



Consumer responses to diverse digital goods: the role of psychological ownership in life planning apps, music streaming services, and game skins

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Abstract — Digital goods have significantly transformed industries and consumer behavior, with Life Planning Apps, Music Streaming Services, and Game Skins becoming integral to daily life. The study aims to explore consumers' psychological ownership of diverse digital goods and its impact on willingness to pay and purchase intentions. It examines differences in perceived value, anticipated enjoyment, and relevance across various digital products. A survey was conducted with 138 participants recruited via MTurk, who were presented with scenarios for each type of digital product. Participants' responses were measured using a 7-point Likert scale to evaluate various consumer behavior aspects. Data were analyzed using repeated measures ANOVA and regression analyses. The results show notable differences in consumer perceptions and intentions among the three categories of digital goods. Music streaming services are perceived as culturally integrated and highly valued, leading to strong consumer engagement. Life planning apps evoke a high sense of personal ownership due to their deep integration into users' daily routines, resulting in high perceived value and relevance. In contrast, game skins are seen as less essential, reflecting lower levels of psychological ownership and perceived value. The study concludes that psychological ownership significantly impacts consumers' willingness to pay, purchase intentions, anticipated enjoyment, and perceived value across all types of digital goods. These findings highlight the critical role of psychological ownership in digital marketing strategies, suggesting that enhancing consumers' sense of ownership can improve engagement and satisfaction with digital products.

Keywords — Consumer Behavior, Consumer Perceptions, Digital Goods, Marketing Strategies, Psychological Ownership, Purchase Intentions

I. INTRODUCTION

Digital technologies like artificial intelligence and the Internet have fueled globalization, which has increased cross-industry and cross-border economic integration (Dumitrescu et al., 2019; Zhang et al., 2022). Globalization is accelerated by the use of platforms like Facebook, Alibaba, and Amazon by individuals for networking, job searching, and education, as well as by organizations seeking to compete globally, with digital goods becoming an integral part of the global economy (Meyer et al., 2023). In this rapidly evolving landscape of the global economy, digital goods have emerged as a dominant force, reshaping industries and consumer behaviors alike (Omol et al., 2023). The digitalization of music, primarily through streaming platforms like Spotify and Apple Music, challenges traditional notions of ownership and consumption (Magaudda, 2011; Bartmanski & Woodward, 2020). From life planning apps aiding individuals in organizing their future goals to music streaming services revolutionizing the way people access and enjoy music, and game skins enhancing gaming experiences, these digital products have become integral parts of our daily lives (Reinartz et al., 2019). The proliferation of digital platforms has further accelerated this trend, offering consumers unprecedented access, convenience, and variety. Then, customer-centric strategies are given top priority in successful modern firms, which see consumers as priceless assets deserving of creative expenditures (Van Den Hemel & Rademakers, 2016; Gupta et al., 2023). As digital platforms continue to innovate and expand their offerings, understanding consumer behavior towards these digital goods becomes crucial for businesses seeking to thrive in this digital era. Psychological factors, such as psychological ownership, play a significant role in shaping consumer attitudes and behaviors towards digital products (Sharma, 2024).

A particularly intriguing aspect of this behavior is the concept of psychological ownership, which pertains to the feeling that a product or service is "mine" or "belongs to me." This study focuses on the nuanced relationship between psychological ownership and digital goods, aiming to uncover how this psychological construct



influences consumer attitudes and purchase intentions. Understanding consumer behavior in the context of digital goods is paramount for businesses aiming to thrive in this digital age. The insights gained can offer businesses a competitive edge by informing marketing strategies, product development, and customer engagement initiatives. Moreover, as the digital economy continues to expand, the strategic implications of catering to evolving consumer preferences become increasingly significant.

The aim of this study is to investigate consumers' psychological ownership of diverse digital goods and its impact on willingness to pay and purchase intentions. It examines differences in perceived value, anticipated enjoyment, and relevance across various digital products.

In terms of consumer behavior, psychological ownership refers to the sense of control, personal connection, and attachment people have toward things, brands, or goods. This idea is essential to understanding consumer psychology and marketing since it clarifies preferences, choices, and brand loyalty (Peck & Shu, 2018). According to Pierce et al. (2003), psychological ownership consists of both emotive and cognitive components. Affective aspects include emotions of competence, efficacy, and enjoyment; cognitive elements include awareness, ideas, and beliefs about ownership. On the other hand, legal ownership is mostly the result of cognitive processes. Psychological ownership is the mental condition in which a person believes that a goal, or a portion of it, is "their own." Customer psychological ownership describes how customers feel that a business, brand, product, or service is "theirs," highlighting their feeling of ownership in situations involving consumption.

According to Pierce et al. (2001; 2003), psychological ownership (PO) refers to people's sense of ownership over products or brands, which has a significant impact on behavior and identity. PO influences workplace outcomes in organizational studies by including job-based (JPO) and organizational-based (OPO) perspectives (Peng & Pierce, 2015). Relationships between workers and organizations are strengthened, which influences attitudes and actions (Kumar, 2019; Morewedge et al., 2020). The effectiveness of ownership-driven teams in achieving goals and taking responsibility is highlighted by Forbes and Trust (Trust et al., 2016). The analysis of PO in consumer contexts indicates changes in consumption patterns brought about by technological progress (Fritze et al., 2020; Li et al., 2023). Comprehensive study is needed, as understanding of PO is still fragmented (Kim et al., 2024). According to Pierce et al. (2003), psychological ownership is the conviction that something is "mine" and goes beyond legal possession. Possessions serve as extensions of the self, influencing identity and value views, according to the self-concept hypothesis. The importance of control in promoting this sense of ownership is highlighted by control theory. According to Peck and Shu (2018), psychological ownership in consumer research clarifies customer-brand interactions that affect product valuation, caring, and resistance to loss. In digital contexts, where intangible assets like virtual products or digital information carry substantial value, it affects perceptions of virtual ownership and supports brand loyalty (Li et al., 2023). Businesses negotiating the complexity of digital consumption and brand interaction must comprehend psychological ownership.

Beyond simple legal ownership, psychological ownership affects how both immaterial services like digital downloads and music streaming, as well as tangible goods like CDs and vinyl, are related (Pierce et al., 2003). This idea investigates how identities are projected onto belongings, enhancing a sense of self via consumerism. Pierce et al. (2003) provide a thorough model that explains antecedents and motives such as investment and familiarity with the ownership objective (Kirk et al., 2012). These incentives can coexist, provide different routes to ownership, and provide different results, which might influence the tastes and behavior of customers.

Psychological ownership holds significant power in consumer goods, influencing various aspects of consumer behavior and brand relationships. Firstly, it fosters higher perceived value and influences brand choice, triggering loss aversion and enhancing willingness to pay, particularly when risks are low (Gawronski et al., 2007; Pierce et al., 2003; Lessard-Bonaventure & Chébat, 2015). Consumer responsibility is another crucial aspect, as ownership promotes product maintenance and instills a sense of duty, driving proactive upkeep (Peck et al., 2020). However, cues dispersing responsibility may weaken stewardship behavior. Moreover, in branding theory, the evolution of customer-brand relationships emphasizes the integration of behavioral ties, cognitive support, and emotional attachments, with trust and dedication fostering strong customer-business ties (Fournier, 1998; McAlexander et al., 2002; Hansen et al., 2003; Fullerton, 2005; Carroll & Ahuvia, 2006). Lastly, leveraging psychological ownership in marketing, as emphasized by Fritze et al. (2020) and Morewedge et al. (2020), is crucial in competitive business settings, with ownership-driven teams playing a key role in success and responsibility. Technological advancements reshape consumption patterns, satisfying consumers' desire for ownership, with innovations such as carsharing, music streaming, and social media transforming ownership models and boosting consumer demand and satisfaction in evolving consumption landscapes (Li et al., 2023; Pierce et al., 2001, 2003; Zhang et al., 2022). Understanding and leveraging psychological ownership are essential for businesses to thrive in the dynamic consumer goods market.



Psychological ownership of digital goods is shaped by several key characteristics, each with its own set of challenges and implications. Firstly, the intangibility of digital goods initially diminishes their perceived value compared to tangible products but can be offset by their convenience and accessibility, leading to robust ownership perceptions through the control and access they offer (Kirk & Swain, 2018; Atasoy et al., 2022; Atasoy & Morewedge, 2017). Replicability, another defining trait, presents challenges by compromising exclusivity and uniqueness, demanding innovative strategies to foster ownership perceptions effectively (Kirk & Swain, 2018; Guttinger, 2020; Atasoy & Morewedge, 2017). Accessibility and mobility profoundly influence psychological ownership by enhancing feelings of convenience and control but also posing challenges in maintaining longevity and sustained engagement (Kirk & Swain, 2018; Pick, 2020; Botelho, 2021). Customization and personalization emerge as powerful drivers, intensifying ownership feelings by creating personalized experiences that foster a sense of agency and control, ultimately enhancing user engagement and loyalty (Chandra et al., 2022; Chung et al., 2024; Mugge et al., 2009; Kim & Sullivan, 2019; He et al., 2022). Effective navigation of these characteristics is essential for marketers and developers to optimize user experiences and cultivate lasting ownership relationships in the digital landscape.

Scholars have delved into the implications of psychological ownership in various digital domains, shedding light on its multifaceted nature. Firstly, Walsh et al. (2017) elucidate how intangibility impacts consumers' perceived value of digital items, revealing distinct value propositions despite their ethereal nature. Zhu & Cho's (2021) research emphasizes the intricate relationship between consumers' perceptions of digital rights and ownership, informing strategies and regulations in the evolving digital landscape. Rayna (2008) examines digital goods as unique economic entities, addressing challenges posed by replicability and offering insights into market dynamics. Zhao et al. (2016) uncover the dominance of Psychological Ownership in shaping customer loyalty, with social influence emerging as a key driver. Pallant et al. (2022) highlight brand experience's mediating role in consumer decision-making, particularly in product customization. Finally, Kirk & Swain (2018) explore psychological ownership's extension to intangible technologies, revealing the influence of digital affordances and individual differences. These studies collectively offer valuable insights into the complexities of psychological ownership and its impact on consumer behavior in the digital age.

Consumer decision-making in the realm of digital goods is a complex interplay of several factors. Among them, psychological ownership emerges as a critical determinant, shaping perceptions, preferences, and behaviors toward digital products and services (Kirk & Swain, 2018; Shahzad & Salo, 2023). Psychological ownership exerts a multifaceted influence on consumer behavior in the digital realm. Firstly, it significantly enhances the perceived value of digital goods, leading consumers to attribute higher worth to them (Atasoy & Morewedge, 2017; Dwivedi et al., 2021). Moreover, seamless availability and effortless access to digital goods bolster feelings of ownership, thereby augmenting user satisfaction (Asanprakit & Kraiwanit, 2023). Furthermore, psychological ownership fosters trust and brand loyalty, as consumers develop deeper connections with brands they perceive as their own (Kirk & Swain, 2018). This sense of ownership also empowers consumers, granting them control over digital experiences and fostering stronger bonds with brands (Xie & Lou, 2024). Additionally, psychological ownership influences consumer behavior by increasing purchase intentions, reducing price sensitivity, and enhancing brand loyalty, particularly in customized experiences (Xie & Lou, 2024). Understanding the pivotal role of psychological ownership enables businesses to optimize strategies, drive sales, and cultivate enduring relationships with consumers in the fiercely competitive digital marketplace.

Psychological ownership's influence on digital consumer behavior is moderated by demographic factors like age and gender, cultural values, and social contexts. Younger generations often exhibit stronger attachment to digital goods due to tech familiarity, while cultural orientations shape perceptions of communal versus personal ownership. Social influences, such as peer recommendations, foster community attachment and enhance loyalty. Understanding these nuances is vital for businesses to tailor strategies effectively. By addressing diverse demographics, cultural backgrounds, and social dynamics, businesses can optimize engagement, loyalty, and purchase intentions in the digital marketplace, ultimately creating personalized consumer experiences that resonate in the digital age (Zhao et al., 2016).

Cultural norms deeply influence perceptions of ownership in the digital realm. Collectivist societies prioritize shared ownership, contrasting with individualistic cultures' emphasis on personal autonomy, shaping attitudes towards digital goods. Social dynamics, including peer influence and community engagement, play a pivotal role in shaping psychological ownership. Recommendations and social validation heighten ownership feelings, influencing purchasing decisions. Engagement in online communities fosters collective ownership, enhancing consumer involvement. Recognizing cultural and social influences is vital for businesses in the digital landscape (Ianole-Călin et al., 2020; LeFebvre & Franke, 2013; Fleming et al., 2021). Tailoring strategies to align with



cultural values and leveraging social dynamics can optimize engagement, foster loyalty, and drive sales, forging meaningful connections with diverse consumer segments.

Understanding the intricate relationship between psychological ownership and consumer behavior is grounded in several fundamental theoretical frameworks, each offering unique perspectives on the underlying psychological processes at play. Self-Identity Theory suggests that individuals incorporate possessions into their self-concept, using them as symbolic representations of identity, thus forming emotional attachments to items that reflect their self-image (Bushman and Huesmann, 2020; Sparks and Shepherd, 1992). Meanwhile, the Theory of Planned Behavior (TPB) posits that behavioral intentions are influenced by attitudes towards ownership, subjective norms, and perceived behavioral control, shaping individuals' intentions for ownership-related behaviors (Sparks and Shepherd, 1992; Ajzen, 1991; Bošnjak et al., 2020). Social Identity Theory explores how group memberships contribute to individuals' sense of identity, influencing consumption choices and ownership behaviors as expressions of group identity (Harwood, 2020). Attribution Theory delves into how individuals interpret ownership-related feelings and behaviors, attributing them to internal or external factors, thus shaping attitudes and behaviors towards ownership (Schmitt, 2015; Martinko and Mackey, 2019). Lastly, Cognitive Dissonance Theory suggests that individuals may engage in post-purchase rationalization to reduce discomfort when their beliefs or attitudes clash with their ownership decisions (Vaidis and Bran, 2019; Bran and Vaidis, 2020).

These theoretical frameworks offer profound insights into consumer behavior towards digital goods, illuminating the intricacies of perception, valuation, and engagement with digital products and services. Self-Identity Theory suggests that digital goods serve as symbolic representations of individuals' identities, fostering emotional attachments that align with their self-image. The Theory of Planned Behavior (TPB) delves into consumers' intentions and behaviors related to digital ownership, considering attitudes, norms, and perceived control as influential factors. Social Identity Theory explores the impact of group memberships and online communities on consumption patterns, shaping preferences for digital goods and brands. Attribution Theory examines how consumers attribute ownership-related feelings to internal or external factors, affecting their perceptions of digital content. Additionally, Cognitive Dissonance Theory reveals how individuals rationalize ownership decisions in the digital domain, especially when experiences diverge from expectations. By applying these theories, the psychological mechanisms driving consumer behavior in the digital marketplace are uncovered, guiding strategies in marketing, user experience design, and content creation to enhance consumer satisfaction and brand loyalty in the digital age (Bushman and Huesmann, 2020; Bošnjak et al., 2020; Harwood, 2020; Martinko and Mackey, 2019; Bran and Vaidis, 2020).

Current literature on psychological ownership in digital goods lacks comprehensive studies focusing on specific categories like life planning apps, music streaming services, and game skins. While existing research delves into individual products or platforms, cross-comparisons across diverse digital goods are sparse. Our study aims to fill this gap by examining multiple categories simultaneously, identifying similarities and differences in ownership drivers. Furthermore, contextual factors such as demographics and product features are often overlooked but play a significant role in shaping ownership perceptions. Addressing this gap, our research investigates how these factors interact with psychological ownership across various digital goods categories.

The present study on the topic of consumer responses to diverse digital goods: the role of psychological ownership in life planning apps, music streaming services, and game skins enhances understanding of consumer behavior in the digital marketplace, shedding light on motivations and decision-making processes. For digital marketers, these insights offer practical strategies to tailor campaigns and improve consumer engagement and satisfaction. The study also contributes to theoretical advancements in consumer behavior, refining existing frameworks and theories. By addressing gaps in the literature, our research bridges theory and practice, providing valuable insights for both academia and industry in navigating the complexities of consumer behavior and digital marketing.

H1: Perceived psychological ownership varies among different types of digital goods.

H2: Purchase intentions and willingness to pay differ across various digital goods.

H3: Perceptions of value, anticipated enjoyment, and relevance vary among different types of digital goods.

H4: Psychological ownership influences purchase intentions and willingness to pay for digital goods.

H5: Psychological ownership affects the perceived value and anticipated enjoyment of digital goods.

H6: Age moderates the relationship between psychological ownership and purchase intentions of digital goods.

H7: Consumers who value digital goods highly exhibit greater psychological ownership and are more likely to purchase various digital goods.



H8: Consumers who perceive digital goods as more permanent exhibit higher levels of psychological ownership.

H9: Consumers oriented towards materialism demonstrate increased psychological ownership and are more inclined to purchase digital goods.

II. METHOD

The study engaged 161 participants recruited via MTurk platform using CloudResearch controls. 23 participants failed attention checks, so were removed from the sample. Final sample consisted of 138 respondents (Mage=35.5, SDage=13.9, females 60.9%, males 37.3%, identifying as 'other' 1.45%). The research design employed was a survey-based approach, focused on assessing psychological ownership of different digital goods and its impact on consumer behaviour. The survey was structured around a series of three scenarios:

Scenario 1: Lifestyle Planning App. This scenario introduced an app called "LifeMilestones," designed to help users document and plan significant life events. Scenario 2: Music Streaming Service. Participants imagined discovering a new music streaming service, "MusicPro," which offered enhanced features like dynamic playlists with narratives and interactive album experiences. Scenario 3: In-Game Skins Package. The final scenario presented participants with the opportunity to purchase an in-game skins package for a video game, "Era Echoes," featuring designs that span different historical and cultural eras. After measuring intentions and perceptions, the participants had to imagine that they acquired digital good and estimate perceived psychological ownership.

A variety of consumer behaviour measures were utilized in this study, all employing a 7-point Likert scale. To assess consumers' sense of psychological ownership, a scale from Peck & Shu (2009) was utilized. It was assessed through a comprehensive set of items, including "I feel like this <digital good> is mine," "I feel a very high degree of personal ownership of this <digital good>," and "I feel like I own this <digital good>" (Cronbach's $\alpha_{app}=0.96$, $\alpha_{music}=0.96$, $\alpha_{gameskin}=0.98$). Participants' purchase intention was gauged with statement "How likely are you to buy this <digital good>?", while their willingness to pay was determined by asking "What is the maximum amount you would be willing to pay for this <digital good>" following Breidert et al. (2006). Relevance was measured with the statement "How relevant is this <digital good> to you?", Anticipated Enjoyment was measured with the statement "How much do you think you would enjoy using this <digital good>?", Part of Myself was gauged through the statement "I consider this <digital good> as part of myself, Perceived Value was determined by the statement "I think this <digital good> is valuable. Additionally consumer several consumer beliefs were measured: Digital Goods are as Valuable as Physical was measured with the statement "I believe digital goods offer the same or more value than physical goods", Permanence of Digital Goods was evaluated with the statement "I believe my digital purchases will remain accessible and won't disappear," Materialism was assessed using the statement "Owning things gives me a sense of satisfaction".

A study employed diverse analytical methods to investigate consumer behavior across digital products. Descriptive analysis outlined participant demographics and survey responses statistically. Comparative analysis, including Repeated Measures ANOVA, assessed how different products like a Life Planning App, Music Streaming Service, and Game Skin influenced perceptions. Post-hoc tests identified significant differences. Multiple regression gauged relationships driving digital consumer decisions. Moderator Analysis explored factors like demographics, beliefs, and materialism, influencing ownership and purchase intentions across products.

III. RESULT AND DISCUSSION

A. Result

Table 1 presents the means and standard deviation (SD) of different products, consumer perceptions and consumer intentions. Consumer attitudes towards three digital products—Life Planning App, Music Streaming Service, and Game Skin—differ significantly across several dimensions. The Music Streaming Service scores highest in relevance, perceived value, willingness to pay, and purchase intention, highlighting its strong cultural integration and perceived consumer value. The Life Planning App, while not as highly rated overall, exhibits the highest psychological ownership, indicating a deep personal connection likely due to its integration into daily life. In contrast, the Game Skin trails behind in all measured attributes, reflecting its perception as a less essential purchase.

Table 1. Means and SD of different products, consumer perceptions and consumer intentions



Variable	Life Planning App		Music Streaming Service		Game Skin	
	Mean	SD	Mean	SD	Mean	SD
Relevance	3.73	1.75	4.22	1.69	2.48	1.81
Willingness to Pay	5.30	7.46	6.35	6.85	3.91	8.29
Purchase Intention	2.88	1.92	3.59	1.97	2.09	1.72
Anticipated enjoyment	4.05	1.98	4.76	1.79	3.07	2.11
Part of Myself	3.05	1.81	3.53	1.86	2.13	1.63
Psychological Ownership	4.24	1.85	3.74	1.84	3.64	2.09
Perceived Value	4.39	1.76	4.65	1.68	3.05	1.75

SD: standard deviation

The repeated measures ANOVA, accounting for inter-individual variability, revealed significant differences among digital goods in perceptions and intentions: purchase intention ($F(2, 274) = 31.89, p < 0.001$), anticipated enjoyment ($F(2, 274) = 32.91, p < 0.001$), relevance ($F(2, 274) = 51.3, p < 0.001$), part of myself ($F(2, 274) = 37.32, p = 4.62e-15$). Tukey Post-hoc comparisons showed significant differences between all products. Willingness to pay ($F(2, 274) = 8.107, p < 0.001$) was higher for Music Streaming Service vs Game Skin (diff: 2.44 $p < 0.001$). Psychological ownership ($F(2, 274) = 7.533, p = 0.000654$) was higher for Life Planning App vs Music Streaming Service (diff: 0.49 $p < 0.01$) and Game Skin (diff: 2.44, $p < 0.001$). Perceived value ($F(2, 274) = 47.19, p < 0.001$) was smaller for Game Skin vs Life Planning App (diff: -1.34, $p < 0.001$) and Music Streaming Service (diff: -1.60, $p < 0.001$).

As shown in Table 2, multiple regression analyses investigating the influence of psychological ownership on consumer perceptions and intentions across three digital goods showed significant results. For Willingness to Pay, the Life Planning App showed a β of 1.49 ($p < 0.001$), the Music Streaming Service a β of 0.98 ($p < 0.01$), and the Game Skin a β of 1.18 ($p < 0.001$), indicating that increased feelings of ownership are linked to a willingness to spend more across all products (Table 2). For Purchase Intention (PI), all products displayed significant effects, with the Life Planning App at a β of 0.41, the Music Streaming Service at 0.43, and the Game Skin at 0.42, all significant at $p < 0.001$ (Table 2). This pattern suggests that psychological ownership robustly predicts the likelihood of purchasing diverse digital goods.

In terms of Anticipated Enjoyment, the effects were also strong: the Life Planning App and the Music Streaming Service both had a β around 0.42 and 0.37 respectively ($p < 0.001$), while the Game Skin showed a particularly strong relationship with a β of 0.63 ($p < 0.001$). This implies that the more consumers feel ownership over these goods, the more enjoyment they anticipate from using them. Lastly, the impact on Perceived Value was substantial, with the Life Planning App showing a β of 0.47, the Music Streaming Service 0.42, and the Game Skin 0.62, all significant at $p < 0.001$. These findings indicate that psychological ownership not only enhances the perceived value of digital products but does so with notable variability across different types of digital goods.

Table 2. Psychological ownership as a predictor for various consumer intentions and perceptions

Response variable	Life Planning App				Music Streaming Service				Game Skin			
	β (ownership)	std. error	t-value	R2	β (ownership)	std. error	t-value	R2	β (ownership)	std. error	t-value	R2
Willingness to Pay	1.49***	0.32	4.62	0.14	0.98**	0.31	3.19	0.07	1.18***	0.32	3.64	0.09
Purchase Intention	0.41***	0.08	4.94	0.15	0.43***	0.08	5.05	0.16	0.42***	0.06	6.81	0.25
Anticipated Enjoyment	0.42***	0.08	4.97	0.15	0.37***	0.08	4.81	0.15	0.63***	0.07	9.19	0.38
Perceived Value	0.47***	0.07	6.70	0.25	0.42***	0.07	6.07	0.21	0.62***	0.05	12.91	0.55

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$



Several consumer traits affected psychological ownership and purchase intentions across different digital products. As stated in the Table 3, surprisingly, age showed little to no significant impact on psychological ownership and purchase intentions across all products, with a marginal decrease in purchase intention for the Music Streaming Service (β = -0.03, p < 0.05). For consumers, who perceive digital goods as valuable as physical significant, exhibit higher psychological ownership for the Game Skin (β = 0.34, p < 0.01) and influences purchase intentions across all three products (β = 0.28, β = 0.33, and β = 0.33, all significant at p < 0.05 or better). This indicates that when consumers perceive digital goods as valuable as physical ones, their psychological ownership and interest in purchasing increases. The perceived overall security and permanence of digital goods within consumers notably affect both ownership and purchase intentions, particularly for the Life Planning App (ownership β = 0.45, p < 0.001; purchase intention β = 0.38, p < 0.001). The effect remains consistent across products, indicating that consumers who value the security of their digital purchases highly are more likely to feel more ownership of digital goods and exhibit higher purchase intentions. Materialistic tendencies have a profound effect on both psychological ownership and purchase intentions, particularly for the Music Streaming Service (ownership β = 0.52, purchase intention β = 0.48, both p < 0.001) and the Game Skin (ownership β = 0.61, purchase intention β = 0.29, both significant). This illustrates that consumers who derive satisfaction from owning things are more likely to feel ownership even for digital goods and intend to purchase digital goods.

Table 3. Moderators impacting psychological ownership and purchase intentions of digital goods

Table with 7 columns: Moderator, Life Planning App, Music Streaming Service, Game Skin, Life Planning App, Music Streaming Service, Game Skin. Rows include Ownership, Age, Digital goods as valuable as physical, Permanence of digital goods, and Materialism.

*** p < 0.001, ** p < 0.01, * p < 0.05, n.s. p >= 0.05

B. Discussion

The Study findings from the repeated measures ANOVA highlighted significant differences in consumer attitudes toward the three digital products. The Music Streaming Service ranked highest in relevance, perceived value, willingness to pay, and purchase intentions, suggesting it is deeply integrated and valued culturally (Sinclair & Tinson, 2017; Webster, 2021; Danckwerts & Kenning, 2019). In contrast, the Life Planning App, while not scoring as highly, demonstrated the greatest psychological ownership, indicating a deep personal connection likely due to its integration into daily life routines (Pierce & Brown, 2019). The Game Skin was perceived as less essential, scoring lower across all attributes measured. It confirmed, that psychological ownership and purchase intentions varies significantly across different digital goods (Kirk & Swain, 2018) (H1, H2, H3 confirmed).

Further multiple regression analyses established that psychological ownership significantly influences willingness to pay and purchase intentions across all products. Specifically, for willingness to pay, the coefficients were significant (Life Planning App: β = 1.49, p < 0.001; Music Streaming Service: β = 0.98, p < 0.01; Game Skin: β = 1.18, p < 0.001), indicating that higher psychological ownership is associated with a greater readiness to spend (O'driscoll et al., 2006; Essig & Soparnot, 2021).

Similar patterns were observed for purchase intentions, where psychological ownership robustly predicted purchasing likelihood across the digital goods (β values ranged from 0.41 to 0.42, p < 0.001) (H4 confirmed). The impact of psychological ownership on anticipated enjoyment and perceived value was also substantial. Notably, the Game Skin showed a particularly strong correlation between ownership and anticipated enjoyment (β = 0.63, p < 0.001), and all digital goods exhibited significant links between ownership and perceived value (β values ranged from 0.42 to 0.62, p < 0.001). These outcomes suggest that the more consumers perceive



ownership over digital goods, the higher the enjoyment and value they anticipate from these products (Atasoy & Morewedge, 2017) (H5 confirmed).

Moderator analysis revealed that certain consumer traits such as perception of digital goods' value as comparable to physical goods, and their beliefs about the permanence of digital purchases significantly affected psychological ownership and purchase intentions. Age showed no significant effects, contradicting H6 (H6 rejected). Consumers who viewed digital goods as valuable or permanent showed higher psychological ownership and were more likely to purchase these goods (confirmed H7 and H8). Additionally, materialistic tendencies strongly influenced both psychological ownership and purchase intentions, especially for the Music Streaming Service and Game Skin (Atasoy & Morewedge, 2017; Sinclair & Tinson, 2017) (H9 confirmed).

This study advances consumer behavior theory by examining psychological ownership across diverse digital product categories, refining existing frameworks. It highlights ownership perception variations based on digital product nature, enriching theoretical models. Insights into digital consumption behaviors uncover underlying motivations and cognitive processes, enhancing understanding of digital consumption patterns. Strengthening the integration of psychological ownership theory into digital goods research, the study underscores its relevance in shaping consumer attitudes and intentions across various product categories (Firth et al., 2019; Shanmugasundaram & Tamilarasu, 2023). Digital marketers can tailor strategies for life planning apps, music streaming services, and game skins based on psychological ownership insights to boost engagement. Product developers can enhance digital goods by aligning features with ownership drivers for more compelling experiences (Dwivedi et al., 2021). Businesses can deepen connections with consumers through personalized interactions and value-added services, fostering loyalty (Rane et al., 2023). Using psychological ownership tendencies for market segmentation informs strategic positioning decisions, enhancing appeal to specific consumer segments (Hunt & Arnett, 2004). These practical implications empower businesses to optimize marketing, product development, customer relationships, and market positioning in the digital realm.

VI. CONCLUSIONS

This study sheds light on the role of psychological ownership in shaping consumer responses to diverse digital goods, including life planning apps, music streaming services, and game skins. The findings confirm that perceptions of ownership significantly influence consumer attitudes and purchase intentions across these product categories. Specifically, while music streaming services are perceived as culturally integrated and valuable, life planning apps evoke a strong sense of personal ownership due to their integration into daily routines. On the other hand, game skins are seen as less essential purchases, reflecting lower levels of perceived ownership. Theoretical implications highlight the contribution of this research to advancing consumer behavior theory, particularly in the context of digital consumption. Practical implications underscore the relevance of the findings for marketers, product developers, and customer relationship managers in crafting targeted strategies to enhance consumer engagement and satisfaction in the digital marketplace. Despite its contributions, this study has several limitations that warrant acknowledgment. Firstly, the research design relied on self-report measures, which may be subject to response biases and social desirability effects (Latkin et al., 2017). Additionally, the sample primarily consisted of participants recruited through the MTurk platform, potentially limiting the generalizability of the findings. Moreover, the study focused on specific digital goods categories, and the findings may not fully capture the complexity of consumer responses across all types of digital products. Finally, the study did not explore cultural or regional differences in consumer perceptions (Jeong & Lee, 2021), which could impact the results.

Future research directions could encompass longitudinal studies to track changes in consumer attitudes, cross-cultural investigations to understand cultural influences on ownership perceptions, and experimental designs to manipulate ownership cues for causal insights. Qualitative methods like interviews can provide deeper understanding of consumer experiences. Additionally, exploring emerging digital trends such as AR and VR technologies (Al-Ansi et al., 2023) can shed light on their impact on ownership perceptions and consumer engagement. These avenues aim to deepen our understanding of psychological ownership in the digital realm and its implications for consumer behavior and marketing strategies.

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