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A Study on Consumer Perception of UPI towards Daily Need Products in Raipur City

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Abstract - In the rapidly evolving landscape of digital payment methods, the Unified Payments Interface (UPI) has emerged as a prominent player, revolutionizing the way consumers make transactions. This study aims to investigate the consumer perception of UPI as a payment method for purchasing daily need products in Raipur city, India. The research delves into the factors that influence consumers' adoption of UPI for daily essentials, the challenges they encounter, and the overall satisfaction levels associated with this payment method.

To achieve these objectives, a mixed-methods approach combining surveys and interviews will be employed. A structured questionnaire will be distributed to a diverse sample of consumers in Raipur city, including various age groups, income levels, and educational backgrounds. Additionally, in-depth interviews with selected respondents will provide valuable qualitative insights.

The study hypothesizes that factors such as ease of use, security, transaction speed, and familiarity with the technology will significantly influence consumers' perceptions of UPI as a payment method for daily need products. Furthermore, the study will explore the role of digital literacy and financial inclusion in shaping consumers' attitudes toward UPI.

Keywords: Unified Payments Interface (UPI), Digital literacy, consumers.

Introduction

UPI is a comprehensive platform that combines various banking services and operations into one system. It requires a UPI ID and PIN to enable money transfers, allowing instantaneous bank-to-bank transactions using either a mobile number or a virtual payment address (UPI ID). This technology simplifies the process of transferring money, which is often seen at gas stations or shopping centers when QR codes are scanned for discounts. Compared to the traditional card-swiping method, UPI transactions take less than a minute from the time your account is debited to the time the merchant's account is credited. This quick procedure is made possible by the Unified Payment System, which simplifies the process of transferring money and reducing the time it takes for transactions to be processed. This research aims to investigate the perceptions of UPI users in Raipur city.

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Background of the Study

India's Unified Payments Interface (UPI) is a digital payment system developed by the National Payments Corporation of India (NPCI) in 2016. It enables instantaneous real-time transactions between banks, allowing P2P and P2M transactions. The interface, governed by the Reserve Bank of India (RBI), allows immediate fund transfers between two bank accounts using mobile platforms. This has been one of India's most significant financial breakthroughs since independence, hastened the country's transition away from a cash-based economy, and has been a significant financial breakthrough since its inception. The NPCI's development of UPI has made significant progress since its inception, and the majority of Indians now prefer it over other payment options. The UPI has been a significant financial breakthrough in India since its independence.

Problem Statement

While UPI is being one of the most popular way of making a payment, there are four ways of doing the same. We can initiate a payment by entering the account details of the said person or by entering the mobile no. or by using its UPI virtual id (provided by the UPI app.) or by scanning the QR code being used by the person. We can use the mobile no. of the person who at present is very far from us but on a daily basis people use UPI to make payments to a grocery shop or any other kind of shop.
QR code-based payments have become the favored method for conducting digital transactions due to their simplicity in generation, deployment, sharing, and scanning. QR codes are not only cost-effective but also highly adaptable, leading to their rapid adoption. However, it's important to acknowledge that QR-based payments carry certain inherent risks in the payment systems, as they can be easily replaced, duplicated, or tampered with. There is a pressing need to enhance the security of QR-based payments while preserving their fundamental advantages, such as ease of creation, sharing, deployment, use, and cost-effectiveness (NPCI, 2022).

In the recent times the Google Pay UPI app has come up with double check system on their app where it indicates the user of confirming it twice and the user has to check the receiver and the amount twice before proceeding. This mechanism is making the Google Pay UPI app more secure than the others. Still sometimes while making a payment it stuck in the middle and no confirmation from the user end or the receiver end. Sometimes the money also gets deducted from the account but the receiver didn't receive it and it takes 7 working days to get it back in account.

Perception

- Safety rating parametersin QR codes.
- Safety of QR code generation and sharing.
- Non-identification of tempering the QR and false payments.
- Security of banking or other information.
- Frequent failures in transaction gateway.

Research Questions

- What is consumer perception towards UPI in Raipur?
- What are the variables that influence the consumers while using UPI?
- To analyse current consumer perception towards UPI from the collected data through questionnaire.
- What are the reasons that limit consumers to use UPI?

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Objectives of the Study

- To know about the consumer perception of UPI in Raipur City;
- To explore the variable of UPI Practices;
- To determine the significance impact of variables on UPI Practices;
- To find out the problem encounter while using UPI;
- To find out the frequency of digital payment by different age and income group; and
- To recommend the suitable strategy to improve the UPI Practices.

Literature Review

In their paper titled "Factors Influencing the Utilization of UPI among Customers," Mr. Nilesh Kumar L. Patel and Dr. Jayshri Dutta (2020) have examined the various factors that impact the adoption of UPI by customers. The research delves into understanding the usage trends, customer perspectives, and awareness levels concerning the Indian Government's UPI platform for banking and financial transactions.

In their paper titled "A Study on Customer Satisfaction of Bharat Interface for Money (BHIM)," Njali R and Suresh A (2019) highlighted that the BHIM application represents a significant and highly appreciated initiative by the Government of India. This mobile app has effectively facilitated instant bank-to-bank transactions and has garnered widespread acceptance and popularity among a substantial segment of the Indian population.

In their article titled "Unified Payment Interface (UPI) - Advancing Toward a Cashless Economy Radhika Basavaraj Kakade And Prof. Nupur A. Veshne (2017) discuss the functionality of UPI payment systems and provide guidance on establishing a UPI platform on smartphones. The article also delves into the various online payment methods employed in India, offering insights into their respective market shares. Furthermore, it introduces readers to UPI platforms and their evolution within the market (Kakade and Vishne, 2017).

In their research conducted by Babita Singla and Manish Bansal in 2015, it was discovered that consumers express satisfaction with the use of plastic cards. Furthermore, individuals who do not currently possess platinum cards are showing interest in utilizing these cards for their purchases and intend to do so in the near future. It is worth noting that banks and other financial institutions are actively promoting the utilization of plastic cards.

Khuram Shafiq and Khalil Ahmad conducted a study in 2015 titled "Is Plastic Money a Significant Factor in Consumer Buying Behaviour?" The research findings confirm that consumers exhibit a preference for using plastic money because it offers convenience, eliminates the risks associated with carrying cash, and provides opportunities for reward-based shopping. These factors were identified as significant influencers in consumer behavior related to payment choices.

Rouibah's 2015 study revealed that several key constraints influenced payments, including concerns about poor security, a lack of trust, fear of potential failures, high associated charges, and limited familiarity with digital payment methods. Additionally, the security features of internet transactions, banking services, privacy concerns, and the overall quality of services also played pivotal roles in determining the adoption of electronic payments.

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In contrast, Rathore's 2016 findings highlighted the high level of convenience offered to consumers when making digital payments using wallets for online purchases. This convenience was particularly appreciated because it allowed consumers to shop online without the need for physical travel to various locations.

Dr. Stitch Shewta Rathore's research in 2016, titled "Adoption of Cashless Transactions by Consumers," sheds light on the increasing prevalence of digital wallets as a common method for online payments. Consumers are swiftly adopting digital wallets primarily due to the remarkable convenience and ease they offer, indicating a rapid shift in consumer behavior toward this mode of payment.

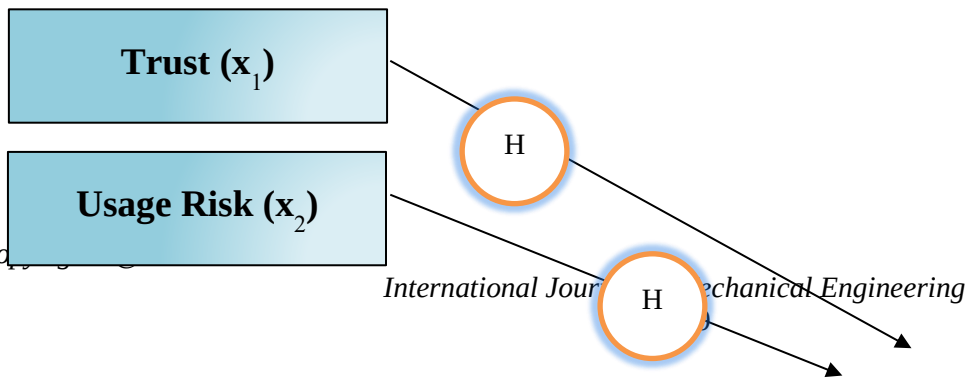
Variables Identification

- **Trust–** Adoption of UPI,lack of trust, hesitation in usingUPI. (Rouibah,2015).
- **Usage Risk-**It includes risks, namely financial risk, transaction failure risk and cost.(Mr. Nilesh Kumar L. Patel andDr.Jayshri Dutta, 2020)
- **Speed of transaction–** Transaction processing time,scanning and identifying the client UPI ID**.**(KakadeandVeshne, 2017).
- **Ease of use-**comfortable and convenience, (Dr. Stitch Shewta Rathore, 2016)
- **Security -**Poor security, personal identityand information (Rouibah,2015).
- **Availability of UPI at point of sale-**acceptability of UPI in stores/point of sale**.** (Rathore ,2016)
- **Awareness of UPI -**.Knowledge of UPI, Poor familiarity of application (Mr. Nilesh Kumar L. Patel andDr.Jayshri Dutta, 2020)

Conceptual Framework of the Study

Trust (X_1), Risk (X_2), Speed of Transaction (X_3) Ease of use (X_4), security (X_5), Availability of UPI at point of sale (X_6) and Awareness of UPI (X_7) are taken to be the explanatory variables against UPI Uses as the dependent variable.

Structural Framework of the Study



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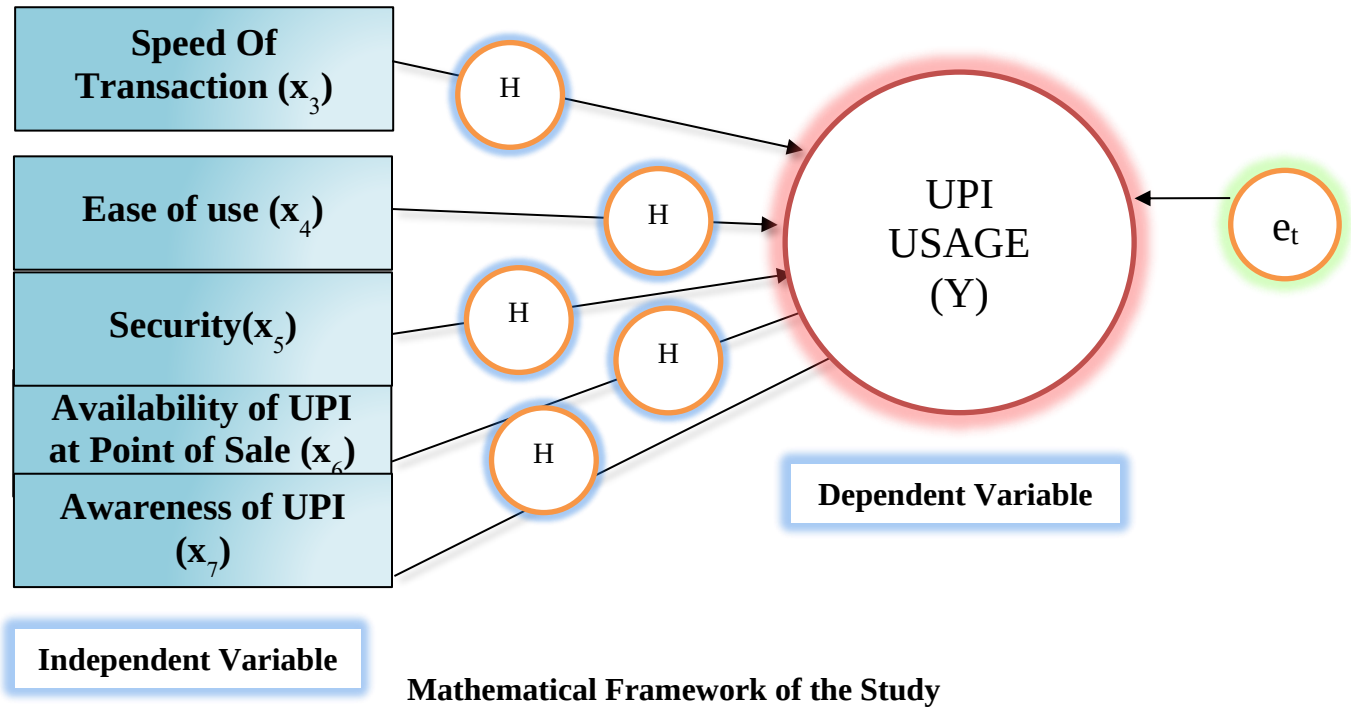

Mathematical Framework of the Study

$Y = f(X)$

$\hat{Y} = \beta 0 + \beta_1(X_1) + \beta_2(X_2) + \beta_3(X_3) + \beta_4(X_4) + \beta_5(X_5) + \beta_6(X_6) + \beta_7(X_7) + e_t$

$$\hat{Y} = \beta_0 + \sum_{i=1}^{7} \beta_i X_i + e_t$$

Where, $\hat{Y}$ =Predicted value of Usage of UPI

(X_1) = Trust

(X_2) = Usage Risk

(X_3) =Speed of transaction

(X_4) = Ease of use

(X_5) = Security

(X_6) = Availability of UPI at point of sale

(X_7) = Awareness of UPI

e_t = Expected Margin of Error

β_0 = Intercept

β_0 β_1…. β_7 = Constants

Hypothesis

H_1: Trust has a significant impact on UPI Uses;

H_2: Risk has a significant impact on UPI Uses;

H_3: Speed of Transaction has a significant impact on UPI Uses;

H_4: Ease of usehas a significant impact on UPI Uses;

H_5: Securityhas a significant impact on UPI Uses;

H_6: Availability of UPI at point of salehas a significant impact on UPI Uses and

H_7: Awareness of UPIhas a significant impact on UPI Uses.

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Target Population

The target population of this study is the UPI using customers towards purchase of Daily Needs Products in Raipur City.

Research Design

In this study **Causal research Design** is used to find Cause and Effect relationship between Dependent and Independent Variable of UPI. The study is focused on measuring the impact of independent variables on dependent variable means cause and effect relationship that is why causal research design has been applied for this study.

Data Sources and Method

The data source has been both Primary and Secondary:

- Secondary Data is collected from Journal and Research Reports, Websites, etc.
- Primary Data is the survey method within which Questionnaire is used as the instrument of the data collection.

Instrument and Scale

The instrument used in this study is Questionnaire. Two types of Scale have been used in this study, Categorical scale and Likert scale:

Categorical scalehas been used to collect qualitative data like Demographics of the respondent. Likert scalehas been used in this study for collecting psychographic data with the help of Questionnaires.

Sample Design

Convenience sampling which is a type of Non - Probability sampling has been used in this study to collect data from population members who are conveniently available to participate in the study.

Sampling Frame

UPI users for the payment towards daily need product in Raipur city.

Sample Size

Arbitrary method has been used for sample size on the basis of the previous researches, a sample of 170 respondents has been used for this study.

Data Processing and Analysis

In this study UPI Usage is a single dependent Variable whereas there are many independent variables therefore Multiple regression statistical technique has been used.

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Data Analysis and Interpretation

Demographic Analysis-

Statistics					
		Age (Years)	Gender	Occupation	Monthly Income (In Rupees)
N	Valid	170	170	170	170
	Missing	0	0	0	0

Frequency Table's

Age (Years)					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	20 – 40	153	90.0	90.0	90.0
	41 – 60	3	1.8	1.8	91.8
	Less than 20	14	8.2	8.2	100.0
	Total	170	100.0	100.0	

Interpretation-

In this data, 90%of respondents are in the age group of 20–40 and other age groups have only 10% of respondents.

Gender					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	79	46.5	46.5	46.5
	Male	91	53.5	53.5	100.0
	Total	170	100.0	100.0	

Interpretation-

In this data, gender of 53.5% of respondents are male and the other 46.5% of respondents are female.

Monthly Income (In Rupees)					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	20,000 - 40,000	40	23.5	23.5	23.5
	40,001 - 60,000	9	5.3	5.3	28.8
	Less than 20,000	109	64.1	64.1	92.9
	More than 60,000	12	7.1	7.1	100.0
	Total	170	100.0	100.0	

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Interpretation-

In this data, 64.1% respondents earn less than 20,000 Rs a month, 23.5% respondents have a monthly income between Rs 20,000 - 40,000, 5.3% respondents have income between Rs 40,001 - 60,000 and other 7.1% respondents have more than Rs 60,000 monthly income.

Occupation					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Business	1	0.6	0.6	0.6
	Employed	27	15.9	15.9	16.5
	Professional	7	4.1	4.1	20.6
	Self Employed	31	18.2	18.2	38.8
	Student	103	60.6	60.6	99.4
	Tuition teacher	1	0.6	0.6	100.0
	Total	170	100.0	100.0	

Interpretation-

From this data, it was found that 60.6% of respondents are students, 18.2% of respondents are self-employed, 15.9% are employed, and professional respondents are 4.1% while businessmen and tuition teachers both are 0.6% each.

Psychographic Analysis-

Descriptive Analysis-

Descriptive Statistics						
	N	Minimum	Mean	Std. Deviation	Skewness	Kurtosis
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic
UPI	170	1.00	5.5490	1.58784	-1.271	0.870
Trust	170	1.00	5.7706	1.29391	-1.309	1.679
Risk	170	1.00	4.5824	1.63624	-0.466	-0.791
Speed	170	1.33	5.7078	1.18516	-0.976	0.677

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Easy	170	1.33	5.7196	1.21861	-0.917	0.326
Secure	170	1.00	5.5863	1.23213	-0.942	0.631
Available	170	1.00	5.7686	1.22919	-1.303	1.712
Aware	170	1.00	5.8098	1.31237	-1.209	1.051
Valid N (listwise)	170					

Interpretation-

The standard deviation is less in comparison to the mean, Skewness and Kurtosis are also less so, it supports that there is consistency in the data.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.669	0.447	0.424	1.20548	2.434

a. Predictors: (Constant), Aware, Risk, Secure, Trust, Speed, Available, Easy

b. Dependent Variable: UPI

Interpretation-

R square is45% (approx.) the model explains 45% of the variance and because the value of Durbin-Watson is near to 2 it means that there is no chance of autocorrelation in the model.

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	190.675	7	27.239	18.744	0.000[b]
	Residual	235.417	162	1.453		
	Total	426.092	169			

a. Dependent Variable: UPI

b. Predictors: (Constant), Aware, Risk, Secure, Trust, Speed, Available, Easy

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Interpretation-
The significance value is less than 0.05 so model is significant at 5% level of confidence and therefore it is a sign of model fit.

Collinearity Diagnostics

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions							
				(Constant)	Trust	Risk	Speed	Easy	Secure	Available	Aware
1	1	7.784	1.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2	0.118	8.124	0.00	0.01	0.74	0.00	0.00	0.00	0.00	0.00
	3	0.026	17.395	0.65	0.07	0.07	0.00	0.01	0.07	0.04	0.04
	4	0.020	19.621	0.25	0.29	0.14	0.09	0.00	0.26	0.06	0.03
	5	0.018	20.951	0.06	0.45	0.01	0.07	0.03	0.37	0.03	0.11
	6	0.014	23.535	0.02	0.07	0.01	0.60	0.01	0.06	0.01	0.43
	7	0.012	25.032	0.01	0.09	0.02	0.08	0.13	0.22	0.34	0.39
	8	0.008	31.235	0.01	0.02	0.00	0.16	0.81	0.02	0.51	0.00

a. Dependent Variable: UPI

Interpretation-
Collinearity in index is less than 10% here, in dimension 7 i.e., Availability of UPI it is seen to be a little larger which is 0.34 but the model is supporting it because VIF value is less than 10.

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	0.290	0.565		0.513	0.608		
	Trust	0.638	0.106	0.520	6.037	.000	0.460	2.175

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	Risk	0.140	0.059	0.145	2.395	.018	0.935	1.069
	Speed	-0.167	0.125	-0.125	-1.335	.184	0.391	2.556
	Easy	0.184	0.152	0.141	1.211	.228	0.252	3.968
	Secure	-0.216	0.114	-0.168	-1.895	.060	0.435	2.301
	Available	0.025	0.136	0.019	0.184	.854	0.307	3.252
	Aware	0.327	0.119	0.270	2.754	.007	0.354	2.828
a. Dependent Variable: UPI								

Interpretation-

There is no chance of Collinearity as the value of VIF is low and under control. It is also supported by the diagonal value of **Collinearity Index** as the data is smaller only except in the case of Availability which is 0.37, but again it is found under control in VIF which in under 10 therefore there is no chance of multi collinearity in all the independent variables**.** The significant level of **trust, usage risk** and **awareness** of UPI is less than 0.05.

Findings and Discussions

The conclusions of the study are as follows:

• Respondents' age has no bearing on whether or not they are enrolled in UPI. If they are properly persuaded and see some benefits, people in the 20–50 age range are more likely to enrol.

• The respondent's gender has no bearing on how UPI is used.

• When it comes to buying necessities, UPI is trusted by 65% of the respondents.

• Of those surveyed, 60% believed that risk was a significant consideration when using UPI.

• The majority of those surveyed are aware of the usage of UPI in Raipur city.

Conclusion

The majority of respondents in the study are satisfied with the speed and accessibility of the Point of Sale (POS) when using UPI, as they trust the system. Trust, usage risk, and awareness play significant roles in UPI usage. The single interface of UPI makes money transfers simple, fast, and hassle-free. The respondents' attitude towards UPI transactions as a means of bringing about a cashless society in India is positive, as they believe that UPI transactions will make money transfers more efficient and secure.

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