

The Influence of Functional Value, Emotional Value, Social Value, and Flow Experience on Player Satisfaction and Affective Online Impulse Buying Tendency, as well as Their Impact on Purchase Intention of Game Skins

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ABSTRACT

The rapid development of digital technology has significantly boosted the global gaming industry, particularly within the Multiplayer Online Battle Arena (MOBA) segment. This study investigates the effects of consumption value dimensions (functional value, emotional value, and social value), and flow experience on purchase intention toward virtual items (game skins), with player satisfaction and affective online impulse buying tendency (IBT) acting as mediating variables. Drawing upon the Stimulus-Organism-Response (SOR) framework and Consumption Value Theory (CVT), this research examines how in-game stimuli trigger internal psychological shifts that ultimately determine behavioral intention. Primary data were gathered through an online survey of 302 Indonesian players of Mobile Legends: Bang Bang (MLBB) aged 18 and above who had previously purchased game skins. The data were analyzed using Structural Equation Modeling with Partial Least Squares (SEM-PLS). The measurement model evaluation confirmed satisfactory reliability, convergent validity, and discriminant validity across all twelve constructs. The structural model revealed that the independent variables collectively explained 39.9% of the variance in affective online impulse buying tendency and 39.5% in player satisfaction, both of which subsequently exerted a significant positive impact on purchase intention ($R^2 = 0.536$). These findings provide valuable deep theoretical insights into virtual asset consumer behavior and offer actionable recommendations for game developers like Moonton to optimize microtransaction strategies during market contractions.

Keywords: *Consumption Value, Flow Experience, Impulse Buying, Purchase Intention, Online Games, MOBA Games, Virtual Items.*

1. INTRODUCTION

The mobile game sector has evolved into a major pillar of the digital economy, generating massive player bases across diverse demographics globally. In Indonesia, Multiplayer Online Battle Arena (MOBA) mobile games—particularly Mobile Legends: Bang Bang (MLBB)—have cultivated a massive market. According to data from the Indonesian Internet Service Providers Association (APJII) in 2025, approximately 10.64% of internet users engage with online gaming, heavily led by Generation Z and Millennials. This massive activity has formed a robust ecosystem centered around microtransactions (in-app purchases), notably via virtual items known as "skins" that enhance character designs, audio effects, and visual attributes.

Despite market expansion, industry reports indicate a negative shift. Financial summaries indicate that MLBB's in-app transaction revenues experienced an unprecedented downturn in 2025, touching historical lows since its global deployment in 2018. This slump is notably characterized by plunging in-app revenues in core Southeast Asian territories like Indonesia and Malaysia. Consequently, research must dissect the psychological factors driving consumer behavior, particularly spontaneous purchases, to navigate this shift.

Prior literature frequently views in-game microtransactions through isolated parameters. Mkedder et al. (2024) highlighted how core consumption values (functional, emotional, and social) govern player fulfillment and item acquisition, while Rita et al. (2024) stressed the role of flow experience and performance expectations in driving immediate impulsive actions. However, empirical efforts merging both structural paradigms to assess Indonesian players are limited. This study addresses this gap by analyzing the combined roles of functional value, emotional

value, social value, and flow experience on purchase intention via player satisfaction and affective online impulse buying tendency (IBT).

1.1. Literature Review and Hypothesis Development

This study leverages the Stimulus-Organism-Response (SOR) framework to model consumer pathways. Within digital game ecosystems, functional value, emotional value, social value, performance expectancy, and flow experience act as environmental stimuli (S). These elements guide the player's cognitive and affective internal states (O), represented here by player satisfaction and affective online impulse buying tendency, which subsequently trigger the behavioral output response (R) in the form of purchase intention.

According to Consumption Value Theory (CVT), product consumption choices stem from distinct value allocations. In virtual goods research, functional value (technical traits and utility), emotional value (internal fun and enjoyment), and social value (peer recognition and prestige) represent the most potent drivers of player evaluations. High perceived values directly maximize player contentment and fuel spontaneous, affect-driven transactional urges. Figure 1 illustrates the proposed research model. The study investigates how Functional, Emotional, Social Value and Flow Experience influence Purchase intention through Player Satisfaction and Affective Online Impulse Buying Tendency. Thus, we suggest the hypothesis:

H1a: Functional value positively affects player satisfaction.

H1b: Functional value positively affects affective online IBT.

H2a: Emotional value positively affects player satisfaction.

H2b: Emotional value positively affects affective online IBT.

H3a: Social value positively affects player satisfaction.

H3b: Social value positively affects affective online IBT.

Flow experience defines a state of absolute psychological immersion where individuals lose track of time and external surroundings. When players experience flow, their high engagement fosters total fulfillment and lowers cognitive barriers, encouraging spontaneous spending. Thus, we formulate:

H4a: Flow experience positively affects player satisfaction.

H4b: Flow experience positively affects affective online IBT.

Ultimately, overall player satisfaction (evaluating experiences against baseline expectations) and affective online impulse buying tendency (unplanned, emotion-driven shopping urges) serve as crucial predictors of future action. Satisfied users show a higher willingness to continue investing in virtual goods, while strong impulsive tendencies directly translate into higher purchase intentions. This sets up the mediating roles of satisfaction and affective IBT across all primary stimuli. Thus, we state:

H5: Player satisfaction positively affects purchase intention.

H6: Affective online IBT positively affects purchase intention.

H7a–d: Player satisfaction mediates the impact of functional value, emotional value, social value, flow experience on purchase intention.

H8a–d: Affective online IBT mediates the impact of functional value, emotional value, social value, flow experience on purchase intention.

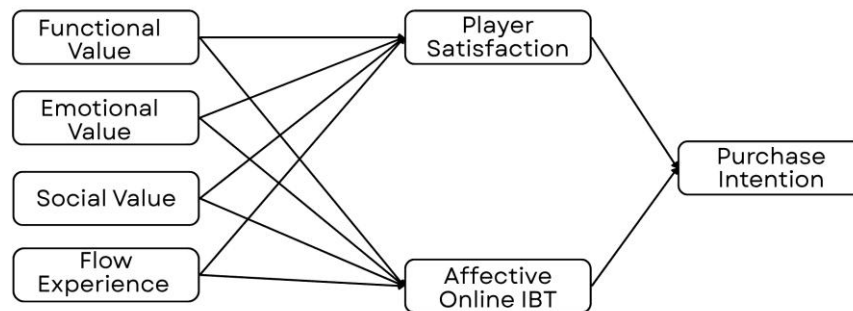


Figure 1. Proposed Research Model

2. RESEARCH METHODS

This study implemented a quantitative, causal research design using an online survey. The target population comprised Indonesian Mobile Legends: Bang Bang players. Purposive sampling was applied based on three explicit screening criteria: (1) active experience playing MLBB, (2) minimum age of 18 years, and (3) a history of purchasing at least one in-game character skin. The primary questionnaire contained 27 measurement items adapted from validated instruments: consumption values and player satisfaction items were derived from Mkedder et al. (2023, 2024), performance expectancy, flow experience, and affective online impulse buying tendency items from Rita et al. (2024), and purchase intention scales from Rabulizat et al. (2024). All indicators were scored using a 5-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). Prior to the main launch, a preliminary test was conducted with 30 respondents using SPSS to ensure reliability and validity.

The final main test collected data from 302 valid respondents. Demographically, the sample consisted of 55.3% male and 44.7% female respondents. The sample was dominated by private-sector employees (59.9%), followed by entrepreneurs (14.9%) and students (14.2%). In terms of purchasing power, 53.6% reported a monthly income between Rp 5.000.001 and Rp 7.000.000. Regarding gaming experience, 53.3% had played MLBB for over two years, reflecting a highly engaged user base. Structural Equation Modeling via Partial Least Squares (SEM-PLS) was conducted using SmartPLS software, applying a bootstrapping method with 10,000 resamples.

3. RESULTS AND DISCUSSION

3.1. Measurement Model Assessment

Table 1 shows that all constructs achieved Cronbach's Alpha and Composite Reliability values above 0.70 and AVE values above 0.50. These results indicate satisfactory reliability and convergent validity.

Table 1. Validity and Reliability Assessment

Construct	Cronbach's Alpha	Composite Reliability	AVE
Functional Value (FV)	0.933	0.957	0.881
Emotional Value (EV)	0.906	0.934	0.780
Social Value (SV)	0.911	0.937	0.789
Flow Experience (FE)	0.928	0.949	0.822
Player Satisfaction (PS)	0.921	0.944	0.809
Affective Online Impulse Buying Tendency	0.934	0.950	0.790
Purchase Intention	0.907	0.942	0.843

3.2. Coefficient of Determination (R^2)

The structural model evaluation evaluates the coefficient of determination (R-Square) to measure the model's predictive power and path coefficients to test the hypotheses. Below are the comprehensive tables containing the R-Square results and the integrated hypothesis testing for both direct and indirect (mediation) relationships.

Table 2. Coefficient of Determination

Endogenous Construct	R-Square (R^2)	Predictive Power Assessment
Player Satisfaction (PS)	0.395	Moderate
Impulse Buying Tendency (IBT)	0.399	Moderate
Purchase Intention (PI)	0.536	Moderate-to-High

3.3. Direct Effect

Table 3. Direct Effect Results

Hypothesis	Relationship	Path Coefficient (β)	T-Statistics	P-Values	Empirical Status
H1a	FV $\rightarrow$ PS	0.414	4.562	0.000	Supported
H1b	FV $\rightarrow$ IBT	-0.111	2.217	0.027	Supported
H2a	EV $\rightarrow$ PS	0.123	0.885	0.376	Not Supported
H2b	EV $\rightarrow$ IBT	0.480	5.060	0.000	Supported
H3a	SV $\rightarrow$ PS	0.350	3.395	0.001	Supported
H3b	SV $\rightarrow$ IBT	0.426	4.270	0.000	Supported
H4a	FE $\rightarrow$ PS	0.009	0.088	0.930	Not Supported
H4b	FE $\rightarrow$ IBT	0.173	2.047	0.041	Supported
H5	PS $\rightarrow$ PI	0.286	2.932	0.003	Supported
H6	IBT $\rightarrow$ PI	0.468	4.655	0.000	Supported

The direct effect analysis revealed that several significant relationships that Functional, Emotional, Social Value, and Flow Experience significantly influenced Affective Online Impulse Buying Tendency. Both Player Satisfaction and Affective Impulse Buying Tendency affected Purchase Intention. However, Emotional Value and Flow Experience are not significantly for Player Satisfaction.

3.4. Indirect Effect (Mediation)

Table 4. Indirect Effects Results

Hypothesis	Relationship	Path Coefficient (β)	T-Statistics	P-Values	Empirical Status
H7a	FV $\rightarrow$ PS $\rightarrow$ PI	0.118	3.066	0.002	Supported
H8a	FV $\rightarrow$ IBT $\rightarrow$ PI	-0.052	2.211	0.035	Supported
H7b	EV $\rightarrow$ PS $\rightarrow$ PI	0.035	0.852	0.394	Not Supported
H8b	EV $\rightarrow$ IBT $\rightarrow$ PI	0.225	4.872	0.000	Supported
H7c	SV $\rightarrow$ PS $\rightarrow$ PI	0.100	1.592	0.111	Not Supported
H8c	SV $\rightarrow$ IBT $\rightarrow$ PI	0.199	2.451	0.014	Supported
H7d	FE $\rightarrow$ PS $\rightarrow$ PI	0.003	0.082	0.082	Not Supported
H8d	FE $\rightarrow$ IBT $\rightarrow$ PI	0.081	2.085	0.037	Supported

The mediation effect analysis revealed that Player Satisfaction mediated the effects of Functional Value on Purchase Intention. In contrast, Affective Online Impulse Buying Tendency mediated the effects of Emotional Value, Social Value, and Flow Experience on Purchase Intention.

4. CONCLUSION

This study investigated the structural relationships driving virtual item purchase intentions among Indonesian Mobile Legends: Bang Bang players. The model demonstrates that virtual goods are primarily driven by emotional connection, immersion, and functional design such as quality rather than performance and utility. For developers especially Moonton, monetization effort should be optimized on emotional engagement targeted satisfaction milestones to optimally leverage these behavioral during revenue contractions.

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