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State Control, User Experience, and Purchase Intentions in the Digital Economy: Empirical Evidence from Vietnam

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Abstract

The rapid growth of digital commerce has reshaped consumer behavior, highlighting the role of state control, social media interaction (SMI), and user experience (UX) in influencing purchase decisions (PD). This study explores how government policies and regulations on digital platforms influence user engagement and online experiences, influencing purchase behavior. Drawing on institutional theory, the theory of planned behavior (TPB), and the unified theory of acceptance and use of technology (UTAUT2), the study develops and tests a conceptual model linking these factors. Data were collected from a quantitative survey of social media users in Vietnam and then analyzed using structural equation modeling (PLS-SEM). The results show that state control does not directly affect shopping behavior but mainly indirectly through social media interaction and user experience. At the same time, user experience plays the most important role in driving purchase decisions, emphasizing the importance of convenience, trust, and satisfaction when using digital platforms. In terms of practical applications, the study recommends that businesses optimize customer experience through intuitive and personalized digital interfaces based on AI while encouraging participation and interaction on the platform. The government must focus on building a safe digital ecosystem, strengthening the legal framework, and supporting small and medium-sized enterprises (SMEs) to participate in e-commerce. This study contributes to the literature by integrating state control as a factor influencing consumer behavior while providing useful, practical suggestions for policymakers and digital marketing strategies.

Keywords: User Experience, Purchase decision, PLS-SEM.

Introduction

In the context of global digitalization, the interplay between social media interactions, user experiences, and purchasing behavior has been significantly influenced by state control and regulation of the digital landscape. As consumer decisions become increasingly shaped by

their interactions within digital environments, the implications of regulatory frameworks imposed by governments warrant thorough investigation.

State control is evolving as a critical component in maintaining digital sovereignty. According to Volodenkov, Fedorchenko, and Artamonova (2022), states must develop their national digital platforms and control critical technologies to effectively monitor and respond to various risks that inform public behavior in digital spaces. This, in turn, intersects with consumer engagement on these platforms, as the state's ability to regulate access and content shapes user experiences and influences purchasing decisions. As users navigate these environments, the regulatory framework established can lead to varying degrees of trust among consumers. According to Tabaghdehi and Kalatian (2022), trust is a central mechanism in managing digital platforms within the global value chain.

As discussed in Hondros, Schiemer, and Vogelgsang (2023), consumer interactions in digital spaces are multifaceted and often reflect a loss of stability in identity and a quest for meaning. The adaptability of users to these platforms is contingent on their digital literacy and the regulatory context in which they operate. As emphasized in Scherbakova, Misirov, Akopyan, Ogannisyan, and Abacharayeva (2023), the importance of developing communicative competence within the regulatory frameworks that govern online interactions is paramount, thereby highlighting how state-imposed structures can indirectly affect consumer behavior. This study aims to clarify the mechanisms by which state control (through regulations and policies) and social media interactions influence consumer experience, thereby promoting or inhibiting purchase decisions. By combining consumer behavior theory and PLS-SEM modeling, the paper contributes academically (confirming multilevel relationships between variables) and practically (recommending strategies for businesses and policymakers).

Theoretical Foundation and Hypothesis Development

Institutional theory offers a robust lens for understanding how consumer behavior is shaped by the social and normative structures embedded in digital ecosystems. In e-commerce contexts, particularly those influenced by government regulation, digital social legitimization mechanisms- such as content moderation policies, platform control, and regulation of digital identities - guide how consumers engage online (Heiens & Narayanaswamy, 2021). These forms of state control (SC) serve not only to ensure digital sovereignty but also to enhance perceived security and legitimacy, which may increase users' willingness to engage on social media platforms. Accordingly:

H1: State control (SC) positively influences social media interaction (SMI).

Beyond shaping interaction, state control mechanisms also affect the perceived user experience (UX) by fostering predictable and safer environments. Controlled platforms may enhance users' perceptions of fairness, privacy, and content consistency—contributing to a more seamless and trustworthy experience. This aligns with institutional logic, where structured environments reduce uncertainty and promote cognitive ease in user behavior. Thus:

H2: State control (SC) positively influences user experience (UX).

At the same time, social media interaction (SMI) is a dominant factor in shaping UX. In highly interactive digital environments, users co-create meaning through likes, comments, and parasocial relationships with influencers, brands, and peer networks (Agnihotri et al., 2023; Satar et al., 2024). Studies show that social presence, real-time feedback, and emotional resonance enhance perceived usefulness and satisfaction (Gao et al., 2022; Shiu et al., 2023). Therefore:

H3: Social media interaction (SMI) positively influences user experience (UX).

The construct of user experience (UX) has evolved from traditional usability into immersive, gamified, and socially enriched environments. Enhanced UX—characterized by ease of use, personalization, gamification, and emotional engagement—has increased users' intention to purchase (Rihandhika et al., 2024; Karac & Stabauer, 2017). For example, enjoyable navigation, secure transactions, and real-time interaction generate positive emotional responses that translate into consumer action (Lee et al., 2019). Hence:

H4: User experience (UX) positively influences purchase decisions (PD).

These relationships create a multilevel framework linking institutional influences, interactive dynamics, and consumer decision-making. The model proposes a set of indirect effects that capture the mediating roles of SMI and UX to examine further the mechanisms involved. Extended Hypotheses (Mediated Relationships) include:

H5a: State control (SC) indirectly affects purchase decisions (PD) through user experience (UX).

H5b: Social media interaction (SMI) indirectly affects purchase decision (PD) through user experience (UX).

H6: State control (SC) indirectly affects purchase decisions (PD) through social media interaction (SMI) and user experience (UX).

H7: State control (SC) indirectly affects user experience (UX) through social media interaction (SMI).

Research Design and Sample

The study was conducted using a quantitative method through a self-administered questionnaire survey. The survey instrument was built based on scales tested and widely applied in previous studies on online shopping behavior in Vietnam. The observed variables were measured using a Likert scale of 5 levels, with level 1 being "completely disagree" and the highest level being "completely agree" (Joshi, Kale, Chandel, & Pal, 2015). The Likert scale is used to quantify respondents' level of agreement with each statement related to aspects of online shopping behavior in accordance with international and domestic research practices. Before the official survey, the questionnaire was pilot-tested with a small group of users to ensure the comprehensibility and reliability of the questions, thereby adjusting the language

accordingly (Dam, 2023). The finalized questionnaire was distributed online using Google Forms, allowing easy access and standardized data collection across digital platforms.

The study targeted social media users in Vietnam who have experience in online shopping. The survey sample was selected using non-probability convenience sampling combined with snowball sampling through sharing the questionnaire on social media platforms such as Facebook and Zalo (Ha Le & Bui, 2024). After collecting data, the research team screened and eliminated invalid ballots (missing information, inconsistent data). The final results obtained 331 valid survey questionnaires (N = 331), ensuring the minimum principle of "10 times the number of observed variables or paths" in the research model (Hair, Hult, Ringle, & Sarstedt, 2022), exceeding the minimum sample size required to ensure statistical power in PLS-SEM analysis (Hair, Hult, Ringle, & Sarstedt, 2017). This sample size is similar to recent studies in Vietnam, such as those by Ha Le and Bui (2024) and Doan (2020), thus ensuring the relevance and generalizability of the research results. Detailed results are presented in Table 1.

Table 1. Descriptive Statistics

Characteristics	Frequency (n)	Percentage (%)	Details
Gender			
Male	145	43.8	
Female	176	53.2	
Age Group			Mean = 32.5; SD = 8.7
18 – 25 years	109	32.9	
26 – 35 years	137	41.4	
36 – 45 years	68	20.5	
Above 45 years	17	5.1	
Educational Level			
High school	36	10.9	
College	73	22.1	
University	139	42.0	
Postgraduate	80	24.2	
Occupation			
Student	99	29.3	
Office staff	149	45.9	Including Finance, Information Technology, Marketing sectors
Entrepreneur/ Business owner	83	25.1	Mainly from the e-commerce and service sectors

Source: Author's analysis

After collection, the data were coded and analyzed using SPSS software. First, the study conducted descriptive statistics of sample characteristics and tested the reliability of the scales through Cronbach's Alpha coefficient to eliminate observed variables with low correlation. Next, exploratory factor analysis (EFA) was conducted to assess the scales' convergent and

discriminant values, ensuring each question's validity and reliability (Hair, Hult, Ringle, & Sarstedt, 2022).

Finally, the research model was tested through the Partial Least Squares Structural Equation Modeling (PLS-SEM) method. PLS-SEM was chosen due to its ability to handle complex models with small or medium sample sizes and does not require data to follow a normal distribution (Hair, Hult, Ringle, & Sarstedt, 2017). The PLS-SEM analysis process was conducted on SmartPLS software in two main steps: (1) evaluating the measurement model (composite reliability CR, convergent validity AVE, and discriminant validity) and (2) evaluating the structural model (testing the statistical significance and strength of path coefficients) to test the research hypotheses. The PLS-SEM analysis method has been successfully used in previous studies on user behavior on social networks in Vietnam (Ha Le & Bui, 2024), thus ensuring the suitability of this technique for the current research context.

Measurement Model Assessment

Reliability and Convergent Validity

The four latent variables in the model include State Control (SC), Social Media Interaction (SMI), User Experience (UX), and Purchase Decision (PD). The results of the reliability and convergent validity analysis are summarized in Table 3. All scales have Cronbach's Alpha coefficients > 0.7 (SC = 0.886; SMI = 0.927; UX = 0.918; PD = 0.879), meeting the recommended level of internal reliability. Similarly, the variables' composite reliability coefficients (CR) are all very high, above 0.9 (SC = 0.916; SMI = 0.945; UX = 0.939; PD = 0.911), exceeding the threshold of 0.7 as proposed in previous studies. This shows that the scales have good internal consistency. In addition, the average variance extracted (AVE) of each variable is greater than 0.5 (SC = 0.687; SMI = 0.774; UX = 0.753; PD = 0.673), demonstrating that convergent validity is guaranteed. In other words, each latent variable explains more than 50% of the variance of its indicators. In addition, all factor loadings of observed indicators are high (> 0.7), further reinforcing that the questionnaire items strongly reflect the corresponding latent variable (Hair, Hult, Ringle, & Sarstedt, 2022; Rehman, Al-Ghazali, & Farook, 2022). Thus, the measurement model achieves good reliability and convergent validity.

Table 2. Construct Reliability and Validity

Construct	Item	Loading	CA	rho_A	CR	AVE
State Control	SC1	0.823	0.886	0.893	0.916	0.687
	SC2	0.870				
	SC3	0.806				
	SC4	0.837				
	SC5	0.807				
Social Media Interaction	SMI1	0.879	0.927	.927	0.945	0.774
	SMI2	0.890				
	SMI3	0.873				
	SMI4	0.896				
	SMI5	0.860				

User Experience	UX1	0.880	0.918	0.919	0.939	0.753
	UX2	0.867				
	UX3	0.846				
	UX4	0.872				
	UX5	0.874				
Purchase Decision	PD1	0.856	0.879	0.890	0.911	0.673
	PD2	0.764				
	PD3	0.858				
	PD4	0.759				
	PD5	0.858				

Source: Author's analysis

Discriminant validity

The discriminant validity between variables was tested using the Heterotrait-Monotrait Ratio (HTMT) index. Table 3 presents the HTMT matrix between pairs of variables. All HTMT coefficients are much lower than the threshold of 0.85, as proposed in Henseler, Ringle, and Sarstedt (2015). Specifically, the HTMT values ranged from 0.211 to 0.745. The highest HTMT value of 0.745 (between SMI and UX) is still lower than the threshold of 0.85, confirming that discriminant validity has been established between the variables in the model. In other words, each measured variable is unique and does not overlap with other variables.

Table 3. Discriminant Validity (HTMT)

	PD	**SC**	**SMI**	**UX**
PD				
SC	0.211			
SMI	0.407	0.294		
UX	0.585	0.412	0.745	

Notes: *PD = Purchase decision; SC = State Control; SMI = Social Media Interaction; UX = User Experience.*
Source: Author's analysis

Structural Model Assessment

After the measurement model was confirmed, the structural model was tested to assess the causal relationships between the latent variables. The results of the PLS-SEM analysis showed that all the hypotheses were supported with high statistical significance ($p < 0.001$); summarize the path coefficients (Beta), t-values, adjusted 95% bootstrap confidence intervals (BCa 95% CI), and p-values for the direct and indirect effects in the model (Hair, Hult, Ringle, & Sarstedt, 2022; Sarstedt, Ringle, & Hair, 2021).

Direct Effects

The results of the direct effects test showed that each hypothesized relationship had a positive and statistically significant Beta coefficient. Specifically, State Control positively affected Social Media Interaction with an effect level of $\beta = 0.270$, $t = 4.931$, 95% confidence interval [0.158; 0.372], $p < 0.001$. This supports hypothesis H1 that as users' level of state

control increases, their social media interactions also increase. State Control also positively affects User Experience (β = 0.203, t = 5.450, 95% CI [0.127; 0.275], p < 0.001), supporting hypothesis H2. Thus, users with a good sense of control will have a better user experience. Furthermore, Social Media Interaction strongly affects User Experience with β = 0.633, t = 22.111, 95% CI [0.574; 0.687], p < 0.001, supporting hypothesis H3. This is the most significant influence coefficient in the model, indicating that a high level of social media interaction will significantly improve user experience. Finally, User Experience has a significant positive effect on Purchase Decision (β = 0.532, t = 13.093, 95% CI [0.447; 0.607], p < 0.001), supporting hypothesis H4. In other words, the better the user experience, the more likely the purchase decision is. All 95% confidence intervals do not contain the value 0, further strengthening the statistical significance of these direct effects (Hair, Hult, Ringle, & Sarstedt, 2022; Sarstedt, Ringle, & Hair, 2021).

Overall, the structural model explains a relatively high proportion of the variance in the dependent variables. Specifically, SMI has R^2 = 0.073, meaning that the SC variable explains about 7.3% of the variance in SMI. UX has R^2 = 0.511, meaning that about 51.1% of the variance in UX is explained by the two predictor variables (SC and SMI). PD has R^2 = 0.283, implying that UX explains about 28.3% of the variation in purchase decisions. Thus, the proposed model has good explanatory power for UX and relatively good for PD, indicating that the factors included in the model significantly impact user experience and purchase decision behavior. Detailed results are presented in Table 4.

Table 4. Assessment of Direct Effects

Hypothesis		Beta	Std Error	t	95% BCa CI		VIF	f^2	R^2	P Values
					LB	UB				
H1	SC -> SMI	0.270	0.055	4.931	0.158	0.372	1.000	0.079	0.073	0.000
H2	SC -> UX	0.203	0.037	5.450	0.127	0.275	1.079	0.078		0.000
H3	SMI -> UX	0.633	0.029	22.111	0.574	0.687	1.079	0.759	0.511	0.000
H4	UX -> PD	0.532	0.041	13.093	0.447	0.607	1.000	0.395	0.283	0.000

Source: Author's analysis

Indirect Effects

The indirect effects analysis also shows that the mediating effects are all statistically significant at p < 0.001. First, State Control indirectly affects Purchase Decision through User Experience with β = 0.108, t = 4.894, 95% CI [0.065; 0.152], p < 0.001 (hypothesis H5a). This suggests that user experience mediates the relationship between the user's sense of control and purchase decision. Similarly, SMI affects PD through UX with β = 0.337, t = 11.281, 95% CI [0.277; 0.399], p < 0.001 (H5b), meaning that social media interaction promotes purchase decisions mainly by improving user experience. In addition, State Control also indirectly affects PD through the SMI → UX mediating chain (β = 0.091, t = 4.566, 95% CI [0.054; 0.131], p < 0.001; hypothesis H6). In other words, SC can indirectly enhance users' purchase intention by first enhancing social media interaction, thereby improving user experience. Finally, hypothesis H7 on the indirect effect of SC on UX through SMI is also confirmed (β = 0.171, t = 5.012, 95% CI [0.101; 0.234], p < 0.001). These results suggest that SMI partially mediates the relationship between SC and UX: users with a high sense of control interact more

on social media, contributing to an enhanced experience. All 95% BCa confidence intervals of the indirect effects do not contain zero, clearly confirming the presence of the hypothesized indirect relationships (Hair, Hult, Ringle, & Sarstedt, 2022; Sarstedt, Ringle, & Hair, 2021). Detailed results are presented in Table 5.

Table 5. *Assessment of Indirect Effects*

Hypothesis		Beta	Std Error	t	95% BCa CI		P Values
					LB	UB	
H5a	SC -> UX -> PD	0.108	0.022	4.894	0.065	0.152	0.000
H5b	SMI -> UX -> PD	0.337	0.030	11.281	0.277	0.399	0.000
H6	SC -> SMI -> UX -> PD	0.091	0.020	4.566	0.054	0.131	0.000
H7	SC -> SMI -> UX	0.171	0.034	5.012	0.101	0.234	0.000

Source: Author's analysis

Figure 1 shows the PLS-SEM results of the variables presented in the research model.

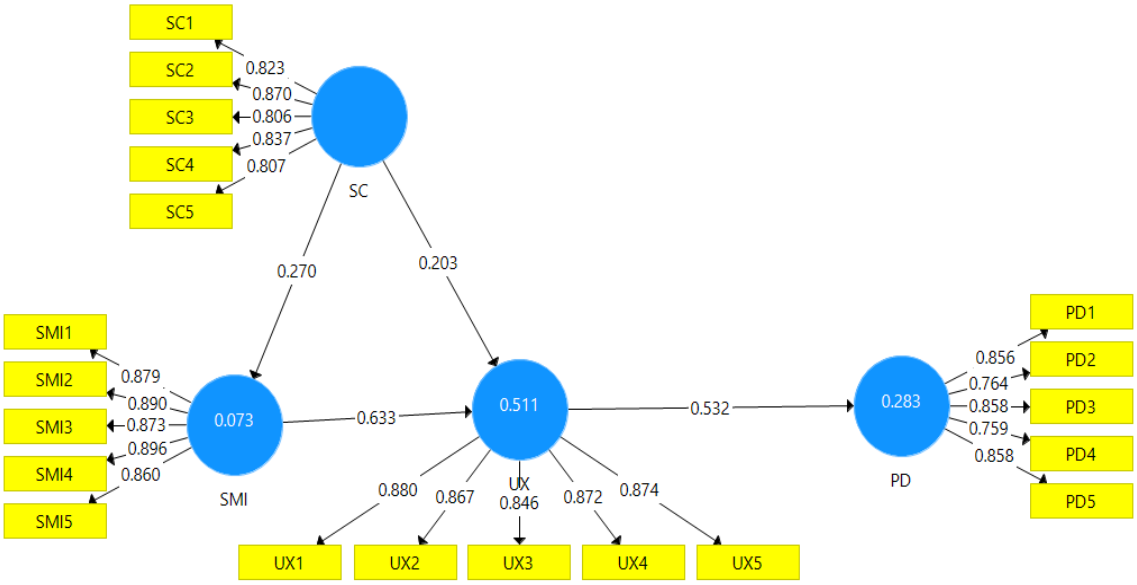

Figure 1. PLS-SEM Analysis Results

Results and Discussion

The findings of this study provide strong empirical support for the proposed research model, confirming the theoretical assumptions grounded in institutional theory, the theory of planned behavior (TPB), and social media interaction (SMI) frameworks. All hypothesized paths were statistically significant, reinforcing the model's robustness and offering valuable insights into how state control, social media interaction, and user experience collectively shape purchase behavior.

The positive effects of state control (SC) on both social media interaction (SMI) and user experience (UX) (H1 and H2) are aligned with the arguments of Heiens and

Narayanaswamy (2021), who emphasize the role of digital social legitimization and perceived governance in encouraging online behavioral engagement. Although the coefficients for SC → SMI (β = 0.270) and SC → UX (β = 0.203) were relatively modest, they remain significant. These results suggest that state-regulated digital environments encourage users to interact socially and foster a smoother platform experience when perceived as secure, fair, and transparent. This finding supports the idea that institutional legitimacy forms a foundation for more dynamic user behaviors.

The relationship between SMI and UX (H3), with the highest direct effect in the model (β = 0.633), confirms the perspective of Agnihotri et al. (2023) and Satar et al. (2024), who argued that social media engagement - through influencer interactions, community participation, and peer content - plays a crucial role in shaping users' affective and cognitive evaluations of the platform. This finding further supports the claims of Shiu et al. (2023), who emphasized the immersive nature of real-time engagement in platforms such as livestream commerce, where interactive participation directly enhances perceived user experience.

The strong positive relationship between UX and purchase decision (PD) (H4; β = 0.532) is consistent with prior studies that conceptualize UX as a key driver of behavioral outcomes (Rihandhika et al., 2024; Karac & Stabauer, 2017). This result underscores the importance of designing platform experiences that are seamless, enjoyable, and emotionally engaging, which in turn can increase users' likelihood of converting intention into action. Lee et al. (2019) similarly found that states of "flow" and task satisfaction increase purchase intention in e-commerce settings, further validating the link between experiential quality and commercial success.

From a mediation perspective, UX emerges as a crucial mediating construct that transmits the effects of both SC and SMI to PD. As hypothesized in H5a, H5b, and H6, neither SC nor SMI directly affected PD, but both influenced PD indirectly through UX. This reflects the conceptual logic that institutional or social mechanisms are insufficient unless they translate into positive experiential outcomes. The combined indirect effects from SC to PD (β ≈ 0.199) via UX and SMI→UX pathways reinforce the view that platform trust and social interaction must be transformed into perceived value to trigger consumer behavior.

Finally, the significant indirect path from SC → SMI → UX (H7) offers insight into the sequential dynamics of institutional influence. As users perceive stronger digital governance, their participation in social media increases, enhancing their experience - highlighting the importance of platform structure and community dynamics as interlinked forces (Gao et al., 2022).

Theoretical Contributions

This study contributes to the literature by extending institutional theory and TPB into the context of digital commerce. By integrating state control, SMI, and UX into a unified framework, the research demonstrates how structural and interactive variables converge to shape consumer decision-making. Moreover, it empirically validates the mediated role of UX, which remains underexplored in prior work focusing on institutional legitimacy or social engagement in isolation.

Practical Implications

From a managerial perspective, the results suggest that platform designers and business managers should prioritize enhancing UX as a strategic lever. Investing in interactive features, personalization, gamification, and clear platform governance policies can increase users' comfort and enjoyment and, ultimately, their conversion to customers. Furthermore, fostering safe and regulated social spaces—in line with institutional design—can indirectly influence purchasing behavior by facilitating richer user interactions and experiences.

Conclusion

This study examines the impacts of state control (SC), social media interaction (SMI), and user experience (UX) on purchase decisions (PD) in digital commerce, employing PLS-SEM to assess customer behavior. The findings reveal that while state control has little direct impact on purchasing decisions, it does have a considerable indirect effect via SMI and UX. Notably, UX is the most influential factor in driving consumer behavior, emphasizing the importance of ease, trust, and enjoyment when utilizing digital platforms. From an academic standpoint, this study strengthens the theoretical foundation by including state control influencing consumer behavior. The study's findings support the institutional theory, the theory of planned behavior (TPB), and the unified theory of acceptance and use of technology (UTAUT2) by clarifying how regulatory variables and digital interactions influence purchase behavior. Furthermore, the study underlines the mediating impact of UX, suggesting that social media interactions must be transformed into good experiences to influence consumers' purchasing decisions.

In terms of practical applications, organizations should focus on improving user experience through AI-powered tailored digital interfaces, increasing consumer engagement, and using social media interaction features to boost trust and credibility. Meanwhile, government policies should focus on creating a secure and transparent digital environment, strengthening the legal framework, and assisting small and medium-sized firms (SMEs) in entering the e-commerce industry. From the above basis, this study emphasizes the complicated relationship between state control, digital engagement, and consumer behavior. The findings have important implications for governments, corporations, and digital marketers as they build methods to increase customer trust and drive purchase decisions in the emerging digital economy.

Nevertheless, this study is not without limitations. First, the data were collected simultaneously using an online self-administered questionnaire via Google Forms, where participants self-reported their perceptions and behaviors. This approach may limit causal inference and introduce potential bias due to subjective responses and standard method variance. Second, the sample was limited to social media users in Vietnam, which may affect the generalizability of the findings to other cultural or regulatory settings. Future research could adopt a longitudinal approach, incorporate experimental methods, or conduct comparative

studies across different countries to deepen the understanding of regulatory influence on consumer behavior in digital commerce.

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