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Exploring the Influence of Internet Perceptions on Online Shopping Decision-Making Styles

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Abstract

The primary objective of this study is to examine the relationship between online consumers' perceptions of the Internet and their decision-making styles in online shopping. Understanding how consumers perceive the Internet and how these perceptions shape their shopping behaviors is crucial for businesses optimizing their online presence and marketing strategies. The study identifies four key perceptions of the Internet: Tool, Technology, Toy, and Tour, reflecting its utility, functionality, entertainment value, and experiential aspects. Additionally, six decision-making styles are assessed, including Perfectionism consciousness, Brand consciousness, Novel-fashion consciousness, Confused by over choice, Brand-loyalty consciousness, and others. Data was collected from 454 consumers in Taiwan, a country with high Internet penetration and a thriving e-commerce environment. The results show that consumers predominantly perceive the Internet as either a 'Tool' or 'Technology.' Those who view it as a 'Tool' are positively associated with Perfectionism consciousness, meaning they are meticulous and strive for the best quality. However, this perception negatively correlates with Brand consciousness, Novel-fashion consciousness, and Brand-loyalty consciousness, indicating a preference for functionality over brand prestige or trendiness. In contrast, consumers perceiving the Internet as a 'Toy' are less inclined toward Perfectionism consciousness but show stronger preferences for Brand consciousness, Novel-fashion consciousness, Confusion due to over choice, and Brand-loyalty consciousness, suggesting a more impulsive shopping approach. No significant correlation was found between the perceptions of the Internet as 'Technology' or 'Tour' and decision-making styles. These findings provide insights for e-commerce businesses, marketers, and web developers, emphasizing the need for tailored strategies that align with different consumer mindsets.

Keywords: Online Shopping, Consumer Perceptions, Decision-Making Styles, E-Commerce

JEL Codes: M31, D91, L86

1. INTRODUCTION

A survey report published by the Taiwanese government in 2010 provides a comprehensive overview of the state of Internet penetration and its impact on consumer behavior in Taiwan during that period. According to the report, a remarkable 80.7% of households in Taiwan had Internet access, while 70.9% of the total population was connected to the Internet (Research, Development, and Evaluation Commission, 2010). These statistics underscore the rapid adoption of digital technology across the country, signaling Taiwan's transition into a digitally connected society. The report further revealed that the number of Internet users aged 12 and above had surpassed 14.46 million people, a figure that highlights the widespread use of the Internet among various age groups. Among these users, 63.93% had participated in online shopping, indicating a significant shift in consumer behavior towards e-commerce platforms. This trend reflects the increasing convenience and accessibility of online shopping, which allows consumers to browse and purchase products from the comfort of their homes, avoiding the limitations of traditional brick-and-mortar stores. The substantial percentage of Internet users engaging in online shopping also suggests that the Taiwanese market was already experiencing a digital transformation in the early 2010s. The integration of digital technology into everyday life was becoming more pronounced, with consumers leveraging the Internet not only for communication and information but also for commerce. This shift was likely driven by several factors, including the growing availability of high-speed Internet, the rise of e-commerce platforms, and changing consumer preferences towards more efficient and time-saving shopping methods.

Looking ahead, the report projected that both the population of online shoppers and the market value of online shopping in Taiwan were expected to grow steadily over the following decade. This anticipated growth was likely fueled by several ongoing trends. Firstly, the continued expansion of Internet infrastructure and increased affordability of digital devices would enable more people to access the Internet, thereby expanding the potential customer base for online retailers. Secondly, advancements in e-commerce technology, such as improved user interfaces, secure payment systems, and faster delivery services, were expected to enhance the online shopping experience, making it even more attractive to consumers. Moreover, the report's projections implied significant opportunities for businesses and entrepreneurs to tap into the expanding e-commerce market. Companies that could effectively harness digital tools and platforms were likely to gain a competitive edge, reaching a broader audience and increasing their market share. For traditional retailers, the shift towards online shopping underscored the need to adapt to the changing landscape by developing robust online presences and integrating digital channels into their business models. Additionally, the projected growth in online shopping highlighted the importance of consumer trust and security in the digital marketplace. As more consumers turned

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to online shopping, ensuring secure transactions and protecting customer data would become paramount for e-commerce platforms. Building trust with consumers through reliable service, transparent policies, and effective communication would be key to sustaining long-term growth in this sector.

The 2010 survey report from the Taiwanese government not only documented the substantial penetration of the Internet in Taiwan but also painted a picture of a society on the cusp of a digital revolution in consumer behavior. The significant engagement in online shopping at the time, coupled with the anticipated growth in this area, pointed to a future where e-commerce would play an increasingly central role in the Taiwanese economy. Businesses that recognized and adapted to these trends were well-positioned to thrive in the evolving digital marketplace.

The Internet has rapidly evolved into a crucial commercial medium, with online shopping emerging as one of its most rapidly expanding uses (Imran et al., 2021; Weeks et al., 2008; Hoffman and Novak, 1996). As e-commerce continues to grow, the complexity of understanding online consumer behavior also intensifies. The decision-making process of consumers in the online shopping environment is not straightforward; rather, it is a multifaceted phenomenon influenced by a variety of factors. Consequently, researchers have focused their attention on identifying and analyzing the elements that impact consumers' purchasing decisions in the digital space. A growing body of research highlights the significance of consumers' perceptions of the Internet in shaping their attitudes and behaviors when engaging in online shopping. Previous studies have posited that individuals' perceptions of the Internet—whether they view it as a tool for convenience, a source of entertainment, or a resource for acquiring information play a critical role in determining their approach to online transactions (Peng et al., 2006; Tsai, 2004, 2007). These perceptions influence not only the frequency and nature of their online activities but also their level of trust in digital platforms, their willingness to adopt new technologies, and their overall satisfaction with the online shopping experience.

Given the pivotal role that these perceptions play, it becomes essential to examine how they intersect with decision-making styles in the context of e-commerce. Consumer decision-making on the Internet encompasses a range of behaviors, from selecting products and comparing prices to evaluating brands and making final purchase decisions. This decision-making process is influenced by various psychological, social, and technological factors that can differ significantly from traditional, in-person shopping experiences. For instance, online consumers must navigate the vast array of choices available to them, often relying on reviews, recommendations, and search algorithms rather than direct product interaction. The purpose of this study, therefore, is to delve into the relationships between consumers' perceptions of the Internet and their decision-making styles when it comes to online shopping. By understanding how different perceptions of the Internet influence consumer behavior, this research aims to provide deeper insights into the mechanisms that drive online purchase decisions. Such insights can not only contribute to the academic understanding of e-commerce but also offer practical implications for businesses and marketers looking to optimize their strategies for engaging with online consumers. Understanding the complexity of online decision-making is crucial for businesses as they seek to cater to diverse consumer needs and preferences in the digital marketplace. Companies that recognize and adapt to the varying perceptions consumers hold about the Internet are better positioned to enhance user experience, build stronger relationships with their customers, and foster greater brand loyalty. In a competitive e-commerce landscape, where consumers are increasingly inundated with choices, these nuanced understandings of online behavior are invaluable for driving growth and ensuring customer satisfaction. In sum, as the Internet continues to serve as a rapidly expanding commercial medium, understanding the intricate link between consumer perceptions and decision-making in the online environment becomes increasingly important. This study seeks to bridge that knowledge gap by exploring how perceptions of the Internet shape the decision-making styles of online consumers, thereby offering a comprehensive view of the factors influencing purchasing behavior in the digital age.

2. LITERATURE REVIEW

Consumers' perceptions of the Internet vary widely, reflecting diverse attitudes and beliefs about its role in their lives. Tsai (2004) conducted a series of interviews with adolescent students to explore these perceptions, ultimately identifying four distinct categories, known as the 4-Ts: Technology, Tool, Toy, and Tour. These categories provide a comprehensive framework for understanding how individuals conceptualize the Internet. According to Tsai (2007), individuals who fall into the 'Technology' category tend to view the Internet as a sophisticated and advanced technical product, one that significantly enhances modern life through its innovative capabilities. These consumers see the Internet as a symbol of progress, a platform that enables cutting-edge developments and facilitates the continuous improvement of daily activities. On the other hand, those in the 'Tool' category perceive the Internet primarily as a functional instrument. For these individuals, the Internet is valued for its practicality, serving as an essential resource for acquiring information, facilitating communication, and conducting trade. It is seen as a means to achieve specific goals efficiently.

In contrast, consumers who perceive the Internet as a 'Toy' associate it with entertainment and leisure. This category is particularly relevant to those who engage in online gaming or other forms of digital amusement, viewing the Internet as a source of pleasure and enjoyment. Finally, the 'Tour' category describes individuals who perceive the Internet as a form of exploration or navigation, likening it to a virtual tour. For these consumers, the Internet offers a way to discover new ideas, cultures, and experiences, acting as a gateway to the broader world. The individuality of consumer behavior, particularly when it comes to choosing between alternative products, is increasingly recognized as a central aspect of consumer decision-making (Lysonski et al., 1996; Shim, 1998; Smith and Sivakumar, 2004; Sproles and Sproles, 2005). This line of research posits that consumers tend to adopt certain fundamental decision-making modes or styles, referred to as 'consumer decision-making styles'. These styles represent consistent mental approaches that individuals use when making purchasing decisions, shaped by their underlying preferences, attitudes, and values.

Consumer decision-making style can be defined as “a mental orientation characterizing a consumer’s approach to making choices” (Sproles and Kendall, 1986). Sproles and Kendall (1986) conceptualize this construct as akin to a ‘basic consumer personality,’ drawing a parallel to the concept of personality in psychology. They developed a streamlined version of an earlier instrument, consisting of 40 items, and used factor analysis with varimax rotation to identify eight distinct mental characteristics of consumer decision-making: perfectionism or high-quality consciousness, brand consciousness, novelty-fashion consciousness, recreational, hedonistic shopping consciousness, price and “value for money” consciousness, impulsiveness, confusion over choice of brands, stores and consumer information, and habitual, brand-loyal orientation towards consumption. Building on Sproles and Kendall’s (1986) work, subsequent research has adapted the Consumer Style Inventory (CSI) to better understand online consumers’ decision-making styles. Yang and Wu (2007) further refined this inventory for the digital context, identifying six key decision-making styles among Internet shoppers. Online shoppers with a perfectionism orientation are driven by a desire to select the highest quality products available. They carefully evaluate their options to ensure that their purchases meet their exacting standards. Consumers with brand consciousness prefer to choose the best and most reputable brands when considering alternatives, often associating brand names with quality and reliability. Those with a novelty-fashion consciousness are drawn to fashionable and novel goods, seeking out the latest trends and innovations in the marketplace.

The style of being confused by overchoice reflects a tendency to feel overwhelmed by the sheer volume of available options and information, leading to difficulties in making purchase decisions. Brand-loyal shoppers consistently choose their favorite brands, demonstrating loyalty based on previous positive experiences or trust in the brand’s reputation. Lastly, impulsive shoppers are inclined to make purchases on a whim, often ignoring their original buying plans in favor of spontaneous decisions. These decision-making styles reflect the diverse ways in which consumers approach online shopping, influenced by their unique perceptions of the Internet. Understanding these styles is crucial for businesses aiming to tailor their marketing strategies and product offerings to meet the varied needs of different consumer segments. By recognizing the interplay between Internet perceptions and decision-making styles, companies can better engage with their target audiences, enhance customer satisfaction, and foster brand loyalty in the competitive online marketplace.

3. METHODOLOGY

The participants in this study comprised 454 consumers with diverse online shopping experiences, drawn from various demographic regions across Taiwan. The sample included 236 females and 218 males, with an average age of 29.07 years. The educational level of the participants was generally above college, reflecting a well-educated group of individuals. These participants were asked to complete two detailed questionnaires: one designed to explore their perceptions of the Internet and another aimed at investigating their decision-making styles in the context of online shopping. To assess the participants’ perceptions of the Internet, the study utilized the Perceptions of the Internet Survey (PIS), which was originally developed by Peng et al. (2006). The PIS is structured into two distinct parts. In the first part, participants were required to express their level of agreement or disagreement regarding the four possible roles that the Internet plays. This was done using a six-point Likert scale, ranging from 1 (strongly disagree) to 6 (strongly agree). The four roles assessed in the PIS were derived from Tsai’s (2004) categorization and included: ‘Internet as technology,’ ‘Internet as tool,’ ‘Internet as toy,’ and ‘Internet as tour.’ To capture these perceptions, four specific items were presented, such as “For me, the Internet is perceived as a technology” and “For me, the Internet is perceived as a tool.”

In the second part of the PIS, participants were asked to allocate a specific number of points, ranging from 1 to 100, to each of the four Internet roles. This allocation was meant to represent the extent to which they agreed with each role, with the total points adding up to 100. For instance, a participant might distribute the points as follows: 20 points for ‘Internet as technology,’ 20 for ‘Internet as tool,’ 30 for ‘Internet as toy,’ and 30 for ‘Internet as tour,’ thereby quantifying their perceptions of the Internet’s multifaceted roles. To further investigate the decision-making styles of participants when using the Internet for shopping, the study employed the Internet Consumer Styles Inventory (ICSI), developed by Yang and Wu (2007). The ICSI consists of 30 items, which are spread across six different scales: Perfectionism consciousness, Brand consciousness, Novel-fashion consciousness, Confused by overchoice, Brand-loyalty consciousness, and Impulsiveness. Each of these scales includes 2 to 6 items, designed to measure specific aspects of consumer decision-making styles in the online context.

Participants responded to these items using a 5-point Likert scale, where they indicated their level of agreement or disagreement with bipolar statements. The statements were carefully crafted to capture the nuances of each decision-making style, providing a comprehensive picture of how consumers approach online shopping. The reliability of the ICSI scales was thoroughly assessed, with Cronbach’s Alpha coefficients ranging from 0.83 to 0.92, indicating a high level of internal consistency and reliability according to established standards (Nunnally, 1978). This rigorous methodological approach, combining the PIS to assess Internet perceptions and the ICSI to evaluate decision-making styles, allowed the study to capture a rich and nuanced understanding of how Taiwanese consumers perceive and interact with the Internet in the context of online shopping. The findings from this research offer valuable insights for businesses and marketers aiming to tailor their strategies to better meet the needs and preferences of online consumers in a rapidly evolving digital marketplace.

4. RESULTS

The findings in Table 1 reveal how participants perceive the internet across four conceptual domains—technology, tool, toy, and tour—based on both a 6-point Likert scale and a 1–100 rating scale. The highest mean scores in both parts of the Perceived Internet Scale (PIS) are associated with the “Tool” dimension (Mean = 5.47, SD = 0.59 on the Likert scale;

Mean = 37.05, SD = 12.77 on the 1–100 scale), indicating that participants predominantly perceive the internet as a functional instrument facilitating tasks, efficiency, and utility. This perception strongly aligns with previous research highlighting the utilitarian motivations in online contexts, particularly in shopping behaviors where consumers seek information, product comparison, and ease of transaction (Childers et al., 2001; To et al., 2007).

The second-highest score on the Likert scale was for the “Technology” dimension (Mean = 5.21, SD = 0.74), with its corresponding 1–100 score also relatively high (Mean = 33.42, SD = 13.88), suggesting that respondents view the internet as an advanced and evolving technological platform. This reflects awareness and appreciation for the infrastructure and innovation underpinning internet-based systems, which can affect decision-making styles by reinforcing trust in the medium's reliability and modernity (Chen & Tan, 2004).

In contrast, the “Toy” and “Tour” dimensions received lower mean ratings on both scales (Toy: 4.18 Likert, 13.69 scale; Tour: 4.14 Likert, 17.81 scale), suggesting that participants less frequently associate the internet with entertainment or exploration experiences. The relatively lower emphasis on these dimensions implies a preference for functional and goal-oriented internet use over hedonic or experiential browsing, which is consistent with studies identifying utilitarian motivations as more influential in online shopping than hedonic ones, especially among task-oriented consumers (Chiu et al., 2014; Wolfinbarger & Gilly, 2001).

Overall, the data suggest that perceptions of the internet as a “tool” and “technology” exert a stronger influence on online shopping decision-making styles compared to its conceptualization as a source of entertainment or exploration. These insights can inform e-commerce platforms aiming to enhance user experience by emphasizing efficiency, technical performance, and reliability in their interface design and service offerings.

Table 1: Participants’ Responses on the PIS

| | Mean | SD |
|---------------------------------|-------|-------|
| Part One (6-Point Likert Scale) | | |
| Technology | 5.21 | 0.74 |
| Tool | 5.47 | 0.59 |
| Toy | 4.18 | 0.88 |
| Tour | 4.14 | 0.85 |
| Part Two (1–100 Scale) | | |
| Technology | 33.42 | 13.88 |
| Tool | 37.05 | 12.77 |
| Toy | 13.69 | 10.62 |
| Tour | 17.81 | 9.67 |

Table 2 provides a detailed correlation matrix highlighting the relationships between participants' perceptions across the two measurement formats of the Perceived Internet Scale (PIS): the 6-point Likert scale and the 1–100 rating scale. The values on the diagonal represent correlations within the same conceptual domain across both parts of the scale, and these are all significant and positive—for instance, Technology shows a correlation of 0.28**, Tool 0.31**, Toy 0.45**, and Tour 0.34**—indicating convergent validity and consistency in respondents' evaluations of each internet perception category across different response formats. This supports previous scale validation practices that endorse the use of multiple-item, multi-format measures to ensure reliability and internal consistency (Hair et al., 2010).

Moreover, the off-diagonal correlations uncover nuanced relationships among different perceptions. Notably, Technology is negatively correlated with both Toy ($r = -0.10^*$) and Tour ($r = -0.20^{**}$), which implies that respondents who perceive the internet more as a technological resource are less likely to associate it with entertainment or exploratory uses. Similarly, the Tool dimension is negatively correlated with Tour ($r = -0.13^*$) and marginally with Toy ($r = -0.08$), suggesting that utilitarian views of the internet are inversely related to more hedonic or leisure-based perspectives. These negative associations align with findings from To et al. (2007) and Childers et al. (2001), who emphasized that utilitarian and hedonic motivations often function independently in the context of online engagement.

Interestingly, the strongest positive correlation exists between Toy and Toy (0.45**), reaffirming that entertainment-related perceptions are coherent across scale types, even though this dimension scored lowest in Table 1. The relatively weak or negative inter-factor correlations (e.g., between Tool and Technology: 0.06; between Toy and Technology: -0.13^{**}) further suggest that participants maintain distinct and somewhat exclusive mental categories regarding internet use, which may lead to differentiated online decision-making strategies depending on their dominant perception.

Overall, the results from Table 2 reinforce that individuals hold multifaceted views of internet functionality, with utilitarian (Tool, Technology) and experiential (Toy, Tour) orientations inversely related. These findings can be instrumental in tailoring e-commerce or digital marketing strategies—highlighting, for example, that platforms targeting productivity-minded users should avoid framing their services in overly playful or exploratory terms, which may dilute appeal to efficiency-seeking consumers.

Table 2: Correlations between Responses on the Two Parts of the PIS

| 6-Point Likert Scale | Technology | Tool | Toy | Tour |
|----------------------|------------|---------|--------|---------|
| Technology | 0.28** | 0.06 | -0.10* | -0.20** |
| Tool | -0.11* | 0.31** | -0.08 | -0.13* |
| Toy | -0.13** | -0.12* | 0.45** | 0.07 |
| Tour | -0.14* | -0.18** | -0.11* | 0.34** |

Table 3 presents the correlations between internet perceptions measured on a 1–100 scale (Technology, Tool, Toy, Tour) and various online shoppers' decision-making styles. The findings suggest that specific internet perceptions are meaningfully linked with distinct consumer behavior tendencies in online environments.

One of the most prominent results is the significant positive correlation between perceiving the internet as a *Tool* and *Perfectionism Consciousness* ($r = 0.25^{**}$), implying that consumers who view the internet primarily as a functional and efficient resource are more likely to engage in careful, detail-oriented shopping behavior. This supports earlier findings that utilitarian internet users tend to engage in extensive information processing before making purchase decisions (Kacen & Lee, 2002).

Conversely, *Tool* perception is negatively associated with *Brand Consciousness* ($r = -0.16^{**}$) and *Novel-Fashion Consciousness* ($r = -0.18^{**}$), indicating that utility-focused consumers are less concerned with brand prestige or fashion trends. This aligns with the utilitarian versus hedonic dichotomy often discussed in consumer behavior literature, where function-driven users prioritize practicality over style (Batra & Ahtola, 1991).

In contrast, the *Toy* perception of the internet shows a different pattern. It is positively correlated with *Brand Consciousness* ($r = 0.14^{*}$), *Novel-Fashion Consciousness* ($r = 0.16^{**}$), and most notably *Brand-Loyalty Consciousness* ($r = 0.30^{**}$). This indicates that individuals who see the internet as an entertaining and experiential medium are more likely to be responsive to brand identity and loyalty cues—likely due to their increased exposure to brand-centered content and emotionally engaging marketing formats (Park et al., 2010). Moreover, *Toy* is also positively associated with *Confused by Overchoice* ($r = 0.22^{**}$), suggesting that these users may face cognitive overload due to the wide array of stimulating online options available to them, which is consistent with Schwartz's (2004) "paradox of choice."

Interestingly, *Technology* and *Tour* perceptions showed minimal or no significant correlations with the decision-making styles examined, except for a slight negative relationship between *Toy* and *Perfectionism Consciousness* ($r = -0.12^{**}$) and *Tool* and *Brand-Loyalty Consciousness* ($r = -0.15^{*}$). This pattern may reflect the fact that the instrumental (Tool) and entertainment-based (Toy) perceptions are more directly influential on consumer behavior than abstract or exploratory internet views (as captured by Technology or Tour).

Overall, the results in Table 3 emphasize that online shoppers' decision styles are not uniform but are shaped by how they perceive the internet's role—whether as a tool for efficiency, a toy for entertainment, or a space of exploration. These insights can guide marketers in crafting more targeted digital campaigns, tailoring content according to consumers' dominant perceptual orientation.

Table 3: Correlations between Perceptions of the Internet and Online Shoppers' Decision-Making Style

| | Technology (1–100) | Tool (1–100) | Toy (1–100) | Tour (1–100) |
|-----------------------------|--------------------|--------------|-------------|--------------|
| Perfectionism Consciousness | 0.02 | 0.25** | -0.12** | -0.09 |
| Brand Consciousness | 0.05 | -0.16** | 0.14* | 0.04 |
| Novel-fashion Consciousness | 0.08 | -0.18** | 0.16** | 0.03 |
| Confused by Overchoice | -0.05 | -0.08 | 0.22** | -0.02 |
| Brand-Loyalty Consciousness | -0.03 | -0.15* | 0.30** | -0.03 |
| Impulsiveness | -0.01 | -0.04 | 0.07 | 0.02 |

5. CONCLUSIONS

Previous studies have indicated that users' perceptions of the Internet can vary significantly, and these differing perceptions can influence their online behavior. The findings from this study reveal that the online consumers surveyed tended to score relatively high in perceiving the Internet as both a 'Tool' and 'Technology.' These consumers primarily view the Internet as a technological resource that facilitates the search for valuable information. This outcome aligns with general expectations, as it is common for consumers to use the Internet during the pre-purchase phase to gather information on product features, compare prices, and make informed decisions. This finding holds important implications for marketers. Given that consumers are using the Internet as a tool to search for and evaluate products before making a purchase, it is crucial for marketers to ensure that comprehensive and accessible product information is readily available online. By providing detailed information on websites, blogs, and other digital platforms, marketers can enhance the visibility and appeal of their products. This strategy increases the likelihood that consumers will consider these products as viable options during their decision-making process, ultimately influencing purchasing behavior. Therefore, the study underscores the importance of an information-rich online presence in shaping consumer choices and driving sales in the digital marketplace.

The study's findings further reveal significant relationships between consumers' perceptions of the Internet and their decision-making styles. Specifically, the perception of the Internet as a 'Tool' is positively associated with the Perfectionism consciousness decision-making style, while it is negatively related to both Brand consciousness and Brand-loyalty consciousness. This suggests that Internet shoppers who view the Internet primarily as a 'Tool' are inclined to gather extensive product information online to ensure they purchase the highest overall quality. However, these consumers are less likely to focus on any particular brand, indicating that their purchasing decisions are driven more by quality considerations than by brand allegiance or loyalty. On the other hand, the study also shows that consumers who perceive the Internet as a 'Toy' exhibit a strong correlation with Brand-loyalty consciousness. These consumers, particularly those who engage in online gaming, tend to view the Internet as a source of entertainment and pleasure. Online gamers often invest time and money into games, paying fees based on their gaming time.

To maximize profits, game providers frequently offer creative content and sales promotions to keep gamers engaged and increase their playing time. This engagement fosters a strong sense of loyalty to specific games, which can extend to other aspects of their online behavior. This tendency towards loyalty in gaming may carry over into their online shopping habits. Gamers who develop a preference for certain brands are likely to exhibit high brand loyalty, repeatedly purchasing from these brands in a manner consistent with their commitment to specific games. This insight suggests that consumers' engagement with online entertainment, particularly gaming, can significantly influence their brand loyalty in the broader context of online shopping. For marketers, understanding these dynamics is crucial for developing strategies that leverage brand loyalty among consumers who perceive the Internet as a source of enjoyment and entertainment. The results of this study offer valuable insights, demonstrating that online shoppers' decision-making behavior is closely linked to their perceptions of the Internet. This finding provides a foundation for marketers and researchers to better understand and clarify the factors that drive consumers' online purchasing behaviors. By recognizing how different perceptions of the Internet influence buying decisions, businesses can tailor their marketing strategies more effectively to meet the needs and preferences of various consumer segments. However, it's important to note that the relationship between Internet perceptions and consumers' decision-making styles was examined specifically within a sample of Taiwanese consumers in this study. Previous research on consumer decision-making has indicated that decision-making styles can vary significantly across different cultural and national contexts. Therefore, the findings from this study may not be universally applicable. Cross-cultural differences could play a crucial role in shaping how consumers perceive the Internet and, consequently, how they make purchasing decisions online. To build on the insights from this study, future research should consider exploring the relationship between Perceptions of the Internet Survey (PIS) and Internet Consumer Styles Inventory (ICSI) across different cultural contexts. Investigating these cross-cultural issues could reveal important variations in how consumers from different countries interact with and perceive the Internet, leading to a more comprehensive understanding of global online shopping behaviors. Such research would help to generalize the findings and provide more nuanced strategies for marketers operating in diverse international markets.

REFERENCES

- Batra, R., & Ahtola, O. T. (1991). Measuring the hedonic and utilitarian sources of consumer attitudes. *Marketing Letters*, 2(2), 159–170.
- Chen, L. D., & Tan, J. (2004). Technology adaptation in e-commerce: Key determinants of virtual stores acceptance. *European Management Journal*, 22(1), 74–86.
- Childers, T. L., Carr, C. L., Peck, J., & Carson, S. (2001). Hedonic and utilitarian motivations for online retail shopping behavior. *Journal of Retailing*, 77(4), 511–535.
- Chiu, C. M., Wang, E. T. G., Fang, Y. H., & Huang, H. Y. (2014). Understanding customers' repeat purchase intentions in B2C e-commerce: The roles of utilitarian value, hedonic value and perceived risk. *Information Systems Journal*, 24(1), 85–114.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate Data Analysis* (7th ed.). Pearson Education.
- Hoffman, D. L., & Novak, T. P. (1996). Marketing in hypermedia computer-mediated environments: Conceptual foundations. *Journal of Marketing*, 60(3), 50–68.
- Imran, C. A. B., Shakir, M. K., & Qureshi, M. A. B. (2021). Regulatory Perspectives on AI in Autonomous Vehicles Global Approaches and Challenges. *The Asian Bulletin of Green Management and Circular Economy*, 1(1), 62–74.
- Kacen, J. J., & Lee, J. A. (2002). The influence of culture on consumer impulsive buying behavior. *Journal of Consumer Psychology*, 12(2), 163–176.
- Lyonski, S., Durvasula, S., & Zotos, Y. (1996). Consumer decision-making styles: A multi-country investigation. *European Journal of Marketing*, 30(12), 10–21.
- Nunnally, J. (1978). *Psychometric theory*. New York: McGraw-Hill.
- Park, C. W., MacInnis, D. J., Priester, J., Eisingerich, A. B., & Iacobucci, D. (2010). Brand attachment and brand attitude strength: Conceptual and empirical differentiation of two critical brand equity drivers. *Journal of Marketing*, 74(6), 1–17.
- Peng, H.-Y., Tsai, C.-C., & Wu, Y.-T. (2006). University students' self-efficacy and their attitudes toward the Internet: The role of students' perceptions of the Internet. *Educational Studies*, 32(1), 73–86.
- Research Development and Evaluation Commission. (2010). Digital divide in Taiwan.
- Schwartz, B. (2004). *The Paradox of Choice: Why More Is Less*. Harper Perennial.

- Shim, S. (1998). Adolescent consumer decision-making styles: The consumer socialization perspective. *Psychology & Marketing, 13*(6), 547-569.
- Smith, D. N., & Sivakumar, K. (2004). Flow and Internet shopping behavior: A conceptual model and research propositions. *Journal of Business Research, 57*(10), 1199-1208.
- Sproles, E. K., & Sproles, G. B. (2005). Consumer decision-making styles as a function of individual learning styles. *Journal of Consumer Affairs, 24*(1), 134-147.
- Sproles, G. B., & Kendall, E. L. (1986). A methodology for profiling consumer decision-making styles. *Journal of Consumer Affairs, 20*(2), 267-279.
- To, P. L., Liao, C., & Lin, T. H. (2007). Shopping motivations on internet: A study based on utilitarian and hedonic value. *Technovation, 27*(12), 774-787.
- Tsai, C.-C. (2004). Adolescents' perceptions toward the Internet: A 4-T framework. *Cyber Psychology & Behavior, 7*(4), 458-463.
- Tsai, C.-C. (2007). The relationship between Internet perceptions and preferences towards Internet-based learning environment. *British Journal of Educational Technology, 38*(1), 167-170.
- Tsai, C.-C., & Lin, C.-C. (2004). Taiwanese adolescents' perceptions and attitudes regarding the Internet: Exploring gender differences. *Adolescence, 39*(156), 725-734.
- Weeks, C. S., Cornwell, T. B., & Drennan, J. C. (2008). Leveraging sponsorships on the Internet: Activation congruence and articulation. *Psychology & Marketing, 25*(7), 637-654.
- Wolfinbarger, M., & Gilly, M. C. (2001). Shopping online for freedom, control, and fun. *California Management Review, 43*(2), 34-55.
- Yang, C., & Wu, C.-C. (2007). Gender and Internet consumers' decision-making. *Cyber Psychology & Behavior, 10*(1), 86-91.