Original Researcher Article

# The Future of Buying and Selling: M-Commerce Transactions

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#### **ABSTRACT**

This study explores the future of buying and selling through Mobile Commerce (M-Commerce) transactions by examining the effects of key digital technologies such as Artificial Intelligence (AI), Augmented and Virtual Reality (AR/VR), Voice Commerce, Digital Payments, and Social Commerce on consumer buying decisions and repurchase intentions. The research aims to understand how these advances change consumer behaviour and satisfaction in mobile-based purchasing settings. Based on Prospect Theory and Expected Utility Theory, this study employs a quantitative research approach, collecting primary data from 400 respondents through an online survey. AMOS was used to investigate reliability, validity, and hypothesized correlations between variables through structural equation modeling (SEM) and confirmatory factor analysis (CFA). The results indicate that all five technological characteristics have a significant positive impact on consumer purchasing decisions. Buying decisions also highly predict satisfaction on buying and repurchase intentions.

**Keywords**: M-Commerce, Consumer Satisfaction, Repurchase Intention

## **INTRODUCTION**:

The first generation (2000s) was introduced through mobile banking and SMS-based services. The creation of digital wallets (PayPal, Google Pay), Mobile apps, and shopping apps (Amazon, Flipkart) represents the second generation, starting in 2010. Combines voice Commerce, Blockchain-based digital payment, Buy Now Pay Later (BNPL) availability, AR/VR shopping experience, and Artificial Intelligence (AI) Technology. This development shows how mobile phones have evolved from being tools for communication to being facilities for financial transactions. The rapid development of M-commerce for the way consumers buying and selling goods has undergone transformative shift from traditional platforms reflects to technological progress, M-commerce defined as the buying and selling goods and sources through wireless handheld devices such as mobile phones and tablets has become one of the most significant and development in digital Commerce with the fast growth of internet enabled devices, increasing and digital payment and the rapid rise of online shopping, M-commerce transactions are transforming the future of business to consumer and consumer -to-consumer exchanger. E -commerce revolutionized purchasing and selling by allowing people to access. Stanley & Mercy (2025) describe how digital payment systems and online reviews enhance the enjoyment of hedonic mobile shoppers when buying and selling. With a wide range of products available for

purchase from the comfort of their homes, customers benefit from faster and more dependable mobile transactions. Augmented Reality (AR) and Virtual Reality (VR) are enhancing mobile shopping by offering virtual try-on experiences and immersive product views. Prospects for m-commerce transactions increased with the Adoption of digital wallets, the Expansion of BNPL services, and the use of AR and VR for m-commerce transactions. Shopping Experiences, voice commerce, sub sustainability and Ethical m-commerce, Hyperpersonalization with AI, Cross-Border - M-commerce Growth. M-Commerce is no longer simply an extension of e-commerce; it has evolved into an important form of digital trade in the 21stcentury. This article of buying and selling in M-Commerce transactions, examining the future of buying and selling in the context of M-Commerce.

## REVIEW OF LITERATURE

M-commerce refers to the buying and selling of goods and services using handheld devices, such as smartphones and tablets. Consumers can access information and make purchases anywhere and anytime—the quick development of internet access, digital payment platforms, and mobile apps. M-commerce has become a leading factor in the retail sector. This section examines key concepts from the proposed conceptual framework, including the

integration of AI, AR/VR Shopping, Voice Commerce, Digital Payments, and Social Commerce.

## **Integration of Artificial Intelligence (AI)**

AI technologies, such as deep learning and natural language processing, are revolutionizing the commerce industry. AI enables product recommendations, Quick decision-making, Better Product pairing, and reduces search time, making online shopping easier. AI enables product recommendations, Quick decision-making, Better Product pairing, and reduces search time, making online shopping easier. According to Bilal (2024), by enhancing perceived relevance and reducing search expenses, AI-driven personalization recommendation engines and dynamic ads) significantly increases consumer engagement and online purchase intentions. AI tools (Chabot's, predictive analytics) improve decision efficiency and emotional engagement, particularly among younger consumers, which favorably influences purchase decisions, according to Guerra-Tamez et al. (2024).

## **AR/VR Shopping**

Augmented Reality (AR) and Virtual Reality (VR) technologies enable customers to interact with shopping experiences before making a purchase. AR projects digital objects in real-world settings. VR Surrounds users, in artificial settings. AR/VR helps make shopping experiences both online and offline. According to Yang (2024), in online retail settings, AR/VR experiences enhance the enjoyment and usefulness of media, which in turn increases consumer engagement and purchase intention. To demonstrate that the AR online shopping experience (perceived usefulness & ease of use) positively influences customers' purchase intentions, Guo (2024) develops and tests a TAM-based model.

#### **Voice-Commerce**

Voice commerce is the use of voice-controlled technologies (like Amazon Alexa, Google Assistant, or Siri) for searching, comparing, and purchasing products. Voice commerce makes shopping more easily and decision making effortless. According to Al-Fraihat (2023), voice assistant adoption is primarily driven by perceived utility and ease of use, which alters how consumers search and make purchases, influencing their decision-making processes in turn. Empirical data presented by Sun et al. (2025) indicate that the implementation of voice AI on e-commerce platforms leads to an increase in consumer spending and browsing behavior, suggesting that voice commerce influences actual purchasing outcomes.

## **Digital payments**

A digital payment is a financial transaction made through mobile wallets, contactless cards, UPI transactions, and e-wallets. Fast, secure, and seamless payments simplify the purchasing process. According to Agarwal (2024), the use of digital payments in households reduces transaction costs and can enhance consumption and ease of purchase, which in turn influences consumers' decisions to buy and their willingness to transact online. In this synthesis of the factors that influence intention versus actual use in digital payments, Ramayanti (2024) demonstrates how perceived security, ease of use, and service quality affect adoption and subsequent purchasing behavior.

#### **Social commerce**

Social commerce combines social media platforms (e.g., Instagram, YouTube) with shopping features, making it easy to use the app, and allows reviewers to purchase products directly within these environments. Dincer (2023) conducted a bibliometric review and found that social commerce constructs - such as, social interaction, and social support - are consistently associated with higher purchase intention across the literature. Elshaer (2024) shows that social commerce has a positive impact on buying intention, with trust and customer attitude frequently mediating that relationship.

#### **Buying Decision**

The buying decision reveals the consumer's choice-making process, which is determined by information, perceived benefits, ease of use, and trust. A successful purchase typically leads to customer satisfaction. According to a meta-analysis by Handoyo (2024), perceived risk, trust, and technological affordances all have a significant influence on online purchasing decisions. This suggests that features like AI personalization or secure payments are important for consumers to consider. Riandhi (2025) examines the intersections of AI and consumer behavior and concludes that technology cues (personalization, interaction) have a direct impact on information search and ultimate purchase decisions.

## **Satisfaction on Buying Repurchase Intention**

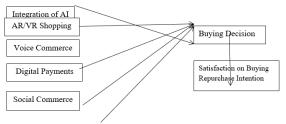
According to Soeharso (2024), repurchase intention and perceived service/technology quality (such as website quality, payment simplicity, and AR/AI service quality) are frequently mediated by consumer satisfaction. Tan (2024) demonstrates that repurchase intentions are highly predicted by utilitarian and hedonistic purchasing value, trust, and satisfaction on digital platforms, hence highlighting the mediating function of satisfaction between initial decision and regular purchase.

#### **METHODOLOGY**

The theoretical framework was inspired by the following theories: prospect theory and expected utility theory. Research Model

#### Figure 1

Theoretical Framework and Research Variables



## **Hypotheses Development**

- H1: Integration of AI has a positive influence on buying decisions influence
- H2: AR/ VR shopping positively influences buying decisions.
- H3: Voice commerce adoption positively influences buying decisions
- H4: Digital payment systems positively influence buying decisions
- H5: Social commerce positively influences Buying decisions.
- H6: Buying decisions positively influence their satisfaction with buying repurchase intention.

#### **Sampling Criteria**

A suitable sampling technique was employed to select a sample size of 400 respondents, using primary data collected from an internet-based survey.

#### **Data Collection Tools**

To collect primary data, a survey was given out, and respondents' answers were scored on a five-point scale from (1) "Strongly disagree" to (5) "Strongly agree."

## **Data Analysis Tools and Techniques**

The tools used were SPSS software and AMOS graphics. CFA and SEM path analysis were the techniques used.

#### **RESULTS**

#### **Factor Loading**

The variable with more significant loading is shown in Table 1. Only the items that satisfied this condition were included in the final analysis. The factor loadings for each item of each construct are compared to the criterion to be 0.5 or higher. The estimations were recalculated to verify the factor loadings for the remaining items after removing those with factor loadings less than 0.5 from the data.

**Table 1** Final Factor Loadings Includes in Analysis

Measurements Items	Variables	Items	Factor Loading
AI-powered online platforms personalize		AI 1	0.705
product recommendations.			
AI-driven suggestions make my buying	Integration of AI	AI 2	0.789
choices more relevant.			
AI simplifies my shopping.		AI 3	0.803
AR/VR Technology helps me imagine		AR/VR 1	0.702
products.			
AR/VR makes online shopping more	AR/VR Shopping	AR/VR 2	0.751
engaging and fun.			
Reduced doubts and simplified my shopping		AR/VR 3	0.824
experience.			
Hands-free shopping experiences.		VC 1	0.740
It delivers reliable product details.	Voice Commerce	VC 2	0.827
Voice commerce saves me time and effect.		VC 3	0.796
Make transactions secure.		DP 1	0.875
Digital Payment system fast and convenient.	Digital Payments	DP 2	0.759
Simplify the checkout process for me.		DP 3	0.748
I often buy products through social media		SC 1	0.864
platform.			
It helped me discover new product.	Social Commerce	SC 2	0.786
I consult social media for review before		SC 3	0.763
making a purchase.			

## Reliability and Validity

The security of an instrument can be evaluated using Cronbach's Alpha and Composite reliability, both of which need values higher than 0.7. Both Cronbach's Alpha and Composite Reliability have values greater than 0.7 for each of the constructs in Table 2. Put otherwise, the notion of this investigation was shown to be trustworthy.

Table 2 Reliability and Validity of Constructs

Variable	Item	Loading	AVE	Composite Reliability	Cronbach's Alpha
	AI 1	0.705	0.649	0.875	0.806
Integration of AI	AI 2	0.789			
(AI)	AI 3	0.803			
	AR/VR 1	0.702	0.682	0.826	0.759
AR/VR Shopping	AR/VR 2	0.751			
(AR/VR)	AR/VR 3	0.824			
	VC 1	0.740	0.679	0.886	0.842
Voice Commerce	VC 2	0.827			
(VC)	VC 3	0.796			
	DP 1	0.875	0.826	0.932	0.885
Digital Payments	DP 2	0.759			
(DP)	DP 3	0.748			
	SC 1	0.864	0.798	0.903	0.857
Social Commerce	SC 2	0.786			
(SC)	SC 3	0.763			

When the loading factor's minimum value is greater than 0.5, or better still, greater than 0.7, and the Average Variance Extracted (AVE) result is greater than 0.5, the construct is considered valid. Every variable in table 2 had an AVE value higher than 0.5, indicating that the latent constructs demonstrated convergent validity. Over half of the variance in the indicators may be explained by each variable. Although the number is below the optimal loading value of 0.7, it is still greater than 0.5, indicating that all constructs meet the requirements for convergent validity.

Table 3 Discriminant validity

Tuble of Discrimination variately							
	AI	AR/VR	VC	DP	SC		
AI	0.882						
AR/VR	0.386	0.753					
VC	0.545	0.359	0.823				
DP	0.386	0.486	0.376	0.856			
SC	-0.005	0.156	-0.056	0.086	0.915		

Table 3 shows the square root AVE values and the correlation value for each variable in bold. Each variable has a value greater than the correlation between the variables, as indicated by comparing the square root of AVE values, which suggests that the study's constructs meet the criteria for discriminant validity. In order for the study to proceed with assessing structural models, these constructs have undergone validity and reliability tests.

CFA Model Fit

The validity of the measured variables' representation of the underlying constructs is examined using confirmatory factor analysis (CFA). Model validity and structure are confirmed by evaluating model fit using indices such as CMIN/DF (<3 is good), NFI, GFI, AGFI, TLI, CFI (>0.9 indicates good fit), RMR (<0.08 is acceptable), and RMSEA (<0.05 is great).

**Table 4 Model Fit Summary** 

	CMIN/DF	NFI	GFI	AGFI	RMR	TLI	CFI	RMSEA
Model	0.152	1.000	1.000	0.997	0.026	1.003	1.000	0.000

The model fit yields a Chi-Square/Degrees of Freedom (CMIN/DF) value of 0.152, as shown in Table 4 above. The Root Mean Square Residual (RMR) value is 0.026. 1.000 is the Goodness of Fit Index (GFI) number. 0.997 is the value of the Adjusted Goodness of Fit Index (AGFI). 1.000 is the Normal Fit Index (NFI) value. 1.000 is the value of the Comparative Fit Index (CFI). 0.000 is a great Root Mean Square Error of Approximation (RMSEA) number since a good fit is indicated by values less than 0.05.

### **Hypothesis Testing Using Path Analysis**

Path analysis is used in hypothesis testing to assess both the direct and indirect relationships between model variables. It displays the direction and strength of these associations by estimating path coefficients. Hypotheses are supported by significant route coefficients (p < 0.05).

37.41
ARVR

34.77

VC

20

VC

36.28

DP

36.28

DP

37.21

22

SC

16

e1

32.44

36.27

IAI

Figure 2 Results of the Path Analysis Model

The Structural Equation Modeling (SEM) analysis was carried out to investigate the hypothesis relationships between the digital technology dimensions - Integration of Artificial Intelligence (AI), Augmented and Virtual Reality (AR/VR) Shopping, Voice Commerce, Digital Payments, and Social Commerce - on Buying Decision, as well as the subsequent relationship between Satisfactions on Buying Repurchase Intention. Table 5 shows the standardized regression weights, standard errors, critical ratios, and levels of significance.

Table 5 Result of Path Analysis Tables

Variables			Estimate	S.E	β	C.R	P
Buying Decision		Integration of AI	0.204	0.02	0.21	10.12	***
Buying Decision	$\leftarrow$	AR/VR Shopping	0.214	0.02	0.21	10.6	***
Buying Decision	←	Voice Commerce	0.215	0.02	0.22	11.46	***
Buying Decision	←	Digital Payments	0.157	0.02	0.16	8.177	***
Buying Decision	<b>←</b>	Social Commerce	0.219	0.02	0.22	11	***
Satisfaction on Buying Repurchase Intention	<b>←</b>	Buying Decision	0.961	0.02	0.95	64.12	***

**Source: Computed Primary Data** 

Integration of AI ( $\beta$  = 0.211, p < 0.001) has a positive impact. This means AI helps customers make better buying decisions through personalization and smart suggestions.

AR/VR Shopping ( $\beta$  = 0.214, p < 0.001) also has a positive effect. It helps customers see products in a virtual space, which builds confidence in their purchase.

Voice Commerce ( $\beta$  = 0.219, p < 0.001) makes buying easier. Customers can search and order using voice commands, which saves time.

Digital Payments ( $\beta$  = 0.162, p < 0.001) also affect buying decisions. Safe and easy payment options encourage customers to complete purchases.

Social Commerce ( $\beta$  = 0.223, p < 0.001) shows the strongest effect. Online reviews, social media, and influencer opinions strongly shape customers' decisions.

#### **CONCLUSION**

The study emphasizes how M-Commerce has changed how people purchase and sell goods on mobile platforms, becoming an innovator in the digital Marketplace. The empirical data demonstrate that certain major technical characteristics have a direct and beneficial influence on consumer purchasing decisions. Personalization powered by artificial intelligence (AI) the effort required for decision-making. Augmented and Virtual Reality (AR/VR) fosters consumer confidence by offering immersive "try-before-you-buy" experiences that bridge the gap between in-store and online shopping. Voice Commerce provides exceptional ease by making shopping hands-free and efficient. Also secure and quick Digital Payment systems are essential supporters, eliminating friction at the final and most

important stage of the transaction. Specifically, social commerce emerged as the strongest predictor, underscoring the significance of social proof, usergenerated content, and influencer marketing in shaping modern customer behavior. The results of the Structural Equation Modeling (SEM) reveal that all five Technological dimensions — integration of AI, AR/VR shopping, voice commerce, digital payment, and social commerce —have a significant and positive influence on buying decisions, which in turn lead to higher satisfaction and repurchase Intention.

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