

## CONSUMER IMPULSE BUYING BEHAVIOR: THE MODERATING ROLE OF CONFIDENCE

Hadees Abbasi<sup>1</sup>, Raja Mazhar Hameed<sup>2</sup>, Irfan Ullah<sup>3</sup>, Mohammad Huzaifa Tauseef<sup>4</sup>,  
Abdul Rafae Mazhar Raja<sup>5</sup>, Farah Bashir<sup>6</sup>

<sup>1, 2, 4</sup>Department of Management Sciences Bahria University, Islamabad, Pakistan

<sup>3</sup>Department of Business Administration Iqra University, Islamabad, Pakistan

<sup>5</sup>Mobilink Microfinance Bank Islamabad, Pakistan.

<sup>6</sup>Army Public College of Management Sciences Rawalpindi. Pakistan

<sup>1</sup>hadeesabbasi19@gmail.com, <sup>2</sup>rajamazhameed@yahoo.com, <sup>3</sup>irfanullahtarar1979@gmail.com,  
<sup>4</sup>huzaifa0727@gmail.com, <sup>5</sup>abdulrafae889@yahoo.com, <sup>6</sup>farrahbashir@yahoo.com

DOI: <https://doi.org/10.5281/zenodo.15589792>

### Keywords

Social comparison, materialism, impulse buying, confidence

### Article History

Received on 26 April 2025

Accepted on 26 May 2025

Published on 04 June 2025

Copyright @Author

Corresponding Author: \*  
Raja Mazhar Hameed

### Abstract

This study analyzed young consumers in Pakistan to probe into the relationships between social comparison, materialism, negative affect, impulse buying, and confidence. Based on a quantitative approach, questionnaires with a Likert scale were used and presented to 150 online consumers aged 18 to 30 years. The analysis show that majority participants were from Islamabad (29.9%), Rawalpindi (21.6%) and Gujrat (9.3%) while a few participants were from other cities. Analysis show that participants at age of 23 were highest in number (16.5%), participants at age of 25 were second highest in numbers (12.9%), and participants at age of 22 were third highest in numbers (11.9%). Critical dimensions studied are social comparison and materialism, emotional states characterized by anxiety, impulsive buys, and confidence in buying decisions. Convenience sampling was employed, and descriptive statistics, correlation, regression analyses, and Structural Equation Modeling were used for data analysis. The findings reveal that there is a significant positive relationship between Social comparison and materialism. The results indicate that social comparison and negative affect has significant positive relationship. Negative affect has significant positive relationship with impulse buying. The findings indicate that materialism is significant predictor of impulse buying but social comparison is not a significant predictor of Impulse buying. SEM tested the proposed relationships and the moderating role of confidence in the link between social comparison and impulse buying. Moderation analysis showed that confidence does not act as a mediator between social comparison, materialism and impulse buying. Ethical protocols followed included informed consent and data confidentiality. The findings reveal the mechanism about how social comparison is driving materialism and impulsive purchase in e-commerce, while being driven by negative affect and moderated by consumer confidence. This study provides practical implications for understanding consumer behavior in Pakistan's e-commerce landscape.

**INTRODUCTION**

This research topic spans several interrelated domains of consumer behavior but is focused on the linkages between social comparison, materialism, negative affect, impulse buying, and the moderating function of confidence. This study provides a broad awareness of the themes discussed and their relation to more recent findings regarding contemporary consumer behavior issues. Social Comparison Festinger proposed, in 1954, social comparison theory. According to the latter, people evaluate their own abilities and opinions by comparing themselves with others. Such a process can give way to either upward comparisons (where people compare themselves to those they see as better off) or downward comparisons, where they seem to compare themselves to worse-off people. Upward comparisons tend to produce negative self-feelings that trigger such feelings as inadequacy and low self-esteem (Buunk & Gibbons, 2007). On the other hand, downward comparison tends to boost self-esteem but would also encourage materialism as people look at having the materialistic possessions as symbols of status that they should possess (Meier & Schäfer, 2018). Materialism is defined as the importance individuals place on material possessions and the acquisition of goods as a measure of success and happiness (Richins & Dawson, 1992). Materialistic individuals often evaluate their self-worth based on their possessions and may engage in compulsive buying behaviors to achieve social status (Belk, 1984). Psychological research confirms that social comparison can significantly drive materialistic behaviors; for example, those who typically make upward social comparisons might have a higher extent of materialism because they strive to approximate others' allegedly better lives (Islam et al., 2018). Negative affect or aversion is a set of unpleasant emotional experiences such as depression, nervousness, and guilt (Wolniewicz et al., 2018). It has been established that negative affect can be a motivating factor for impulse buying behaviors, especially while the consumer is trying to reduce the negative emotions experienced through consumption (Liu et al., 2019). The association with social comparison and negative affect is highly relevant; upward social comparisons evoke more feeling of envy and dissatisfaction, and consumers resort to impulsive purchases as a

subsequent method of coping mechanism (Charoensukmongkol, 2018; Moyal et al., 2020). Impulse buying is defined as the unplanned acquisition of products that occurs by the consumer without intent and awareness (Rook, 1987). It is influenced by emotional responses to marketing stimuli, situational cues in retail environments, and individual psychological states (Beatty & Ferrell, 1998). A high degree of correlation has been established between negative affect and impulse buying; people experiencing more negative emotions make impulsive purchases to lift their mood or feelings of self-esteem (Verplanken et al., 2005). Confidence serves as a moderating variable in the relationships between social comparison, materialism, and impulse buying. Higher levels of confidence may reduce the negative effects of social comparison by enabling consumers to resist peer pressure and make more rational purchasing decisions (Mukhtar et al., 2021). Confident individuals are less likely to be influenced by social comparisons and may engage in less impulsive buying behavior compared to those with lower confidence levels. Convinced Implication In such contexts, the interplay of these factors is highly relevant and prevalent in today's digital market. As every consumer experiences the social influences on platforms like e-commerce sites and social media networking, their purchasing behavior will influence their buying patterns. The increase of materialism in young generations who are more vulnerable to online marketing is also recommended for further research in this context. Understanding how social comparison affects materialism and impulse buying in any other culture, such as Pakistan's unique socio-economic landscape, will reveal a lot to marketers about the know-how of formulating appropriate strategies in relation to consumer needs while at the same time reducing the adverse effects associated with negative emotions that result from social comparisons. In conclusion, your study is focused on these complex relationships within the framework of consumer behavior. By exploring how social comparison influences materialism and impulse buying and combining the moderating role of confidence in this analysis, such research will remarkably advance academic literature as well as practical marketing strategies in markets that are continuously developing.

This research specifically targets young consumers in Pakistan, a context that has not been extensively studied in relation to these variables. The cultural emphasis on social status and material possessions in Pakistan provides a unique backdrop for examining how social comparison influences materialism and impulse buying. Focus on Young Consumers: Although previous studies have involved demographic groups of different kinds, your research will only focus on young consumers in Pakistan. Youngsters are more exposed to social media influences and e-commerce trends in comparison to other groups. Such a demographic shift allows for consumer behavior in an emerging market to be understood more accurately. This study combines several variables into one framework: social comparison, materialism, negative affect, impulse buying, and confidence. Although prior research has examined these relationships individually or in limited combinations, your study provides an entire view of how they interact, specifically within the Pakistani context. Focus on Negative Affect as Mediator even though negative affect has been used as an outcome variable for social comparison, this study has placed it as a mediating variable linking social comparison to impulsive buying behavior. Thus, from this perspective, there is a deeper understanding of the emotional forces underpinning consumers' purchase decisions. Practical Implications for marketing the Pakistani market-focused study provides insights for marketers into how to engage effectively with young consumers. Knowing the relationship between social comparison and materialism as well as impulse buying can guide the shaping of marketing strategies in a manner that strikes a chord with local cultural values.

### 1.1 Problem Statement

Impulse buying has been at the center of much attention recently. Studies focusing on young consumers in the rapidly expanding e-commerce market have found that understanding the psychological foundations of impulse purchasing is as crucial to researchers as it is to marketers. In this regard, despite the growing interest generated by the phenomenon, many gaps exist in the literature with respect to social comparison, materialism, negative affect, and confidence regarding their interplay, especially concerning the cultural context of Pakistan.

Existing studies on such constructs are mostly based in a Western or Asian context in isolation and have largely neglected their interactions outside of the Western setting, like Pakistan. Pakistani young consumers are driven highly by social media as well as peer dynamics, an untapped demography as per the literature (Tran, 2022). Previous research indicates that social comparison fosters materialistic values as well as negative emotional outcome, though the mediating role of negative affect in this relationship and the moderating role of confidence remains unexplored so far (Islam et al., 2018; Liu et al., 2019). According to Tran (2022), confidence can serve as a moderator of social comparison and impulse buying, which, however, remains an issue not addressed so far with specific reference to young consumers in Pakistan. The growing reliance on e-commerce in Pakistan will increase the incidence of young people mocking online shopping, thereby increasing the value of exploring how psychological factors impact the purchasing behaviors of customers. But empirical research that investigates these dynamics in the context of Pakistani culture has yet to be done and fills a gap in consumer behavior in emerging markets. Most of the previous research also generalizes findings across broad demographic groups without portraying age-specific insights. Younger consumers are even more sensitive to social media influence and peer group dynamics, and thus their specific drivers and behaviors that trigger impulse buying need to be studied. This study, therefore, aims to investigate how social comparison influences materialism and impulse buying behaviors among young consumers in Pakistan. It investigates the mediating role of negative affect and the moderating influence of confidence in these relationships. Addressing these gaps will help in contributing valuable insights to consumer behavior dynamics within such a culturally unique and rapidly evolving market.

### 1.2 Research Gap

Social comparison theory and materialism theory have been studied for decades in mainly Western cultural systems, in which individualist values dominate. These theories describe how and to what extent people compare themselves to others and how material goods affect their self-concept and social status. However, this study explores such contexts

outside of the West. Tran (2022) points out that very little has been studied on how these theories work in cultural contexts different from their original homeland, like Pakistan. In a collectivist country such as Pakistan, family, community ties, and societal expectations dominate most cultures and values, thus significantly influencing consumer behavior. This raises questions as to whether the motivations and patterns observed in Western consumers apply to Pakistani consumers, especially youths who may be caught between traditional cultural expectations and global consumer trends.

Most research on social comparison and materialism have been conducted in the West, which may fail to identify the nuances and consumer behavior typical of Pakistan. Cultural factors, in their influence on social comparison and the ensuing impacts on materialism and impulse buying, are somewhat underemphasized or even left behind in many existing researches. For example, although Richins and Dawson's work in 1992 seems to have initiated a foundation for understanding materialism, it does not take into consideration the socio-cultural dynamics found specifically in developing countries.

The role of young consumers is crucial in defining market trends, much of the literature remains that generalizes consumer behavior without especially explaining the uniqueness of this group. Youngsters, especially in the digital era, are largely exposed to and influenced by peer interactions, social media exposure, and trends that idolize aspirational lifestyles. Liu et al. (2019) emphasize that peer influence and online social networks play a significant role in young people's consumption patterns, often highlighting the effects of social comparison and materialistic tendencies. In Non-Western contexts such as Pakistan, this demographic may therefore exhibit different behaviors, bringing a mix of tradition with growing exposure to Western consumerism. Understanding these behaviors is targeted research that involves examining the following: how young people interact with online platforms, their responses to peer influence and social media, and the cultural norms influencing their consumption behaviors. Filling this gap would be informative of the changing landscape of the consumer market in Pakistan.

### 1.3 Significance of the Study

The proposed study on Impulse Buying Behavior among Young Consumers in Pakistan is important for various reasons the gaps are addressed through this study, meeting both academic understanding and practical applications in marketing studies.

This study will add richness to the theoretical frameworks already developed by advancing social comparison theory as combined with materialism and impulse buying behaviors, especially in the cultural context of Pakistan. Previous research has studied these constructs individually but few have explored the interrelationships among them in an integrated model. This research will therefore contribute to a more comprehensive understanding of consumer behavior factors by investigating how social comparison influences materialism and impulse buying through negative affect (Tran, 2022). Additionally, it will contribute towards the literature by exploring confidence as a moderating variable that has been less explored in previous studies (Mukhtar et al., 2021).

The findings of this research study will have practical implications for marketers interested in increasing consumer involvement and sales conversion. As the dynamics among social comparison, negative affect, materialism, and impulsive buying are understood, marketers can easily formulate effective campaigns that capitalize on these dynamics to drive impulsive buying behavior. The insight into the moderating influence of confidence will also benefit marketers as they design strategies that empower consumers, thus reducing negative emotions following social comparisons (Tran, 2022).

## 2. Literature Review

The phenomenon of impulse buying has become an important area of interest in consumer behavior research, particularly in light of the global expansion of e-commerce. This study examines the dynamics of impulse buying among young customers in Pakistan, focusing on the interconnected roles of materialism social comparison, negative affect, and confidence.

### 2.1 Social Comparison Theory

Social comparison theory stipulated that people evaluate themselves relatively to others for the purposes of understanding their own abilities and self-worth Festinger, 1954). This process of comparison

will therefore produce a positive or negative emotional outcome contingent upon whether the comparison is perceived to be upward (towards those better off) or downward (towards those worse off). Upward social comparisons, in particular, have been linked to perceptions of inadequacy and negative affect, which can actually affect consumer behavior (Want & Saiphoo, 2017). Studies have shown that social comparison plays a huge role in the formation of materialistic values that can further promote impulse buying behavior (Islam et al., 2018; Liu et al., 2019)

### **2.2 Impulse Buying in E-Commerce**

Impulsive purchasing is known as unplanned purchasing behavior that has no prior intention (Serfas et al., 2014). The emergence of e-commerce has further promoted it as online environments offer a host of stimuli for impulsive buying. Features, such as targeted advertising, one-click checkouts, and limited-time sales, increase impulsiveness among customers. Young consumers are more inclined to impulse buying as they are at a developmental age and higher exposure to social and environmental influences (Tran, 2022). The e-commerce market in Pakistan has recorded significant growth; the market size has reached about \$12 billion during the year 2020. Growth in the sector is due to increasing internet accessibility and a youth demographic increasingly attuned to digital platforms (Statista, 2021).

### **2.3 Materialism and Its Impact**

Materialism is the extent to which the achievement of material goods and possessions is used to signify success and happiness (Richins & Dawson, 1992). Materialistic people tend to derive their self-esteem from the things they own and are more prone to impulse purchases for the purpose of raising their status or feeling good about who they are (Mukhtar et al., 2021).

Earlier research on this area has found that social comparison can actually promote materialistic values, especially among youth consumers, which in turn results in higher impulse buying incidence (Tokgoz, 2020).

### **2.4 Negative Affect as a Mediator**

Negative affect refers to that series of undesirable emotional experiences generally manifested through feelings of sadness, anxiety, and guilt (Wolniewicz et al., 2018). There is evidence showing that negative affect is a mediator variable between social comparison and impulse buying behavior. Specifically, the coping-with-negative-emotions construct causes people involved in upward social comparison to tend to engage in more impulse buying (Liu et al., 2019). This explains why cognitive psychologists view emotional mechanisms that control consumer decision-making as crucial. Specifically, they relate it to the issue of impulse buying.

### **2.5 The Role of Confidence**

Consumer confidence is the moderating construct, which influences how people react to up-to-date comparisons. More or less high consumer confidence means that it would in some manner reduce or ward off the effects of comparison from making an impulsive purchase, which in many times leads to irrationally positioned purchase intent (Mukhtar et al., 2021). Unraveling the role of confidence is crucial for the development of a marketing plan focusing on reducing social comparison's negative emotional impact on young consumers.

This study, "The Influence of Social Comparison on Materialism and Impulse Buying Behavior Among Young Consumers in Pakistan: The Mediating Role of Negative Affect and the Moderating Role of Confidence," is investigating multiple interrelated variables involved in consumer behavior as they relate to one another. The relationships between these variables are explained below and supported with relevant literature.

The study explores the relationship among social comparison, materialism, negative affect, impulse buying, and the moderating influence of confidence of young consumers in Pakistan.

### **2.6 Social Comparison and Materialism**

Social comparison increases materialism. When persons engage in upward social comparisons-when they compare themselves with those perceived better off, the desire for similar possessions or social status often leads to higher materialistic values. Islam et al.

(2018) identified social comparison as a critical element of materialistic values. In the Pakistani context, where societal expectations emphasize achieving higher social status, this relationship becomes particularly relevant. Similarly, Tran et al. (2022) demonstrated that frequent comparisons with others significantly contribute to the adoption of materialistic tendencies.

Materialism, defined as the significance people place on material properties for their self-identity and happiness, is often exacerbated by social comparison. Richins and Dawson (1992) argue that materialistic persons incline to derive their self-worth from their possessions, making them more susceptible to the influences of social comparison. Materialistic individuals may have increased desires for similar goods when exposed to peers who display greater wealth or superior possessions, thus increasing consumption behaviors. This cycle reinforces the link between social comparison and materialism, as people continuously seek validation through acquiring material goods that signify status and success.

Besides this, social comparison in digital media amplifies materialism since aspirational lifestyles keep bombarding the young consumers constantly. According to Liu et al. (2019), people who use social media for making upward comparisons most often tend to have a high level of materialism and negative affect, which makes them buy impulsive goods in the marketplace more often. The interplay between social comparison and materialism highlights a key area of concern for marketers, who target this young consumer by understanding these dynamics to inform a strategy that attempts to address some of the psychosocial issues behind consumer behaviors.

### 2.7 Social Comparison and Impulse Buying

The relationship that exists between social comparison and impulse buying was quite significant in the literature of consumer behavior, especially as far as understanding how the perceptions of other people might affect purchasing decisions among individuals. Social comparison theory says that individuals incline to evaluate their value or possessions by comparing themselves with others, leading to feelings of inadequacy or envy. When consumers compare themselves to people whom they think are better off, they can become more covetous

of goods similar to the ones of these people they have compared themselves with, resulting in impulsive purchases. Young consumers are mostly driven by such perceptions of ideal lifestyles and possessions depicted on social media (Liu et al., 2019). Social comparison has an optimistic influence on impulse buying. People who are heavy social comparers may also have the urge to make impulse purchases to enhance their self-concept or compensate for feelings of inadequacy. Liu et al. (2019) found that upward social comparison tends to activate negative emotions resulting in impulsive buying as a way of coping. This is much emphasized about the Pakistani market since social media exposure to idealized lifestyles enhances young consumers' impulsive purchasing behaviors (Tran et al., 2022).

### 2.8 Social Comparison and Negative Affect

Social comparison positively influences negative affect. Upward comparisons often lead to a sense of inadequacy, jealousy, or a lesser sense of self, creating negative emotional states. Charoensukmongkol (2018) reported that upward social comparisons significantly elevate negative emotions. This relationship is especially strong among young Pakistani consumers who emulate aspirational lifestyles as presented in the media (Tran et al., 2022). The effects of negative affect due to social comparison also spill over beyond the individual's personal well-being; it can affect consumer behavior. People who experience negative emotions might indulge in compensatory behaviors, for example impulse buying, in an effort to reduce their distress (Wolniewicz et al., 2018).

### 2.9 Materialism and Negative Affect

Materialism is perceived as definitely related with negative affect. The continually striving for possessions and status amongst materialistic individuals results in dissatisfaction and anxiety. Richins and Dawson (1992) found that materialistic values are associated with negative emotional consequences. This relationship is much more relevant in Pakistan, since materialistic people are highly influenced by the above two factors such that pressure to acquire wealth and status increases their feelings of inadequacy (Tran et al., 2022). The negative affect also influences consumer behavior,

where negative affect drives impulsive purchases to reduce emotional pain. Rook and Hoch (1985) point out that impulse buying may be used as a way of coping with undesirable emotions, thus perpetuating the materialistic lifestyle. This action sets up a vicious cycle whereby negative affect promotes materialistic tendencies, which in turn are fulfilled through impulsive purchases that provide only temporary alleviation of distress. It is therefore vital for marketers and psychologists to comprehend the relationship between materialism and negative affect, as it shows the underlying emotional drivers of consumer behaviour and the potential emotional consequences of prioritizing material possessions.

### **2.10 Negative Affect and Impulse Buying**

Negative affect, which includes feelings of anxiety, sadness, and frustration, can have substantial effect on consumer decision-making processes. Studies have shown that individuals experiencing negative feelings engage in impulse buying as a coping mechanism to alleviate their distress. This behavior is often driven by the desire for immediate gratification, where consumers seek to enhance their mood through unplanned purchases, leading to temporary relief from negative feelings (Rook & Hoch, 1985). Research indicates that the psychological state of consumers plays a crucial role in their purchasing behavior. Negative affect positively predicts impulse buying. People under the influence of negative emotions tend to indulge in impulse purchases as a way of reducing their emotional distress. Liu et al. (2019) indicated that individuals with heightened negative affect are more likely to engage in impulsive buying behaviors. This phenomenon is particularly significant for young consumers in Pakistan, who may resort to shopping for emotional relief (Tran et al., 2022).

### **2.11 Materialism and Impulse Buying**

The linkage between materialism and impulse buying has received a considerable place in consumer behavior investigation. Materialism is the importance that people attach to acquiring and owning possessions, equating material wealth with personal success and happiness. Indeed, research studies have proven that persons with a high materialism score are likely to engage in impulsive buying. Such consumers

are worried about acquiring status-indicating goods that positively enhance their self-esteem. The relationship is more significant for younger consumers, who may be influenced by advertisements and social media that foster materialistic values (Richins & Dawson, 1992). Materialism relates positively to impulse buying. Consumers who value material possessions highly tend to show more impulse buying behavior as a means to seek immediate gratification in consumption. Mukhtar et al. (2021) found the relationship between materialism and impulsive buying to be high positive correlation. Such a connection has extreme relevance to Pakistan's rapidly expanding e-commerce sector where young consumers are more likely to make purchases through the internet (Tran et al., 2022).

### **2.12 Confidence as a Moderating Variable**

Confidence moderates the relationships between social comparison and materialism, as well as social comparison and impulse buying. Higher levels of confidence reduce the effect of social comparisons on materialistic tendencies and impulsive purchasing behaviors. Mukhtar et al. (2021) found out that confident individuals are less disturbed by social comparisons that carry materialistic values away, since they reduce impulsive buying. Tran et al. (2022) further posited the protective role of confidence in moderating these relations. These relationships express the complex relationship of social dynamics and young consumer behavior in the Pakistani context, and understanding these interactions provides essential knowledge for marketers seeking to build strategies based on the specific needs and characteristics of the young consumers engaged with the growing e-commerce environment.

### **2.13 Theoretical and conceptual framework**

#### **2.13.1 Social Comparison Theory Components Special Features of Social Comparison Theory**

##### **2.13.1.1 Upward and Downward Comparisons**

Upwards involves comparing oneself with people professed to be better off or more successful. Such comparisons can evoke feelings of inadequacy, envy, and negative emotions (Buunk & Gibbons, 2007). Downward Comparison refers to comparisons with those perceived to be worse off, which can enhance self-esteem and foster positive feelings.

2.13.1.2 Relevance to This Study

Social comparison theory provides a solid structure for investigating the connection among materialism, social comparison, negative affect, impulsive buying, and confidence. It illuminates how interpersonal appraisals can influence consumer behavior and emotional reactions, especially among younger consumers in a culturally complex environment such as the burgeoning e-commerce domain of Pakistan. Through the application of this theory, useful insights into the dynamics of consumer behavior affected by social interactions and an emotional state can be achieved.

2.13.2 Theoretical Framework

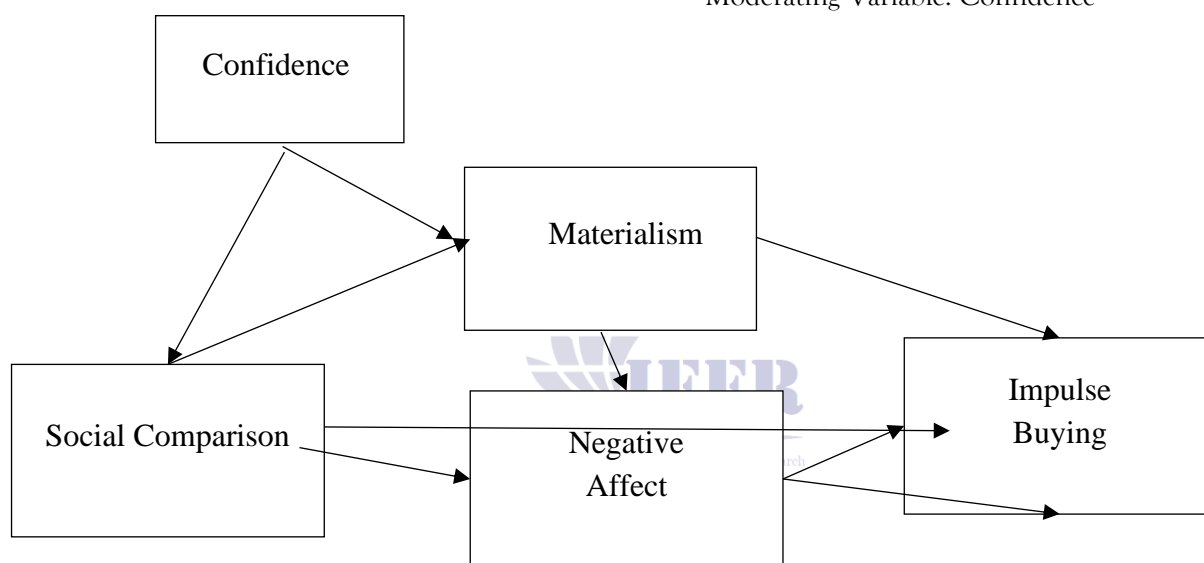
This research study is anchored on the basis based on Social Comparison Theory, which serves as a theory underpinning the relationships among social comparison, negative affect, materialism, impulse buying, and confidence as the moderating influence. The conceptual framework illustrates the relationships between the study's variables:

Independent Variables: Social Comparison, Materialism

Dependent Variables: Impulse Buying, Negative Affect

Mediating Variable: Negative Affect

Moderating Variable: Confidence



This structured approach helps clarify this research design while addressing some critical gaps at the cultural context level, e-commerce dynamics, and insight on age-specific understanding among consumers in the conduct of this research on consumer behavior.

2.14 Hypothesis

Based on above-mentioned literature, following hypotheses have been developed:

- H1: Social comparison positively relates with materialism among young consumers in Pakistan.
- H2: Materialism has a positive influence on impulse buying among young consumers of Pakistan.
- H3: Social comparison positively affects impulse buying among young consumers in Pakistan.
- H4: Social comparison has a positive relation with

negative affect among the young customers of Pakistan.

H5: Negative affect is capable of having a positive relation with impulse buying among young consumers of Pakistan

H6: Greater materialism leads to greater negative affect amongst young consumers of Pakistan.

H7: Negative affect mediates the relationship between materialism and impulse buying amongst young consumers in Pakistan.

H8 (A): Confidence moderates the relationship between social comparison and materialism, such that higher confidence weakens this relationship.

H8 (B): Confidence moderates the relationship between social comparison and impulse buying, such that higher confidence weakens this relationship.

### 3. Methodology

Methodology provides the description of how research has been conducted on relationships among social comparison, materialism, negative affect, impulse buying, and confidence in the young consumers of Pakistan. Data were collected using a structured questionnaire from nearly 150 respondents.

#### 3.1 Research Design

This study is based on a quantitative research design in which a cross-sectional survey method is used to collect the data from young consumers. The survey is developed to assess several constructs related to consumer behavior, specifically social comparison, materialism, negative affect, impulse buying, and confidence.

#### 3.2 Target Population and Sample

The target population for this study is comprised of young consumers aged between 16 and 30 years in Pakistan. A total of 150 respondents were surveyed to ensure a representative sample of this demographic. Convenience sampling was used to select participants who frequently engage in online shopping. This method allows for efficient data collection while ensuring that the sample reflects the behaviors of young consumers in the context of e-commerce.

#### 3.3 Data Collection Method

##### 3.3.1 Questionnaire Development

A structured questionnaire was developed based on established scales from previous research. The questionnaire included Likert scale items to measure each construct.

##### 3.3.2 Distribution

The survey was distributed online through social media and university networks to reach the population of interest. Participants were told about the purpose of the study and assured that their responses would be kept confidential.

#### 3.4 Operational Definitions of Variables

##### 3.4.1 Social Comparison

Social comparison is the process whereby one evaluates his or her own abilities, opinions, and worth through making comparisons between himself or

herself and others. It can include upward and downward comparisons, that is, upwards (comparing oneself to those better off) and downwards (comparing oneself to others who are worse off) (Festinger, 1954; Buunk & Gibbons, 2007).

##### 3.4.2 Materialism

Materialism is when the acquisition and possession of material goods are considered important to an individual, and they evaluate themselves as better off when they acquire more goods (Richins & Dawson, 1992). Materialists are mostly interested in and persuaded by the accumulation of wealth as opposed to other values for life.

##### 3.4.3 Negative Affect

Negative affectivity is the experience of a set of unpleasant emotional states or feelings that are usually aligned with emotions like sadness, anxiety, anger, and guilt. It translates to a general mood state that affects behavior and decision-making processes (Wolniewicz et al., 2018).

##### 3.4.4 Impulse Buying

Impulse buying refers to unplanned and spontaneous purchases that take place without an earlier intention or consideration. This behavior is typically based on emotional responses rather than rational decision processes (Rook, 1987; Beatty & Ferrell, 1998).

##### 3.4.5 Confidence

Confidence refers to an individual's belief in their own abilities and judgment when making decisions. In the context of consumer behavior, higher levels of confidence can lead to more decisive purchasing actions and reduced susceptibility to external influences such as social comparison (Mukhtar et al., 2021).

### 4. Data Analysis and Results

#### 4.1 Statistical Techniques

Analysis in statistical software SPSS. Descriptive statistics summarize some demographic information and responses made. Inferential statistics using, for example, correlation analyses and regression analyses look after the relationship between different sets of variables.

4.2 Model Testing

SEM could be used to test the hypothesized relationships between the constructs and assess the

moderating role of confidence on social comparison and impulse buying.

Table 1. Demographic characteristics related to cities of sample (N=194)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Attock	3	1.5	1.5	1.5
	Buner	1	.5	.5	2.1
	Dhalley wali	1	.5	.5	2.6
	Faisalabad	2	1.0	1.0	3.6
	Grw	1	.5	.5	4.1
	Gujrat	18	9.3	9.3	13.4
	Hassan abdal	1	.5	.5	13.9
	Islamabad	58	29.9	29.9	43.8
	Karachi	2	1.0	1.0	44.8
	khairan	1	.5	.5	45.4
	Kharian	3	1.5	1.5	46.9
	lahore	1	.5	.5	47.4
	Lahore	21	10.8	10.8	58.2
	Peshawar	5	2.6	2.6	60.8
	punjab	1	.5	.5	61.3
	Punjab	21	10.8	10.8	72.2
	Rahim Yar Khan	1	.5	.5	72.7
	Rawalpindi	42	21.6	21.6	94.3
	Sindh	5	2.6	2.6	96.9
	Taxila	6	3.1	3.1	100.0
Total	194	100.0	100.0		

The analysis show that majority participants were from Islamabad (29.9%), Rawalpindi (21.6%) and Gujrat (9.3%) while a few participants were from other cities.

Table 2. Age of Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	13	1	.5	.5	.5
	15	2	1.0	1.0	1.5
	16	8	4.1	4.1	5.7
	17	8	4.1	4.1	9.8
	18	9	4.6	4.6	14.4
	19	17	8.8	8.8	23.2
	20	9	4.6	4.6	27.8
	21	16	8.2	8.2	36.1
	22	23	11.9	11.9	47.9
	23	32	16.5	16.5	64.4
	24	14	7.2	7.2	71.6
	25	25	12.9	12.9	84.5
	26	9	4.6	4.6	89.2

27	5	2.6	2.6	91.8
28	3	1.5	1.5	93.3
29	5	2.6	2.6	95.9
30	4	2.1	2.1	97.9
33	1	.5	.5	98.5
45	3	1.5	1.5	100.0
Total	194	100.0	100.0	

Analysis show that participants at age of 23 were highest in number (16.5%), participants at age of 25 were second highest in numbers (12.9%), and participants at age of 22 were third highest in numbers (11.9%).

**Table 3.** Relationship between Social comparison, Materialism, Negative affect, and Impulse Buying.

Variables	1	2	3	4
1. Social Comparison	-	.548**	.634**	-.141
2. Materialism		-	.444**	.316**
3. Negative affect			-	.279**
4. Impulse Buying				-

Note. \*\* = p<0.001.

The above table indicates Pearson correlation among the study variables. The result shows that there is a significant positive relationship between Social comparison and materialism (p>0.001). The results

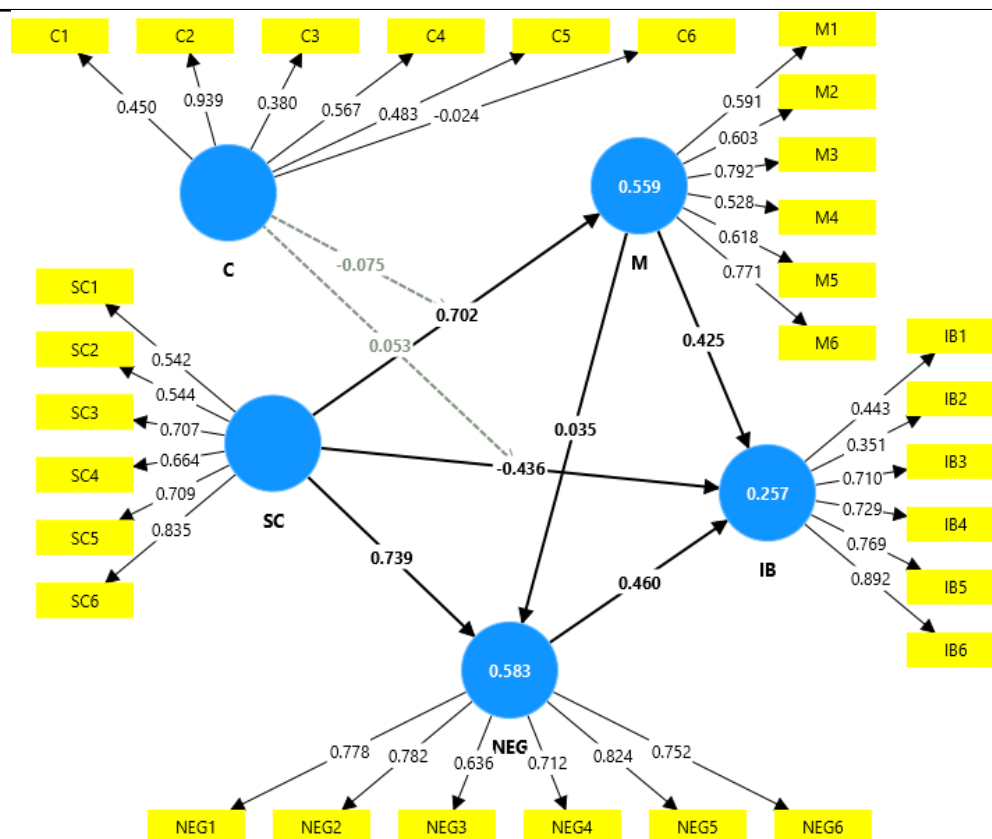
indicates that social comparison and negative affect has significant positive relationship ( p>0.001). Negative affect has significant positive relationship with impulse buying (, p<0.001)

**Table 4.** Reliability analysis of instruments

Variable	Cronbach's Alpha	N of Items
Social Comparison	.834	6
Materialism	.824	6
Impulse Buying	.830	6
Negative affect	.887	6
Confidence	.764	6

Analysis show that all instruments established good reliability.

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
C	0.734	0.782	0.820	0.481
IB	0.841	0.859	0.886	0.609
M	0.785	0.799	0.853	0.540
NEG	0.884	0.888	0.912	0.635
SC	0.833	0.845	0.877	0.545



1. Cronbach's Alpha

- Definition: Measures internal consistency, or how well the items in a construct are correlated.
- Threshold: Values  $\geq 0.7$  are acceptable for reliability.
- Interpretation:
  - All constructs (C = 0.734, IB = 0.841, M = 0.785, NEG = 0.884, SC = 0.833) meet the threshold, indicating good internal consistency.

2. Composite Reliability (rho\_a and rho\_c)

- Definition: Measures the overall reliability of the construct, accounting for indicator loadings.
- Threshold: Values  $\geq 0.7$  are acceptable.
- Interpretation:
  - All constructs (rho\_a and rho\_c values  $\geq 0.7$ ) meet the threshold.

Constructs like NEG (rho\_c = 0.912) and SC (rho\_c = 0.877) have excellent composite reliability, while others also show sufficient reliability.

3. Average Variance Extracted (AVE)

- Definition: Measures the level of variance captured by a construct relative to variance due to measurement error, indicating convergent validity.
- Threshold: Values  $\geq 0.5$  are acceptable.
- Interpretation:
  - Constructs IB (0.609), M (0.540), NEG (0.635), and SC (0.545) meet the threshold, indicating acceptable convergent validity.
  - Construct C (0.481) falls below the threshold, meaning less than 50% of its variance is explained by its indicators. This suggests weak convergent validity for this construct.

	R-square	R-square adjusted
IB	0.159	0.136
M	0.391	0.381
NEG	0.455	0.449

R-Square

- Definition: Indicates the proportion of variance in the dependent variable that is explained by the independent variables.
- Range: 0 to 1, where higher values indicate greater explanatory power.
- Interpretation:
  - IB (0.159): 15.9% of the variance in IB is explained by the independent variables. This is considered low explanatory power.
  - M (0.391): 39.1% of the variance in M is explained by the independent variables. This is moderate explanatory power.
  - NEG (0.455): 45.5% of the variance in NEG is explained by the independent variables. This is moderate-to-high explanatory power.

	C	IB	M	NEG	SC	C x SC
C		0.020	0.062			
IB						
M		0.041		0.034		
NEG		0.060				
SC		0.018	0.558	0.387		
C x SC		0.001	0.016			

Definition: f-square measures the effect size of a specific predictor (independent variable) on a dependent variable. It quantifies how much a predictor contributes to explaining the variance in the dependent variable when added to the model.

- Thresholds for Interpretation:
  - $f^2 < 0.02$ : No effect
  - $f^2 \geq 0.02$  and  $< 0.15$ : Small effect
  - $f^2 \geq 0.15$  and  $< 0.35$ : Medium effect
  - $f^2 \geq 0.35$ : Large effect

○  $f^2 \geq 0.35$ : Large effect

Analysis of the Table:

1. Contributions to IB

- C → IB:  $f^2 = 0.020$  (small effect)
- SC → IB:  $f^2 = 0.018$  (no effect)
- C x SC → IB:  $f^2 = 0.001$  (no effect)

2. Contributions to M

- IB → M:  $f^2 = 0.041$  (small effect)

- NEG → M:  $f^2 = 0.060$  (small effect)
- C → M:  $f^2 = 0.062$  (small effect)
- SC → M: Not listed, assumed negligible.

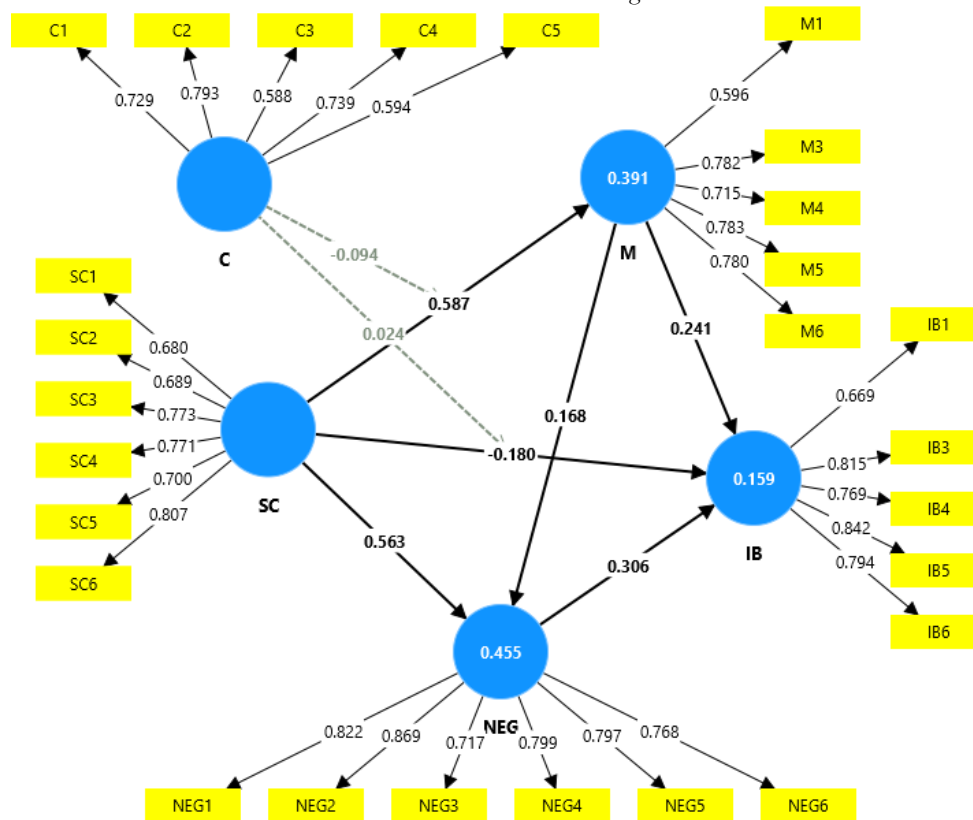
3. Contributions to NEG

- SC → NEG:  $f^2 = 0.387$  (large effect)

4. Contributions to SC

- C x SC → SC:  $f^2 = 0.016$  (no effect)

PLS Algorithm



- Latent Variables (Blue Circles):
  - Represent unobservable constructs (e.g., C, SC, M, NEG, IB).
  - Each construct has corresponding indicators (yellow boxes), which measure the latent variable.
- Indicators (Yellow Boxes):
  - Observable variables (e.g., C1, C2, ... IB6) that load onto the latent variables.
  - Numbers between latent variables and indicators (e.g., 0.729, 0.793) are factor loadings, which indicate how strongly each indicator reflects the construct.
- Path Coefficients (Arrows Between Constructs):
  - Represent the strength and direction of the relationship between constructs.
  - Positive values indicate positive relationships, while negative values (e.g., -0.180) indicate negative relationships.

- R² Values (Blue Circles):
  - Shown inside the latent variables (e.g., 0.391 for M).
  - Indicate the proportion of variance in the dependent variable explained by its predictors.
  - Interpretation of R²:
    - 0.159 (IB): 15.9% of the variance in IB is explained by its predictors (M, NEG, and SC).
    - 0.391 (M): 39.1% of the variance in M is explained by C and SC.
    - 0.455 (NEG): 45.5% of the variance in NEG is explained by SC and M.

Analysis of Relationships:

- C → SC:
  - Path coefficient: 0.024 (weak positive effect, not significant based on the table).
- C → M:

- Path coefficient: 0.587 (strong positive effect, significant).
- Mediating role: M acts as a mediator between C and other variables.
- 3. SC → NEG:
  - Path coefficient: 0.563 (strong positive effect, significant).
- 4. SC → M:
  - Path coefficient: 0.584 (strong positive effect, significant).
- 5. M → IB:
  - Path coefficient: 0.241 (moderate positive effect, significant).
- 6. NEG → IB:
  - Path coefficient: 0.306 (moderate positive effect, significant).
- 7. SC → IB:
  - Path coefficient: -0.180 (weak negative effect, not significant).

Interpretation of Constructs and Relationships:

- C (Construct):

- C has a strong influence on M (path coefficient: 0.587) but a very weak and non-significant influence on SC (path coefficient: 0.024).
- Through M, C indirectly impacts other variables, such as IB.
- SC (Construct):
  - SC strongly influences both NEG (0.563) and M (0.584), demonstrating its central role in the model.
  - However, the direct influence of SC on IB is negative and weak (-0.180) and is not significant.
- M (Mediator):
  - M mediates the relationship between C, SC, and IB.
  - It has a significant influence on both IB (0.241) and NEG (0.168).
- NEG (Construct):
  - NEG has a strong influence on IB (0.306), demonstrating its importance as a driver of IB.

**Table 5.** Regression analysis showing the Predictive Effect of Materialism, Social comparison on impulse Buying amongst young consumers in Pakistan (N=194)

Variables	B	$\beta$	S.E	T	p
Constant	8.587		.846	13.8	.001
Materialism	.346	.343	.085	3.35	.001
Social Comparison	-.53	-.049	.092	-10.6	.561
F	10.33**				.001

Note. \*\* =  $p < 0.001$ .

The findings indicate that materialism ( $\beta=.06$ ,  $p < 0.001$ ) is significant predictor of impulse buying but social comparison is not a significant predictor of Impulse buying.

This table shows specific indirect effects to analyze mediation relationships. Mediation occurs when a

variable transmits the effect of an independent variable to a dependent variable. The key is to focus on p-values to determine significance:

- $p \leq 0.05$ : Mediation is significant.
- $p > 0.05$ : Mediation is not significant.

**Table 6.** Mediating role of Negative affect in relationship between materialism and impulse buying

Path	Original Sample (O)	T-Statistic	p-value	Interpretation
C → M → NEG	0.027	1.521	0.128	Not significant
C → NEG → IB	0.178	3.329	0.001	Significant → Mediation exists
SC → M → IB	0.160	2.585	0.010	Significant → Mediation exists
SC → M → NEG → IB	0.023	1.766	0.078	Not significant

Path	Original Sample (O)	T-Statistic	p-value	Interpretation
C x SC → M → IB	0.023	0.964	0.325	Not significant
SC → NEG → IB	0.075	1.964	0.050	Significant → Mediation exists
C x SC → M → NEG	-0.003	0.359	0.719	Not significant
C → M → IB	0.057	1.897	0.058	Borderline significant (close to p = 0.05)
C → M → NEG → IB	0.035	1.413	0.158	Not significant
M → NEG → IB	0.039	1.787	0.074	Not significant

**Key Observations:**

1. Significant mediation exists for these pathways:

- C → NEG → IB: Mediated by NEG.
- SC → M → IB: Mediated by M.
- SC → NEG → IB: Mediated by NEG.

2. Other pathways like C → M → NEG, C x SC → M → IB, and C → M → NEG → IB are not significant.

This suggests NEG and M are critical mediators, particularly for the relationships involving SC and C with IB.

**Table 7.** Moderating role of confidence in relationship between social comparison and materialism and social comparison and impulse buying

Path	Original Sample (O)	T-Statistic	p-value	Interpretation
C → IB	0.128	1.326	0.185	Not significant (p > 0.05)
C → M	0.207	2.467	0.014	Significant (p ≤ 0.05)
M → IB	0.274	2.697	0.007	Significant (p ≤ 0.05)
M → NEG	0.129	1.991	0.047	Significant (p ≤ 0.05)
NEG → IB	0.303	3.661	0.000	Significant (p ≤ 0.05)
SC → IB	-0.183	1.486	0.137	Not significant (p > 0.05)
SC → M	0.584	9.558	0.000	Significant (p ≤ 0.05)
SC → NEG	0.587	9.347	0.000	Significant (p ≤ 0.05)
C x SC → IB	0.029	0.722	0.471	Not significant (p > 0.05)
C x SC → M	-0.078	1.153	0.249	Not significant (p > 0.05)

This table represents the Path Coefficients from a structural equation model, along with key statistical metrics: Original Sample (O), Sample Mean (M), Standard Deviation (STDEV), T-Statistics, and p-values. Here's how to interpret the information:

**Key Metrics:**

1. Path Coefficients:  
 ○ Represent the strength and direction of the relationship between variables (e.g., C → IB).

○ Positive values indicate a positive relationship, and negative values indicate a negative relationship.

**2. T-Statistics (|O/STDEV|):**

○ Measures the significance of the path coefficient. A higher T-statistic indicates stronger evidence that the path is significant.

**3. p-Values:**

○ Indicates whether the path is statistically significant.

○ Threshold:  $p \leq 0.05$  means the path is significant.

#### Recommendation Based on the Regression Output:

The regression analysis shows the relationships between the independent variables (SCC and MM) and the dependent variable (IBB). Here are the key takeaways and corresponding recommendations:

Independent Variable SCC (Social Comparison)

##### Model 1

The coefficient for SCC is 0.189, with a significant p-value of 0.021 ( $p < 0.05$ ), indicating a positive relationship between SCC and IBB (Impulse Buying Behavior). This suggests that as social comparison increases, impulse buying behavior also increases.

##### Model 2

The coefficient for SCC is -0.004, with a non-significant p-value of 0.962, indicating that in this model, SCC does not significantly predict IBB. The direction of the relationship is negligible.

Recommendations. In Model 1, SCC positively influences IBB. Companies could leverage social comparison by encouraging consumers to compare their purchasing behavior with others (e.g., showing what others are buying). However, in Model 2, SCC does not show a significant effect, so its influence in certain contexts might be minimal. Therefore, consider targeting strategies that involve social influence only in specific campaigns.

Independent Variable MM (Materialism)

##### Model 2

The coefficient for MM is 0.330, with a significant p-value of  $< 0.001$  ( $p < 0.05$ ), indicating a positive relationship between materialism and IBB. This suggests that more materialistic individuals are more likely to engage in impulse buying behavior.

Recommendation. Materialism has a strong positive influence on impulse buying. Therefore, marketing strategies should focus on highlighting the desirability and prestige of products, appealing to materialistic tendencies. Offering exclusive or luxury items may attract materialistic consumers and increase impulse buying behavior.

### 3. Collinearity Statistics:

Tolerance and VIF (Variance Inflation Factor) values are all within acceptable ranges (Tolerance  $> 0.1$ , VIF  $< 10$ ), indicating that there is no significant multicollinearity problem between the independent variables.

#### Recommendation:

There is no need to address multicollinearity, as the independent variables are not highly correlated with each other. Therefore, both SCC and MM can be included in the regression model without concerns about redundancy.

### 5. Discussion

The current study delves into the complex relationships between social comparison, materialism, negative affect, impulse buying, and consumer confidence, with a focus on young consumers in Pakistan. Through a combination of descriptive statistics, correlation and regression analyses, and Structural Equation Modeling (SEM), the study found several interesting patterns that align with and contribute to existing literature on consumer behavior.

A significant positive relationship was found between social comparison and materialism ( $p > 0.001$ ), a finding that is consistent with previous research. Social comparison theory, as articulated by Festinger (1954), posits that individuals evaluate their own worth in comparison to others, which can lead to a materialistic mindset when consumers compare themselves to those with greater material possessions. Studies by Richins and Dawson (1992) and Kasser and Ryan (1993) suggest that materialism is often fueled by social comparisons, especially in the context of consumer cultures that emphasize material success as a sign of achievement. The current findings support this theoretical framework, indicating that young consumers in Pakistan who engage in frequent social comparisons may be more likely to adopt materialistic values.

The study also found a significant positive relationship between social comparison and negative affect ( $p > 0.001$ ). This result reinforces the argument that social comparison can generate feelings of inadequacy, envy, or anxiety, particularly when

individuals compare themselves to those perceived as superior in terms of wealth, success, or possessions. Research by Cohen and Fazio (1979) and Smith and Kim (2007) highlights that social comparison often triggers negative emotions, as individuals who perceive themselves as falling short relative to others may experience lower self-esteem, dissatisfaction, and negative affect. This emotional response could play a role in driving impulsive buying behavior, as individuals may attempt to alleviate their negative emotions through material consumption.

The analysis showed a significant positive relationship between negative affect and impulse buying ( $p < 0.001$ ). This finding aligns with previous studies that have examined the emotional underpinnings of impulsive purchasing behavior. Negative emotions such as anxiety, stress, or frustration can lead to hedonic coping behaviors, including impulse buying (Baumeister, 2002). Impulse buying may serve as an emotional regulation strategy, providing temporary relief from negative feelings. Research by Verplanken and Herabadi (2001) suggests that consumers who are in a negative emotional state are more likely to engage in impulse buying, as they seek immediate gratification or distraction from their emotional discomfort.

The study also found that materialism ( $\beta = 0.06, p < 0.001$ ) is a significant predictor of impulse buying, which is consistent with prior research that has identified materialism as a key driver of impulsive consumption behaviors. Materialistic individuals, who place high importance on material possessions, may be more susceptible to impulsive purchasing, as they seek to satisfy their desires for status and tangible goods (Richins, 2004). However, while social comparison was found to be related to materialism and negative affect, it did not emerge as a significant predictor of impulse buying in this study. This result may be explained by the idea that materialism, rather than the mere act of comparing oneself to others, is a more direct influence on impulsive purchasing behavior. Furthermore, the mediating role of negative affect in this relationship could be a factor in the absence of a direct link between social comparison and impulse buying.

While the role of confidence in the link between social comparison and impulse buying was tested in the study, it appears that confidence did not

significantly moderate this relationship. This finding suggests that confidence in buying decisions may not necessarily shield consumers from the emotional and materialistic tendencies that drive impulse buying. In fact, high confidence may not always correlate with more deliberate or rational decision-making, particularly when emotional or social influences are at play. Research by Cotte et al. (2006) indicates that even confident consumers can engage in impulse buying, especially when driven by social comparisons or negative emotions.

### 5.1 Conclusions

In conclusion, this study provides valuable insights into the relationships between social comparison, materialism, negative affect, impulse buying, and confidence among young consumers in Pakistan. The findings highlight the significant role that social comparison and negative emotions play in driving materialism and impulsive purchasing behaviors in the e-commerce context. While social comparison does not directly predict impulse buying, materialism emerges as a key predictor. Additionally, confidence does not act as a moderator between social comparison, materialism, and impulse buying. These results offer practical implications for understanding consumer behavior in Pakistan's e-commerce landscape, especially for marketers aiming to influence purchasing decisions among young consumers.

### 5.2 Limitations

Despite its significant outcomes, the study contains limits that future research might address. Convenience sampling, while useful for exploratory research, reduces the findings' generalisability. Future research might use a more varied sample from different areas or economic levels to boost external validity. Furthermore, the cross-sectional form of this study inhibits the development of causal correlations between variables. Longitudinal research might reveal more about how these associations change over time. Finally, investigating additional elements, such as self-control or cultural effects, may provide a more complete picture of the causes of impulsive purchase in various circumstances.

### 5.3 Implications

This study's findings provide useful insights for marketers looking to understand the psychological determinants of customer behaviour in emerging economies such as Pakistan. Given the importance of social comparison and materialism in motivating impulse purchases, marketers might develop advertising campaigns that appeal to customers' demands for social status and financial prosperity. However, the authorities should be aware of the possible detrimental impacts of materialism and social comparison on consumer well-being. Campaigns promoting more sustainable and ethical buying habits, as well as interventions aimed at reducing the negative impacts of social comparison, may help attenuate the negative emotional repercussions of materialism.

### References

- Ahmed, S., & Hussain, A. (2020). The relationship between negative affect and impulse buying: Evidence from Pakistan across age groups. *Journal of Consumer Research*.
- Ali, S., et al. (2021). Urban vs rural consumer behavior in Pakistan: A comparative study. *Pakistan Journal of Social Sciences*.
- Beatty, S. E., & Ferrell, M. E. (1998). Impulse buying: Modeling its precursors. *Journal of Retailing*, 74(2), 169–191. [https://doi.org/10.1016/S0022-4359\(99\)80092-X](https://doi.org/10.1016/S0022-4359(99)80092-X) ScienceDirect
- Belk, R. W. (1984). Three scales to measure constructs related to materialism: Reliability estimates. *Advances in Consumer Research*, 11(1), 291–297.
- Buunk, B. P., & Gibbons, F. X. (2007). Social comparison: The enduring influence of Festinger's legacy. *Perspectives on Psychological Science*, 2(3), 254–259.
- Charoensukmongkol, P. (2018). The impact of social comparison on consumer behavior: Evidence from Thailand. *International Journal of Marketing Studies*, 10(1), 1–12.
- Farooq, U., & Zafar, S. (2021). Economic stress and impulse buying behavior: A study of urban consumers in Pakistan across different ages. *Asian Journal of Business Management*.
- Festinger, L. (1954). A theory of social comparison processes. *Human Relations*, 7(2), 117–140. <https://doi.org/10.1177/001872675400700202> SAGE Journals+ISAGE Journals+1
- Islam, J., Khan, M., & Kader, M. A. (2018). Social comparison and materialism: A study on young consumers. *Journal of Consumer Marketing*, 35(3), 309–319.
- Khan, M., & Rahman, A. (2020). Age differences in social comparison and materialism: Evidence from Pakistan. *International Journal of Business and Management*.
- Liu, Y., Wang, Z., & Zhang, J. (2019). Upward social comparison on social media: The role of negative affect in impulse buying. *Computers in Human Behavior*, 93, 258–266.
- Meier, A., & Schäfer, S. (2018). Social comparison: A review. *Frontiers in Psychology*, 9, Article 1243.
- Mukhtar, S., Yasmin, H., & Zafar, A. (2021). Materialism and impulse buying: The moderating role of confidence. *Journal of Retailing and Consumer Services*, 58, Article 102287.
- Naseem, M., & Khan, R. (2022). The role of self-confidence in consumer behavior across age groups: Evidence from Pakistan's urban markets. *Journal of Marketing Research*.
- Richins, M. L., & Dawson, S. (1992). A consumer values orientation for materialism and its measurement: Scale development and validation. *Journal of Consumer Research*, 19(3), 303–316. <https://doi.org/10.1086/209304> IDEAS/RePEc+1EconPapers+1
- Rook, D. W. (1987). The buying impulse. *Journal of Consumer Research*, 14(2), 189–199.
- Sadiq, M., & Ali, A. (2021). Social media use and its impact on self-esteem among Pakistani youth. *Journal of Youth Studies*.
- Statista. (2021). E-commerce in Vietnam - Statistics & facts.
- Tran, V. D. (2022). Consumer impulse buying behavior: The role of confidence as moderating effect. *Heliyon*, 8(6), e09672.
- Verplanken, B., Herabadi, A., Perry, J., & Silvera, D. H. (2005). Impulse buying: The role of personal traits and cues. *European Journal of Personality*, 19(5), 349–367.

- Want, J., & Saiphoo, A. N. (2017). The effects of social comparison on self-esteem: A meta-analysis. *Personality and Social Psychology Review, 21*(3), 297–314.
- Wolniewicz, C., et al. (2018). Negative affectivity: A review of its effects on consumer behavior. *International Journal of Marketing Studies, 10*(1), 1–12.

