

A Study on Perceived Usefulness and Ease of Use of Instagram in Online Purchases: TAM Approach

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Abstract - This research treats the issues that affect consumers' online purchasing intention on Instagram and as a result using Technology Acceptance Model (TAM). As social media commerce is rapidly growing, it is necessary to comprehend the impacts of perceived usefulness on perceived ease of use on consumer attitude and buying intention. The study is represented as a quantitative work with a structured questionnaire to be given to 150 Instagram users of the age of 18-35 years. The causal relationships that the study explores are between Perceived Ease of Use (PEOU), Perceived Usefulness (PU), Attitude toward Use (ATT), and Purchase Intention (INT). Analysis of data was done in terms of descriptive statistics, reliability test, correlation and regression analysis. The results show that perceived ease of use is an important determinant of perceived usefulness and attitude to Instagram shopping. The attitude and perceived usefulness were established to influence purchase intention in a strong positive manner. The findings support the relevance of TAM in providing an understanding of consumer behaviour in Instagram-based online shopping. The research adds to the social media marketing literature as it offers empirical data in the form of the effect of platform usability and perceived benefits in influencing consumer buying decisions.

KEYWORDS: Technology Acceptance Model, Perceived Usefulness, Perceived Ease of Use, Instagram Shopping, Purchase Intention, Social Media Marketing.

1.INTRODUCTION

In recent years, social media platforms have become an important communication channel that enables businesses to interact directly with consumers and promote their products. Social commerce combines marketing communication, customer interaction, and purchasing activities within social networking platforms, allowing users to explore and buy products in the same environment. In contrast to classic e-commerce websites, Platforms such as Instagram provide interactive features including stories, reels, influencer promotions, and shopping tools that encourage user engagement and product discovery and make the shopping experience easier². Nevertheless, even though the use of

Instagram is becoming more commercial, acceptance and purchase intention of consumers relies heavily on the perception of usefulness and ease of use to users. Conventional marketing mediums are not always interactive, personalized, and provide real-time responses that can make consumers less engaged and lower the purchase conversion rates³. With the increasing digital competition, companies need platforms, which attract users and offer them a smooth and effective way of shopping. Very complex navigation, distrust and perceived complexity in transacting may adversely affect consumer feelings toward online shopping⁴. Thus, it has become necessary to comprehend the psychological and technological factors that can affect the consumer usage of Instagram to shop.

The Technology Acceptance Model is widely used to explain how individuals adopt and accept new technologies⁵. Based on TAM, Perceived Usefulness (PU) is the extent to which a consumer assumes that the utilization of a given system can help him or her to improve shopping performance, whereas Perceived ease of use describes the extent to which users believe that a technology can be used with minimal effort⁶. The two perceptions contribute to the attitude of the user towards the platform, which will then contribute to the attitude to use the platform in terms of behavioural intention to use it in making online purchases. Empirical studies affirm that PU and PEOU have a significant influence on user acceptance in different digital systems such as e-commerce, mobile applications, and social commerce systems⁷.

As a social networking platform, Instagram is visual-centric which means that it brings together entertainment, communication, and commerce making it an influential tool in influencing purchase decisions. The perceived benefits, encapsulated in the usability as well as the accessibility of the platform can lead to improvement of consumer attitudes and purchase intention⁸. Nonetheless, when the users feel that the platform is complex or insecure, it can lower the desire to make an online purchase. Therefore, it is essential to investigate the importance of perceived ease of use as a factor affecting perceived usefulness, and vice versa because

the two variables determine consumer attitude and purchase intention when analysing the shopping behaviour in terms of Instagram. Moreover, it has been emphasized that although TAM has been extensively utilized in fintech, online banking, and e-commerce, in general, very little research has explicitly investigated Instagram in the context of a social commerce platform in the context of emerging markets⁹.

In the majority of the studies that focus on technology adoption, there is a lack of thorough discussion of causal relations between PEOU and PU, Attitude, and Purchase Intention when studying the issue within the framework of Instagram shopping¹⁰. Hence, the need to empirically explore these relationships to give better understanding to the consumer behaviour in social media commerce exists.

Technology Acceptance Model is used in this to study the relationship between Perceived Ease of Use and Perceived Usefulness and consumer Attitude towards Instagram shopping and consequently Purchase Intention. The factual analysis methods, such as reliability, correlation, and regression analysis, are used to evaluate the proposed framework to establish the strength and significance of the relationships between the variables.

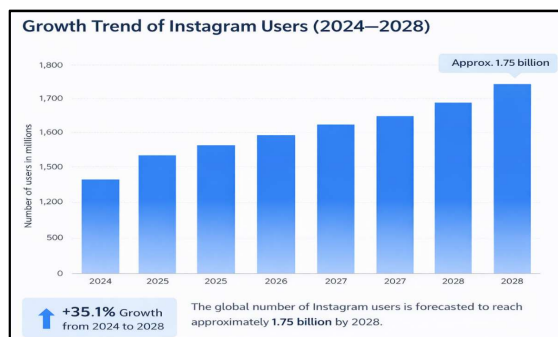


Figure-1: Growth Trend of Instagram Users(2024-2028)

2. Literature review

Davis F.D. (1989) proposed the Technology Acceptance Model (TAM), identifying Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) as the primary determinants of technology acceptance¹. Later, Davis, Bagozzi and Warshaw (1989) empirically established that PU significantly influences behavioural intention². Venkatesh and Davis (2000) added more determinants to TAM and discovered that ease of use has a positive influence on perceived usefulness and behavioural intention³. Research applying TAM in online commerce has consistently demonstrated its explanatory strength. Gefen D., Karahanna E., and Straub D.W. (2003) examined the TAM and trust

perceptions within the frame of online shopping and determined that perceptions of usefulness and ease of use are of critical importance in determining consumer intention to purchase⁴. Pavlou P.A. (2003) has studied the acceptance of e-commerce by consumers and found out that the perception of usefulness and trust has a significant impact on the behaviour to buy online⁵. According to Kim D.J., Ferrin D.L., and Rao H.R. (2008), perceived benefits and trust are important in online consumer decision-making⁶. Lee M.C. (2009) examined determinants of online shopping intention and came to a conclusion that two predictors of consumer attitude are high: perceived usefulness and perceived ease of use¹⁰. Lim Y.J. et al. (2016) examined the online shopping habit and found usability, convenience, and perceived benefits as a significant influence on the decisions to make the purchase¹¹. Within the Indian context, Kanimozhi (2017) conducted an empirical study examining smartphone adoption using TAM and found that perceived usefulness and ease of use significantly influenced behavioral intention¹². Further strengthening this stream, Kanimozhi and Selvarani (2019) applied the Decomposed Theory of Planned Behavior (DTPB) in technology adoption and emphasised the importance of attitudinal constructs in predicting intention¹³. Similarly, Sundar and Kanimozhi (2018) employed a PLS-SEM approach to explain 4G mobile service adoption in India, confirming the mediating role of attitude between beliefs and behavioral intention¹⁴. Hajli N. (2014) researched on the constructs of social commerce, and concluded that interactions through social media have a positive impact on consumer attitude and purchase intention⁷. Kim A.J. and Ko E. (2012) examined the social media marketing practices and found out that interactive platforms increase the customer engagement and purchase intention⁸. Alalwan A.A. (2018) investigated the effects of the advertising characteristics of social media and discovered that the perceived value and the ease of use have a significant effect on the consumer behavioural intention⁹. Ameer Jan Bhat and Sadaf Firdous (2017) investigated the impact of social media on customer loyalty¹⁵. The study found that social media directly influences customer loyalty and indirectly affects it through mediating factors such as brand awareness, customer relationships, and positive word of mouth. Amoghshidhi Urne and Artee Aggrawal (2018) explored social media as a key determinant of consumer life quality from an e-commerce perspective¹⁶. The study highlights that social media enhances brand image, customer relationships, and informed decision-making, thereby improving overall consumer awareness and satisfaction. Basudev Datta and Pritam Kaushik (2019) found that Instagram advertising

plays a significant role in improving brand awareness through effective visual brand communication¹⁷. The study emphasizes that engaging visual content on Instagram helps brands capture consumer attention and enhance engagement. More recently, Jha, K. et al. (2025) in their study on social media marketing strategies reported that platform engagement and perceived experiential value directly influence business growth and consumer interaction¹⁸.

3. Objectives of the study

- To examine how Perceived Ease of Use affects Perceived Usefulness of Instagram for online purchases.
- To analyze how Perceived Ease of Use influences consumers' attitudes toward online purchasing.
- To study how Perceived Usefulness impacts consumers' attitudes toward online purchasing.
- To determine the direct effect of Perceived Usefulness on online purchase intention.
- To examine how attitude influences online purchase intention.

4. Research Methodology

Sample description:

- The present study has been carried out on Instagram users to investigate the factors that can determine the online purchase intention through the application of the Technology Acceptance Model (TAM). Data was collected with the help of a structured questionnaire, and 150 response usable was gathered with the help of the convenience sampling technique. The data gathered was analysed with the help of SPSS software.
- The highest percentage of the respondents was 52 years old, 35.3 years later and then 12.7 years forming the age groups 18-24, 25-34 and above 35 years respectively. Gender wise, 52.7 were women, 46.7 were male and 0.7 were of other classifications.
- Concerning the behavior of Instagram use, 63.3 percent of the participants spend 1-3 hours a day on Instagram, 26 percent of the participants spend 0-1 hour daily, and 10.7 percent spent over 3 hours in a day. Most of the respondents (72) said that they made online purchases 1-2 times on a monthly basis, 16.7 made online purchases thrice and 11.3 made online purchases never. Regarding the preferred retail categories, 51.3% are fond

of fashion products, 42% are fond of electronics, and 6.7% of other categories on Instagram.

- All in all, the sample represents active Instagram users and online shoppers who can be considered the right subjects of studying how perceived ease of use and perceived usefulness affect the purchase intention.

RESULT:

The findings of the research show that all the hypotheses (H1-H5) are accepted and statistically significant ($p < 0.001$). Regression analysis illustrates that, Perceived Ease of Use (PEOU) has a significant positive impact on Perceived Usefulness ($b = 0.523$), and accounted 27.3% of the variance. Attitude is also strongly affected by PEOU ($b = 0.496$) that explains 24.6% of the variance.

Moreover, Perceived Usefulness (PU) has a positive impact on Attitude ($b = 0.377$), and it accounts 14.2 percent variance. PU also plays a great role in Purchase Intention ($b = 0.314$), with the contribution of 9.9% to the variance. Lastly, Attitude has a positive significant effect on Purchase Intention ($b = 0.486$) with a variance of 23.6%.

On the whole, the results prove the fact that Technology Acceptance Model can be used in online shopping via Instagram, where the ease of use and usefulness play an important role in the consumer attitude and intention to purchase.

Descriptive Statistics:

The descriptive statistics indicate that the majority of respondents are aged between 18–24 years (52%) and predominantly female (52.7%). Most respondents spend 1–3 hours daily on Instagram (63.3%) and make online purchases 1–2 times per month (72%), with fashion being the most preferred category (51.3%).

Table 1. Descriptive analysis

Demographic Variables	Catego	Frequ	Perce
Age Group	18–24 ye	78	52%
	25–34 ye	53	35.3

	More than 18 years	19	12.7
Gender	Male	70	46.7
	Female	79	52.7
	Other	1	0.7%
Instagram Daily Usage (Hours)	0-1 hour	39	26%
	1-3 hours	95	63.3
	More than 3 hours	16	10.7
Monthly Online Purchases	Never	17	11.3
	1-2 times	108	72%
	3 times	25	16.7
Preferred Retail Categories	Fashion	77	51.3
	Electronics	63	42%
	Other	10	6.7%

The above Table 1 reveals that 52 percent of the respondents were aged 18-24 years and 52.7 percent were women, 63.3 percent spent 1-3 hours a day on Instagram and 72 percent made 1-2 online purchases per month. The most preferred shop type was Fashion (51.3%) followed by Electronics (42%) which means that social media has a strong influence on purchasing behaviour.

Table 2. Regression Analysis:

Hypotheses	Relationship	Path Coefficient (β)	t-statistics	p-value	Decision
H ₁	PEOU \rightarrow PU	0.523	7.45	< 0.001	Supported
H ₂	PEOU \rightarrow ATT	0.496	6.95	< 0.001	Supported

H ₃	PU \rightarrow ATT	0.377	4.96	< 0.001	Supported
H ₄	PU \rightarrow PI	0.314	4.01	< 0.001	Supported
H ₅	ATT \rightarrow PI	0.486	6.76	< 0.001	Supported

Discussion :

The above table shows the results of hypothesis testing using regression analysis. H₁ indicates that Perceived Ease of Use (PEOU) has a significant positive effect on Perceived Usefulness (PU) ($\beta = 0.523$, $t = 7.45$, $p < 0.001$). Similarly, H₂ reveals that PEOU significantly influences Attitude (ATT) ($\beta = 0.496$, $t = 6.95$, $p < 0.001$). Further, H₃ confirms that Perceived Usefulness positively affects Attitude ($\beta = 0.377$, $t = 4.96$, $p < 0.001$). H₄ demonstrates that Perceived Usefulness significantly influences Purchase Intention (PI) ($\beta = 0.314$, $t = 4.01$, $p < 0.001$). Finally, H₅ shows that Attitude has a strong and significant positive impact on Purchase Intention ($\beta = 0.486$, $t = 6.76$, $p < 0.001$). Overall, all five hypotheses are supported, indicating that the Technology Acceptance Model constructs significantly predict consumers' purchase intention toward Instagram-based online shopping.

5. Conclusion

The findings confirm that Perceived Ease of Use (PEOU) and Perceived Usefulness (PU) significantly influence consumers' Attitude (ATT) and Purchase Intention (PI) toward Instagram-based online shopping. Perceived Ease of Use positively enhances both Perceived Usefulness and Attitude, indicating that when Instagram is simple and user-friendly, consumers perceive greater benefits and develop a favorable attitude toward purchasing. Perceived Usefulness also significantly shapes Attitude and directly impacts Purchase Intention. Among all variables, Attitude emerges as a strong predictor of Purchase Intention, highlighting its crucial mediating role in the model. Overall, the results validate the applicability of the Technology Acceptance Model (TAM) in the context of social commerce and demonstrate that technology-related perceptions play a vital

role in influencing consumer buying behaviour on Instagram. Therefore, marketers and online retailers should focus on improving usability, enhancing functional value, and delivering meaningful content to strengthen positive consumer attitudes and increase purchase intention

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