Consumer Psychographics As Antecedent To Webrooming With Moderating Role Of Product Involvement

Ahsan Azim[1], Dr. Kashif Amin[2], Dr. Basharat Khan[3], Dr. Basharat Khan[4], Dr. Abdullah[5], Dr. Imran Ullah Khan[6]

Abstract:

Purpose – Multiple studies were conducted to explore the reasons for webrooming among customers but still there is a need to explore webrooming antecedents. This study aims to examines the effect of consumers' psychographics – market mavenism, high regret tendencies, fear of missing out, need for cognition – on webrooming behavior. Further the role of product involvement is also investigated as moderator between webrooming intention and actual webrooming behavior.

Design/methodology/approach – The study uses the data gathered from the students and actual customers from the market via questionnaire. A total of 383 questionnaires were uses to analyze the data. The study uses smart PLS for data analysis.

Findings – The study finds out the positive significant impact of market mavenism, need for cognition and high regret tendencies on webrooming. However, the impact of fear of missing out on webrooming is found to be insignificant. Further, the moderating role of product involvement is also found significant.

Research limitations/implications – The study uses four new variables as antecedents to webrooming but still the variation in webrooming is not fully explained. [1]There is still needed to explore further variables like, personality traits (extroversion, openness & conscientiousness), values (achievement, social expression & recognition), interests, attitudes, lifestyle, motivation, beliefs, opinions, perception and behavioral patterns.

Practical implication – The findings of the study are helpful for the marketers to control webrooming accordingly, i-e; online store managers can use it to reduce webrooming whereas offline store managers can use the information for promoting webrooming.

Originality/value – The study contributed to the body of knowledge and enriches the literature by identifying three variables – market mavenism, high regret tendencies and

[1](PhD Scholar, Management Science, Qurtuba University of Science and Information Technology, Peshawar, Pakistan)
[2](Assistant Professor, Department of Management Sciences, Hazara University
[3](Lecturer, Department of Management Sciences, Hazara University Mansehra, Pakistan)
[4]Lecturer, Department of Management Sciences, Hazara University Mansehra, Pakistan)
[5](Dean, Salam University, Kabul Afghanistan)
[6](Assistant Professor, Department of Public Policy and Administration, Hazara University, Mansehra, Pakistan)

need for cognition – as antecedents to webrooming. Further the moderating role of product involvement is also explored.

Introduction

The advancement in digitalization has resulted in major shift in retailing environment from single channel to multi-channel. Various shopping channel options are available to customers than before and they are exploiting these multiple channels to maximize the shopping benefits, and making it difficult to predict channel's selection for product search and purchase (Coughlan et al., 2001). With the advent of internet and mobile phones, two types of consumer's behaviors in multichannel are increased dramatically – webrooming and showrooming. Over the past decade, multichannel shopping has gained significant attention from researchers and practitioners alike, as it has become a prevalent and evolving phenomenon in the retail landscape. In multi-channel retailing the pre-dominancy of webrooming is due to multiple reasons; like excessive use of mobile phones (Wolny & Charoensuksai, 2014), rapid increase of shopping channels (Verhoef et al., 2015), customer's desire to exploit hybrid utilities (Kalyanam & Tsay, 2013) and the technological advancements enabled the customer to switch channels during a single purchase (Chiu et al., 2011). In an annual global survey by PWC at global level, it has been found that 70% of all customers gather information on online sources before making an offline purchase (PWC's Annual Global Total Retail Consumer Survey 2015). Further, with the rise in the webrooming behavior of the consumers, the online big retailers, like Amazon and AliExpress, are facing a huge loss of customers and sales (ECommerce-Nation., 2019), which makes the webrooming a serious threat to the online retailers (Aw, 2019; Chew, 2018).

Previously, researchers focused on the reasons to why people shop (Sari et al., 2023). But due to the recent huge changes occurred in retailing landscape, marketing research is now diverted from the question why people shop to why people shop in a specified manner. Consumers are behaving significantly different from the classical consumption process. In fact, customers are now contextually driven during the search and purchase-channel choices (Chocarro et al., 2013), indicating that shoppers may have diverse needs that are fulfilled by different shopping channels in various shopping situations. For instance, consumers may prioritize finding bargains when purchasing apparel online, but seek socialization and experiential services when shopping in-store. Different shopping channels are associated with unique costs and benefits; consumers tend to select channels that align with their shopping motivations.

Understanding the motivation behind consumers' webrooming behavior is crucial, and despite the various calls for research in this area (Arora and Sahney, 2018, 2019; Chang et al., 2017; Flavián et al., 2016; Lemon and Verhoef, 2016) very limited studies are conducted. A recent study by Arora and Sahney (2018) has examined webrooming from the perspective of the theory of planned behavior (TPB), highlighting the role of perceived search benefits online and perceived purchase benefits offline. Past studies had identified various antecedents to webrooming which include increasing use of mobile devices (Wolny and Charoensuksai, 2014), consumer's desire to pursue hybrid utilities (Kalyanam and Tsay, 2013), the growing multiplicity of channels (Verhoef et al., 2015), and the technological empowerment of the shoppers enabling them to seamlessly switch between channels during the purchase journey (Chiu et al., 2011). This study will further explore the antecedents to webrooming as suggested by Aw (2019).

Existing literature identified various customers' psychographic factors that affect webrooming phenomenon, however various other psychographic factors are still need thorough research (Aw et al., 2021). Orús et al. (2019); Shankar (2021); Guo et al., (2021); Thaichon, (2023) & Tudor (2023) also suggest that webrooming phenomenon is yet to be explored further. The current literature is lacking to fully explain the reasons behind webrooming. There is a dearth of fully explaining the customers' webrooming phenomenon. Aw (2019) suggest studying the impact of psychographic factors on webrooming behavior of customers. This study will take mavenism, fear of missing out, need for cognition and high regret tendencies as antecedents to webrooming.

Literature Review

Current literature on the shopping context has highlighted the term 'webrooming' and attained the focus of various researchers in the field of marketing (Herrero-Crespo and Viejo-Fernandez 2022; Schiessl et al., 2023; Shankar and Jain, 2023). Researchers have referred the webrooming as the most extended cross-channel behavior in retailing industry (Flavián et al., 2016; Kalyanam & Tsay, 2013). In Table 2.1, the literature regarding the behavior of webrooming among shoppers is summarized. Previous studies had found various antecedents to webrooming; Flavián et al. (2016) found that people webroom to make more informed decisions using online reviews; Verhoef et al. (2007) found concerns related to online purchasing prompt customers to visit physical stores after conducting online research; desire to physically touch the product (Flavián et al., 2016; Reid et al., 2016; Gensler et al., 2017); lack of product diagnosticity online (Reid et al., 2016); narrow down their options and create a consideration set before making an offline purchase (Wolny and Charoensuksai, 2014); ease of switching between online and offline channels due to the absence of channel lock-in (Fornari et al., 2016). Furthermore, researchers have linked the growing prevalence of smartphones and handheld devices to the increasing popularity of webrooming (Kim and Hahn, 2015).

Table 2.1: Consumers' Webrooming Conduct

Context	Representative Studies	Research Findings
Webrooming and consumer decision making process	Flavián et al. (2016)	Webrooming behavior is directly influenced by the desire to physically touch products. Gathering information online before making a purchase at a physical store increases consumers' confidence when making the purchase.
	Reid et al. (2016)	Customers are motivated to visit physical stores before making online purchases due to the desire for a tactile experience.
	Wolny and Charoensuksai (2014)	Once the initial product selection has been made, webrooming occurs. The internet serves as a virtual showroom where consumers can compare prices and product features in order to create a consideration set.
Webrooming and multichannel retail	Verhoef et al. (2007), Van Bruggen et al. (2010), Chiu et al.	As a result of the rise of multichannel retail, webrooming has become a prevalent behavior among shoppers who use multiple channels.

(2011)

	Balasubramanian et al. (2005)	The behavior of webrooming is influenced by several factors, including the desire for immediate consumption, reduced search costs for information, and the perception of high purchase risks when shopping online.
Webrooming and research shopping behavior	Rangaswamy and Van Bruggen (2005) Fornari et al. (2016) Chiu et al. (2011)	More and more consumers are opting for online brand selection, while making their purchases in physical stores. The absence of channel lock-in for online channels makes webrooming a convenient option for consumers, which can significantly reduce profits for online retailers. Customers who feel confident in their ability to navigate multiple channels are more likely to engage in webrooming. Additionally, better offline service quality can contribute to webrooming behavior. To combat webrooming, retailers can increase their within-firm lock-in strategies. Webrooming is one of the most common forms of research shopping behavior.
	Verhoef et al. (2007) Wang et al. (2016) Chiu et al. (2011)	Approximately 50% of shoppers who conduct research first turn to the internet to gather information about a product before making their purchase in-person. (cross-ref; Kelley et al., 2002)
Webrooming and shopping motivations	Schröder and Zaharia (2008)	Webrooming enables consumers to enjoy the advantages of searching for information at online stores while also making low-risk purchases at physical stores.
Webrooming and channel switching	Gupta et al. (2004), Pookulangara and Natesan (2010), Pookulangara et al. (2011)	It is common for consumers to gather information using the internet, but they typically proceed to make their purchases online.
Webrooming and omnichannel retail	Verhoef et al. (2015)	In the era of omni-channel retail, webrooming has become a significant concern.

Free riding in retail	Van Baal and Dach (2005) Chiu et al. (2011) Chou et al. (2016)	30.8% of customers collect information online before making offline purchases. Webrooming is a form of cross-channel free riding when consumers' search at online channel of A, and then purchase from the offline channel of company B. Perceived risks associated with purchases made online, act as an important precursor to webrooming behavior. Lower switching costs also push webrooming behavior

Other antecedents to webrooming include; perceived channel's pros & cons (Balasubramanian et al., 2005); motivation to touch (Flavian et al., 2016; Reid et al., 2016 and Aw, 2019); price comparison (Wolny and Charoesuksai, 2014); convenience seeking, social interaction, price comparison, information attainment and assortment seeking (Kang, 2018); shopping enjoyment, need for information, preference for service quality, shopping convenience, price consciousness, shopping innovation and preference for personal contact (Hu & Tracogna, 2020). Kang (2018) found five psychographic variables as the antecedents to the webrooming – information attainment, finding best available price, social interaction, choice or variety seeking behavior & convenience seeking. Aw (2019) conducted a study by taking three aspects – product characteristics, customers' trait and channel related factors – on webrooming behavior. Literature shows various studies are conducted by taken into account the customers' psychographic variables to check the variations in the webrooming behavior. But still there is a lack of knowledge in the literature to fully explain the phenomenon; that how the customers' cognition and psychology affects the webrooming phenomenon? The current study aim to tap this less explored antecedent (Aw, 2019) of webrooming by taking mavenism, fear of missing out, need for cognition and high regret tendencies as antecedents to webrooming, also the study will take product involvement as a moderator between webrooming intention and actual webrooming behavior.

This study employed theory of planned behavior (TPB) represented by Ajzen (1991), which is extensively used in marketing for explaining customer's behavior. It is also considered to be useful when understanding complexity of influences of the customers' behavioral decision making (Li et al., 2009). Since past few years researchers had started to use the extended version of TPB model and found it to be more parsimonious and understandable model (Kaiser, 2006; Pavlou & Fygenson, 2006; Yang, 2012). When using the extended version of the theory, various researchers have argued that the power and predictability of the theory is even more enhanced for understanding human behavior (Bosnjak et al., 2005; Taylor & Todd, 1995). The current research extends the TPB model via Mavenism, Fear of Missing Out (FoMo), Need for Cognition (NFC) and High regret tendencies as antecedents and product involvement as a moderator between the relationship of webrooming intention and actual webrooming behavior.

Market Mavenism

Market mavenism is a term that was first introduced by Feick and Price (1987) to describe individuals who are particularly knowledgeable about the marketplace. They defined market mavens as "individuals who have information about many kinds of products, places

to shop, and other facets of the market, and initiate discussions with others about these products and their attributes" (p. 140).

According to Feick and Price (1987), market mavens are characterized by their high level of involvement in the marketplace, their desire to stay up to date with the latest trends and products, and their willingness to share their knowledge with others. This study proposed hypothesis that market mavenism has a significant positive effect on webrooming intention among consumers.

H_1: Mavenism positively affects the attitude towards webrooming behavior.

Fear of Missing Out

Fear of missing out is often described as a form of anxiety or unease that arises from the perception that others are having more enjoyable experiences or living more fulfilling lives(Jones, 2016). According to Przybylski et al. (2013), individuals who experience FOMO are more likely to engage in social media. According to Elhai et al. (2016), individuals who experience FOMO are more likely to be extraverted, neurotic, and less conscientious. These personality traits are thought to contribute to the experience of FOMO by increasing the individual's need for social interaction and validation. From a marketing perspective, FOMO can be used as a powerful marketing tool. For example, marketers can use FOMO to create a sense of urgency and scarcity around their products or services. By highlighting the limited availability of a product or service, marketers can create a sense of FOMO among consumers, leading them to make impulsive purchasing decisions. Przybylski et al. (2013) found that fear of missing out is the key driving force behind the customers' use of social media for different products and market events, and that young people shows greater FoMo tendency. This provides the basis for the assumption that customers with higher fear of missing out will tend to be more attracted towards webrooming. A study by Kim et al. (2019) found that FOMO positively influenced webrooming intention among consumers. Based on the literature review, this study hypothesis that fear of missing out is positively related to the webrooming behavior of the customer.

H_2: Fear of missing out positively affects the attitude towards webrooming behavior.

Need for Cognition

NFC is a term that was first introduced by John Cacioppo and Richard Petty in 1982 to describe individual differences in the enjoyment of thinking. According to Cacioppo and Petty (1982), individuals with a high need for cognition enjoy engaging in mental activities that are challenging and require effortful processing. People with higher need for cognition don't buy things randomly or at spur of the moment. They will consider a number of factors before making any purchase decision. Past studies have found the significant effect of need for cognition on the extensive information processing in different ways (Inman et al., 1990; Mantel & Kardes, 1999). Based on the literature review, it is hypothesized that the need for cognition has a significant positive effect on webrooming intention among consumers.

H_3: Need for cognition positively affects the attitude towards webrooming behavior.

High Regret Tendency
Customers go through the deep feeling of regret when they found that they have purchased a high priced product instead of a lower priced (Dutta et al., 2011). In case of price consciousness, customer always tries to find a low-priced retailer to avoid this post purchase regret (McConnell et al., 2000). Similarly, quality conscious people will regret

for their purchase decision, if they found any other good quality product later on. Reynolds et al. (2006) have found that little pre-purchase information search results in higher post purchase regret of poor decision-making by the customer.

Studies have examined the relationship between regret tendencies and webrooming intention. Park and Kim (2017) found that high regret tendencies positively influenced webrooming intention among consumers. The authors suggest that high regret tendencies increase consumers' motivation to engage in information search and evaluation activities, which in turn increases their intention to engage in webrooming. This study hypothesized that high regret tendencies has a significant positive effect on webrooming intention among consumers.

H_4: A high regret tendency positively affects the attitude towards webrooming behavior.

Attitude towards webrooming, subjective norms & perceived behavioral control:

Subjective norms are the perceived social pressure from significant others to engage in a particular behavior (Ajzen, 1991). The perception of social pressure can come in different forms, such as explicit requests, implicit expectations, and observations of others engaging in the behavior. Perceived behavioral control refers to an individual's perception of the degree of ease or difficulty in performing a particular behavior (Ajzen, 1991). It is influenced by the individual's belief in their ability to perform the behavior and the perceived obstacles or facilitators to performing the behavior. Research has shown that perceived behavioral control is a strong predictor of behavior, even after controlling for other variables such as attitudes and subjective norms (Ajzen, 1991).

Three conceptually independent determinants are used in TPB model for behavior intention (attitude towards behavior, subjective norms and perceived behavioral control). Ajzen (1991) also argues that in the prediction of intention of behavior, these three predictors can be varying across behaviors and situations. Sometime attitude toward behavior is only significant predictor on intentions, in others that perceived behavioral control and attitude are adequate to form a behavioral intention, or may be all of these predictors at once make independent contribution (Ajzen, 1991). As presented in the TPB model, this study also assumes that there is a positive correlation between these three antecedents.

H_5: Attitude towards webrooming positively correlates with subjective norms.

H_6: Attitude towards webrooming positively correlates with perceived behavioral control.

H_7: Subjective norms positively correlate with perceived behavioral control.

Webrooming Intention
According to Fishbein and Ajzen (1975), as shown in TPB model, attitude is the key variable which predicts the behavioral intention. Attitude towards a specific behavior acts as an antecedent to intention towards that behavior (Ajzen, 1991).

H_8: Attitude towards webrooming behavior has positive effect on webrooming intention.

Subjective norms are the social pressure exerted on an individual for the approval of disapproval of a specific behavior (Ajzen & Madden, 1986). Previous studies provide sufficient support for the strong relationship between subjective norms and intention to channel-switching behavior (Pookulangara et al., 2011; Pookulangara & Natesan, 2010), and customers' cross-channel free riding behavior (Chou et al., 2016).
H_9: Subjective norms have positive effect on webrooming intention.

Perceived behavioral control refers to the "people's perception of ease or difficulty in performing the behavior of interest" (Ajzen, 1991). Customers' thinking of his capabilities to use web and internet to search for the products online and then to switch towards the physical store for actual purchase is important in webrooming. Hence the study proposes:

H_{10}: Perceived behavioral control has positive effect on webrooming intention.

Actual Webrooming Behavior

Being capable of using web resources and also utilizing offline channels can be helpful to predict the customer webrooming intention. But for the actual behavior the opportunities and resources available to the individual must guide the chance of behavioral achievement. As proposed by the theory of planned behavior, actual behavior of a person is a combined function of perceived behavioral control and behavior intentions (Ajzen, 1991).

H_{11}: Perceived behavioral control has positive direct effect on actual webrooming behavior.

Theory of planned behavior shows that intention of a behavior is a strong antecedent for the actual behavior (Ajzen, 1991). The higher the intention is towards a behavior; the higher will be probability of actual behavior.

H_{12}: Webrooming intention has a positive effect on actual webrooming behavior.

Product Involvement as a moderator

Zaichkowsky (1985) defines product involvement as "the perceived relevance of the object based on inherent needs, values, and interests". In general, customer tends to be more involved in product search and overall purchase process, when the underlying product is relevant, expensive or important to him. Frasquet et al. (2015) also argued that customers use different shopping channels when it comes to purchase so-called high involvement product.

Findings over time indicate that when consumers are more involved with a product, they tend to gather more information in order to make informed decisions about it, as noted by Dahana et al. (2018). This study takes the product involvement as a moderator between webrooming intention and actual behavior, such that the relationship is stronger for highly involved consumers.

H_{13}: Product involvement positively moderates the relationship between webrooming intention and actual webrooming behavior.

Consumers' Psychographics

Mavenis

Attitude towards webroomin

Product Involveme
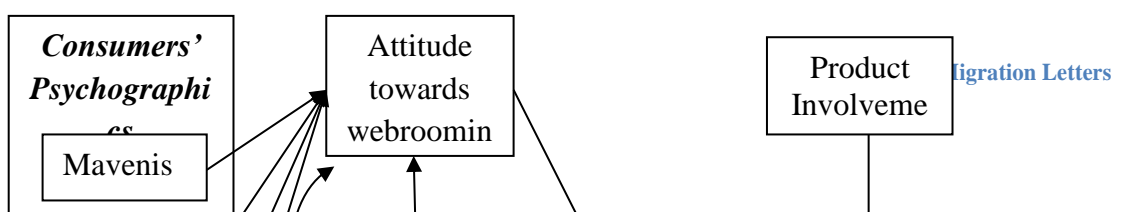
Theoretical Framework

The theoretical framework of the study has drawn on the uncertainty reduction theory (Berger and Calabrese, 1974) and anticipated regret view (Sheeran & Orbell, 1999). Both theories addressed the customers' psychological wariness. Uncertainty reduction theory focuses on the pre-purchase phase while anticipated regret view focuses on the post-purchase phase. One theory advocates to collect information when you have no or limited information, while the other one advocated to collect information to reduce the regret chances after making the decision. The uncertainty may be in the prices, product alternatives, brand selection or store choice which a customer wants to ensure. In anticipated regret view theory customer is collecting information to reduce his or her post purchase regret about the product. The post purchase regret is not only happening when the product fails to satisfy the needs of the customer. But the regret could be of any reason, like price regret, choice regret, selection of purchase time regret, quality regret or selection of store regret. Customers collect information to reduce the regret chances, as regret is found to be negatively related to the satisfaction (Taylor, 1997).

Research Methodology

Research Design

Cross-sectional and quantitative survey design was used in this research. Study use the positivism approach as it tests the relationship between customers' psychographic variables with the webrooming behavior. Further, the study is deductive in nature, as the theories are already available in the literature and draws its results by taking these theories as foundation.

Research Population, Sample and Sampling Technique

The population for this research is unknown and is consist of all those people who search any products online before purchasing them offline in the store. Customers having recent webrooming behavior are the unit of analysis in the study. The study first identifies that

whether a customer is webroomer or not, and only those customers are selected who recently search for the product which he/she later on purchases offline. This study employs a non-probability purposive sampling technique in selecting the respondents.

As per the requirement of the study only those respondents will be included in the study, which have recently webroomed for a product. A screening question is added to filter out those respondents who have not search online and purchase in physical stores in the last 03 months. A total of 383 samples were taken in this study.

Data Collection Tool and Procedure

A self-administered structured questionnaire is used for collection of data from respondents. Most of the data is gathered from the college and university students; however, customers in real stores are also included in the sample. Purposive sampling technique is used to overcome the difficulty of compiling a complete sampling frame for webroomers (Sarstedt et al., 2019).

The study adopted well established scales from the literature for construct measurements: mavenism (Ailawadi et al., 2001), need for cognition (Cacioppo & Petty, 1982), high regret tendencies (Tsiros & Mittal, 2000), attitude toward webrooming (Bansal et al., 2005), webrooming intentions (Chou et al., 2016), actual webrooming behavior (Bansal et al., 2005), subjective norms (Chou et al., 2016), perceived behavioral control (Chiu et al., 2011), and product involvement (Zaichkowsky, 1994). All items of questionnaire are measured on a 5 point likert scale ranging from 1 – strongly disagree to 5 – strongly agree.

A screening question was asked from the respondents to confirm the webrooming behavior of the customer. The respondents are asked "considering your recent purchases, did you 'intentionally' gather information at an online store before purchasing the product at a physical store?" Those who answered 'yes' are included in the study analysis, those who answered 'no' are not included in the data. Initially 580 questionnaires were distributed to receive back at-least 400 valid questionnaires. A total of 522 questionnaires were received – after removing incomplete questionnaire – showing the 90% response rate. Among which 472 people respond with 'yes' to the screening question, showing 90.4% of customers who intentionally collect data online before purchasing that thing from offline store.

Data Analysis Technique

For testing hypothesis, the study uses the partial least squares-structural equation modeling (PLS-SEM) approach. Internal reliability of the constructs is checked by cronbach alpha. Discriminate and convergent validity of the variables is also being assessed. The reason for using PLS-SEM is its recognition by Hair et al., (2017) as a prediction oriented approach, which is more suitable choice when under-researched areas are examining. Further, this approach is also very much suitable when the sample data size is small and under the condition of non-normality. Hair et al. (2017) also argues that PLS-SEM is also suitable in the models where a mix of first and second order constructs is used. Hence, for current research PLS-SEM will be the most suitable and will be used according to the offered guidelines by Hair et al. (2017).

Results & Discussion

Demographic Characteristics of the Respondents

The socio-demographic information in terms of gender, education, age, and income are presented in table 4.1.

Table 4.1: Demographic Characteristics of Respondents

Variables	Category	Frequency	Percentage
Gender (n=443)	Male	268	60.50%
	Female	175	39.50%
Age (n=443)	20 years & below	58	13%
	21 – 30 years	155	35%
	31 – 40 years	93	21%
	41 – 50 years	102	23%
	Above 50 years	35	8%
Income (n=443)	Rs. 30000 & below	65	15%
	Rs. 30001 – 60000	150	34%
	Rs. 60001 – 90000	70	16%
	Rs. 90001 – 120000	110	25%
	Rs. 120,001 & above	48	11%
Education (n=443)	Primary School	27	6%
	SSC	151	34%
	HSSC	97	22%
	Bachelor Degree	97	22%
	Master Degree	71	16%

Theoretical Validation of the Model

To validate the accuracy in the theoretical consideration using partial least square structure equation modeling is mandatory to confirm the effects of exogenous latent constructs on the endogenous latent construct. In PLS-SEM, there is a simple two-step process of measurement model and structural model.

Assessment of Measurement Model
The results of factors loading, composite reliability, and AVE are summarized in (Table 4.4). All the values of factor loading are greater than 0.7, which falls in acceptable range. The composite reliability of each construct is evaluated, and all variables showed an acceptable composite level of 0.7.

The results of average of variance extracted (AVE) index are also falls in the acceptable range of (>0.5). Further, the study applied the Fornell and Larker (1981) procedure to examine the discriminant validity. The results of discriminant validity are presented in (Table.4.5).

Table 4.4: Factors Loading, Composite Reliability & AVE

Construct	Items	Factors Loading	Composite Reliability	AVE
Attitude towards Webrooming	ATO1	0.766	0.849	0.653
	ATO2	0.835		
	ATO3	0.821		
Actual Webrooming Behavior	AWB1	0.765	0.850	0.655
	AWB2	0.886		
	AWB3	0.772		

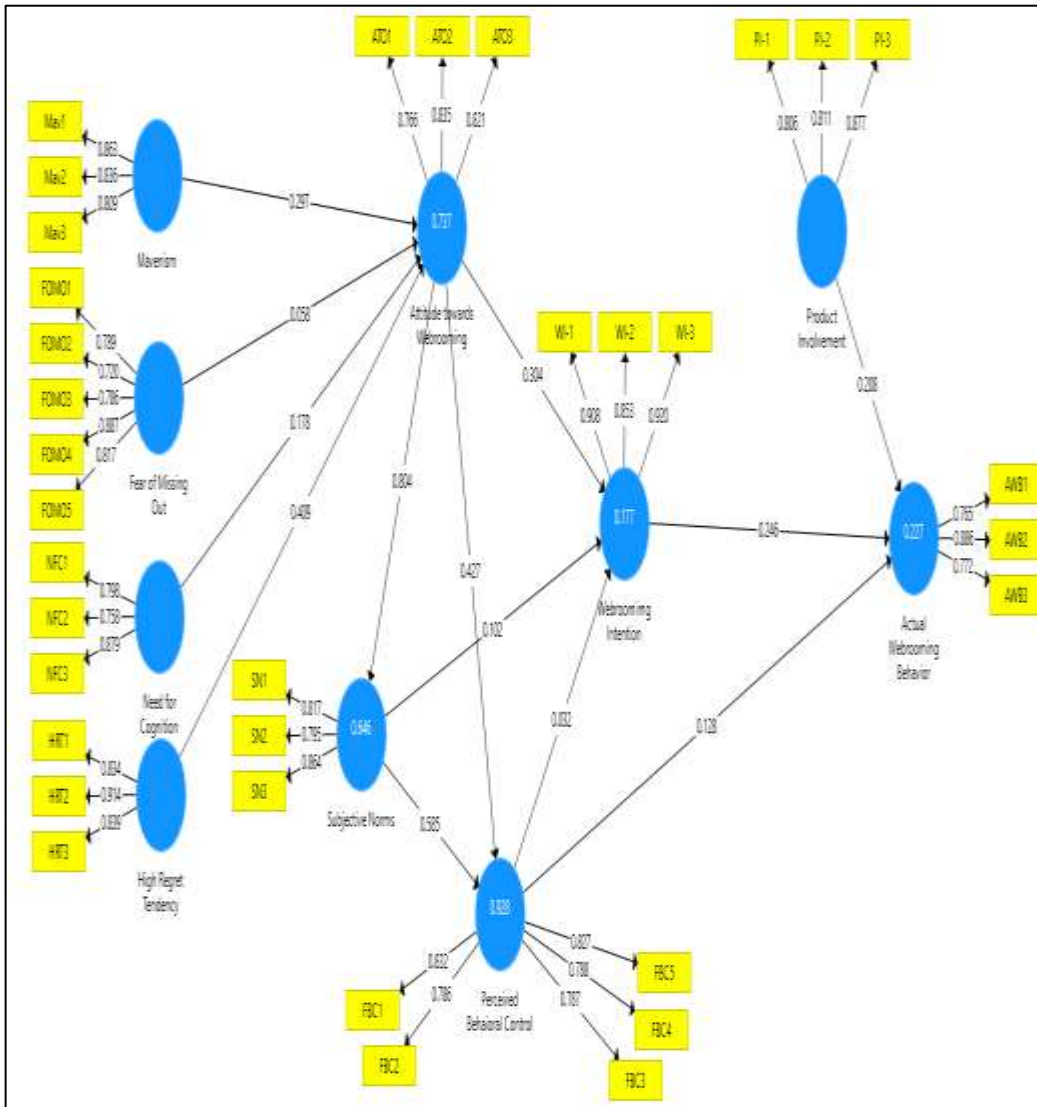|				
Perceived Behavioral Control	PBC-1	0.832	0.901	0.647
	PBC-2	0.786		
	PBC-3	0.787		
	PBC-4	0.788		
	PBC-5	0.827		
Fear of Missing Out	FOMO1	0.789	0.899	0.642
	FOMO2	0.720		
	FOMO3	0.786		
	FOMO4	0.887		
	FOMO5	0.817		
High Regret Tendency	HRT1	0.834	0.897	0.745
	HRT2	0.914		
	HRT3	0.839		
Mavenism	MAV1	0.863	0.875	0.700
	MAV2	0.836		
	MAV3	0.809		
Need for Cognition	NFC1	0.798	0.854	0.662
	NFC2	0.758		
	NFC3	0.879		
Product Involvement	PI-1	0.806	0.871	0.692
	PI-2	0.811		
	PI-3	0.877		
Subjective Norms	SN1	0.817	0.865	0.682
	SN2	0.795		
	SN3	0.864		
Webrooming Intention	WI-1	0.908	0.923	0.799
	WI-2	0.853		
	WI-3	0.920		

Figure 4.1: Measurement Model

Discriminant Validity
The results of discriminant validity have shown that all the diagonal values are greater in the concerned columns and rows which show the achievement of discriminant validity and accuracy in the measurement model.

Table 4.5: Discriminant Validity

	ATO	PBC	FOMO	HRT	MAV	NFC	SN	WI	PI	AWB
ATO	0.809									
PBC	0.405	0.808								
FOMO	0.320	0.762	0.802							
HRT	0.357	0.796	0.537	0.863						
MAV	0.336	0.766	0.484	0.685	0.836					
NFC	0.397	0.785	0.361	0.593	0.586	0.813				
SN	0.35	0.698	0.384	0.677	0.447	0.683	0.804			
WI	0.405	0.582	0.549	0.538	0.511	0.564	0.595	0.832		
PI	0.332	0.504	0.485	0.655	0.327	0.476	0.529	0.593	0.826	
AWB	0.399	0.415	0.381	0.364	0.371	0.397	0.432	0.491	0.376	0.894

Heterotrait-monotrait Ratio (HTMT)

To verify the authenticity of discriminant validity, a novel technique of Heterotrait-monotrait (HTMT) is also applied to ensure the accuracy of discriminant validity. The results show that all the values are below 0.85 – threshold value – showing the satisfactory information and verified the accuracy of discriminant validity in this study.

Table 4.6: Heterotrait-monotrait HTMT

	ATO	PBC	FOMO	HRT	MAV	NFC	SN	WI	PI	AWB
ATO										
PBC	0.263									
FOMO	0.436	0.422								
HRT	0.243	0.266	0.457							
MAV	0.384	0.466	0.464	0.575						
NFC	0.267	0.275	0.361	0.393	0.276					
SN	0.534	0.358	0.564	0.477	0.477	0.383				
WI	0.355	0.342	0.279	0.378	0.371	0.474	0.495			
PI	0.422	0.394	0.285	0.475	0.467	0.276	0.229	0.293		
AWB	0.279	0.495	0.351	0.434	0.421	0.487	0.372	0.291	0.326	

Assessment of the Structural Model

In the assessment of structural model, the developed hypotheses were tested to achieve the objectives of this study. Structural model is evaluated through the step of bootstrapping procedure in PLS-SEM to signify the t-values, β the path coefficient and the values of R^2 (Urumsah, 2015).

Before calculating the hypotheses, the multicollinearity was also examined. The results indicated that all the values of VIF are lower than five (1.000 – 4.813) which leads to the conclusion that there are no issues of multicollinearity among constructs.
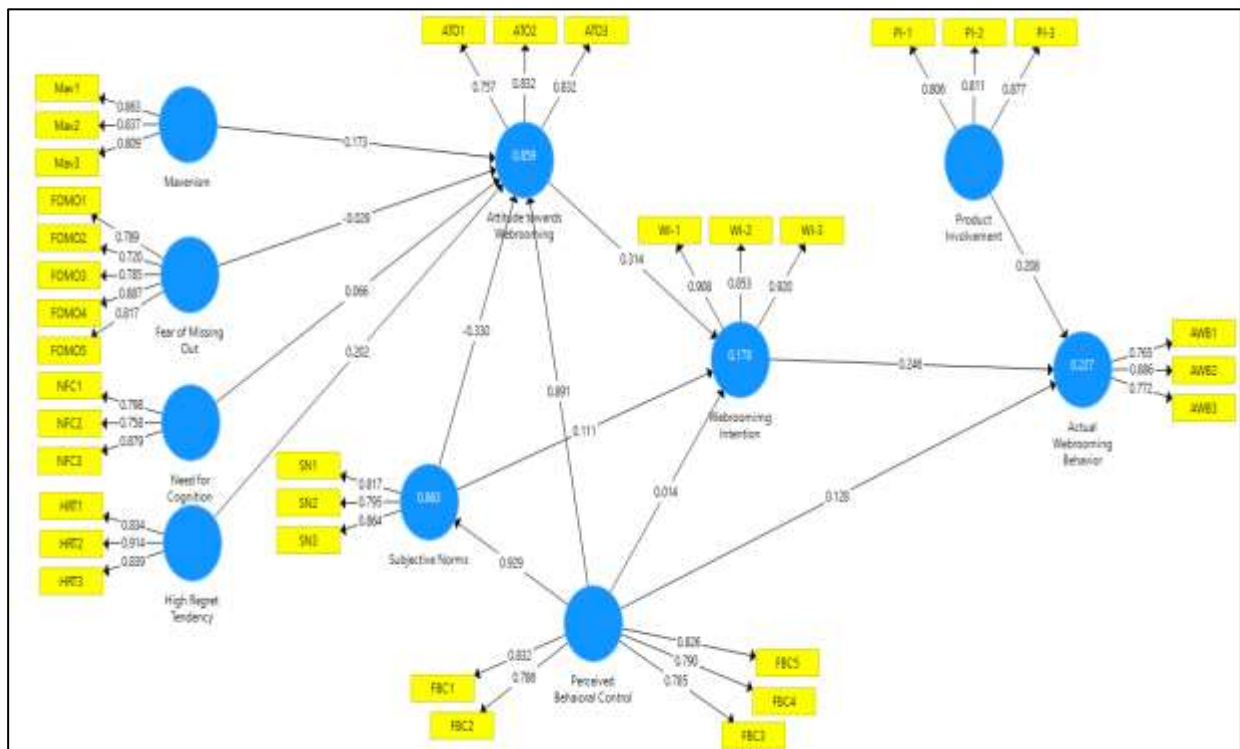
Figure 4.2: Structural Model
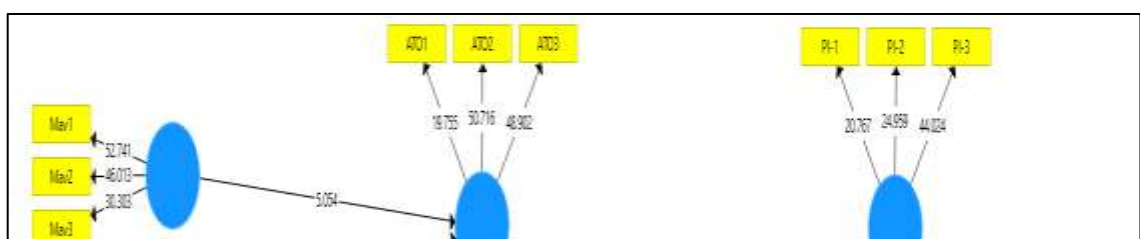
4.4.1. <u>Path Coefficient</u>

The bootstrapping procedure has applied in the Smart PLS-SEM software to determine the significance of path estimates by using critical t-values at 0.05 confidence intervals. The results have revealed that mavenism (β = 0.297, T > 1.645, P < 0.05), need for cognition (β = 0.178, T > 1.645, P < 0.05), high regret tendency (β = 0.409, T > 1.645, P < 0.05), have positive significant relationship with the attitude towards webrooming but surprisingly fear of missing out has positive but non-significant (β = 0.058, T < 1.645, P < 0.05) relationship with the attitude towards webrooming's. Likewise, attitude towards webrooming's (β = 0.304, T > 1.645, P < 0.05), subjective norms (β = 0.102, T > 1.645, P < 0.05), perceived behavioral control (β = 0.031, T > 1.645, P < 0.05) have positive significant relationship with the webrooming's intention. Similarly, perceived behavioral control (β = 0.128, T > 1.645, P < 0.05), and webrooming's intentions (β = 0.246, T > 1.645, P < 0.05), have positive significant relationship with the actual webrooming behavior.

Table 4.7: **Direct Relationship (Hypotheses Testing)**

Hypothesis	Relationship	St. Beta	SM	SD	t-value	Decision	R²	F²	VIF	Q²
H1	MAV→ATO	0.297	0.303	0.059	5.054	Supported	0.737	0.093	3.603	0.473
H2	FOMO → ATO	0.058	0.053	0.066	0.876	Not Supported		0.002	3.336	
H3	NFC → ATO	0.178	0.18	0.064	2.761	Supported		0.024	4.03	
H4	HRT → ATO	0.409	0.406	0.048	8.607	Supported		0.227	2.799	
H8	ATW→WI	0.304	0.308	0.119	2.566	Supported	0.177	0.021	3.345	0.136
H9	SN→WI	0.102	0.103	0.131	3.780	Supported		0.002	4.555	
H10	PBC→WI	0.032	0.026	0.171	2.185	Supported		0.000	3.797	
H11	PBC→AWB	0.128	0.125	0.074	2.735	Supported	0.227	0.013	1.586	0.135
H12	WI→AWB	0.246	0.247	0.075	3.275	Supported		0.058	1.349	

Figure 4.3: Measurement Model (Reverse Relationship)
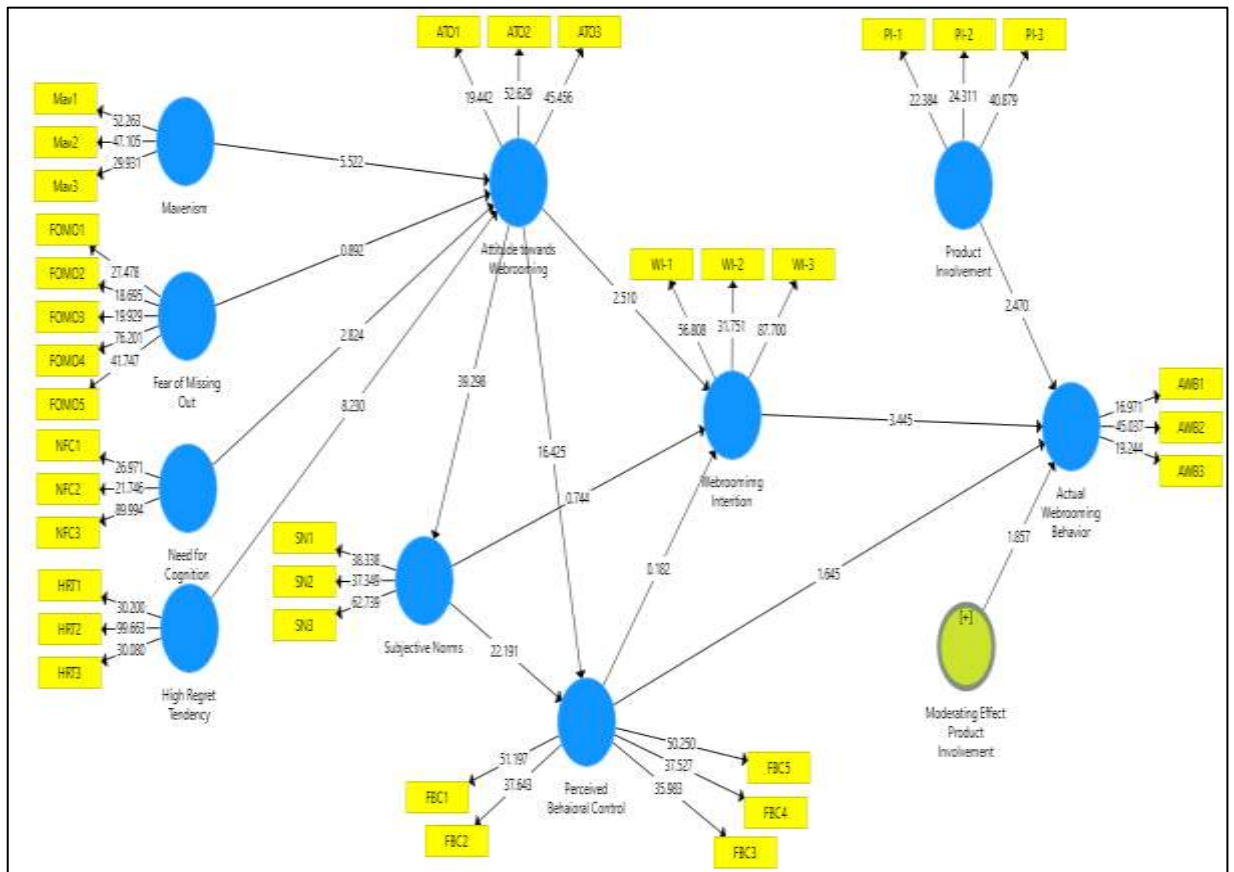
The results have shown that the attitude towards webrooming's (β = 0.804, T > 1.645, P < 0.05) has positive significant relationship with the subjective norms but negative reverse (β = -0.330, T > 1.645, P < 0.05), relationship, which means there is no positive correlation between attitude towards webrooming's and subjective norms. In addition, the attitude towards webrooming's (β = 0.427, T > 1.645, P < 0.05), has positive significant relationship with the perceived behavioral control and positive reverse (β = 0.891, T > 1.645, P < 0.05) relationship, which means there is positive correlation between attitude towards webrooming's and perceived behavioral control. Further, the subjective norms (β = 0.585, T > 1.645, P < 0.05) has positive significant relationship with the perceived behavioral control and positive reverse (β = 0.929, T > 1.645, P < 0.05) relationship, which means there is positive correlation between subjective norms and perceived behavioral control. The results have shown that all the values of Q-Square are higher than zero which means that the predictive relevance exists in this study.

Table 4.8: Direct Effects (Hypotheses Testing)

Hypothesis	Relationship	St. Beta	SM	SD	t-value	Decision	R^2	F^2	VIF	Q^2
H5	ATW →SN	0.804	0.805	0.019	43.414	Not Supported	0.646	1.825	1.000	0.436
	ATW ←SN	-0.330	0.331	0.077	4.277		0.859	0.099	4.813	0.546
H6	ATW →PBC	0.427	0.429	0.025	17.114	Supported	0.928	0.892	2.825	0.595
	ATW ←PBC	0.891	0.890	0.074	12.063		0.859	0.658	4.569	0.584
H7	SN→PBC	0.585	0.584	0.025	23.332	Supported	0.928	1.674	2.825	0.595
	SN←PBC	0.929	0.929	0.007	124.84		0.863	2.276	1.000	0.546

Figure 4.4: Moderating Assessment

Moderating Effect

The results have indicated that the product involvement ($\beta = 0.178$, T > 1.96, P < 0.05) has moderating effects on the relationship between webrooming's intentions and the actual webrooming's behavior. Therefore, the developed hypothesis approved in this study.

Indirect Effects (Hypothesis Testing)

Table 4.9: Indirect Effect

	Relationship	St. Beta	SM	SD	t-value	LLCI	ULCI	Decision
H13	PI*WI→AWB	0.178	0.183	0.072	2.47	0.056	0.296	Supported

DISCUSSION:

The results of the study are very much in accordance with the already developed theories and literature. The study was mainly focused on testing the effect of mavenism, fear of missing out, need for cognition and high regret tendencies on webrooming. Further the study also aimed to test the moderating role of products involvement between intention towards webrooming and actual webrooming phenomenon.

The relationships of variables are analyzed by structural equation modeling technique. Overall, the model of the study is found to be an excellent fit, and most of the hypotheses are accepted as per the literature support and previous theories. Mavenism, a psychographic variable of customers, as supported by the literature (Kang and Johnson, 2015) is found to be in significant relation with webrooming. Fear of missing out, contrary

to the theory support, shows insignificant results with the attitude towards webrooming. Fear of missing out urges the customers to search for new things and new arrivals in the market, to not to miss any better chance/opportunity. A reason, among many, for the insignificant result may be due to the economic situation of the country. The recent recession and decreased purchasing power of the customer make it very difficult for the people to spend on the unnecessary commodities. People are trying hard to fulfill their basic needs, so probably they are not paying attention to limited offers or any new arrivals in the market. The results of the study do not support this hypothesis.

Need for cognition is found to be significantly affecting the customers' attitude towards webrooming. As per the literature support, the result of this study is also showing that people with the higher need for cognition are not easy going. They always tried to get out from their comfort zone and process a bunch of information before making any purchase decision. So, customers with high level of cognition will tend to be more engage in webrooming, to satisfy their cognition need. They search for the attributes of the product over internet from various suppliers and then make a comparison and choose a best deal for themselves.

This study also takes high regret tendency as the independent variable and checks its impact on webrooming. The results are statistically significant and in accordance with the literature and theory proposed. Hence, people are more worried about the post purchase regret about price, quality or any other feature, and they are agreeing to spend some extra time on finding various alternatives in the market to get the best possible option. These psychographic variables are collectively representing the changes in attitude towards webrooming by 73% ($R^2 = 0.737$).

Subjective norms refer to the perceived social pressure or influence that individuals feel from important others in their lives, such as family members, friends, or peers, to perform a particular behavior. Webrooming, on the other hand, is a consumer behavior where individuals browse products online but make their purchases in physical stores. There has been a hypothesis that subjective norms are positively correlated with webrooming, implying that individuals who perceive greater social pressure to shop online would be more likely to engage in webrooming behavior.

However, in our study, we did not find support for this hypothesis. There could be several reasons why this is the case. First, it is possible that the sample size used in our study was not large enough to capture the relationship between subjective norms and webrooming. Alternatively, it could be that the measures used to assess subjective norms or webrooming were not sensitive enough to detect the relationship. Another possibility could be the demographic characteristics of the sample may have influenced the results, as different groups of individuals may have different reasons for engaging in webrooming.

Further, perceived behavioral control relation with the webrooming is also checked and the results are in line with the literature and as proposed in the hypothesis. A customer is well educated and having mobile phone or any other electronic gadget with the internet facility, is supposed to search the products via internet before purchasing it. Now a day, everybody is surfing on the internet for new products, products' features, discount and promotional activities etc. It is also become a fashion that everybody, before going to the physical market for purchase of the product, must search for it and get enough information about it. A person with no information about any specific product is seems to be boring and dumb person. Similarly, perceived behavioral control also found to be significant on webrooming. Availability of technology and internet facility now enables everybody to use the internet facility for shopping purposes.

Lastly, the study takes the product involvement as the moderator variable between webrooming intention and actual webrooming behavior of the customer. As per the theory and already existing literature proposed that customers with already developed intention for webrooming do sometime miss the surfing/searching process over internet due to numerous reasons. This study shows that product involvement is significantly moderate

this relationship. If the product is very cheap or a commonly use item in the household or of very low worth, then customers may skip the searching process and rely on the previously tested product or any easily available product at the time of purchase.

Conclusion and Recommendations

Conclusion

The study found three out of four proposed psychographic variables significantly affecting the customers' attitude towards webrooming. Namely, mavenism where people considers themselves as a good source of market knowledge and suggestion giver and they tend to collect various type of information about the market, supplier, competition and others as well. This information will be of either side i-e; online and offline. Online stores are explored just to collect information about the products and to gain information about the offline stores' location or any other special offer discount etc. Secondly, need for cognition (NFC) compel some people to make uneasy decisions; they do not take mere decisions while doing shopping. They search for the various type of information, process it in a manner to choose the best among alternatives. So, for the collecting various type of information and alternatives people usually take help from the simplest and easily accessible method i-e; mobile and internet. Thirdly, high regret tendency of the people also engages customers in online searching to reduce their post purchase regret. People are worried about the post purchase regret, and they are willing to spend some extra time in pre purchase process. Lastly, people are spending more time to webroom when the product is highly valuable to the customer. Products with the high involvement consume more time while searching products' alternatives, and products' attributes.

Recommendation

Based on the findings of the study, it is recommended that online retailers should target market mavens in their marketing and advertising efforts to encourage webrooming behavior among consumers. By targeting market mavens, online retailers can encourage webrooming behavior, which can ultimately lead to increased sales both online and offline.

Regret tendencies have a positive effect on webrooming; it is beneficial for online retailers to create marketing strategies that emphasize the convenience and flexibility of webrooming. Additionally, online retailers can invest in user-friendly websites and mobile applications that provide detailed product information and customer reviews, which can help consumers to make more informed purchasing decisions. It is also recommended that online retailers consider the individual differences in need for cognition (NFC) when designing their websites and online shopping experiences. Specifically, retailers should consider incorporating interactive and engaging features that cater to customers with high NFC levels, such as detailed product information, user-generated reviews, and comparison tools. By doing so, retailers can provide a more fulfilling and satisfying shopping experience for customers with high NFC levels, which may increase their likelihood of engaging in webrooming behavior.

Product involvement positively moderate the relationship between webrooming intention and webrooming actual behavior, it is recommended that online retailers focus on enhancing product involvement among their customers. One way to achieve this is by providing detailed and engaging product descriptions, reviews, and images on their website. Retailers can also leverage social media and other digital marketing channels to create buzz around their products and encourage customers to share their experiences and opinions.

Implications

Theoretical Implications

The implications of the study go beyond the digital marketing or digital store. The results of the study mainly focus to reveal the link between the psychographic variables and webrooming. It helps to increase the body of knowledge about webrooming, various research had already called for the psychographic variables to be studied with the webrooming, and this study fills the gap. Product involvement was also ignored in the literature in the context of webrooming. As per the direction made by researchers, this study has taken product involvement into account to study the webrooming phenomenon of the customers. A strong effect of product involvement as a moderator on webrooming is revealed, and opened up new research paradigms for future. Current study also testify both the theories used in the study.

Managerial Implications

This study has providing basis for the marketer to work on and to reduce the prospection of the products by the customers and increase the chances of sales in true sense. Psychographic variables are one of the strong variables which can trigger and directing the human behavior in any particular scenario. This study has identified those psychographic variables that can affect customers' choice regarding the selection of channel. This can help the marketers and policy makers to make policies which can retain the customers to the online channel till the closure of their sales. The result of this study can be helpful for converting the webroomers into genuine online buyers. For instance, a high level of surety and guarantees like money back guarantee etc can reduce the customers' high regret of tendency and customer may proceed further on online channel for making a purchase. Similarly, for the customers with high need of cognition; providing the complete set of information on the online portal may retain the customer till the closure of purchase process.

Limitations & Future Directions

The study didn't collect the data from a single industry so the results may not be applied in the real world on any specific products. Future studies may be conducted by taking any one or two industries for better implementation of the results. Similarly, every industry has its own dynamics and trends, so separate research should be conducted for every industry. The data is collected on the basis of convenience sampling. So real time webroomers or customers are not fully grabbed by the study. Future studies should be conducted by including the real customers at shopping places. Few other psychographic variables like; personality traits (extroversion, openness & conscientiousness), values (achievement, social expression & recognition), interests, attitudes, lifestyle, motivation, beliefs, opinions, perception and behavioral patterns etc. can also be taken as antecedents to webrooming. Taking these variables in webrooming research can be highly beneficial for the literature support and practitioners too.

References:

Ailawadi, K. L., Neslin, S. A., & K., G. (2001). Pursuing the value-conscious consumer: Store brands versus national brand promotions. Journal Of Marketing, 65(1), 71-89.

Ajzen, I. (1991). The theory of planned behavior. Organizational behavior and human decision processes, 50(2), 179-211.

Ajzen, I., & Madden, T. J. (1986). Prediction of goal-directed behavior: Attitudes, intentions, and perceived behavioral control. Journal of experimental social psychology, 22(5), 453-474.

Arora, S., & Sahney, S. (2018). Antecedents to consumers' showrooming behaviour: an integrated TAM-TPB framework. Journal of Consumer Marketing, 35(4), 438-450.

Arora, S., & Sahney, S. (2019). Examining consumers' webrooming behavior: an integrated approach. Marketing Intelligence & Planning, 37(3), 339-354.

Aw, E. C.-X. (2019). Understanding the webrooming phenomenon. International Journal of Retail & Distribution Management, 47(10), 1074-1092.

Aw, E. C.-X., Kamal Basha, N., 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.

Balasubramanian, S., Raghunathan, R., & Mahajan, V. (2005). Consumers in a multichannel environment: Product utility, process utility, and channel choice. Journal of interactive marketing, 19(2), 12-30.

Bansal, H. S., Taylor, S. F., & St. James, Y. (2005). "Migrating" to new service providers: Toward a unifying framework of consumers' switching behaviors. Journal of the Academy of Marketing Science, 33(1), 96-115.

Berger, C. R., & Calabrese, R. J. (1974). Some explorations in initial interaction and beyond: Toward a developmental theory of interpersonal communication. Human communication research, 1(2), 99-112.

Bosnjak, M., Tuten, T. L., & Wittmann, W. W. (2005). Unit (non) response in web-based access panel surveys: An extended planned-behavior approach. Psychology & Marketing, 22(6), 489-505.

Cacioppo, J. T., & Petty, R. E. (1982). The need for cognition. Journal of personality and social psychology, 42(1), 116.

Chang, H. H., Wong, K. H., & Li, S. Y. (2017). Applying push-pull-mooring to investigate channel switching behaviors: M-shopping self-efficacy and switching costs as moderators. Electronic Commerce Research and Applications, 24, 50-67.

Chew, J. (2018). How Malaysia's ecommerce players stacked up in 2017. Available at: www.techinasia.com/talk/dominates-malaysias-map-ecommerce.

Chiu, H.-C., Hsieh, Y.-C., Roan, J., Tseng, K.-J., & Hsieh, J.-K. (2011). The challenge for multichannel services: Cross-channel free-riding behavior. Electronic Commerce Research and Applications, 10(2), 268-277.

Chocarro, R., Cortiñas, M., & Villanueva, M.-L. (2013). Situational variables in online versus offline channel choice. Electronic Commerce Research and Applications, 12(5), 347-361.

Chou, S.-Y., Shen, G. C., Chiu, H.-C., & Chou, Y.-T. (2016). Multichannel service providers' strategy: Understanding customers' switching and free-riding behavior. Journal of Business Research, 69(6), 2226-2232.

Coughlan, A. T., Anderson, E., Stern, L. W., & EI-Ansary, A. (2001). Marketing Channels. Pearson/ Prentice Hall, Upper Saddle River, NJ.

Dahana, W. D., Shin, H., & Katsumata, S. (2018). Influence of individual characteristics on whether and how much consumers engage in showrooming behavior. Electronic Commerce Research, 18, 665-692.

Dutta, S., Biswas, A., & Grewal, D. (2011). Regret from postpurchase discovery of lower market prices: do price refunds help? Journal Of Marketing, 75(6), 124-138.

ECommerce-Nation. (2019). 5 Differences between the Showrooming and the Webrooming that You Should Know. Retrieved from. https://www.ecommerce-nation.com/5-differences-between-the-showrooming-and-the-webrooming-that-you-should-know/.

Elhai, J. D., Levine, J. C., Dvorak, R. D., & Hall, B. J. (2016). Fear of missing out, need for touch, anxiety and depression are related to problematic smartphone use. Computers in Human Behavior, 63, 509-516.

Feick, L. F., & Price, L. L. (1987). The market maven: A diffuser of marketplace information. Journal of marketing, 51(1), 83-97.

Fishbein, M., & Ajzen, I. (1975). Intention and behavior: An introduction to theory and research. In: Addison-Wesley, Reading, MA.

Flavián, C., Gurrea, R., & Orús, C. (2016). Choice confidence in the webrooming purchase process: The impact of online positive reviews and the motivation to touch. Journal of Consumer Behaviour, 15(5), 459-476.

Fornari, E., Fornari, D., Grandi, S., Menegatti, M., & Hofacker, C. F. (2016). Adding store to web: migration and synergy effects in multi-channel retailing. International Journal of Retail and Distribution Management, 44(6), 658-674.

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.

Gensler, S., Neslin, S. A., & Verhoef, P. C. (2017). The showrooming phenomenon: it's more than just about price. Journal of Interactive Marketing, 38, 29-43.

Goodman, S., & Remaud, H. (2015). Store choice: How understanding consumer choice of 'where'to shop may assist the small retailer. Journal of Retailing and Consumer Services, 23, 118-124.

Guo, Y., Zhang, M., & Lynette Wang, V. (2022). Webrooming or showrooming? The moderating effect of product attributes. Journal of Research in Interactive Marketing, 16(4), 534-550.

Gupta, A., Su, B. C., & Walter, Z. (2004). An empirical study of consumer switching from traditional to electronic channels: A purchase-decision process perspective. International Journal of Electronic Commerce, 8(3), 131-161.

Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., & Thiele, K. O. (2017). Mirror, mirror on the wall: a comparative evaluation of composite-based structural equation modeling methods. Journal of the Academy of Marketing Science, 45(5), 616-632.

Hall, A., Towers, N., & Shaw, D. R. (2017). Understanding how Millennial shoppers decide what to buy. International Journal of Retail and Distribution Management, 45(5), 498-517.

Herrero-Crespo, A., Viejo-Fernández, N., Collado-Agudo, J., & Sanzo Perez, M. J. (2022). Webrooming or showrooming, that is the question: explaining omnichannel behavioural intention through the technology acceptance model and exploratory behaviour. Journal of Fashion Marketing and Management: An International Journal, 26(3), 401-419.

Hu, T. I., & Tracogna, A. (2020). Multichannel customer journeys and their determinants: Evidence from motor insurance. Journal of Retailing and Consumer Services, 54, 102022.

Inman, J. J., McAlister, L., & Hoyer, W. D. (1990). Promotion signal: proxy for a price cut? Journal of consumer research, 17(1), 74-81.

Jones, C. (2016). If You Don't Have Fomo You Don't Know What You're Missing Out On. In.

Kaiser, F. G. (2006). A moral extension of the theory of planned behavior: norms and anticipated feelings of regret in conservationism. Personality and Individual Differences, 41(1), 71-81.

Kalyanam, K., & Tsay, A. A. (2013). Free riding and conflict in hybrid shopping environments: Implications for retailers, manufacturers, and regulators. The antitrust bulletin, 58(1), 19-68.

Kang, J. Y. M. (2018). Showrooming, Webrooming, and User-Generated Content Creation in the Omnichannel Era. Journal of Internet Commerce, 17(2), 145-169.

Kelley, C., Delhagen, K., & Denton, A. (2002). Capturing cross-channel dollars. Forrester Research.(May).

Kim, E., Libaque-Saenz, C. F., & Park, M. C. (2019). Understanding shopping routes of offline purchasers: selection of search-channels (online vs. offline) and search-platforms (mobile vs. PC) based on product types. Service Business, 13, 305-338.

Kumar, A. (2017). Extended TPB model to understand consumer "selling" behaviour. Asia Pacific Journal of Marketing and Logistics, 29(4), 721-742.

Lemon, K. N., & Verhoef, P. C. (2016). Understanding customer experience throughout the customer journey. Journal of marketing, 80(6), 69-96.

Li, J., Mizerski, D., Lee, A., & Liu, F. (2009). The relationship between attitude and behavior: An empirical study in China. Asia Pacific Journal of Marketing and Logistics, 21(2), 232-242.

Madahi, A., & Sukati, I. (2016). An empirical study of Malaysian consumers' channel-switching intention: Using theory of planned behaviour. Global Business Review, 17(3), 489-523.

Mantel, S. P., & Kardes, F. R. (1999). The role of direction of comparison, attribute-based processing, and attitude-based processing in consumer preference. Journal of consumer research, 25(4), 335-352.

McConnell, A. R., Niedermeier, K. E., Leibold, J. M., El-Alayli, A. G., Chin, P. P., & Kuiper, N. M. (2000). What if I find it cheaper someplace else?: Role of prefactual thinking and anticipated regret in consumer behavior. Psychology Marketing, 17(4), 281-298.

Orús, C., Gurrea, R., & Ibáñez-Sánchez, S. (2019). The impact of consumers' positive online recommendations on the omnichannel webrooming experience. Spanish Journal of Marketing - ESIC, 23(3), 397-414.

Park, E. J., & Kim, E. Y. (2008). Effects of consumer tendencies and positive emotion on impulse buying behavior for apparel. Journal of the Korean society of clothing and textiles, 32(6), 980-990.

Pavlou, P. A., & Fygenson, M. (2006). Understanding and predicting electronic commerce adoption: An extension of the theory of planned behavior. MIS quarterly, 30, 115-143.

Pookulangara, S., & Natesan, P. (2010). EXAMINING CONSUMERS' CHANNEL-MIGRATION INTENTION UTILIZING THEORY OF PLANNED BEHAVIOR: A MULTIGROUP ANALYSIS. International Journal of Electronic Commerce Studies, 1(2), 97-116.

Pookulangara, S., Hawley, J., & Xiao, G. (2011). Explaining consumers' channel-switching behavior using the theory of planned behavior. Journal of Retailing Consumer Services, 18(4), 311-321.

Przybylski, A. K., Murayama, K., DeHaan, C. R., & Gladwell, V. (2013). Motivational, emotional, and behavioral correlates of fear of missing out. Computers in human behavior, 29(4), 1841-1848.

PWC's Annual Global Total Retail Consumer Survey. (2015).

Rangaswamy, A., & Van Bruggen, G. H. (2005). Opportunities and challenges in multichannel marketing: An introduction to the special issue. Journal of interactive marketing, 19(2), 5-11.

Reid, L. F., Ross, H. F., & Vignali, G. (2016). An exploration of the relationship between product selection criteria and engagement with'show-rooming'and'web-rooming'in the consumer's decision-making process. International Journal of Business Globalisation, 17(3), 364-383.

Reynolds, K. E., Folse, J. A. G., & Jones, M. A. (2006). Search regret: Antecedents and consequences. Journal of Retailing, 82(4), 339-348.

Sari, D. A. P., Febrilia, I., Kresnamurti, A., Dirgantari, P. D., & Rachmahani, H. (2023). Why do people shop? Understanding consumer e-commerce shopping intention in Indonesia: Mediating effect of shopping orientation. Nurture, 17(2), 81-92.

Schiessl, D., Korelo, J., & Dias, H. B. A. (2023). How online shopping experiences shape consumer webrooming behavior. Marketing Intelligence & Planning, 41(1), 16-30.

Schröder, H., & Zaharia, S. (2008). Linking multi-channel customer behavior with shopping motives: An empirical investigation of a German retailer. Journal of Retailing and Consumer Services, 15(6), 452-468.

Shankar, A. (2021). How does convenience drive consumers' webrooming intention?. International Journal of Bank Marketing, 39(2), 312-336.

Shankar, A., & Jain, S. (2023). Investigating webrooming behavior: a case of Indian luxury consumers. Journal of Fashion Marketing and Management: An International Journal, 27(2), 241-261.

Sheeran, P., & Orbell, S. (1999). Augmenting the theory of planned behavior: roles for anticipated regret and descriptive norms 1. Journal of Applied Social Psychology, 29(10), 2107-2142.

Taylor, K. (1997). A regret theory approach to assessing consumer satisfaction. Marketing letters, 8, 229-238.

Taylor, S., & Todd, P. (1995). Assessing IT usage: The role of prior experience. MIS quarterly, 19(4), 561-570.

Thaichon, P., Quach, S., Barari, M., & Nguyen, M. (2023). Exploring the Role of Omnichannel Retailing Technologies: Future Research Directions. Australasian Marketing Journal, 14413582231167664.

Tsiros, M., & Mittal, V. (2000). Regret: A model of its antecedents and consequences in consumer decision making. Journal of consumer research, 26(4), 401-417.

Tudor, J. (2023). WEBROOMING I SHOWROOMING (Doctoral dissertation, University of Split. University Department of Professional Studies. Department of Management, Trade and Tourism).

Van Baal, S., & Dach, C. (2005). Free riding and customer retention across retailers' channels. Journal of Interactive Marketing, 19(2), 75-85.

Van Bruggen, G. H., Antia, K. D., Jap, S. D., Reinartz, W. J., & Pallas, F. (2010). Managing marketing channel multiplicity. Journal of Service Research, 13(3), 331-340.

Verhoef, P. C., Kannan, P. K., & Inman, J. J. (2015). From multi-channel retailing to omni-channel retailing: introduction to the special issue on multi-channel retailing. Journal of Retailing, 91(2), 174-181.

Verhoef, P. C., Neslin, S. A., & Vroomen, B. (2007). Multichannel customer management: Understanding the research-shopper phenomenon. International journal of research in marketing, 24(2), 129-148.

Wang, Y.-M., Lin, H.-H., Tai, W.-C., & Fan, Y.-L. (2016). Understanding multi-channel research shoppers: an analysis of Internet and physical channels. Information Systems and e-Business Management, 14(2), 389-413.

Wolny, J., & Charoensuksai, N. (2014). Mapping customer journeys in multichannel decision-making. Journal of Direct, Data and Digital Marketing Practice, 15(4), 317-326.

Yang, K. (2012). Consumer technology traits in determining mobile shopping adoption: An application of the extended theory of planned behavior. Journal of Retailing and Consumer Services, 19(5), 484-491.

Zaichkowsky, J. L. (1985). Measuring the involvement construct. Journal of consumer research, 12(3), 341-352.

Zaichkowsky, J. L. (1994). The Personal Involvement Inventory: Reduction, Revision, and Application to Advertising. Journal of Advertising, 23(4), 59-70.