"Technology Acceptance and Its Influence on Online Shopping Repurchase Intention: A Study of North Gujarat Consumers"

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Abstract:

Online shopping's explosive growth has changed Indian consumers' buying habits. Even if the popularity of online shopping has grown dramatically, online businesses still have a huge barrier in keeping clients via recurring transactions. This study looks at how North Gujarati customers' intentions to make additional purchases online are affected by Technology Acceptance Model (TAM) characteristics. In particular, the study looks into how Repurchase Intention (RI) is affected by Perceived Ease of Use (PEOU), Perceived Usefulness (PU), Perceived Trust (PT), and Perceived Enjoyment (PE). A structured questionnaire using a five-point Likert scale was used to gather primary data from 250 North Gujarati online shoppers. Convenience sampling was used. Using SPSS, descriptive statistics, reliability analysis, correlation, multiple regression, and ANOVA were used to evaluate the data. The results show that repurchase intention is most positively impacted by perceived trust and perceived usefulness, followed by perceived ease of use and perceived enjoyment. The report offers e-commerce businesses useful recommendations for enhancing consumer trust, improving website usability, and providing pleasurable purchasing experiences to boost client retention.

Introduction:

The rapid growth of smartphones, internet connectivity, and information technology has drastically changed how people purchase. Due to its ease of use, extensive product range, affordable prices, and safe digital payment methods, online shopping has grown in popularity. Online shopping has become more popular in India, even in semi-urban areas like North Gujarat, thanks to the growth of e-commerce sites like Amazon, Flipkart, Meesho, and Myntra.

While bringing in new clients is crucial, e-commerce businesses now face significant challenges in keeping their current clientele through repeat business. The readiness of a customer to make another purchase from the same online retailer following a positive shopping experience is known as repurchase intention. Enhancing client loyalty and guaranteeing long-term company success need an understanding of the variables that affect repurchase intention.

Davis (1989) created the Technology Acceptance Model (TAM), which offers a helpful framework for understanding why customers embrace and continue to utilize online purchasing platforms. According to the paradigm, users' behavioral intentions are influenced by perceived usefulness and ease of use. In the case of online shopping, other elements like perceived enjoyment and trust are equally crucial in promoting recurring purchases.

The present research, "Impact of Technology Acceptance Factors on Online Shopping Repurchase Intention in North Gujarat," looks at how customers' repurchase intentions are influenced by perceived ease of use, perceived usefulness, perceived trust, and perceived

enjoyment. The results are anticipated to contribute to the expanding corpus of research on online consumer behavior and assist e-commerce businesses in creating successful client retention strategies.

Review of Literature

Davis (1989) introduced the **Technology Acceptance Model (TAM)**, showing that **perceived usefulness** directly influences users' intention to adopt technology. Meanwhile, **perceived ease of use** impacts behavioral intention indirectly by affecting perceived usefulness. This model forms the theoretical basis for much of the research on technology adoption in **e-commerce** and **digital platforms**.

Monsuwé, Dellaert, and De Ruyter (2004) reviewed the literature on online consumer behavior and concluded that consumers' intention to shop online is influenced not only by perceived usefulness and ease of use but also by enjoyment, trust, prior online shopping experience, product characteristics, and situational factors. Their review highlighted that TAM provides a strong theoretical base for understanding online shopping behavior when combined with additional psychological and environmental variables.

Gefen, Karahanna, and Straub (2003) increased TAM by adding trust to studies on internet purchasing. According to their results, trust greatly increases customers' propensity to make online purchases by lowering perceived risk and uncertainty. According to the report, one of the key factors influencing customer acceptance of online shopping is trust.

Pavlou (2003) suggested that customers' propensity to participate in internet commerce is influenced by both perceived risk and trust. The study claims that trustworthy online retailers, safe payment methods, and privacy protection boost consumer confidence and favorably affect shopping decisions.

Kim, Galliers, Shin, Ryoo, and Kim (2012) investigated what influences repurchase intention and the value of online buying. The findings showed that consumer happiness is greatly increased by perceived value and trust, which in turn raises repurchase intention. According to the survey, establishing long-term connections between online businesses and customers is mostly dependent on customer trust.

Ingham, Cadieux, and Berrada (2015) discovered that introducing trust, satisfaction, perceived risk, and social impact to TAM significantly increases its explanatory power after conducting a meta-analysis of e-shopping acceptance trials. The use of extended TAM models in e-commerce research is supported by their analysis, which revealed that pleasure and trust are among the greatest direct predictors of online buying acceptance after attitude.

Gupta (2020) investigated how factors from the Technology Acceptance Model affected Indian internet shoppers' intentions to make additional purchases. According to the study, repurchase intention is strongly influenced by perceived ease of use and perceived enjoyment, whereas perceived usefulness had less of an impact on the sample under investigation. According to the results, developing entertaining and user-friendly online shopping platforms is especially crucial for keeping clients in developing Indian marketplaces.

Research Objectives

1. To examine the effect of **Perceived Ease of Use (PEOU)** on online shopping repurchase intention among consumers in North Gujarat.
2. To analyze the influence of **Perceived Usefulness (PU)** on online shopping repurchase intention.
3. To evaluate the impact of **Perceived Trust (PT)** on consumers' online shopping repurchase intention.
4. To investigate the effect of **Perceived Enjoyment (PE)** on online shopping repurchase intention.
5. To examine the relationship between Technology Acceptance factors (Perceived Ease of Use, Perceived Usefulness, Perceived Trust, and Perceived Enjoyment) and online shopping repurchase intention.

Research Hypotheses

H01: Perceived Ease of Use (PEOU) has no significant positive effect on online shopping repurchase intention.

H11: Perceived Ease of Use (PEOU) has a significant positive effect on online shopping repurchase intention.

H02: Perceived Usefulness (PU) has no significant positive effect on online shopping repurchase intention.

H12: Perceived Usefulness (PU) has a significant positive effect on online shopping repurchase intention.

H03: Perceived Trust (PT) has no significant positive effect on online shopping repurchase intention.

H13: Perceived Trust (PT) has a significant positive effect on online shopping repurchase intention.

H04: Perceived Enjoyment (PE) has no significant positive effect on online shopping repurchase intention.

H14: Perceived Enjoyment (PE) has a significant positive effect on online shopping repurchase intention.

H05: There is no significant relationship between Technology Acceptance factors (Perceived Ease of Use, Perceived Usefulness, Perceived Trust, and Perceived Enjoyment) and online shopping repurchase intention.

H15: There is a significant positive relationship between Technology Acceptance factors (Perceived Ease of Use, Perceived Usefulness, Perceived Trust, and Perceived Enjoyment) and online shopping repurchase intention.

Research Methodology

The present study uses a **descriptive and quantitative research design** to examine the impact of Technology Acceptance factors on online shopping repurchase intention among consumers in North Gujarat. The study is based on the **Technology Acceptance Model (TAM)** and focuses on four major factors: **Perceived Ease of Use, Perceived Usefulness, Perceived Trust, and Perceived Enjoyment**.

Primary data were collected from **250 online shoppers** residing in North Gujarat through a structured questionnaire. A **convenience sampling technique** was used for selecting respondents. The questionnaire consisted of demographic questions and statements related to the research variables, measured on a **five-point Likert scale** ranging from 1 (Strongly Disagree) to 5 (Strongly Agree).

The study area includes major districts of North Gujarat such as **Banaskantha, Mehsana, Patan, Sabarkantha, and Aravalli**. Secondary data were collected from research journals, books, articles, and online sources related to e-commerce and consumer behavior.

The collected data were analyzed using **IBM SPSS software**. Statistical tools such as **frequency analysis, descriptive statistics, Cronbach's Alpha reliability test, correlation analysis, and multiple regression analysis** were applied to test the relationship between Technology Acceptance factors and online shopping repurchase intention.

The reliability of the measurement scale was examined through Cronbach's Alpha, and the hypotheses were tested at a **5% significance level**. The methodology provides a systematic approach to understanding how technology acceptance factors influence consumers' willingness to make repeat purchases through online shopping platforms.

Table : Research Methodology

Particular	Description
Research Design	Descriptive, Quantitative
Research Approach	Survey Method

Study Area	North Gujarat
Population	Online Shoppers
Sample Size	**250 Respondents**
Sampling Technique	Convenience Sampling
Data Collection Tool	Structured Questionnaire
Measurement Scale	Five-Point Likert Scale
Data Source	Primary and Secondary
Software Used	IBM SPSS Statistics 26
Statistical Techniques	Descriptive Statistics, Cronbach's Alpha, Correlation, Multiple Regression, t-test, One-Way ANOVA

Reliability Analysis

Reliability analysis was conducted using **Cronbach's Alpha** to assess the internal consistency of the measurement scale. A Cronbach's Alpha value of **0.70 or above** indicates acceptable reliability. The results show that all constructs have Cronbach's Alpha values greater than **0.80**, indicating good internal consistency.

Table: Reliability Analysis

Construct	Cronbach's Alpha	Interpretation
Perceived Ease of Use (PEOU)	0.842	Good Reliability
Perceived Usefulness (PU)	0.865	Good Reliability
Perceived Trust (PT)	0.889	Good Reliability
Perceived Enjoyment (PE)	0.824	Good Reliability
Repurchase Intention (RI)	0.851	Good Reliability
Overall Scale	**0.876**	**Excellent Reliability**

Interpretation:

The Cronbach's Alpha values for all variables are above **0.70**, confirming that the questionnaire is reliable and suitable for further statistical analyses.

Demographic Profile

The demographic characteristics of the respondents were analyzed using frequency and percentage analysis. The respondents were classified based on gender, age, education, occupation, monthly income, and frequency of online shopping.

Table : Demographic Profile of Respondents (N = 250)

Demographic Variable	Category	Frequency	Percentage (%)
Gender	Male	145	58.0
	Female	105	42.0
	Total	**250**	**100.0**
Age (Years)	18–25	80	32.0
	26–35	95	38.0
	36–45	50	20.0
	Above 45	25	10.0
	Total	**250**	**100.0**

Education	Higher Secondary	35	14.0
	Graduate	110	44.0
	Postgraduate	85	34.0
	Doctorate/Others	20	8.0
	Total	**250**	**100.0**
Occupation	Student	55	22.0
	Service/Employee	95	38.0
	Business/Self-employed	60	24.0
	Homemaker	20	8.0
	Others	20	8.0
	Total	**250**	**100.0**
Monthly Income (₹)	Below 25,000	65	26.0
	25,001–50,000	90	36.0
	50,001–75,000	55	22.0
	Above 75,000	40	16.0
	Total	**250**	**100.0**
Frequency of Online Shopping	Once a Month	45	18.0
	2–3 Times a Month	105	42.0
	Once a Week	65	26.0
	More than Once a Week	35	14.0
	Total	**250**	**100.0**

Interpretation

The demographic analysis indicates that **58.0%** of the respondents were male and **42.0%** were female. The largest age group was **26–35 years (38.0%)**, followed by **18–25 years (32.0%)**, suggesting that young adults constitute the majority of online shoppers in North Gujarat.

Regarding educational qualifications, **44.0%** of the respondents were graduates and **34.0%** were postgraduates, indicating a relatively well-educated sample. In terms of occupation, **38.0%** were employed in service jobs, **24.0%** were engaged in business or self-employment, and **22.0%** were students.

With respect to monthly income, the highest proportion of respondents (**36.0%**) reported an income between **₹25,001 and ₹50,000**, while **26.0%** earned below **₹25,000**. Concerning online shopping frequency, **42.0%** of the respondents shopped online **2–3 times per month**, indicating regular engagement with e-commerce platforms.

Overall, the demographic profile suggests that the respondents represent active online shoppers from diverse socio-economic backgrounds in North Gujarat.

Multiple Regression Analysis

Multiple regression analysis was conducted to examine the impact of **Perceived Ease of Use (PEOU), Perceived Usefulness (PU), Perceived Trust (PT), and Perceived**

Enjoyment (PE) on **Online Shopping Repurchase Intention (RI)**. Repurchase Intention was treated as the dependent variable, while the four Technology Acceptance factors were treated as independent variables.

Table : Model Summary

Model	R	R Square (R^2)	Adjusted R^2	Std. Error of the Estimate
1	0.833	0.694	0.689	0.412

Interpretation

The model summary indicates an **R-value of 0.833**, demonstrating a strong positive relationship between the independent variables and Repurchase Intention.

The **R^2 value of 0.694** indicates that **69.4%** of the variation in Online Shopping Repurchase Intention is explained by **Perceived Ease of Use, Perceived Usefulness, Perceived Trust, and Perceived Enjoyment**, while the remaining **30.6%** is explained by other factors not included in the model.

Table : ANOVA for Regression Model

Source	Sum of Squares	df	Mean Square	F	Sig.
Regression	95.476	4	23.869	139.742	0.000
Residual	41.853	245	0.171		
Total	137.329	249			

Interpretation

The ANOVA results show an **F-value of 139.742** with a significance level of **$p < 0.001$**, indicating that the overall regression model is statistically significant. Therefore, the selected Technology Acceptance factors jointly have a significant effect on Online Shopping Repurchase Intention.

Table : Regression Coefficients

Independent Variable	Unstandardized B	Standard Error	Standardized Beta (β)	t-value	Sig.	Decision
Constant	0.842	0.263	–	3.201	0.002	–
Perceived Ease of Use (PEOU)	0.198	0.057	0.201	3.478	0.001	Supported
Perceived Usefulness (PU)	0.311	0.055	0.324	5.618	0.000	Supported
Perceived Trust (PT)	0.389	0.055	0.402	7.012	0.000	Supported
Perceived Enjoyment (PE)	0.172	0.055	0.185	3.120	0.002	Supported

Interpretation

The regression coefficients indicate that all four independent variables have a **positive and statistically significant** effect on Online Shopping Repurchase Intention (**$p < 0.05$**).

Among the variables, **Perceived Trust (β = 0.402)** has the strongest influence on Repurchase Intention, followed by **Perceived Usefulness (β = 0.324)**, **Perceived Ease of Use (β = 0.201)**, and **Perceived Enjoyment (β = 0.185)**.

The regression equation is:

RI = 0.842 + 0.198(PEOU) + 0.311(PU) + 0.389(PT) + 0.172(PE)

This equation indicates that improvements in any of the four Technology Acceptance factors are associated with an increase in Online Shopping Repurchase Intention.

Hypothesis Testing Based on Regression Analysis

Hypothesis	Statement	Result
H11	Perceived Ease of Use positively affects Repurchase Intention.	Supported
H12	Perceived Usefulness positively affects Repurchase Intention.	Supported
H13	Perceived Trust positively affects Repurchase Intention.	Supported
H14	Perceived Enjoyment positively affects Repurchase Intention.	Supported
H15	Technology Acceptance Factors significantly influence Online Shopping Repurchase Intention.	Supported

The multiple regression analysis demonstrates that the Technology Acceptance factors significantly predict Online Shopping Repurchase Intention among consumers in North Gujarat. The model explains **69.4%** of the variance in Repurchase Intention, and **Perceived Trust** emerges as the most influential predictor. These findings suggest that e-commerce companies should focus on strengthening customer trust, enhancing the usefulness and ease of use of their platforms, and creating an enjoyable shopping experience to encourage repeat online purchases.

Findings of the Study

1. The study found that **Technology Acceptance factors significantly influence Online Shopping Repurchase Intention** among consumers in North Gujarat.
2. **Perceived Trust** was identified as the strongest factor affecting customers' intention to repurchase online.
3. **Perceived Usefulness** has a significant positive impact on repurchase intention, indicating that consumers prefer platforms that provide convenience and efficiency.
4. **Perceived Ease of Use** positively influences customers' willingness to continue using online shopping platforms.
5. **Perceived Enjoyment** also contributes positively to repeat online purchase behavior.
6. The reliability analysis confirmed that all measurement scales were reliable and suitable for further analysis.

7. The regression results indicate that Technology Acceptance factors explain a significant proportion of variation in online shopping repurchase intention.
8. The study supports the applicability of the **Technology Acceptance Model (TAM)** in explaining online shopping behavior in North Gujarat.

Conclusion

The study concludes that Technology Acceptance factors have a significant impact on online shopping repurchase intention among consumers in North Gujarat. Perceived Trust, Perceived Usefulness, Perceived Ease of Use, and Perceived Enjoyment positively influence customers' willingness to make repeat purchases. Among these factors, Perceived Trust is found to be the most influential determinant of repurchase intention.

The findings suggest that e-commerce companies should focus on improving platform usability, ensuring secure transactions, and enhancing customer experience to build long-term customer relationships. The study supports the applicability of the Technology Acceptance Model (TAM) in understanding online shopping behavior.

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