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ATTITUDE AND BEHAVIOUR OF GROCERY RETAILERS IN THE UNORGANISED SECTOR TOWARDS THE UNIFIED PAYMENT INTERFACE (UPI)

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Abstract

In the previous decade, India has seen a revolutionized advancement in FinTech industry and has become global leader in number of digital transactions. The main force behind this has been the amazing UPI (Unified Payment Interface) tool, which has enabled digital transactions for all Indians. UPI adoption has been very significant among consumers but few studies has developed their focus on retailers' side. The unorganized grocery sellers in Delhi were the focus of this study. The study is performed on primary data collected through questionnaire from 253 valid respondents. Regression analysis was performed in this study to test relationship between attitude and behaviour intention and between behaviour intention and actual usage of UPI. The study interpreted that there is no significance relationship between the stated variables and both the hypotheses was rejected. Thus, the study concluded that although theoretical model like TAM and UTAUT has stated a strong relationship among these constructs but these constructs alone are insufficient to explain the relationship among attitude, behavioural intention and actual usage, they required external factors also to validate the results.

Keywords: *UPI, Attitude, Behavioral Intention, Groceries Retailers*

Introduction

With the advent of UPI, India has seen a drastic digital transformation in its financial ecosystem. The National Payment Corporation of India (NPCI) launched UPI in 2016. and has gained momentum in recent years as it has emerge as flagship platform that has enabled the users to have instant transfer of money through various mobile payment application in their smartphones. The success of UPI in India is also backed with several government led financial inclusion campaigns and schemes like JanDhan Yojana, Digital India Campaign.

In present days, UPI has become an indispensable tool in modern retail sector. While the formal retail sector has adequate resources and finance to adopt the recent technology, the unorganised retail sector has been underprivileged one although this sector is the backbone of Indian retail economy. The businesses in this sector generally comprises retailers that have lack the infrastructure, knowledge, or motivation to shift towards digital platforms.

The unorganised retail sector has always been very significant for Indian economy as 87% of total Indian retail market is unorganised that comprises of millions of micro, small, and informal retailers who carter almost every type of customer from upper middle class income group to bottom of the pyramid customer. In Indian retail industry, food and groceries segment constitute of 63.30% of total retail market. Thus, these food and groceries shops of unorganised retail sector commonly known as 'kirana' stores are important part of Indian retail industry. Despite their pivotal role in meeting the everyday consumption needs of the Indian population these retailers are often work in a cash-dominant environment with limited integration with digitalisation and formal banking. Adoption of UPI among these retailers is considered to be critical as it not only enhance their operational efficiency and transparency but also promote financial inclusion, in addition to that UPI will enhance their power to access formal credit through transaction histories by increasing their tax compliance.

This study has investigated relationship among attitude, behaviour intention and actual usage of groceries retailers towards UPI by collected data from relevant primary source. The relationship among these constructs has been stated in several theories like TAM and UTAUT. The present study has tested this relationship in retail unorganised sector of Delhi NCR by targeting groceries retailers. The study has observed and determined the extent of financial inclusion through UPI in this untapped industry by conducting an analysis.

Review of Literature

Digital payment ecosystem of Indian has underwent a remarkable transformation over last decade particularly after the launch of UPI. Various features of UPI like Instant Real-Time Transfers, Interoperability, Virtual Payment Address (VPA), QR Code Compatibility, Two-Factor Authentication, Low/No Cost for Users, Scheduled and AutoPay transactions, Multi-language and Inclusive Design are some of the reasons for tremendous success of UPI **(Source: NPCI Product Overview).** This review of literature covers all the studies focusing on such digital payment transformation.

- **Factors influencing Adoption of Digital Payments**

In 2023, UPI has surpassed over 10 billion monthly transactions that evidenced a major shift in consumer behaviour **(NPCI, 2023).** Finding the elements driving the uptake of digital payments, particularly UPI, has been the subject of numerous studies.

For instance, **Singh et al. (2017)** showed that the acceptance of various mobile payments—which are intimately tied to UPI as well—requires ease of use, confidence, and security.

In the same vein, others factors like perceived usefulness, behaviour and social influence are highlighted in related studies. **(Kar, 2020).** Moreover, several economic factors like transaction cost, technology cost and access to financial services, demographic factors like age, gender, income level and education, regulatory factors like consumer protection regulations, Regulations pertaining to data privacy and security, transaction limits and fees, Know your customer (KYC) and anti-money laundering (AML) are important factors in the adoption of digital payments.

- **COVID-19's Effect on the Adoption of Digital Payments**

Although the foundation of cashless economy in India was laid down through demonetisation but the massive adoption of digital payments was seen in pandemic era **(Chaudhari & Kumar, 2021)**. Numerous research have examined how COVID-19 has affected the uptake of digital payments, studies during COVID 19 underscored the importance of convenience, alongside user skilfulness, in fostering adoption. (**Al-Qudah et al., 2022).** The pandemic has acted as catalyst for digital payment adoption in India but the sustainability of this shift depends on addressing challenges of trust, usability, infrastructure, and inclusivity **(Saroy et al., 2022)**.

- **Challenges and Concerns in Adoption of Digital Payments**

Lack of trust among potential user has been seen as significant barrier in adoption process of digital payments. Many studies have revealed that perceived security directly impacts trust which influences consumer behavioural intentions towards using digital payment platforms (**Chaudhry et al., 2015).** In addition to it, users the concern regarding safety and security of has been echoed in many studies, these studies have showed that users were not confident enough in regards to the safety of their financial information **(Siagian et al., 2022).** Many users had also faced the fear of misuse of information that has deterred them from adopting digital payments, this has raised the need of transparent communication about data usage and robust data usage and advancing security measures **(Kar, 2020).**

Researches conducted on several socio-economic factors and demographic factors specifically in India, revealed that lack of awareness or knowledge of digital payment methods among a particular demographic can hamper their adoption

(Tian et al., 2023). A study conducted in Jaipur, showed that merchants hesitate while using digital payments due to potential tax liability associated with it, in addition to that customers' cash preference was also the major concern faced by merchants **(Ligon et al., 2019)**. This indicates that providing infrastructure is not sufficient for mass adoption of digital payments but addressing socio-economic dynamics is also crucial. Significant educational and awareness initiatives can bridge this gap and can ensure the access and benefits of digital payments technologies to all. In order to address this tailored marketing strategies can increase the acceptance rates **(Hossain et al., 2020).**

- **Growth of UPI India**

UPI has been a major contributor to improving financial literacy and inclusion in India, particularly in the economically disadvantaged sections of society UPI has emerged as accessible tool of digital payment that has empowered its users to manage their finance more efficiently. UPI has created a sustainable economic growth by integrating mass population into financial system **(Ratogi et al., 2021).** UPI has served as influential weapon in empowering bottom of the pyramid population by integrating them into the financial ecosystem **(Lakshmi et al. 2019).**
In spite of its huge success there are still some challenges that had hindered the massive growth of UPI especially in rural areas, such as trust in technology, technological literacy and other such issues **(Singh and Malik, 2019).** Although UPI had encountered some hurdles in its growth but the experience of UPI had improved the users' opportunities for implementing other emerging technologies, Examples include Central Bank Digital Currency (CBDC) **(Gupta et al., 2023)**

- **Gaps in Existing Study**

While digitally literate consumers are rapidly interacting with UPI, its adoption among small retailers of unorganised sector remains unexplored in academic literature. The present study has explored several distinct gaps in existing literature. They are identified as under:
1. **Lack of Sector-Specific focus:** Despite their substantial contribution to India's retail economy limited studies have been performed that exclusively target groceries retailers in the unorganised sector.
2. **Attitudinal and Behavioural Dimensions remained unexplored:** Technology adoption theories like TAM and UTAUT has explained the role of attitudinal and behavioural intention in digital adoption but limited studies have been performed on these constructs.
3. **Under-Representation of Behavioural Intention and Actual Usage:** Few studies rigorously explore the gap between intent and real transaction behaviour among their respondents. The present study has observed this gap and distinctly identified behaviour and usage of UPI.
4. **Field level qualitative insight:** Majority of Research uses Secondary Data, only few studies have focused on primary data i.e., filed-level data collection.

Research Methodology

The research has used descriptive research design to evaluate attitude and behaviour of groceries retailers. The study has developed three constructs attitude, behavioural intention and actual usage. Here, attitude is used to check user's overall positive/negative feeling about using the UPI, behavioural intention is used to examine the intention or readiness to adopt or continue using the UPI and actual usage measures the frequency or consistency of UPI usage in daily transactions. The study proposes the following research framework:
Attitude → Behavioural Intention → Actual Usage
Based on this framework, two hypotheses are formulated, these are:
H_1: The behavioral intention to utilize UPI is positively influenced by one's attitude toward it.
H_2: Actual utilization of UPI is favorably influenced by behavioral intention to use it.
Through a well-structured questionnaire, data has been collected from groceries retailers of Delhi NCR and Multiple regression analysis has been used to analyze the study.

Interpretation and Data Analysis

- **The Demographic makeup of those surveyed**

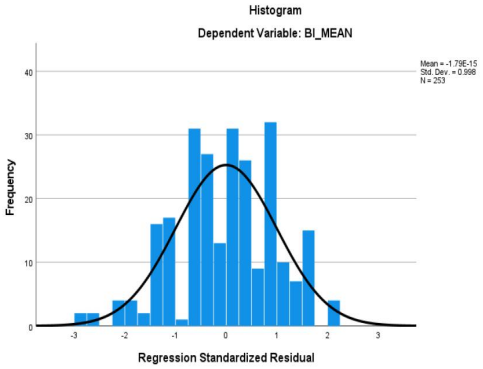
The study has been conducted on 270 groceries retailers. After the screening of data incomplete responses including missing values, outliers and data entry errors were excluded and the final dataset of 253 responses is considered appropriate for the research.
The study has constituted of 158 male respondents and 95 female respondents. Near about 132 shop owners were operating kirana stores, 96 shops were small general stores, 21 shops were of local fruits and vegetables vendors and 4 shops were mix of confectionery and other groceries or non-durable products and nearly 61% of retailers are of urban background, 34% are of semi-urban and 5% are of rural, among them most of the retailers are educated graduates.

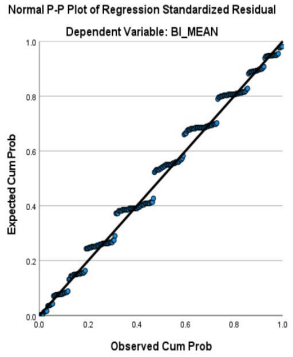
- **Interpretation of Regression Analysis**

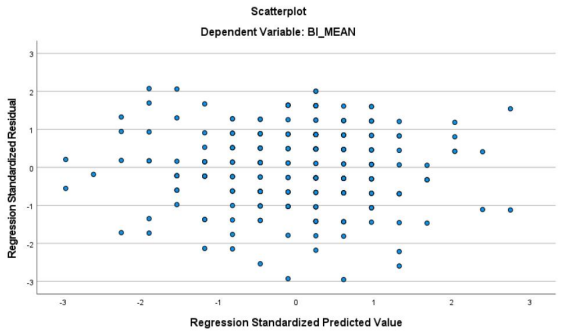
In order to test hypothesis regression analysis was performed. The study has used five-points Likert scale in order to analyse attitude and behaviour intention and actual usage on ordinal scale. First the study has calculated composite mean scores for each construct to represent attitude, behavioural intention, and actual usage as continuous variables suitable for regression analysis.

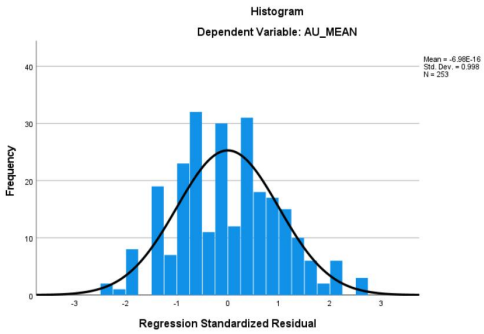
Prior to regression analysis, all underlying assumptions for both hypotheses are tested. Scatterplots of standardized residuals versus standardized anticipated values are used to assess linearity and homoscedasticity; no consistent patterns were seen. Using a normal P-P plot analysis and a histogram, the residuals' normality was verified.

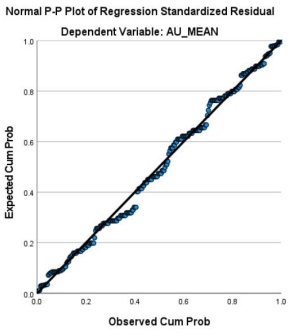
The Durbin–Watson statistic (2.036 for H_1 and 2.075 for H_2) indicated independence of errors. Multicollinearity was not a concern, as tolerance and VIF values were within acceptable limits. Additionally, no extreme outliers were detected. Thus, all assumptions required for regression analysis were satisfactorily met. Following charts has evidenced the above-mentioned assumptions.

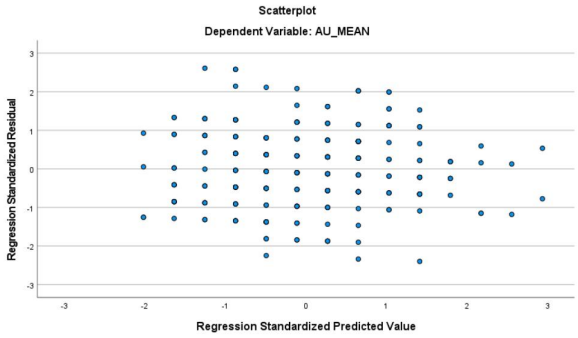












Source: SPSS Results

1. **Testing of H_1: Attitude (ATT) has a significant effect on Behavioural Intention (BI).**

- Model Summary

❖ There is a very modest positive link between attitude and behavioral intention, according to the correlation coefficient (R = 0.033).

❖ According to the coefficient of determination (R2 = 0.001), attitude accounts for just 0.1% of the variance in behavioral intention.

❖ It is evident from the Adjusted R2 = -0.003 that the model does not significantly enhance prediction beyond chance.

Model Summary[b]							
					Change Statistics		
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1
1	.033[a]	.001	-.003	.52575	.001	.272	1

Model Summary[b]			
	Change Statistics		
Model	df2	Sig. F Change	Durbin–Watson
1	251	.602	2.036

a. Predictors: (Constant), ATT_MEAN
b. Dependent Variable: BI_MEAN

Source: SPSS Results

- ANOVA Results

The ANOVA results show that the regression model is not statistically significant:

❖ F(1, 251) = 0.272
❖ P = 0.602 (> 0.05)

This means that attitude is not a significant predictor of behavioural intention.

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.075	1	.075	.272	.602[b]
	Residual	69.379	251	.276		
	Total	69.454	252			

a. Dependent Variable: BI_MEAN
b. Predictors: (Constant), ATT_MEAN

Source: SPSS Results

- Coefficients Interpretation

❖ The regression coefficient for attitude (B = 0.037) is positive but not statistically significant.
❖ The standardized beta value (β = 0.033) supports the result.
❖ The t-value (t = 0.522, p = 0.602) further supports the non-significant relationship.

Coefficients[a]							
		Unstandardized Coefficients		Standardized Coefficients			Correlations
Model		B	Std. Error	Beta	t	Sig.	Zero-order
1	(Constant)	3.604	.266		13.556	.000	
	ATT_MEAN	.037	.071	.033	.522	.602	.033

Coefficients[a]					
		Correlations			
Model		Partial	Part	Tolerance	VIF
1	(Constant)				
	ATT_MEAN	.033	.033	1.000	1.000

a. Dependent Variable: BI_MEAN

Source: SPSS Results

Final Interpretation of Hypothesis 1

The study's findings indicate that attitude has no statistically significant effect on behavioral intention. Therefore, **Hypothesis 1 is rejected.**

2. **Testing of H_2: Behavioural Intention (BI) has a significant impact on Actual Usage (AU).**

- Model Summary

❖ The correlation coefficient (R = 0.079) indicates a slight negative association.
❖ The coefficient of determination (R^2 = 0.006) shows that behavioral intention only explains 0.6% of the variance in actual usage.
❖ The Adjusted R^2 = 0.002, implying very less explanatory power.

Model Summary[b]							
					Change Statistics		
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1
1	.079[a]	.006	.002	.57331	.006	1.581	1

Model Summary[b]			
	Change Statistics		
Model	df2	Sig. F Change	Durbin–Watson
1	251	.210	2.075

a. Predictors: (Constant), BI_MEAN
b. Dependent Variable: AU_MEAN

Source: SPSS Results

- ANOVA Results

The ANOVA table represents that the model is lack of statistically significant:

❖ $F(1, 251) = 1.581$
❖ $p = 0.210 (> 0.05)$

This reiterates the fact that behavioural intention does not significantly predict actual usage.

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.520	1	.520	1.581	.210[b]
	Residual	82.499	251	.329		
	Total	83.018	252			

a. Dependent Variable: AU_MEAN
b. Predictors: (Constant), BI_MEAN

Source: SPSS Results

- Coefficients Interpretation

❖ The regression coefficient has also shown a negative and insignificant relationship since the value of the regression coefficient is -0.087.
❖ The standardized beta weights have also shown a very small effect.
❖ Since the t-value for the predictor is -1.257 and p-value for the predictor is 0.210, the predictor has shown a negative and insignificant relationship.

Coefficients[a]							
		Unstandardized Coefficients		Standardized Coefficients			Correlations
Model		B	Std. Error	Beta	t	Sig.	Zero-order
1	(Constant)	3.134	.260		12.058	.000	
	BI_MEAN	-.087	.069	-.079	-1.257	.210	-.079

Coefficients[a]					
		Correlations			
Model		Partial	Part	Tolerance	VIF
1	(Constant)				
	BI_MEAN	-.079	-.079	1.000	1.000

a. Dependent Variable: AU_MEAN

Source: SPSS Results

Final Interpretation of Hypothesis 2

Accordingly, results indicate that BI does not significantly affect actual usage behaviour. Therefore,

Hypothesis 2 is not supported.

Conclusion of Regression Analysis

- Both regression models were statistically insignificant.
- The explanatory power (R^2) of both models was extremely low.
- The proposed hypotheses were not supported by empirical evidence.

Discussion and Conclusion

The results of the study show that behavioral purpose and attitude have no appreciable effect on future usage behavior.

The current study's empirical findings contradict the significant correlations between these factors that have been demonstrated by earlier theoretical frameworks, including UTAUT and the Technology Acceptance Model (TAM).

The lack of a substantial correlation between attitude and behavioral intention suggests that positive store impressions might not always translate into intention, perhaps as a result of outside factors like risk, inadequate infrastructure, or a lack of favorable circumstances. Similarly, as has been extensively documented in the behavior literature, There may be an intention-behavior gap if there is a non-significant correlation between behavioral intention and actual usage.

Overall, the results imply that additional variables or mediating/moderating mechanisms may be required to better explain behavioural purpose and practical application within the specified study setting.

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Appendix

- **Questionnaire**

General Information:

Name:
Gender: Male / Female / Other
Age: 15-25 / 25-35 / 35-45 / 45 Above
Education: 10th / 10+2 / Graduation / Post Graduation
Name of Store/Shop:
Type of Grocery Shop:
☐ Kirana ☐ Small General Store ☐ Fruits & Vegetables ☐ Others (Please specify):
Location Type:
☐ Urban ☐ Semi-Urban ☐ Rural

Actual Usage:

Do you accept UPI payments in your shop?
☐ Yes ☐ No
If yes, which UPI apps do you use?

☐ PhonePe ☐ Google Pay ☐ Paytm ☐ BHIM ☐ Others: _____

Since when are you using UPI for your shop?

☐ Less than 6 months ☐ 6 months – 1 year ☐ 1 – 3 years ☐ 3 – 5 years ☐ More than 5 years

Average % of daily sales received through UPI:

☐ less than 10% ☐ 10–25% ☐ 26–50% ☐ 51–75% ☐ More than 75%

How frequently do you use UPI for business transactions

Multiple times a day
Once a day
A few times a week
Occasionally
Rarely

What is the average value of transactions you make through UPI per day?

Less than ₹500
₹500 - ₹1,000
₹1,000 - ₹5,000
₹5,000 - ₹10,000
More than ₹10,000

Attitude Towards UPI:

(Please mark your response on a 5-point Likert scale: 1 = Strongly Disagree, 5 = Strongly Agree)

Statement	**1**	**2**	**3**	**4**	**5**
UPI makes transactions faster and easier.					
UPI helps improve my sales.					
UPI is more secure than cash.					
I feel confident using UPI.					
Using UPI gives a professional image to my shop.					
I believe UPI is the future of retail payments.					

Behavioural Intention:

(Please mark your response on a 5-point Likert scale: 1 = Strongly Disagree, 5 = Strongly Agree)

Statement	**1**	**2**	**3**	**4**	**5**
I intend to continue using UPI for accepting payments in the future					
I prefer UPI over cash or other modes of payment whenever possible.					
I will encourage my customers to pay through UPI.					
I plan to recommend UPI to other shopkeepers or retailers.					
I am willing to invest time or effort in learning more about UPI to use it better.					