Correspondence should be addressed to Kamran Inayat; chkamraninayat@gmail.com



RESEARCH ARTICLE

Unscrambling the Impact of Malicious Envy and Materialism on Impulse Buying, with Social Comparison as a Mediator

Kamran Inayat ^a Rabia Azhar ^b Farhan Ahmad ^c Maooz Rafay ^d Fatima Zahra ^e

Abstract: This research aims to examine the correlation between Materialism (MT), Malicious Envy (ME), Social Comparison (SC), and Impulse Buying (IB) with Social Comparison as the mediating variable. The cross-sectional survey method was used to gather data from 395 retail consumers using self-completion questionnaires. The Partial Least Squares Structural Equation Modeling (PLS-SEM) analysis was performed to evaluate the relationship between the constructs. The results show that both direct and mediated effects are substantial. Research also highlights that materialism and malicious envy are predictive of social comparison behaviors, which explains the significant variance in impulse buying. The current study shows that social comparison plays a mediator role between both materialism and malicious envy, two related psychological and emotional factors, and impulse buying. The present findings can be useful for marketers, policymakers, and the general public because of the results. It is socially relevant to understand how marketers can use social comparison in an advertising campaign to change consumer behavior, although ethical concerns need to be resolved. There is a suggestion made to policymakers to fight impulsive buying triggers by focusing on consumer education. In the same manner, people can use mindfulness and self-introspection to counter the gripes of materialism and envy.

Keywords: Social Comparison, Materialism, Malicious Envy, Promotional Schemes, Impulse Buying

Introduction

The world is changing, and this has prompted different social and psychological changes in the community. Due to the advances in technology, specifically digitalization and the use of social media, the level of social comparison and impulsive buying has given rise to both the physical and virtual marketplaces in the world (Yang et al., 2021). The use of the internet has revolutionized society, and more specifically, recent advances have altered the way people shop. Scholars have named several antecedents of impulsive buying, namely, self-regulation failure, affect, and context. For instance, Baumeister (2002) explains that self-control is a major detriment to impulse buying, particularly during the evening, since there is poor self-control. In the same vein, Virvilaitė and Saladienė (2012) note that product placement and promotions in the retail environment can initiate impulse buying by consumers. Festinger (1954) was the first to carry out intensive research on impulsive actions and associated backgrounds, whereby he brought forth the social comparison theory. Previous studies by Rook and Hoch (1985) confirmed that individuals indulge in impulsive behaviors because of the innate pull towards consumption. They also discovered that people, as much as they are part

^a M.Phil. (Business Administration), Department of Business Administration, National College of Business Administration & Economics Lahore, Sub-Campus Multan, Punjab, Pakistan. Email: chkamraninayat@gmail.com

^b MS (Business Administration), Department of Management Sciences, National University of Modern Languages, Multan, Pakistan. Email: rabiaazhar94@gmail.com

^c M.Phil. (Business Administration), Department of Business Administration, National College of Business Administration & Economics Lahore, Sub-Campus Multan, Punjab, Pakistan. Email: malikfarhan916@gmail.com

^d M.Phil. (Business Administration), Department of Business Administration, National College of Business Administration & Economics Lahore, Sub-Campus Multan, Punjab, Pakistan. Email: maoozrafav@yahoo.com

^e BS Scholar, Department of Business Administration, (NFC), Institute of Engineering and Technology Multan, Punjab, Pakistan. Email: famazara89@gmail.com

of societies, continually compare their abilities with those of other people, hence giving rise to social comparison theory.

As with the perception of material success, assessing the worth of tangible commodities as assets to happiness cements social comparison inclinations. The subjects with a high materialistic orientation are more concerned with other people's rankings, as tangible things serve as signs of people's worth in society. This disposition leads to a focus on material possessions toward upward social comparisons to evaluate their status compared with other individuals who seem more wealthy or successful. These comparisons are increasingly reinforced on social media platforms that advertise other people's lives and possessions, thus intensifying feelings of inadequacy or envy (Ling et al., 2023a). Second, the materialism perspective indicates that social comparison leads to a cycle where individuals always try to obtain more items to improve their position. These investigations reveal that materialism not only enhances rankings and the frequency of social comparison but also contributes to people's use of objects to compensate for perceived personal deficits. For instance, the I-PACE model postulates that materialistic values, together with upward social comparison, can lead to compulsive buying since an individual tries to achieve an ideal self-image commensurate with his material success (Zheng et al., 2018). Two other possible causes include: Other behaviors that have been proposed to provoke this behavior include: It elicits both positive and negative envy; the negative type makes people hostile and resentful, as highlighted by Latif et al. (2021). Likewise, van de Ven (2016) discusses how malicious envy is different from other forms of envy and how it is caused by personal insecurities magnified by social comparison.

Literature Review

Relationship between Materialism and Social Comparison

Materialism can be best described as the extent to which individuals value material possessions and base their self-evaluations on the acquisition of material goods in general and not self-generated accomplishments or personal traits (Belk, 1985). Richins and Dawson (1992) conceptualize materialism as comprising three main dimensions: possessions, the desire and importance of possessions, possession and happiness, and possession as the goal of success. Such an attitude leads people towards outside approval; in most cases, social comparison becomes the major way of evaluating oneself. Further, analysis of materialism shows that it can negatively impact the self-esteem of an individual and to overcome the negative feelings, people with a materialistic disposition use social comparison. For instance, individuals with materialistic orientations use commodities, wealth, or their rank in society to determine their value and roles in society (Richins, 1994). Cross-cultural studies provide additional insights into the relationship with social comparison due to materialism. In consumer cultures, with the increase in technological facilities, people are more inclined to retain and adopt the belief that money and material possessions lead to success and happiness (Kasser et al., 2005). Materialism and social comparison are highly intertwined and associated with a range of adverse psychological effects. Studies related to materialism social comparisons have mentioned that people experience increased stress, anxiety, and dissatisfaction, mainly due to feelings of inadequacy when compared to other's success or abundance (Dittmar et al., 2014). Andriana et al. (2024) examine how materialism and social comparison predict the TPB variables of consumers' intentions to purchase luxury food items, particularly the bandwagon aspect of consumption motivation. In the study of Ozimek et al. (2024), materialism contributes to social media dependence and stress, wherein materialism has positive associations with social media dependence and life satisfaction, potentially due to social comparison on social media. How exactly materialism relates to social comparison has also been investigated in experimental studies, where findings note that priming people with materialistic values leads to higher tendencies of social comparison. Hence, it can be hypothesized as

H1: Materialism leads to social comparison

Relationship between Malicious Envy and Social Comparison

Lee (2024) focuses on the effects that Facebook check-ins have on the audience, with the study showing that such posts create feelings of envy and jealousy and, therefore, increase social comparison activity. This work reveals that the experience of malicious envy takes place every time a user looks at the branded, inspirational content, feels more doubt, and makes more comparisons. Wu et al. (2024) examined the 'ubiquitous but ambiguous nature of workplace comparison, demonstrating that self-other comparison for employees unleashes malicious envy. Unlike territoriality-based jealousy, this form of envy may have varied outcomes, positive or negative, depending on perceived equity in place of work. Building on concerns associated with the 'fear of missing out' (FOMO), Tandon et al. (2024) concentrated on how social networking environmental comparison might lead to malicious envy. This often results in addictive behaviors, where the start of a user correlates the status they possess to that of another user, and according to social comparison theory, this plays a crucial role in an individual's behavior and or mental status. Altogether, the studies listed in the present review demonstrate that PV plays multifaceted roles in maintaining social comparison processes in various occupational contexts and social media. This line of research explores the diffusion of upward comparison on psychological adjustment and social conduct and provides a theoretical and practical analysis of its psychological and social effects. Liu et al. (2019) analyzed upward social comparison and its impact and showed the role of envy in the contingent evaluation of ASC in online interactions, which results in impulse purchase behavior. Their study showed that the adults expected a higher correlation between envy and impulse buying than the adolescents. Liu et al. (2017) revealed in another study that upward social comparison on SNOs was directly related to depressive symptoms and more so when participants experience envy.

H2: Malicious envy leads to Social comparison

Relationship between Social Comparison and Impulse Buying

Scholars have comprehensively discussed the relationship between social comparison and binge buying, focusing on the current consumers' environment, which is linked to social media. Festinger (1954) initially developed an organized theory on social comparison, which had been a topic of study in social philosophy and science earlier than his theory. Social comparison means comparing oneself to others; the theory states that people decide about their abilities and perceptions through such comparisons (Usmani & Ejaz, 2020). Two primary types of social comparisons exist: upward and downward. The two types of comparison, namely, upward comparison, where individuals compare themselves with others they think are better off, result in decreased self-esteem (Suls & Wheeler, 2013). On the other hand, downward comparison leads to positive self-images and positivity of self-change (Luo et al., 2018). This stigmatizing dichotomy of social comparison not only defines self-evaluation but also modulates individual behavior, skewing group processes (Want & Saiphoo, 2017). This assertion is supplemented by studies conducted by Zafar et al. (2021), which revealed that there is a high likelihood that purchasing is done on impulse, particularly when someone notices his or her friends purchasing something or something else.

The literature suggests that

H3: Social comparison leads to impulse buying.

Social Comparison as a Mediator between Materialism and Impulse Buying

Upward social comparison enhances the pursuit of status and acquisition as people consider their standard of living relative to that of others. It may pressure materialistic people to buy similar things as a way of bringing parity, and this creates impulsive buying primarily driven by the desire to close the perceived gap quickly (Pahlevan Sharif et al., 2022). Thus, the role of social comparison is the link between materialism and impulsive purchasing. Materialism pertains to the acquisition of things, social rank, and income and forms a context in which the worth of the individual is based on achievement and possession (Kasser & Kanner, 2004).

Individuals with higher materialism are more likely to perform social comparisons to assess their rank in the social hierarchy, thus consolidating the role played by such values on buying behaviors (Luo et al., 2018). Research shows that upward comparison not only increases the pursuit of material possessions but also enhances the perceived association between achievement and possessions (Mazli et al., 2023). Thus, social comparison intensifies the materialistic orientation towards status, hence comparison and consumption, and further, impulsive buying as a way to establish a perceived equal status. Thus, the following hypothesis can be deduced.

H4: Social Comparison mediates the relationship Materialism between and Impulse Buying

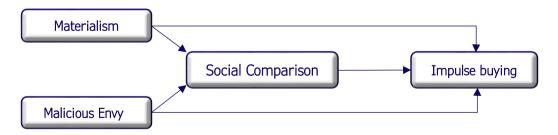
Social Comparison as a mediator between Malicious Envy and Impulse buying

The theory of social comparison, the phenomenon of malicious envy, and its connection with impulse buying are discussed in consumer behavior research with interest. It can be argued that the social comparison theory by Festinger (1954) states that people continuously compare themselves with other people and focus this process on social contexts, such as social networks. Research that relates negative emotional states to shopping behaviors shows that malicious envy, a negative emotion that is brought about by upward social comparison, actually stimulates impulse buying as people try to overcome the envy they feel by buying products they hope will help to close the gap between the socially desirable goal and those who are perceived to have achieved this goal. Research on social networking sites demonstrates that when consumers practice upward social comparisons, that is, comparing themselves with others deemed to be superior in qualities such as success and beauty, the end result is envy and a propensity to indulge in conspicuous consumption. In their paper, Loureiro et al. (2020) also identify the different ways in which benign and malicious envy impact consumers and how the latter induces impulse responses. Ling et al. (2023a) present a model in which social comparison leads to malicious envy, and obsessive buying emerges in individuals who experience envy. This mediation effect is especially on social sites where people are exposed to others' well-selected success and materialistic posts all the time. The relationship between social comparison and impulsive buying is actually moderated by materialism and self-esteem. According to Van Tran et al. (2023), materialism is a vulnerability that increases malicious envy to further impulse buying. This study proposes a hypothesis.

H5: Social Comparison of the relationship between Malicious Envy mediates and Impulse Buying.

Research Framework

Figure 1
Research Framework



Underlying Theory

This paper uses Festinger's (1954) social comparison theory, selecting spiteful envy and materialism as the underlying motives for impulsive buying behavior. According to the theory, people develop standards of comparison to assess the worth of individuals, especially when physical reference points to establish self-worth are absent. In this context, therefore, the type of social comparison that is most likely to lead to negative emotions such as jealousy is the upward social comparison, where one compares oneself with those thought to be more affluent. Envy, on the other hand, transforms into malevolent jealousy when one gets

jealous with intent to either harm those individuals or entities he or she has envy for or try to close the perceived gap by going on shopping sprees, for instance. Here, people run after the things of this world in order to gain confidence, particularly when materialism increases 'the identification between the self and objects'. Promotional advertisements reinforce this process by placing products in specific and favorable schemas as signs of increased status, hence fostering consumption based on the emotion of envy. Campaigns help create impressions towards the product that its ownership leads to an improved social status, hence creating demand impulses among consumers. This research aims to identify how advertising communicates and takes advantage of relative theories like the Social Comparison Theory to instill negative envy and materialism that facilitates impulse buying.

Research Methodology & Data Collection

The research design employed in this study was a cross-sectional survey design since this design enables the collection of information at a specific moment in time to determine the interrelationships between the variables (Creswell & Creswell, 2012). The target population included retail consumers with regular daily or occasional purchases of clothing and footwear. To include diverse individuals, a purposive sample was developed, including individuals of different ages, genders, and income levels, as widely suggested in sampling literature (Etikan, 2016). The selected sample consisted of 395 individuals, considering that it has adequate statistical power for SEM-PLS analysis (Gavin, 2012). Convenience sampling was used since it has its advantages, especially when random sampling is not feasible (HR & Aithal, 2022). The data was collected using a self-administered questionnaire complemented by well-validated measures of social comparison, malicious envy, materialism, and impulse buying behaviors. Most of these constructs and corresponding scales are often cross-checked and are well-acknowledged in the consumer behavior field, making the measurements used valid and reliable (Ferguson et al., 1977; Churchill & Iacobucci, 2006). The respondents were approached in different shops selling clothing, accessories, and shoes. To maintain the rights of their subjects, all the participants took informed consent that showed their willingness and anonymity, which is ethical in data collection (Dillman et al., 2016). Demographic details and responses to the items developed for the study constructs were collected in the survey questionnaire. Moreover, participants are provided with real-life similar promotions to capture the actual shopping behavior among participants. Data collected was analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). To analyze the various variables, the patterns of social comparison correlation and regression testing were applied (Sarstedt et al., 2022). The analysis framework used in this research agrees with the best practices of the SEM-PLS to obtain reliable results (Fornell & Larcker, 1981).

Measurement Instrument

The research employed a 5-point Likert scale index, which is a popular psychometric method of data collection that allows the respondents to reveal a degree of conformance or non-conformance (Croasmun & Ostrom, 2011). The scale items used in this research were adopted and validated from research that has been conducted before. In particular, Social Comparison was measured using items developed by Liu et al. (2019), Impulse Buying by Sneath et al. (2009), Materialism was adapted from Richins (2004), and Malicious Envy scale was adapted from Lange and Crusius (2015).

Statistical Analysis

Response Rate

According to the survey queries, we enable individuals to voice their thoughts. Therefore, people can explain their experiences when filling out the survey. Through this strategy, we assemble precise and correct data for our investigation, thus validating the primary assumption of the study. Of the 550 questionnaires distributed to the participants, 410 (74.54%) were returned and after screening, the finished sample consisted of 395 (71.81%).

Table 1
Response Rate

Description	Circulated	%
Total Disseminated Questionnaires	550	100%
Received Questionnaires	410	74.54%
Finalized Sample	395	71.81%

Demographic Profile of the Respondents

The analysis revealed that out of 395 finalized responses, 30 percent were male, and 70 percent were female. The majority, 56 percent, belonged to the age group 26-35. Twenty-two percent belonged to the income group 75000 and above. The details are given below in Table 2.

Table 2

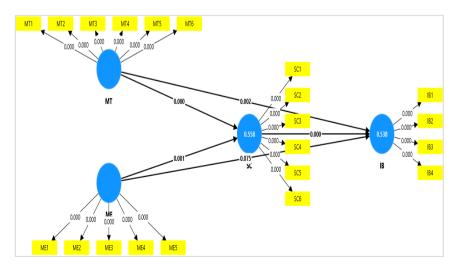
Demographic profile

Characteristics	Percentage	
Gender		
Male	30%	
Female	70%	
Age Group		
18-25 years	19%	
26-35 years	46%	
36-45 years	31%	
46 years and above	4%	
Monthly Income		
45000-55000	22%	
56000-65000	45%	
66000-75000	20%	
75000 and above	13%	

SEM-PLS Models

Acronyms: SC: Social Comparison, MT: materialism, ME: Malicious Envy, IB: Impulse Buying

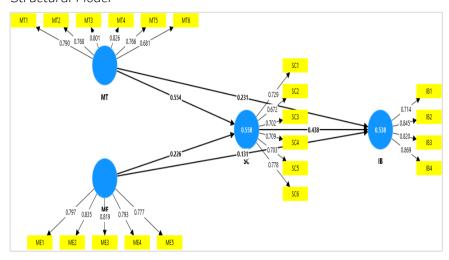
Figure 2
Measurement Model



Acronyms

SC: Social Comparison, MT: materialism, ME: Malicious Envy, IB: Impulse Buying

Figure 3
Structural Model



Construct Reliability & Validity

The examination of construct reliability and construct validity indicates that all the constructs that comprise IB, ME, MT, and SC possess a greater degree of reliability. This is further supported by the rho_c values and Cranach's Alpha being higher than the recommended threshold of 0.70 for internal consistency between the constructs (Hair et al., 2017). Convergent validity is further ascertained by assessing the Average Variance Extracted (AVE) for all the constructs where the values exceed 0.50, signifying an adequate amount of variance explained by the respective items (Pham et al., 2019). However, considering that MT= SC = 0.513, some of the translations may still only be adequate at best and could be refined to increase validity even more. All the VIF values are less than five, meaning that there is no presence of multicollinearity in the current model. The factor loadings for all items are greater than 0.5, and most of the values exceed 0.7, which provides evidence for the reasonable correspondence between the items and the postulated constructs (Hair et al., 2018). Altogether, the findings of the study demonstrate that the proposed model has favorable factor reliability and construct validity, specifically in the case of IB and ME indices. However, the evidence points to MT and SC having the potential for expansion to enhance the convergent validity of results, which is good but far from ideal for enhancement for further research studies.

 Table 3

 Construct Reliability & Validity

Constructs	Items	Factor Loadings	VIF	Average Variance Extracted (AVE)	Composite Reliability (rho_c)	Cronbach's Alpha
	IB1	0.7	1.3		0.9	0.8
Impulso Puving	IB2	0.8	2.1	0.7		
Impulse Buying	IB3	0.8	2.0	0.7		
	IB4	0.9	2.6			
	ME1	0.8	2.0		0.9	0.9
	ME2	0.8	2.2			
Malicious Envy	ME3	0.8	2.0	0.6		
	ME4	0.8	1.8			
	ME5	0.8	1.8			

Constructs	Items	Factor Loadings	VIF	Average Variance Extracted (AVE)	Composite Reliability (rho_c)	Cronbach's Alpha	
	MT1	0.8	2.0			0.9	
	MT2	0.8	1.9		0.9		
Materialism	MT3	0.8	2.1	0.6			
	MT4	0.8	2.3	0.0			
	MT5	0.8	1.8				
	MT6	0.7	1.6				
	SC1	0.7	1.6		0.0	0.8	
	SC2	0.7	1.4				
Social	SC3	0.7	1.5	٥٢			
Comparison	SC4	0.7	1.5	0.5	0.9		
	SC5	0.7	1.5				
	SC6	0.8	1.7				

Acronyms: SC: Social Comparison, IB: Impulse Buying, MT: Materialism, ME: Malicious Envy,

Discriminant Validity

The maximum value of HTMT, which is used, is 0.85, sometimes 0.90. Values below this threshold signify high discriminant validity of constructs. The rest of the chosen pairs (IB vs. ME, IB vs. MT, IB vs. SC, ME vs. SC, and MT vs. SC) yield HTMT values below the threshold or near to it, which further depicts acceptable discriminant validity. Thus, according to the Fornell-Larcker criterion, the discriminant validity of all the constructs in the model is confirmed since the values of the square roots of the AVEs are higher than the corresponding values of the inter-construct correlations. Thus, discriminant validity is established effectively (Dirgiatmo, 2023).

Table 4
Heterotrait-monotrait ratio (HTMT) – Matrix

	IB	ME	MT	SC
IB				
ME	0.719			
MT	0.771	0.932		
SC	0.844	0.798	0.874	

Acronyms: SC: Social Comparison, IB: Impulse Buying, MT: Materialism, ME: Malicious Envy

Table 5
Fornell-Larcker Crition

	IB	ME	MT	SC
IB	0.814			
ME	0.610	0.804		
MT	0.658	0.801	0.773	
SC	0.696	0.669	0.735	0.717

Acronyms: SC: Social Comparison, IB: Impulse Buying, MT: Materialism, ME: Malicious Envy

Hypothesis Testing

The table provides insights into the relationships between Social Comparison, Impulse Buying, Materialism, and Malicious Envy based on structural equation modeling results (Ringle et al., 2023).

Table 6 *Hypothesis Testing*

Relationships	Original	Sample	Standard	T statistics	Р	0	Results
Relationships	sample (0)	mean (M)	deviation (STDEV)	(O/STDEV)	value	β	Results
MT -> SC	0.554	0.558	0.062	8.965	0.000	0.554	Accepted
ME -> SC	0.226	0.223	0.068	3.339	0.001	0.226	Accepted
SC -> IB	0.438	0.439	0.055	7.953	0.000	0.438	Accepted
MT -> SC -> IB	0.243	0.245	0.040	6.125	0.000	0.243	Accepted
ME -> SC -> IB	0.099	0.098	0.033	2.975	0.003	0.099	Accepted

Acronyms: SC: Social Comparison, IB: Impulse Buying, MT: Materialism, ME: Malicious Envy

The results highlight the relationships between Materialism (MT), Malicious Envy (ME), Social Comparison (SC), and Impulse Buying (IB) in a structural equation model, with key findings regarding direct and mediated effects. H1 Materialism leads to social comparison is accepted as (β =0.554, T-statistic =8.965, p=0.000) with a highly significant relationship indicating that individuals with materialistic tendencies are more likely to engage in social comparison behaviors as confirmed by Chatterjee et al. (2019). H2 Malicious envy leads to Social comparison is also accepted as values are (β =0.226, T=3.339, p=0.001). This relationship is statistically significant, suggesting that envy contributes to the tendency to compare oneself to others, as suggested by Ali et al. (2024).

H3 Social comparison leads to impulse buying is also accepted as (β =0.438, T=7.953, p=0.00), showing that individuals who engage in social comparison are more likely to make impulsive purchasing decisions. This result implies that the tendency to compare oneself with others can drive spontaneous purchasing behaviors, potentially as a means to align with perceived social standards or outshine peers, as indicated by Zafar et al. (2021). H4, Social Comparison mediates the relationship between Materialism and Impulse Buying, is accepted based on these values (β =0.243, T=6.125, p=0.000) and highlights the importance of Social Comparison as a mechanism connecting materialistic values to impulsive purchasing behavior as supported by Ling et al. (2023). H5, Social Comparison mediates the relationship between Malicious Envy and Impulse Buying is accepted as (β =0.099, T=2.975, p=0.003) is also significant, though weaker. As supported by Ling et al. (2023b)

Conclusion & Recommendations

This study reveals significant relationships between Materialism (MT), Malicious Envy (ME), Social Comparison (SC), and Impulse Buying (IB). MT and ME strongly drive social comparison behaviors. Social comparison strongly predicts impulsive purchasing. Materialism's impact on impulse buying is mediated by social comparison, and Envy's impact on impulse buying is also mediated by social comparison. Social comparison is an effective technique marketers may use in their campaigns, but they have to avoid ethical issues. Policymakers should see to it that consumer education is carried out as a way of counteracting the triggers of impulsive buying. It demonstrates how individuals can use tools such as self-reflection and meditation to help mitigate the impact of materialism and envy. These findings contribute knowledge to the existing literature on consumer behavior and reveal pragmatic techniques for stakeholder organizations, governments, and the populace at large.

Managerial Implication

Based on the analysis of the results of this study, several implications can be drawn. From the managers' perspective, it also offers an understanding of how materialism and envy translate into social comparison and impulse buying, pointing at directions for orchestrating the appeal to status and scarcity. Some of the

ways through which retailers can instigate social comparison include product placement and promotions, but they should be careful that they do not exploit vulnerability.

Theoretical Implications

In theoretical terms, the current research significantly advances consumer behavior theories by highlighting the mediating role of social comparison and the critical influence of feelings like envy on consumer decision-making processes, particularly in contexts involving impulse buying. This contribution enriches the understanding of how emotional and psychological factors interplay within purchasing behaviors. It also sets a foundation for cross-cultural research by offering insights into how cultural variations may shape the dynamics of social comparison and envy across different markets, emphasizing the importance of context-specific studies in global consumer behavior.

Furthermore, the study demonstrates the practical application of structural equation modeling (SEM) to test complex relational hypotheses. By integrating constructs such as attitudes, subjective norms, and emotional responses, SEM facilitates a nuanced understanding of the direct, indirect, and mediated relationships among variables. This methodological approach not only validates existing theories but also helps to extend frameworks like the Theory of Planned Behavior (TPB) and compensatory behavior models. The findings pave the way for future studies to explore diverse mediating factors, enriching theoretical development and offering actionable insights for marketers aiming to influence consumer preferences. This research underscores the multidimensional nature of consumer behavior, linking theoretical constructs to practical implications in an increasingly interconnected and competitive global marketplace.

Limitations & Future Research Direction

Certain limitations in the study warrant careful consideration. The results may lack generalizability to other populations due to the specific characteristics of the sampled group, which may not represent broader demographic or cultural diversity. Additionally, the reliance on cross-sectional data limits the ability to infer causation, as relationships observed at a single point in time may not reflect dynamic or causal processes over time. The study also relies heavily on self-reported data, which is susceptible to biases such as social desirability bias, recall errors, or inconsistencies in participant responses. These biases can influence the validity and reliability of the findings. Furthermore, the omission of critical external factors, such as varying economic conditions, cultural influences, or technological adoption rates, introduces potential uncontrolled variables that may have significant impacts on the observed outcomes. Future research should address these limitations by employing longitudinal designs to better capture causal relationships and dynamic changes over time. Expanding the sampling frame to include diverse populations and using mixed methods, such as combining quantitative surveys with qualitative interviews, can enhance the richness and applicability of the findings. Additionally, controlling for external factors like cultural and economic contexts can strengthen the study's generalizability and provide a more comprehensive understanding of the phenomena under investigation.

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