in Calicut District, 2023 IJCRT | Volume 11, Issue 11 November 2023 | ISSN: 2320-2882Pg.no. a243-a302.
- Olalekan Akinrinola(et.al) (2023) Digital Financial Inclusion Technology and The Level of Household Savings in Nigeria, International Journal of Innovative Finance and Economics Research 11(1):117-122 Jan.-Mar., 2023. www.seahipaj. org ISSN: 2360-896X.
- Anna P.G & Joseph Joy (2023) Exploring the Impact of UPI Payments on Millennials' Savings Behavior, Bharata Mata College Thrikkakara.