



Beyond Clicks to Bricks: Studying the Impact of Webrooming on High-Involvement Appliance Purchases of Millennials

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ABSTRACT

Webrooming is a two-part shopping process where consumers research online before purchasing in-store. Anchored in Icek Ajzen's Theory of Planned Behavior, this study explores the webrooming trend in the high-involvement appliance category, including items such as televisions, refrigerators, air-conditioning units, and washing machines. Building on Eugene et al.'s (2021) investigation into consumers' tactile preferences, this research adds High Involvement Appliances as a moderating factor. The study employs purposive sampling, collecting data from 100 respondents aged 26-45 (Millennials) residing in Bulacan, Laguna, Cavite, and Rizal who have previously engaged in webrooming. The findings indicate that high-involvement appliances do not significantly moderate the relationships between Attitude, Subjective Norms, and Perceived Behavioral Control with the Intention to Webroom. This insight is crucial for both online and physical retailers, as it highlights the importance of understanding millennials' unique preferences and behaviors regarding high-involvement appliances. It also examines factors affecting this trend, potentially reshaping marketing strategies in the sector. Additionally, the study underscores the significance of an omnichannel approach, integrating online and offline touchpoints to enhance the shopping experience. The study aims to provide actionable insights for small- and medium-sized enterprises in the appliance sector, focusing on how millennials in the neighboring provinces of Metro Manila are influenced by webrooming before making high-involvement appliance purchases.

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Introduction

In this contemporary era of e-commerce, consumers often engage in a behavior known as webrooming, where they research products online before purchasing them in physical stores. This trend is particularly prominent among those who value tactile engagement with products, especially when considering high-value or intricate items (Aw et al., 2021). This research delves into the nuances of webrooming, explicitly concerning the procurement of high-involvement appliances (HIA) in Bulacan, Laguna, Cavite, and Rizal provinces. By building upon foundational research and narrowing the focus to specific geographical regions and product categories, this study aims to shed light on the socio-economic and cultural factors inherent to these provinces that shape webrooming behaviors. Clarifying preferences and behaviors associated with webrooming in the high-involvement appliance sector, this study seeks to provide insights for small to medium-sized appliance retailers in these provinces, enabling them to craft strategies to compete more effectively with more extensive, well-established retailers in Metro Manila and foster localized economic growth.

This research explores the impact of webrooming on millennials' high-involvement appliance purchases in provinces neighboring Metro Manila. It focuses on the interplay between online research and physical store buying, aiming to uncover insights into the preferences and challenges of millennials in this shopping journey. The study addresses several questions: Do high-involvement appliances moderate the relationship between the constructs of the Theory of Planned Behavior and the intention to webroom? To what extent do attitudes, subjective norms, and perceived behavioral control influence millennials' intentions to use webrooms for high-involvement appliances? What influence does the technological savviness of millennials in Bulacan, Laguna, Cavite, and Rizal have on their ability to engage effectively in webrooming for high-involvement appliances? What strategies can SMEs in the appliance sector utilize to enhance their marketing strategies and compete with larger retailers?

According to Eugene et al. (2021), traits of a high need for touch steer consumers away from online to physical stores for better haptic evaluation of products. This has led the researchers to investigate whether this behavior extends to the appliance category, described as "high-involvement appliances."

The objectives of this research are to:

1. Understand the impact of webrooming on consumer buying behavior for high-involvement appliances on e-commerce platforms in the neighboring provinces of Metro Manila.
2. Examine whether high-involvement appliances moderate the relationship between the Theory of Planned Behavior constructs and the intention to webroom.
3. Assess the impact of attitudes, subjective norms, and perceived behavioral control on the intention of millennials to engage in webrooming for high-involvement appliances.
4. Explore the influence of technological savviness on millennials in Bulacan, Laguna, Cavite, and Rizal in effectively engaging in webrooming for high-involvement appliances.
5. Identify strategies SMEs in the appliance sector can utilize to enhance their marketing strategies and compete effectively with larger retailers.

The study's insights offer several benefits. For home appliance companies and retailers, it provides a blueprint for enhancing synergy between their websites and physical stores, suggesting that integrating both offline and online platforms can amplify their online presence and sales conversion. Small to medium-sized appliance retailers, especially those competing with larger firms from metropolitan areas like Metro Manila, can leverage these insights to formulate strategies that level the playing field. For consumers, the results aid in having a seamless and practical purchasing experience from online canvassing to offline buying, helping them make better-informed decisions. Marketers can use the findings to add effective offline and physical store marketing

strategies. For future researchers, the study contributes to academic knowledge on millennials' purchase decisions on high-involvement products, offering a foundation for further exploration, particularly with younger consumers more embedded in the digital world.

Moreover, the study aligns with the United Nations' Sustainable Development Goals (SDGs). It supports SDG 8 (Decent Work and Economic Growth) by providing strategic insights for local appliance retailers, fostering economic growth in targeted regions, and creating job opportunities. It also addresses SDG 9 (Industry, Innovation, and Infrastructure) by underscoring the innovative synergy between online and physical retail spaces, promoting resilient infrastructure and inclusive industrialization. Understanding consumer trends in these provinces could spark significant retail innovations, such as enhanced e-commerce platforms or improved in-store experiences.

This research focuses on millennials, recognizing that generational differences may influence consumer behavior. Consequently, the results may not be directly extrapolated to other age groups. Additionally, the study concentrates on high-involvement appliances, recognizing that consumer decision-making processes for low-involvement appliances may differ. Moreover, the geographical scope is limited to neighboring provinces in Metro Manila, which may not represent the diverse market conditions in other regions. Furthermore, there is a lack of thorough understanding of appliance purchases in the Philippines, particularly regarding the specific factors that influence buying behavior in different regions. This gap in knowledge underscores the need for more comprehensive research to better capture the nuances of consumer behavior across the country.

Literature Review

Webrooming

Webrooming, a form of cross-channel free-riding, is when customers research products using one retailer's channel or social media page before buying from offline or brick-and-mortar stores (Flavián et al., 2019, 2020). This behavior becomes particularly competitive when consumers gather information from company X's online platform but complete their purchase through company Y's offline platform, leading to significant profit losses for company X (Manss et al., 2020). Academic insights into webrooming also delve into the specific channel attributes influencing consumer behavior. For instance, Arora (2018), Sahney (2019), and Aw (2019) examine the dynamics of online and offline channels, identifying factors like search costs, perceived risk, and the need for physical product assessment. They suggest that the ease of online research, combined with the tangibility and immediacy of offline purchasing, makes webrooming appealing. Furthermore, recent studies, such as those by ZiQiang et al. (2023), have also identified diverse motivational factors behind webrooming, ranging from efficiency to curiosity.

Contrastingly, showrooming describes a consumer behavior pattern where individuals visit physical stores to examine products yet eventually opt to purchase them online, often motivated by lower prices found on the web. This trend has gained momentum alongside the growth of internet accessibility and mobile technology usage. A study by Accenture (2013) revealed that 73% of respondents admitted to showrooming. The report also highlights that a more significant number, 88%, engaged in "webrooming," which is browsing first on the internet and then buying in-store. This interplay between showrooming and webrooming illustrates consumers' multifaceted strategies, utilizing digital and traditional retail channels for well-informed purchase decisions (Kuksov et al., 2018).

Retailers are changing strategies to provide customers with accessible, seamless shopping experiences across different platforms. This reflects how customers often use multiple channels to shop (Hall et al., 2017). The overlap between these channels allows customers to begin shopping in one place and finish in another.

This new trend poses challenges for retailers, who must find ways to attract and retain customers throughout their shopping journey across these channels (Van Nguyen et al., 2022).

Omni-channel Marketing

Omnichannel marketing represents a fusion of online and offline sales channels, aiming to enhance the overall shopping experience and rejuvenate offline consumer spending. This approach has gained traction despite the proliferation of Internet and mobile shopping options, as physical stores remain a favored choice among consumers. E-tailers increasingly establish offline outlets to cater to the multifaceted shopping preferences in an omnichannel landscape. With webrooming in effect, demand for offline channels in omnichannel marketing increases. The O2O (Online to Offline) model synergizes online sales and marketing efforts with physical retail experiences, allowing consumers to engage with products in-store before completing transactions online (Phang et al., 2014). Traditional retail, often constrained to local clientele under the B2C (Business to Consumer) e-commerce model, primarily focuses on online sales (Suryandari et al., 2014). Contrasting with B2C, the O2O framework seeks to attract potential customers by bridging online platforms with physical stores, facilitating an interactive product experience before online purchasing (Chauhan et al., 2022). While webrooming specifically involves online research followed by offline purchasing, O2O encompasses various integrative strategies between online and offline channels, enhancing the overall consumer journey. Webrooming, thus, can be viewed as a component of the broader O2O strategy.

High-Involvement Appliances

Consumer decision-making varies significantly between high-involvement and low-involvement products. High-involvement products, as defined by CEOpedia (2023), necessitate considerable consumer deliberation and investigation prior to purchase. This process includes evaluating the benefits and risks, budget considerations, and extensive information gathering. Consumers are also more inclined to seek advice from peers and families, online product reviews, price promotions, and discounts. These products, including cars, holidays, computers, and wedding dresses, generally have a longer life cycle and engender distinct consumer expectations.

In contrast, low-involvement products, characterized by Santosa (2021), involve a more expedited decision-making process. This process typically needs more in-depth brand exploration and evaluation, leading to quicker purchasing decisions. This distinction highlights the varying levels of consumer engagement and research intensity based on the product's nature and perceived importance.

Furthermore, high-involvement products are often associated with major decisions or commitments (Oxford et al.). These include purchases like homes or cars, investments in stocks or insurance policies, or acquisitions with hefty price tags, such as vacations or wedding dresses. Products with complex features, like electronic devices or software applications, also fall into this category.

Appliances in the Philippines and Filipino Consumers

In 2022, the Philippines experienced a mixed performance in the consumer appliance sector. The easing of COVID-19 restrictions following nationwide vaccination drives prompted people to resume normal activities outside their homes, resulting in heightened demand for household appliances like washing machines and Refrigerators. Conversely, products like ovens, more popular during the stay-at-home period in 2021, experienced a decline in growth (Euromonitor, 2023). Projections indicate a resurgence in the consumer appliance market, with expectations of reaching pre-pandemic levels by 2023. This anticipated growth is attributed to the fast-paced lifestyles of Filipinos who seek time-saving appliances, especially as they transition

back to physical workplaces and schools, including hybrid settings. The increasing integration of smart home technologies is also expected to fuel the demand for connected appliances, particularly with the emergence of competitive pricing. The consumer appliances market is projected to experience a growth rate of 4.8% annually over the next four years, indicating a steady increase in sales (Euromonitor, 2023).

Despite the rise in e-commerce, traditional physical stores remain vital in the Filipino market. The relaxation of pandemic restrictions has reinvigorated in-store sales. Online and in-store purchases offer the same warranties, enhancing consumer confidence. The consumer appliance demand has been on an upward trend since 2012, driven by factors such as increased disposable income, remittances from Overseas Filipino Workers (OFWs), and the expanding business processing outsourcing (BPO) sector (Newstex, 2015). Filipino consumers across all generations strongly prefer detailed product information before purchasing, especially electronic items. Decisions are significantly influenced by brand reputation, price, quality, and advertising (Frinz et al., 2022). There is a notable preference for multi-functional, energy-efficient appliances that provide value for money.

Neighboring Provinces of Metro Manila

The trend of urbanization is anticipated to escalate in the Philippines, projected to encompass 57.3% of all households by 2027 (Euromonitor, 2023). Research by the Asian Development Bank in 2022 revealed that urbanization levels vary across regions, with Region IV-A recording an average of 78.21% and Region III at 72.04%, excluding the National Capital Region (ADB, 2022). This shift towards urban living is transforming rural households' consumption behaviors and living standards, a phenomenon also observable in nearby countries. For instance, in India, these changes are evident in food and dietary consumption, fashion, entertainment, and technology usage (Prabhakar & Sharma, 2019). Consumers also prefer to personally examine and test appliances in stores, benefiting from the expertise of sales staff, before ultimately purchasing online, where they find more competitive pricing. Similarly, in the Philippines, shopping centers serve as social hubs, promoting impulse purchases, particularly of smaller, more portable appliances (Euromonitor, 2023).

Role of Attitude, Subjective Norms, and Purchase Decision leading to the intention to webroom

Webrooming has become a prominent trend, especially when consumers consider high-risk informational products like computers and mobile phones. This behavior reflects the influence of product types on consumer preferences and channel attitudes (Yan et al., 2021). In the Philippines, 59.6% of e-commerce users are within a specific age range, supporting the study's focus on this demographic (Statista, 2023). The decision to purchase offline, heightened by perceived online risks, does not necessarily affect where consumers seek product information. This pattern aligns with literature indicating that concerns about financial and performance risks lead to thorough cross-channel searches (Verhoef et al., 2007; Mohseni et al., 2018). The choice of search channel is further influenced by a desire for tactile experiences with certain products, like apparel and groceries, which drives more online searches (Young Kim et al., 2004; Orth et al., 2013; Kim et al., 2017). However, Yan et al. (2021) note that this need for a tactile experience only affects the information search phase, not the final purchasing decision.

In scenarios involving high-risk purchases, consumers typically seek more information online, particularly for 'search goods' like clothing. In contrast, 'experience goods' like dining out require direct experience for evaluation, leading consumers to prefer traditional channels for these purchases (Frasquet et al., 2015). Social influences, such as subjective norms, significantly impact attitudes toward online purchases but not actual buying behavior, suggesting that online shopping is often seen as a solitary activity (Francisco et al.,

2017; Luo et al., 2014). For experience goods, traditional offline channels remain preferred due to the ability to assess product quality directly, reducing the perceived risk of buying inferior products. Conversely, the risk of purchasing search goods like electronics is lower online, as these products are usually standardized (Frasquet et al., 2015; Chiang et al., 2003). The inclination to search online but purchase offline, known as webrooming, contrasts with showrooming, where the opposite is true. Perceived online purchase risks increase offline buying intentions but do not affect search preferences (Srabanti et al., 2021).

Framework

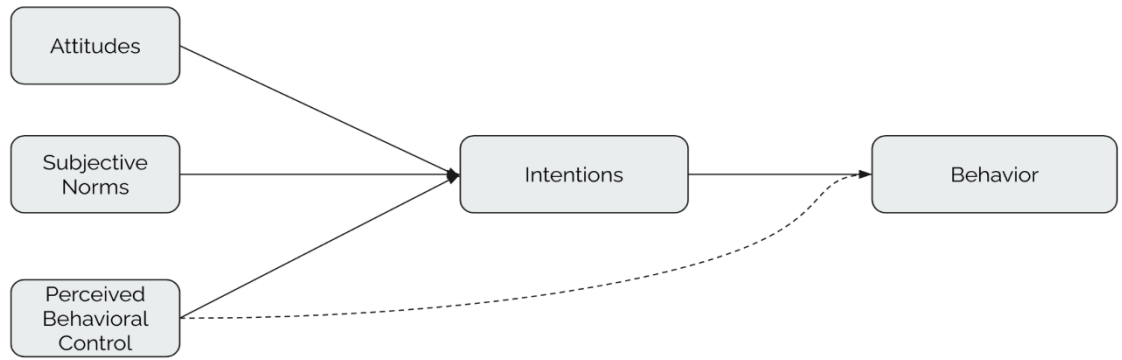


Figure 1 - Theoretical Framework

The Theory of Planned Behavior (TPB), developed by Icek Ajzen in 1991, is a psychological framework that explains how attitudes, social influences, and perceived control shape an individual's actions. This theory is widely applied in various fields, including health, marketing, and environmental conservation. In the context of consumer behavior, particularly regarding webrooming for high-involvement appliances, TPB sheds light on why consumers research high-involvement appliances online but opt to make their final purchases in physical stores. It suggests that consumers' beliefs about online research, the impact of their social networks' opinions, and their confidence in effectively conducting online research drive them to the webroom. However, their actual purchase behavior may involve visiting offline stores, which are influenced by these interconnected factors.

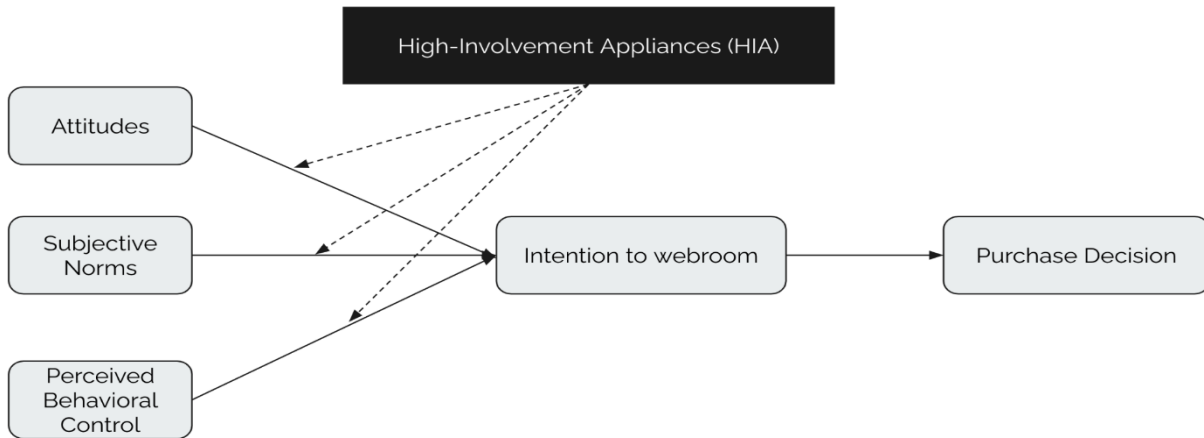


Figure 2 - Conceptual Framework

Within this conceptual framework, Attitude, subjective Norms, and Perceived Behavioral Control are independent variables that affect Intention (to webroom), which leads to consumers' purchase decisions. The

researchers are exploring the necessity of webrooming for retailers, recognizing the increasingly tech-savvy consumer base. The term "Intention" has been refined to "Intention to webroom" for clarity. Additionally, the introduction of high-involvement appliances as a moderating variable aims to assess its impact on the propensity of consumers to engage in webrooming behaviors.

Attitude

Attitude refers to the degree to which a person has a favorable or unfavorable evaluation of the behavior of interest. This evaluation encompasses the individual's feelings, beliefs, and predispositions towards the behavior, shaped by their perceptions of the behavior's outcomes and their overall value judgments (Ajzen, 1991). In the context of consumer behavior, attitude plays a crucial role in determining an individual's intention to engage in specific actions, such as webrooming—researching products online before purchasing them in physical stores. The researchers want to understand if attitude plays a factor in influencing millennials' intention to go to the webroom, leading to a purchase decision when buying high-involvement appliances.

Ho1. Attitude influences millennials' intention to go to the webroom, leading to a purchase decision.

Subjective Norms

Ajzen (1991) explained that subjective norms refer to an individual's perception of whether or not others believe they should engage in a specific behavior. Millennials are particularly influenced by their peers and influential individuals' opinions. This validation by peers and significant people can confirm the practice of gathering comprehensive information online, leading to well-informed purchasing decisions. Additionally, it has been demonstrated to impact channel-switching behavior (Pookulangara et al., 2011) and cross-channel free-riding behavior (Chou et al., 2016). Therefore, subjective norms are expected to play a significant role in predicting consumers' intentions to participate in webrooming behavior.

Ho2. Subjective Norms influence the Intention of the Webroom of Millennials, leading to a purchase decision.

Perceived Behavioral Control

Perceived behavioral control is a person's perception of the ease or difficulty of performing the behavior of interest. Perceived behavioral control varies across situations and actions, resulting in a person having varying perceptions of behavioral control depending on the situation (Ajzen, 1991). Customers' multi-channel self-efficacy is their ability and confidence to use different channels, such as online platforms and physical stores, to complete a transaction (Chiu et al., 2011). This includes confidence in navigating the web and having internet experience. It is expected that perceived multi-channel self-efficacy will directly impact webrooming behavior, as consumers who lack this self-efficacy may have difficulty using both channels effectively in a single purchase process.

Ho3. Perceived behavioral control influences millennials' intention to go to the webroom, leading to a purchase decision.

Intention to webroom

Intention refers to the motivational factors that influence a given behavior. According to Ajzen (1991), the stronger the intention to perform the behavior, the more likely it is to be performed. Intention is viewed as the direct precursor to actual behavior, with stronger intentions increasing the likelihood of the behavior occurring. Likewise, in webrooming, the intention to engage in webrooming significantly influences whether the behavior is ultimately carried out.

Ho4. The need for high-involvement appliances moderates the relationship between attitude and intention in the webroom, such that attitude influences the intention of millennials to use the webroom when high-involvement appliances are present.

Purchase Decision

The decision to purchase is influenced by several factors: the type of product or service, the quantity purchased, the location of the purchase, the timing, and the payment methods used. These elements collectively shape a consumer's choice from the available purchasing options. Goldbach (2023) highlights that an individual's purchasing decisions are significantly influenced by their motivations within a specific environment. These motivations vary in intensity and profoundly affect the purchasing process, including the interactions and dynamics related to different aspects of consumer behavior.

Ho5. Perceived behavioral control influences millennials' intention to go to the webroom, leading to a purchase decision.

High-Involvement Appliances

According to Radder et al. (2008), High-involvement products require significant research and consideration before making a purchase decision. These products are typically more expensive and have a higher risk. Examples of high-involvement products include cars, houses, and electronics. Since the study intends to craft better marketing strategies for appliance SMEs, we focus only on high-involvement appliances. High-involvement products, as defined by CEOpedia (2023), require significant consumer consideration and research before purchase. These products necessitate thorough consumer deliberation and investigation prior to purchase.

Ho6. The need for High-Involvement Appliances moderates the relationship between Perceived Behavioral Control and Intention to Webroom such that Perceived Behavioral Control influences the Intention to Webroom of Millennials when High-Involvement Appliances are present.

We added this final hypothesis to thoroughly assess the effect of webrooming on high-involvement appliances by consumers under the millennial demographic.

Ho7. The Intention to Webroom influences Millennials' purchase decisions when buying high-involvement appliances.

Methodology

This study employs a quantitative research design with a correlational approach to examine the relationship between attitudes, subjective norms, and perceived behavioral control, moderated by high-involvement appliances, on attention to webrooming and its impact on purchase decisions. Using purposive sampling, the study targeted Filipino consumers aged 26-45 years (Millennials) in Bulacan, Laguna, Cavite, and Rizal who have engaged in webrooming. Participation was voluntary, with 100 respondents completing an online survey via Google Forms from October 11 to October 31, 2023. The survey, incorporating a 5-point Likert scale, assessed consumer behaviors related to webrooming and high-involvement appliance purchases. The data was analyzed using PLS-SEM and SmartPLS software.

The study focuses on Filipino customers in the provinces adjacent to Metro Manila—Bulacan, Laguna, Cavite, and Rizal—due to their proximity to urban shopping behaviors and access to physical and online retail platforms, making them ideal for studying webrooming. These areas were chosen for their high concentration of the target demographic and ease of data collection. The research targets Filipino Millennials aged 27 to 42, who are economically active, tech-savvy, and likely to engage in online shopping, including webrooming. Statista

(2023) data shows that 59.6% of e-commerce users in the Philippines fall within this age group, validating the study's demographic focus.

To be eligible for the study, participants must meet the following additional criteria:

1. **Webrooming Experience:** Participants should have experience with webrooming, consciously or unconsciously. This involves researching products online before purchasing them in a physical store.
2. **Users of High-Involvement Appliances:** The study targets individuals who have purchased or used high-involvement appliances, such as refrigerators, air conditioners, or washing machines, which typically require more thought and research before purchase.

Table 1. Survey Questionnaire

Attitude

Code	Questions
A1	I prioritize the quality and brand reputation of the appliance when I decide to purchase a high-involvement appliance.
A2	I believe that webrooming is a good approach for comparing product features and reviews when considering high-involvement appliances
A3	I think webrooming will likely lead me to better pricing for high-involvement appliances when canvassing different stores
A4	It is important to be able to compare and contrast product features and reviews when purchasing for a high-involvement appliance.

Subjective Norms

Code	Questions
SN1	I feel that people important to me expect me to research online before making an in-store purchase.
SN2	I often seek recommendations from friends, family, or online communities when researching high-involvement appliances.
SN3	I frequently visit a physical store because I find online information to be insufficient.
SN4	I am likely to check online first and then visit a store if my family members actively recommend it for high-involvement appliance purchases.

Perceived Behavioral Control

Code	Questions
PBC1	I am confident in my ability to find detailed information online about high-involvement appliances.
PBC2	I believe it would be easy for me to engage in webrooming (researching online/buying offline) before purchasing a high-involvement appliance.
PBC3	I specifically search online for certain features such as energy efficiency, warranty duration, and user reviews that strongly impact my purchasing decisions.
PBC4	Reviews and ratings play a vital role in my decision-making process for high-involvement appliances.

PBC5	On a scale of 1 to 5, how much do website accessibility and a user-friendly interface influence your perceived control when engaging in webrooming for high-involvement appliances?
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High-Involvement Appliances

Code	Questions
HIA1	I consider high-involvement appliances to be a significant financial investment.
HIA2	I often worry about making the wrong choice when purchasing high-involvement appliances.
HIA3	The potential risk of malfunction or dissatisfaction is higher when purchasing high-involvement appliances compared to other products.
HIA4	How often do I revisit and reconsider my options before finalizing a purchase for a high-involvement product?

Intention to Webroom

Code	Questions
IW1	When considering high-involvement appliances, I intend to research online first before making an in-store purchase.
IW2	For me, the intention to webroom (researching online before buying in-store) becomes stronger when it comes to high-involvement appliances compared to other products.
IW3	Because of the financial investment in high-involvement appliances, I feel the need to webroom before finalizing my purchase.
IW4	I'm more likely to make a purchase in-store after webrooming when the store offers a price match with online prices.
IW5	Given the long-term implications of high-involvement appliance purchases, I always intend to webroom to avoid future regrets.

Purchase Decision

Code	Questions
PD1	Compared to other products, my decision to buy high-involvement appliances in-store is strongly influenced by my prior online research.
PD2	Past experiences with misleading online descriptions make me even more determined to webroom thoroughly before making an in-store purchase of high-involvement appliances.
PD3	Stores that offer price matches with online prices further solidify my decision to buy high-involvement appliances in-store after webrooming
PD4	Webrooming helps me make a regret-free in-store purchase, especially when it comes to long-term investments like high-involvement appliances.

Results and Discussion

The data collected from 100 respondents were all qualified Filipino millennials residing in Bulacan, Laguna, Cavite, and Rizal. The data were analyzed and interpreted using Jamovi and PLS-SEM through the SmartPLS software.

The age range of the survey respondents is 26 to 45, with the majority under 26 to 30 (49%), 36 to 40 (23%), 31 to 35 (18%), and the minority under 41 to 45 (10%). All have purchased high-involvement appliances (e.g., refrigerators, washing machines, air conditioners) in the past. 49% of consumers start their research for a new appliance on social media, highlighting the growing influence of digital platforms in consumer decision-making. Recommendations from friends and family were the next most common, with 26%, followed by 25% who began their research in a physical store.

43% of respondents prefer user-made content the most. Facebook groups and pages were also popular, with 39% ranking them first and others placing them second or third. Brand websites were rarely ranked first or second but were the consistent third choice for 55% of respondents. This indicates that while users trust content from other users the most, they still find information from brand websites important. 95% of respondents said online customer reviews significantly impacted their decisions, highlighting the importance of digital feedback in consumer choices. Only 5% reported that online reviews did not influence their decisions, indicating a small segment of less affected consumers. When asked, “Did online customer reviews influence your consideration?” 79% of consumers checked product availability online before going to a store to buy high-involvement appliances, indicating a strong preference for online research. Only 21% did not do this, suggesting a smaller group relies more on in-store experiences or spontaneous visits.

The data also shows that 95% of consumers compare promotions across different physical and online stores before buying high-involvement appliances. Only 5% do not, highlighting a strong trend toward informed, promotion-sensitive purchasing behavior. Many customers discovered additional information that wasn't available during their online research. 84% of consumers found new information in physical stores that they didn't see online when shopping for high-involvement appliances. Only 16% did not find new information in stores, highlighting how online and in-store research complement each other in consumer decision-making.

Table 2: Measurement of reliability and consistency (Partial Least Square Algorithm)

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Ave. variance extracted (AVE)
AT (Attitude)	0.903	0.913	0.933	0.776
HIA (High-Involvement Appliances)	0.789	0.836	0.857	0.601
IW (Intention to Webroom)	0.925	0.927	0.944	0.772
PBC (Perceived Behavioral Control)	0.892	0.893	0.921	0.699
PD (Purchase Decision)	0.89	0.894	0.924	0.752
SN (Subjective Norms)	0.765	0.822	0.847	0.588

All variables generated significant results since Cronbach's alpha is greater than 0.07.

96% of consumers felt that their in-store experience, like seeing the appliance in person or talking to sales staff, enhanced or confirmed their decision to buy a high-involvement appliance. Only 4% said the in-store experience did not influence their decision, highlighting the ongoing importance of physical stores for

these purchases. The guidance and information provided by a salesperson often play a significant role in influencing customers' final decisions when purchasing appliances in an offline store. 80% of consumers were influenced by salespersons when buying appliances in stores, highlighting the important role of in-store staff. Only 20% said their decision wasn't influenced by salespersons, indicating a smaller group relying on their own research or prior knowledge.

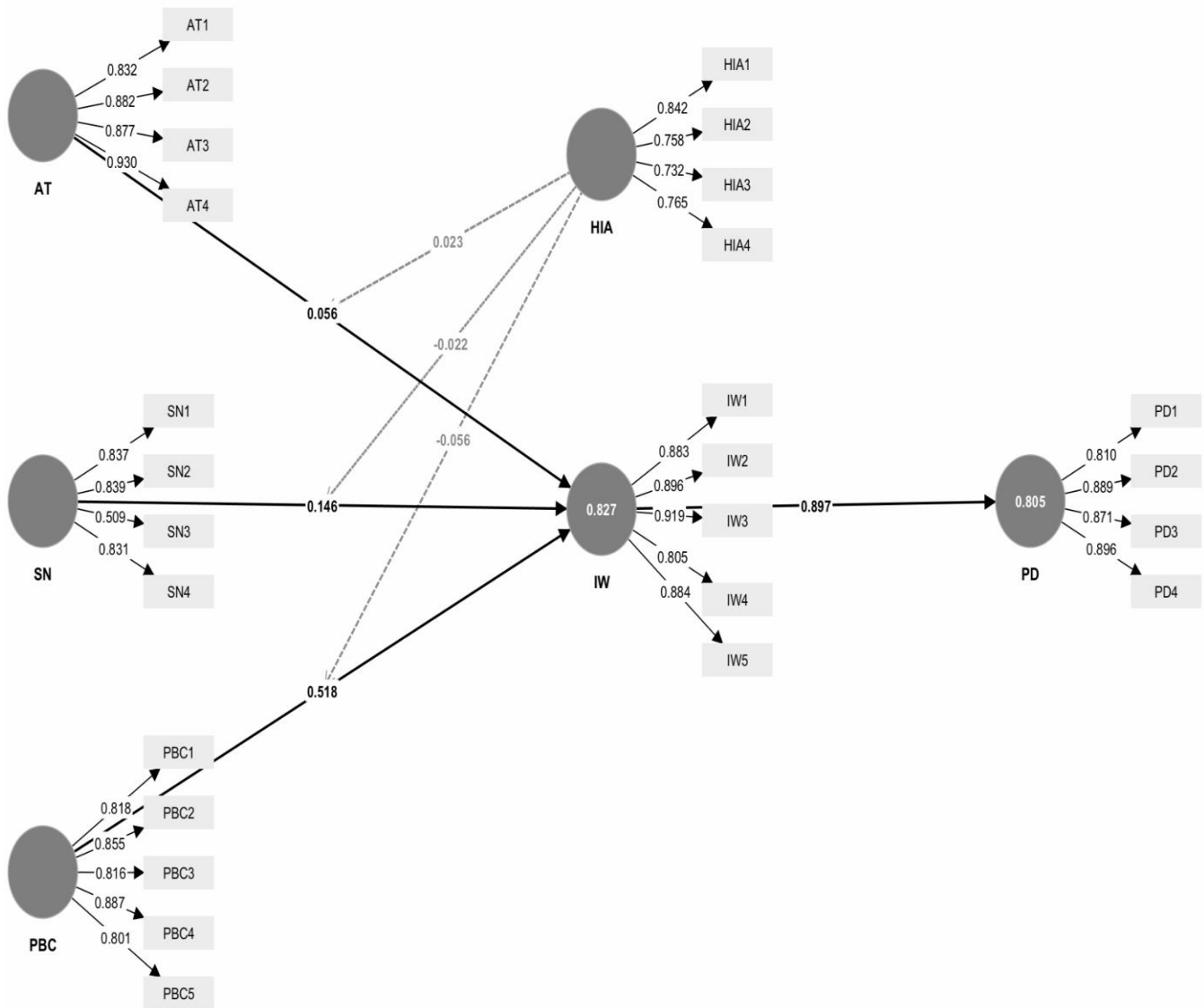


Figure 5 - Path Diagram

Table 3: Specific Indirect Effects

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
Attitude→Intention to Webroom→Purchase Decision	0.056	0.08	0.079	0.704	0.477
Subjective Norms→Intention to Webroom→Purchase Decision	0.897	0.893	0.035	25.853	0.041
HIA x SN→Intention to Webroom→Purchase Decision	0.518	0.496	0.088	5.854	0.809
Subjective Norms→Intention to Webroom	0.146	0.14	0.071	2.038	0.859
HIA x Attitude→Intention to Webroom	-0.056	-0.094	0.112	0.503	0.613
HIA x PBC→Intention to Webroom	-0.022	-0.022	0.091	0.242	0.003
HIA x Subjective Norms→Intention to Webroom	0.023	0.048	0.132	0.178	0.000

All variables generated significant results since Cronbach's alpha is greater than 0.07.

Table 4: Hypothesis Test Results

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values	Decision
H01 Attitude→Intention to Webroom	0.056	0.08	0.079	0.704	0.482	Not Supported
H02 Subjective Norms→Intention to Webroom	0.146	0.14	0.071	2.038	0.042	Supported
H03 PBC→Intention to Webroom	0.518	0.496	0.088	5.854	0	Supported
H04 HIA x Attitude→Intention to Webroom	-0.056	-0.094	0.112	0.503	0.615	Not Supported
H05 HIA x PBC→Intention to Webroom	-0.022	-0.022	0.091	0.242	0.809	Not Supported
H06 HIA x Subjective Norms→Intention to Webroom	0.023	0.048	0.132	0.178	0.859	Not Supported
H07 Intention to Webroom→Purchase Decision	0.897	0.893	0.035	25.853	0	Supported

All variables generated significant results since Cronbach's alpha is greater than 0.07.

This study's findings suggest an interplay between various factors influencing online shopping behaviors, mainly focusing on webrooming. Our analysis, as presented in Table 4, reveals that attitudes towards

online shopping might not be the sole determinant of webrooming intentions. A p -value of 0.482 in this context suggests a lack of significant direct influence. This outcome hints at the possibility that factors associated with attitudes, such as trust and risk perception, could be more influential.

Previous research corroborates this idea. For instance, studies by Verhoef et al. (2007), Chiu et al. (2011), and Wang et al. (2015) have highlighted how risk and distrust, particularly concerning online stores, may dissuade consumers from online purchases. The apprehension about sharing personal information online and fears of data theft contribute significantly to this distrust, as observed by Gupta et al. (2004), Forsythe et al. (2006), and Chiu et al. (2011). Furthermore, the challenges in assessing product quality virtually and potential delivery delays are notable barriers (Chiu et al., 2011).

Compared to traditional shopping methods, the perceived risks in online shopping play a pivotal role in shaping consumer decisions, as Vos et al. (2014) discussed. The credibility of online vendors, or the lack thereof, is a crucial factor fueling these perceptions. Recent research by Daroch, Nagrath, and Gupta (2021) extends this understanding by identifying various limitations in consumer behavior towards online shopping. These include concerns over banking transactions, the allure of traditional shopping, the reputation and services of online platforms, user experience, security issues, lack of comprehensive product information, and a prevailing lack of trust.

The strong link between Perceived Behavioral Control and the Intention to Webroom, indicated by a p -value of 0, highlights the critical role of self-efficacy and digital skills in today's online shopping behaviors. As people become more skilled in digital usage, they are more likely to engage in sophisticated shopping practices like webrooming. Acquiring future-ready skillsets is crucial for personal and professional growth (Guillen, 2022). This trend aligns with the Internet mavens concept, as Aljukhadar et al. (2020) described. Internet mavens possess a broad range of online competencies, including searching for information, communication, and e-commerce. These individuals, skilled in digital navigation, use their expertise to make the most of online resources. Their ability to manage various shopping channels enhances their buying experiences. This skill set benefits their online activities and helps them spread information and make decisions in the digital market. Supporting this, Darley and Lim (2018) found that physical market expertise influences online market expertise, especially for those who shop online frequently. This research highlights the importance of Internet mavens in the digital marketplace. Their digital skills improve their shopping experiences and help spread information and influence online decision-making.

The relationship between Subjective Norms and the Intention to Webroom, indicated by a p -value of 0.042, complements the significant link between Perceived Behavioral Control and webrooming intentions. This suggests that social influences, individual self-efficacy, and digital skills are crucial in shaping modern consumer behaviors.

The findings that high-involvement appliances do not significantly moderate the relationships between Attitude, Subjective Norms, and Perceived Behavioral Control with the Intention to Webroom—evidenced by p -values of 0.615, 0.809, and 0.859, respectively—contradict prevailing assumptions in this trend. This indicates that even though high-involvement appliances seem suitable for webrooming due to their complexity and significance, this is not empirically supported. This outcome could be linked to the attributes of high-involvement products, which are generally associated with major decisions or commitments, like buying a home or a car, or when the purchase involves substantial risk or cost, such as in stocks, insurance policies, vacations, or complex products like electronics or software (CEOpedia, n.d.). Guo, Zhang, et al. (2022) indicate that consumers are more inclined to search online for high-involvement product purchases than physical stores. There is a significant synergy between online searching and in-store purchasing, which leads to webrooming. Ranaweera et al. (2021) emphasized that touch is a fundamental human sense that significantly influences

product evaluations and marketing strategies. For instance, a product's texture and weight can influence a brand's perceived personality, and even the firmness of a product's packaging can affect consumer judgments.

Conclusion

Several significant conclusions can be drawn from this research, revealing how webrooming and high-involvement appliances significantly influence consumer behavior in Bulacan, Laguna, Cavite, and Rizal, shedding light on the predominant trends and factors at play. With a p-value of 0.482, attitudes towards webrooming indicate that other factors, such as trust and risk perception, play a more crucial role in webrooming intentions. This highlights the importance of credibility in online vendors and the perceived risks associated with online transactions versus traditional shopping methods in shaping consumer decisions.

Factors such as digital skills and self-efficacy, evidenced by a strong correlation (p-value of 0) between Perceived Behavioral Control and webrooming intentions, underscore these factors' significant role in webrooming. With their extensive online competencies, Internet mavens influence the digital market through their shopping practices and information dissemination. Social norms and subjective influences, with a notable impact on webrooming intentions (p-value of 0.042), reflect the complexity of consumer behavior in the digital era, primarily as online shopping behavior increased during the pandemic.

The role of high-involvement appliances, although initially assumed to lead to more pronounced webrooming behavior, reveals a nuanced decision-making process involving both online research and in-store evaluations. While many consumers conduct online research before in-store purchases, this trend only sometimes increases webrooming intentions. Despite online research, the in-store purchase decision is influenced by a need for more trust in online platforms, the need for a tactile experience, immediate product availability, and quality assurance through physical inspection.

Lastly, the intention to use a webroom directly influences purchase decisions (p-value of 0), especially for high-involvement products driven by psychological factors such as avoiding delivery costs and seeking immediate gratification. These findings suggest that businesses must consider online and offline strategies to meet consumer needs effectively. Understanding the multifaceted nature of consumer behavior, particularly in high-involvement purchases, is crucial for industrial practice, emphasizing the need to build trust, enhance digital skills, and integrate both digital and physical shopping experiences.

Limitation and Future Direction

This study has advanced the Theory of Planned Behavior by incorporating the concept of high-involvement appliances, enriching the framework's applicability and depth. Future investigations could broaden the scope by integrating additional factors such as product pricing, lack of trust towards online platforms, and tiered levels of appliances or other product categories, opening up exciting new avenues for research and discovery. Future researchers should conduct comparative studies across different product categories to better understand the impact of webrooming. By examining consumer behaviors in markets such as electronics, clothing, and home goods in neighboring provinces of Metro Manila, researchers can see how webrooming affects purchasing decisions across different sectors. Increasing the sample size to include a broader range of Filipino consumers of high-involvement appliances, covering various age groups, financial statuses, life stages, habits, and geographic locations, will improve the credibility and generalizability of future findings.

For Small and Medium-sized Enterprises (SMEs) and marketers in the appliance industry, strengthening their online presence is not just a suggestion; it is a crucial step toward success. With SMEs embracing and utilizing omnichannel retailing, the shopping revolution is no longer just about transitioning from physical

stores to online retailers. Instead, customers now expect all channels to be seamlessly integrated (Guillen Jr., 2023). This involves crafting high-quality, comprehensible online product presentations, as webrooming typically begins with online research. Key components include high-resolution images, detailed product specifications, and customer reviews to depict products vividly. Merchants must integrate data from offline, mobile, and online interactions and utilize this comprehensive information to personalize real-time in-store experiences. Customers now expect to be able to browse products online and pick them up in-store or search for items in-store and make purchases online (Guillen Jr., 2023).

The Global Web Index (2023) notes that updates on brands' social media pages account for 14% of new brand or product discoveries among millennials. SMEs should also consider adopting innovative strategies like 360-degree product views and integrating augmented reality (AR) and virtual reality (VR) technologies, budget permitting. These technologies enhance the online shopping experience and cater to evolving consumer trends, with 8% of millennials discovering new brands or products through virtual space advertisements, including AR and VR.

Additionally, SMEs should adopt an omnichannel approach that integrates online and offline shopping experiences. This includes options like online research with in-store pickup, virtual consultations, and consistent customer service across all channels. However, active customer engagement is the key to success in this approach. This involves soliciting feedback across online and offline channels, offering dedicated chat support for online inquiries, and training sales staff in physical stores. Understanding and addressing consumer preferences, challenges, and expectations will help tailor the shopping experience. Targeted promotions for webroomers, offering exclusive incentives for those who engage in webrooming, will encourage this behavior and enhance their shopping experience.

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References

- Accenture. (2013). Accenture study shows U.S. consumers want a seamless shopping experience across store, online, and mobile that many retailers are struggling to deliver.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T).
- Arora, S., & Sahney, S. (2018). Consumer's webrooming conduct: An explanation using the theory of planned behavior. *Asia Pacific Journal of Marketing and Logistics*, 30(4), 1040–1063. <https://doi.org/10.1108/APJML-08-2017-0185>.
- Arora, S., Sahney, S., & Pradhan, D. (2022). Potential benefits and descriptive norms in webrooming: An extended model of goal-directed behavior. *International Journal of Retail & Distribution Management*, 50(3), 377-397. <https://doi.org/10.1108/IJRDM-10-2020-0417>.
- Aw, E. C. X., Basha, N. K., Ng, S. I., & Ho, J. A. (2021). Searching online and buying offline: Understanding the role of channel-, consumer-, and product-related factors in determining webrooming intention. *Journal of Retailing and Consumer Services*, 58, 102328.

- Aw, E. C. X. (2019). Understanding the webrooming phenomenon: Shopping motivation, channel-related benefits, and costs. *International Journal of Retail & Distribution Management*, 47(10), 1074–1092.
- Chiu, H.C., Hsieh, Y.C., Roan, J., Tseng, K.J. and Hsieh, J.K. (2011), “The challenge for multichannel services: cross-channel free-riding behavior”, *Electronic Commerce Research and Applications*, Vol. 10 No. 2, pp. 268-277.
- Chou, S.Y., Shen, G.C., Chiu, H.C. and Chou, Y.T. (2016), “Multichannel service providers’ strategy: understanding customers’ switching and free-riding behavior”, *Journal of Business Research*, Vol. 69 No. 6, pp. 2226-2232.
- CEOpedia. (n.d.). High-involvement product. Retrieved November 17, 2023, from https://ceopedia.org/index.php/High_involvement_product.
- Chiang, K. P., & Dholakia, R. R. (2003). Factors driving consumer intention to shop online: An empirical investigation. *Journal of Consumer Psychology*, 13(1-2), 177-183.
- Darley, W., & Lim, J.-S. (2018). Mavenism and e-maven propensity: Antecedents, mediators, and transferability. *Journal of Research in Interactive Marketing*, 12(3), 293-308. <https://doi.org/10.1108/JRIM-01-2018-0008>.
- Daroch, B., Nagrath, G., & Gupta, A. (2021). A study on factors limiting online shopping behavior of consumers. *Rajagiri Management Journal*, 15(1), 39-52. <https://doi.org/10.1108/RAMJ-07-2020-0038>.
- Euromonitor International. (2023, February). Consumer appliances in the Philippines.
- Flavian, C., Gurrea, R., & Orús, C. (2019). Feeling confident and smart with webrooming: Understanding the consumer’s path to satisfaction. *Journal of Interactive Marketing*, 47, 1-15.
- Flavian, C., Gurrea, R., & Orús, C. (2020). Combining channels to make smart purchases: The role of webrooming and showrooming. *Journal of Retailing and Consumer Services*, 52, 1019-1023.
- Frasquet, M., Mollá, A., & Ruiz, E. (2015). Identifying patterns in channel usage across the search, purchase, and post-sales stages of shopping. *Electronic Commerce Research and Applications*, 14(6), 654-665.
- GlobalWebIndex. (2023). Meet the millennials: Social media, entertainment, and purchase journey trends. <https://www.gwi.com/reports/millennials>.
- Goldbach, D. (2023). Consumer behavior and motivation. *FAIMA Business & Management Journal*, 11(2), 26-33.
- Google. (2019). Consumer barometer. Google Think Insights.
- Guillen Jr, N. B. (2022). Continuance intention of massive open online course learners in higher education: A sustainable development initiative. *SEISENSE Business Review*, 2(1), 67-79.
- Guillen Jr., N. B. (2023). Retail Marketing Competencies in an Omnichannel World: A Post-Pandemic Shopping Revolution. *SEISENSE Business Review*, 3(1), 76-94. <https://doi.org/10.33215/2gfgxs61>
- Guo, Y., Zhang, M., & Wang, V. L. (2022). Webrooming or showrooming? The moderating effect of product attributes. *Journal of Research in Interactive Marketing*, 16(4), 534-550.
- Gupta, A., Su, B., & Walter, Z. (2004). Risk profile and consumer shopping behavior in electronic and traditional channels. *Decision Support Systems*, 38(3), 347-367.
- Hall, C. J., Smith, P. H., & Wicaksono, R. (2017). *Mapping applied linguistics: A guide for students and practitioners* (2nd ed.). Routledge.
- HubSpot. (2023, August 8). The state of consumer trends in 2023. <https://blog.hubspot.com/marketing/state-of-consumer-trends-report>.
- Manss, R., Kurze, K., & Bornschein, R. (2020). What drives competitive webrooming? The roles of channel and retailer aspects. *The International Review of Retail, Distribution and Consumer Research*, 30(3), 233-265.
- Mehra, A., Kumar, S., & Raju, J. S. (2013). ‘Showrooming’ and the competition between store and online retailers. <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.467.1278&rep=rep1&type=pdf>.

- Mohseni, S., Jayashree, S., Rezaei, S., Kasim, A., & Okumus, F. (2018). Attracting tourists to travel companies' websites: The structural relationship between website brand, personal value, shopping experience, perceived risk, and purchase intention. *Current Issues in Tourism*, 21(6), 616-645.
- Orth, U. R., Bouzdine-Chameeva, T., & Brand, K. (2013). Trust during retail encounters: A touchy proposition. *Journal of Retailing*, 89(3), 301-314.
- Ozretic Dosen, D., Brlic, M., & Komarac, T. (2018). Strategic brand management in emerging markets: Consumer perceptions of brand extensions. *Organizations and Markets in Emerging Economies*, 9(1), 135-153.
- Pookulangara, S., Hawley, J. and Xiao, G. (2011), "Explaining consumers' channel-switching behavior using the theory of planned behavior," *Journal of Retailing and Consumer Services*, Vol. 18 No. 4, pp. 311-321.
- Peck, J., & Childers, T. L. (2006). If I touch it, I have to have it: Individual and environmental influences on impulse purchasing. *Journal of Business Research*, 59(6), 765-769.
- Radder, L., & Huang, W. (2008). High-involvement and low-involvement products: A comparison of brand awareness among students at a South African university. *Journal of Fashion Marketing and Management*, 12, 232-243. <https://doi.org/10.1108/13612020810874908>.
- Ranaweera, A. T. (2022). When consumers touch: A conceptual model of consumer haptic perception. *Spanish Journal of Marketing - ESIC*, 26(1), 23-43. <https://doi.org/10.1108/SJME-08-2021-0152>.
- Statista. (2023). Users of e-commerce Philippines 2023, by age group. <https://www.statista.com/forecasts/1315489/philippines-ecommerce-users-by-age-group>.
- Van Nguyen, A. T., McClelland, R., & Thuan, N. H. (2022). Exploring customer experience during channel switching in omnichannel retailing context: A qualitative assessment. *Journal of Retailing and Consumer Services*, 64, 102803.
- Verhoef, P. C., Neslin, S. A., & Vroomen, B. (2007). Multichannel customer management: Understanding the research-shopper phenomenon.