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INTERACTION OF FINANCIAL LITERACY IN IMPULSIVE BUYING BEHAVIOR THEORY

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Abstract

This study investigates how the perception of scarcity affects impulsive buying behavior in an online retail setting, with perceived competitive arousal acting as a mediator and financial literacy as a moderator. The study utilized an online experimental survey with 99 people to examine these connections. The findings indicate that perceived scarcity and perceived competitive stimulation have a notable influence on impulsive buying behavior. Financial Literacy did not influence the connection between competitive arousal and impulsive buying behavior. Consumers are more inclined to make impulsive purchases when they view a product as scarce and experience competitive arousal, according to the findings. The results have theoretical implications for comprehending consumer behavior in online retail environments and practical consequences for marketers aiming to utilize scarcity and competitive arousal in their promotional tactics.

Keywords: Impulsive Buying Behavior, Financial Literacy, Promotional Tactics, Experimental Survey

Introduction:

Digital technologies have dramatically changed business practices and consumer buying behavior. Companies try to influence customers by making scarce offerings desirable by using scarcity principles, which limit the amount of time that a bargain is available (Harikrishnan, Dewani, and Behl, 2021). The use of scarcity strategies in enterprises is becoming more widespread in today's digital world (Desai, 2019).

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The Cialdini principles of persuasion (2001), which contend that customers view scarce things as more value, may have some bearing on the efficacy of scarcity promotion. Due to the risk of losing out on a deal, consumers experience a sense of urgency when there is a scarcity campaign (Manggarani, Ahmad, and Patiro, 2022). According to the studies of Shi, Li, and Chumnumpan (2020) and Wu, Xin, Li, Yu, and Guo (2021), people's competitive arousal is triggered by messages of scarcity and results in impulse purchase.

The drive to accomplish certain goals may be heightened in competitive environments (Nichols, 2012). The desire to access scarce goods or services may be even more intense in a globalised internet environment. Guo, Xin, and Wu (2017) compelling argument that Online shopping messaging has a restricted amount and time frame. Digital environments increase consumers' perceived competitive arousal and thus encourage impulse purchase. The underlying causes of competitive arousal, such as perceived rivalry and time constraints, may help to explain this (Ku, Malhotra, and Murnighan 2005). Additionally, promotions with very low product availability (i.e., stock scarcity) may cause customers to feel uneasy, for which impulse buying may look like a way to lessen the risk of missing out on the deal (Wu et al., 2021).

Impulsive purchasing is a widespread phenomenon that impacts customers in a variety of product categories. It is characterized by an unexpected, impulsive need to buy something, frequently without giving the decision any thought. Impulsive purchasing has significant ramifications for both consumers and marketers because it can affect people's financial security and have an impact on businesses' sales and marketing strategy. The impulsive purchase theory is one of many theories that academics have evolved over time to explain impulsive purchasing behaviour. According to this hypothesis, emotional arousal, cognitive processing, and environmental signals are only a few of the internal and external components that can contribute to impulsive buying.

Since it can significantly affect company sales and profitability, impulsive buying is a crucial phenomenon for retailers. When consumers buy things on impulse, they frequently acquire things they didn't intend to or even realize they needed, which can increase sales and bring in more money for shops (Rook, 1987). Additionally, impulsive purchases are frequently made swiftly and carelessly, which can help retailers make more money.

Financial literacy, according to Lusardi and Mitchell (2011), is the capacity of a person to analyze economic data is used to make judgments about financial planning and asset growth., debt, and pension. A person who has financial literacy is able to understand their financial strategy and make decisions that are in line with it. This is based on Pentecost and Andrews (2010) study, which found that study participants who practice poor money management are more prone to make impulsive purchases.

Previous studies which have been conducted on Hawkins Stern’s Impulsive Buying Theory concluded that there are many internal and external stimuli that drive Impulsive purchases and there is no relationship exists between impulsive purchase and traditional decision-making process (Chan et al., 2017; Ahmed et al., 2020; Kimiagari and Malafe, 2021; Li et al., 2021; Zafar et al., 2021; Ampadu et al., 2022). In current year a study was conducted by Redine, Deshpande, Jebarajakirthy and Surachartkumtonkun,(2023) in which the researchers performed a meta-analysis of various previous researched which worked on Impulsive Buying theory and its antecedents and mediators. The study provided a comprehensive outlook of all the antecedents and mediators which were used for measuring the impulsive buying tendency and impulsive purchases by various researchers. It was also found that impulsive buying tendency has a favorable and immediate effect on offline/online impulse purchase (Redine, et al., 2023), whereas there could be other factors which can influence this direct relationship. Such as, future time perspective, self-control, financial literacy, mindfulness, self-esteem and social support.

According to the research of Redine, et al., (2023), consumers' impulsive buying tendencies are affected by various internal and external factors among consumers which work as antecedents or mediators as identified by previous researches. Though, there is still not enough research available regarding how financial literacy of consumers influences the theory of impulse buying behavior in relation of different antecedents and mediators which were not taken into consideration despite its prevalent inf1uences.

To address this gap, this study is being conducted to examine the inf1uence of financial literacy of consumers as measured by ZTPI (Zimbardo and Boyd, 2008) on consumers' impulsive buying while using Competitive arousal model as antecedent. (Anisa, Arifin, Setyowati, Hidayah, and Megasari, 2020: Qomariyah, Qibtiyah, and Bemby, 2022).

Given the aforementioned details, the current study will advance our understanding of how effectively scarcity appeals affect consumer impulse buying in the setting of online shopping. The following research questions is developed:

1. How product scarcity messages/notifications affect the perceived competitive arousal which in results the impulsive buying behavior?
2. Does Financial Literacy of the consumers moderate the relationship of perceived competitive arousal and impulsive buying behavior?

Literature Review:

The research model of this study is based on Stimulus-Response theory (Skinner, 1935) which is an important psychological concept equally important in marketing. Basically, the stimulus-response theory explains a condition in which pairing of a particular stimulus and response takes place the respondent's mind. Commonly, classical and operant conditioning are being applied under this theory. The first form of theory is developed by Ivan Pavlov in 1902 who pioneered classical conditioning initially (McLeod, 2007). Later on, Watson, (1913) applied this theory to the person intentionally for the very first time in the history of psychology. Finally, B.F. Skinner made some behavioral modifications and practiced operant conditioning the first time (Skinner, 1935). This theory further modified as a stimulus-response model, to be used in marketing perspective for measuring the buyer behavior. This can be explained well with the

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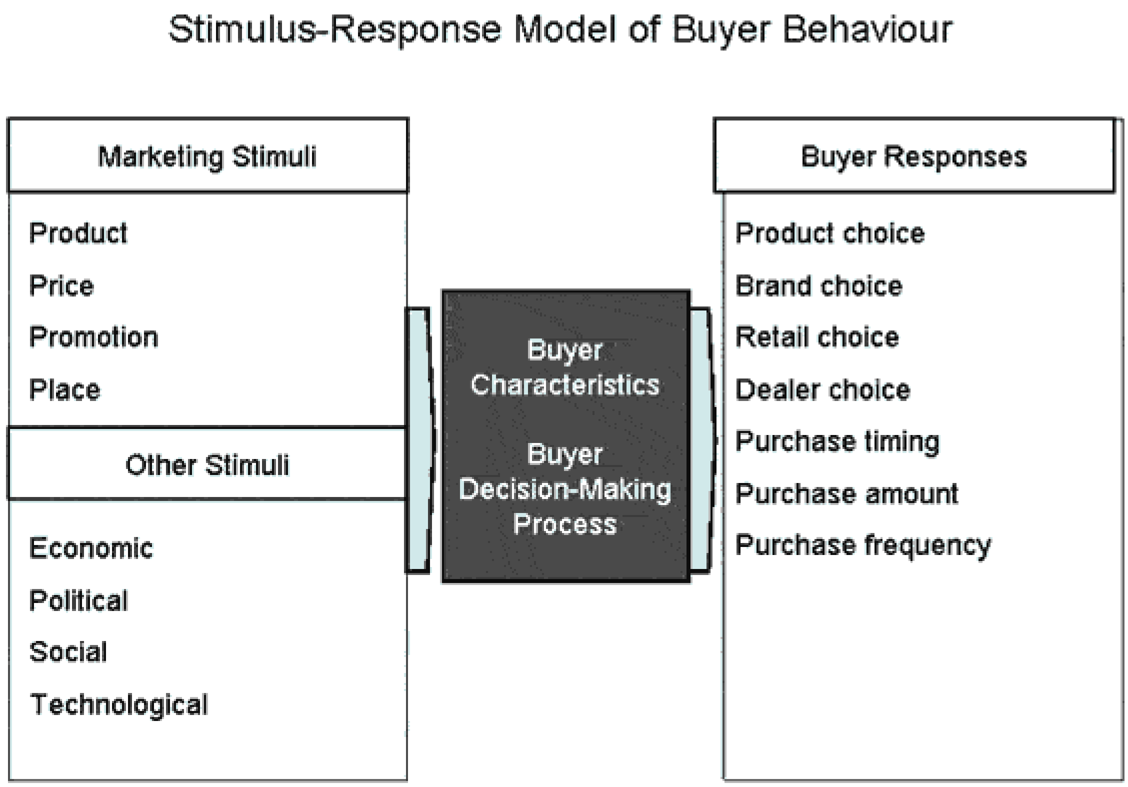
help of the below diagram:



` This diagram shows how the marketing stimuli paired with the other stimuli in the "Black Box" of buyers and generate related responses. Black Box represents the buyer characteristics and the decision making process of buyer. It is very important for the marketing managers to identify what and how goes to the buyer black box and how buyer characteristics are going to influence their perception about the marketing stimuli. Further, what buying behavior is being undertaken depends upon the decision-making process of buyer (Jisana, 2014). The stimulus-organism-response model is widely employed in marketing strategy research in general (Luo et al., 2021). Furthermore, the majority of research conducted to explore consumer impulsive purchase behavior are based on the stimulus-organism-response theoretical framework. As a result, the stimulus-organism-response framework will be used to construct the research model in this publication as well.

In this study perceived scarcity is being studied as marketing stimulus to study the impact on the perceived competitive arousal which results in Impulsive Purchase. The buyer characteristic which is under consideration is their impulsive personality trait.

1. **Impulsive Buying:**

Impulsive purchasing is defined as an unplanned, unexpected purchase that incorporates some desires, joys, and excitements (Rook, 1987). It has been proposed that impulsive purchasing is caused by internal emotional responses such as urge, pleasure, and excitement at the time of purchase. According to Rook and Hoch (1985), impulsive buying occurs owing to a sudden need to act quickly, resulting in diminished cognitive appraisal. Thus, "impulse buying occurs when a consumer experiences a sudden, often powerful, and persistent urge to buy something immediately" (Rook, 1987), and is partly autonomic and unexpected in its operation.

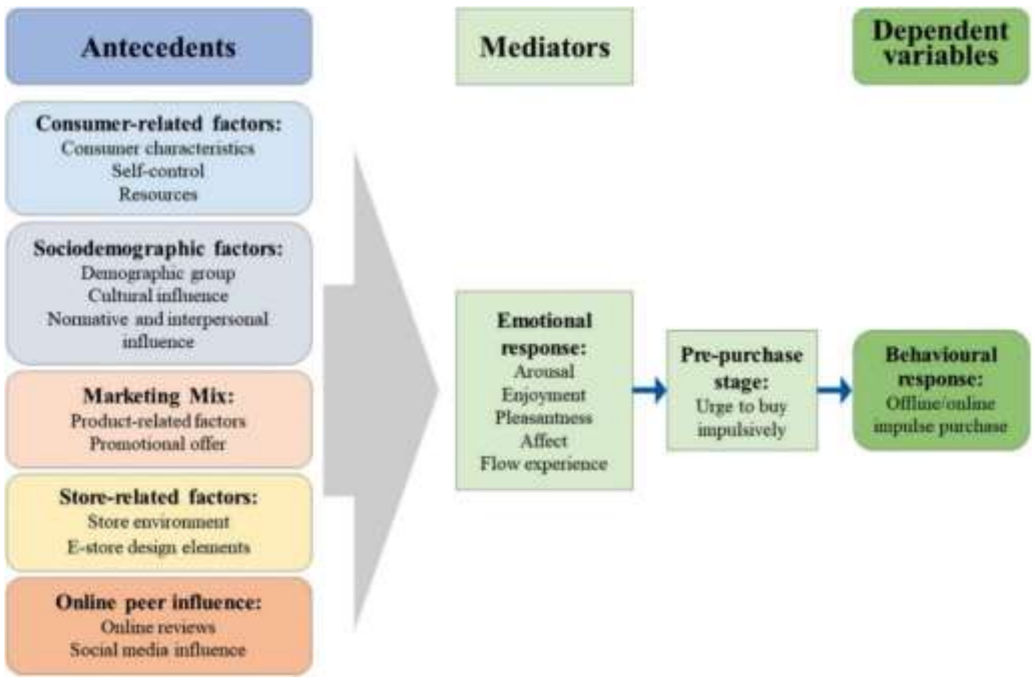
Piron (1991) defined impulsive purchasing as an unplanned purchase, emotional stimulation, and the timeliness of the behavior, which is defined as purchasing behavior of making decisions immediately; the author also classified impulsive buying behavior into experiential impulsive buying and nonexperiential impulsive buying. Rook and Fisher (1995) described impulsive purchase behavior as the description of the thoughts and feelings that consumers experience when they buy something impulsively. However, subsequent research revealed that impulsive purchases were accompanied by emotional emotions. According to Hoch and Loewenstein (1991), because human behaviors are impacted by both cognition and emotion, impulse purchasing is the result of tensions caused by interactions between these two psychological elements. Wood (1998) defined impulsive buying as an unanticipated purchase made without rigorous thinking and accompanied by significant emotional clashes. Furthermore, even when customers want to acquire a certain item, they do not always follow through (Rook, 1987). Even customers have distinct intentions; they may reach a final judgement without understanding the specific processes. Another component of impulsive buying is the involvement of emotional variables (e.g., Rook, 1987; Rook and Gardner, 1993; Wood, 1998; Beatty and Ferrel1, 1998).

According to Parboteeah et al. (2009), external environmental stimulation can considerably influence customers' perceptions of product utility and hedonism, hence influencing their impulsive buy intention. It can be shown that the greater the consumers' understanding of the utility, the more favorable their mood in purchasing intention, driving impulsive purchasing.

Therefore, the act of buying on a whim without prior forethought is defined as impulsive buying. This might be influenced by the surrounding shopping environment. Marketers purposefully create the shopping environment to be pleasant and enticing in order to get customers to buy things they did not want to acquire. When customers are placed in an atmosphere that has been intentionally designed to entice them to buy, it is typically quite difficult for them to resist those temptations. This impulsive purchasing behavior is "often accompanied by happiness and passion" (Luo et al., 2021). However, as previously said, impulsive purchasing is defined as making a purchase that one did not expect to do, therefore it is inevitable that this activity is typically carried out with a lack of deliberate considerations.

With the advancement of contemporary technology and, as a result, the broad rise of e-commerce, many researchers have focused on Impulsive purchase behavior on digital platforms, or, in other words, online impulsive buying behavior. Because most customers today are on their phones the majority of the time, it is natural for them to be bombarded with sales information throughout the day, which may lead to impulsive purchases. Because of its "diversified and eye-catching forms of product presentation" (Luo et al., 2021), online advertising is far more enticing to customers. Because of the appealing nature of internet promotion, firms and marketers increasingly regard it as a useful marketing strategy. As previously said, the goal of this work is to explore the relationship between the usage of artificial intelligence recommendation tools, such as the purchase length, recommended items, product information, and human interaction, and its influence on impulse buy should be studied in hospitality industry.

In a recent study by Redine, et al., (2023), performed a comprehensive analysis of academic research on impulse buying following a systematic literature review approach. The Hawkins Implusive Buying Theory was the context in which they discovered the following antecedents and mediators.



2.1. Perceived Scarcity:

The most obvious trait of settings for internet retail is scarcity. Jha, Dutta, and Koksal (2019) contend that scarcity might act as a cue that highly valued items are not always readily available. According to empirical research, Peng et al. (2019) asked Chinese customers to imagine a social e-commerce store that offered discounted goods to promote sales. Scarcity marketing is often categorised in the literature as either limited quantity scarcity (LQS) or limited temporal scarcity (LTS) (Chen et al., 2020). While LQS communications imply that there is a quantity restriction, LTS messages hint that the promotion is only accessible for a short period of time (Aggarwal et al., 2011). Gierl et al. (2008) claim that there are two further subcategories of LQS: supply-framed LQS and demand-framed LQS.

Limited-time announcements have been proven by Schweidler (2008) to improve product allure when the availability period is brief (one week or less). However, the time limit must be made clear; merely mentioning that something is "temporarily available" is inadequate. When a deadline is explicitly announced, buyers are prevented from looking for alternatives or a better deal, which enhances purchase intent. Therefore, when the time restriction is short and clearly specified, purchase intent increases. In reality, supply-framed LQS is widely used as limited editions, allowing customers to stand out from the crowd with unique and rare items (Chae et al., 2020). An illustration of supply-framed LQS are the limited-edition Adidas Yeezy trainers, which were created through a collaboration between the German sportswear company Adidas and the American artist Kanye West. Furthermore, demand-framed LQS typically takes the form of restricted stock, suggesting that a few number of the item or opportunity is really available for purchase due to its popularity. Customers thus feel more pressure to purchase in order to guarantee availability (Manggarani et al., 2022). Amazon.com employs "only 2 items left in stock" as an example of demand-framed LQS. Huang et al. (2020) studied supply vs. demand framed scarcity types using an online restaurant ordering scenario, and discovered that demand-framed advertising (e.g., "already bought 15 times today!") was the most effective scarcity approach for increasing customer buy intentions.

2.2. The competitive arousal model

The competitive arousal model was developed in response to research on excessive expenditure during live auctions (Ku et al., 2005). The theory postulates that perceived rivalry, social facilitation, time constraints, and the novelty of being first increase participants' competitive excitement and impair their decision-making during auctions (Ku et al., 2005).

Consumers may be more likely to make impulse purchases as a result of promotional messaging that emphasise the limited time nature of an offer (Wu et al., 2021). For instance, when retailers draw attention to supply shortages, they may arouse consumer competition and encourage impulsive purchases. Arousal is one of the key mediators of impulsive buying, according to the literature synthesis (Chen, et al., 2021; Wu et al., 2021; Hashmi et al., 2020). As a result, the application of the competitive arousal theory may shed insight on how emotions play a part in the impulse purchase process.

Perceived competition and time constraint are proposed by the consumer competitive arousal model (Ku et al., 2005) as the two components that cause competitive arousal. Wu et al. (2021) conducted an updated analysis that verified these sub-constructs. Both limited quantity and limited time scarcity were shown to contribute to impulsive buying behavior in a virtual store, with the effect being mediated by heightened feelings of competition (Wu et al., 2021). The significance of emotions in forming snap judgements may account for this (Yi and Jai, 2020). In addition, Song, Choi, and Moon (2021) evaluated the two forms of scarcity in an online travel market and found that limited quantity scarcity messaging led to increased customer competitiveness and a greater propensity to make a purchase. This is in accordance with the findings of Guo et al. (2018), who found that customers' perceptions of stock scarcity signals increased their level of competitive arousal and, in turn, their propensity to make impulsive purchases. It's possible that this is related to the competitive nature of people and their need to "win" when faced with limited resources (Gupta and Gentry, 2019). As a result, you may have more of a desire to make a purchase (Gupta and Gentry, 2019), which is related to impulsive purchases (Moser et al., 2019). Based on these results, it's clear that stock scarcity and competitive stimulation have reciprocal impacts on consumers' propensity to make impulsive buys. As addition, Biraglia, Usrey, and Ulqinaku (2021) looked at the negative emotional effects of stock scarcity advertising and concluded that customers who 'missed' out on purchasing the limited-availability goods may transfer to other brands sooner owing to anger.

There is considerable conflicting data in the current research on competitive arousal. However, the vast majority of research shows that when supplies are limited, consumers have a heightened sense of competitive arousal and are more likely to make spontaneous purchases (Song et al., 2021). The following hypotheses have been proposed on the basis of above information:

H1: Perceived Scarcity leads to higher level of Impulsive Buying Behavior.

H2: Perceived Competitive Arousal has a positive impact on Impulsive Buying behavior.

H3: Perceived Competitive Arousal will mediate the relationship between Perceived Scarcity and Impulsive Buying Behavior.

2.3. Financial Literacy

Although Huston (2010) acknowledges the importance of financial knowledge to financial literacy, he admits that a comprehensive definition of financial literacy still eludes him. In order to make educated judgements about one's finances, financial literacy is an essential skill, as explained by Orton (2007); nonetheless, international data suggests that this skill is still relatively underdeveloped in many nations.

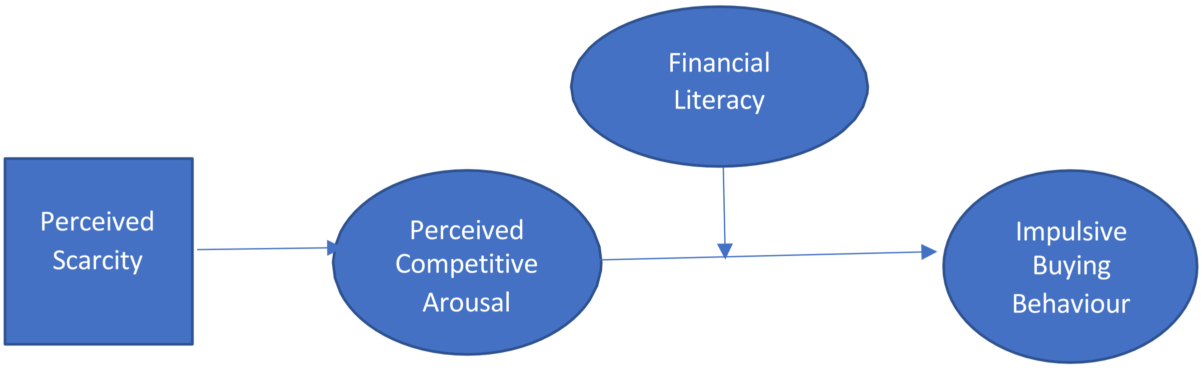
Byrne (2007) also discovered that a lack of financial literacy leads to poor financial planning and a biased pursuit of affluence in old life. The ability to make sound financial decisions requires financial literacy, as defined by Chen and Volpe (1998). To be financially literate, according to Cude (2006), is to be able to understand, analyze, manage, and transmit information about one's own financial circumstances that have an impact on one's material wellbeing. This involves being able to tell one financial alternative from another, talk about money and financial difficulties, make long-term plans, and react intelligently to events that impact day-to-day financial choices and the economy as a whole.

Some experts believe that financial literacy is the capacity to make sound financial decisions based on one's understanding of and practice with money management. Students should be equipped with fundamental financial literacy, including an understanding of how money works, how to set and stick to a budget, and how to set and reach savings goals.
Possessing the knowledge and skills necessary to manage one's finances well is the key to building up one's material well-being. In this research, we aim to check if financial literacy of consumer interacts with the relationship between competitive arousal and impulsive buying behavior. The following hypothesis has been proposed to measure the effect:

H4: financial literacy of consumer moderates the relationship between competitive arousal and impulsive buying behavior

2.4. Research Model

On the basis of above literature review, following model has been formed.



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METHODOLOGY

3.1. Design

The study adopted an online experimental survey. The dependent variable was Impulsive Buying Behavior. Perceived competitive arousal was identified as the mediator between the Perceived Scarcity created from the stock scarcity messages and Impulsive Buying Behavior. Financial Literacy of the respondents was assumed to moderate the relationships between the competitive arousal and Impulsive Buying Behavior.

3.2. Sample

The online survey was completed by 105 people in total. 99 people made up the final sample used in the study. There were 46 males and 47 women in all. The majority of participants had PhD degrees and a mean age of 26..

3.3. Stimulus material

On an online store website, an image of a shoe was displayed to the participants. "Only 9 pairs left," reads a pop-up notification in English. The background (blurred) and shoe style were chosen to be neutral in order to minimize attention. The original web store's distinctive elements (logo, navigation choices, color, etc.) were lost, making it impossible to recognize it. A pair of shoes is a noticeable item that may be utilized by the owner to stand out since it is both utilitarian and fashionable. The brand was not visible on the chosen pair of sneakers. An add-to-cart button was introduced to provide an online retail atmosphere that looks realistic.

3.4. Data Collection Instrument

An online survey was sent utilizing convenience and snowball sampling to collect data for this study. There was a disclaimer about anonymity, voluntary participation, and a consent check in the survey's introduction language. Demographic questions were asked at the beginning of the survey to learn more about the respondents' backgrounds. As a result, the stimulus material—which depicted a picture of an online store—was displayed. At that point, it was requested of the reply to carefully consider the offer. Then, questions pertaining to the stimuli were provided, and they may be answered using a 5-point Likert scale. The questionnaire is contained in Appendix B.

Demographics. The questionnaire had five demographic questions to gather information about the participants' gender, age, and educational level.

Perceived scarcity The limited supply offer's perceived scarcity was calculated using the Dilissen (2022) scale. The scarcity scale developed by Gupta and Gentry (2019) and Wentink (2019) were combined by Dilissen (2022), resulting in phrases like "This web shop creates a sense of urgency.".

Impulse Buying Behavior. The scale developed by Szymkowiak et al. (2021) to measure the temptation to make an impulsive online purchase was utilized for the measurement of the dependent variable, impulse buying behavior. Three statements on the scale (such as "I experience a sudden desire to buy this product") allowed for responses on a 5-point Likert scale, with 1 denoting "strongly disagree" and 5 denoting "strongly agree").

Perceived Competitive Arousal. The six-item Nichols (2012) modified competitive arousal scale was used to measure the mediating variable, perceived competitive arousal, which included statements like, "Trying to buy this product feels like a competition." Answers might range from 1 ("strongly disagree") to 5 ("strongly agree") on a 5-point Likert scale.

Financial Literacy. A short scale developed by Potrich, Vieira, and Paraboni (2020) is used to measure Financial Literacy. The three components of financial literacy are financial attitude, financial behavior, and financial knowledge.

Manipulation Check. Finally, two phrases were added to see if participants picked up on the advertisement's manipulation. To prevent reaction biases, this was done. This was demonstrated with the statement, "I believe the advertisement indicated the message, "Only limited supply available," which could be resolved with the words "Yes" or "No".

3.5 Procedure

The online survey was created and distributed using a google form. An anonymous survey link might be readily filled out by sharing it on social networking sites like Facebook, LinkedIn, and WhatsApp among personal networks. Only when the responder consented to participate were the replies recorded. The participant was sent to the demographic questions after providing consent in order to learn more about them. A limited stock message or a non-limited stock message was then provided at random to the responder. Before responding, the responder was instructed to carefully review the offer. The offer's image was shown throughout the questioning so that the participant may study it as needed. The survey's format comprised scores for felt

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scarcity, perceived competitive stimulation, impulsive purchase, and financial literacy.

Last but not least, there were manipulation check questions to see if the respondent recognized the stock shortage message properly. The survey's average response time was 3 minutes.

Results and Analysis

4.1. Demographic Profile of respondents:

Table 1. Demographic Profile

Demographics		Frequency
Gender	Male	46
	Female	47
Age	Less than 21	17
	21-30	50
	31-40	15
	41-50	2
	above 50	9
Income	less than 20k	30
	21k-30	9
	31k-40k	18
	41k-50k	9
	above 50K	27

The information overall points to a mixture of participants in terms of gender, age, and income. The bulk of participants, who are split fairly evenly between men and women, are between the ages of 21 and 30. Additionally, a sizeable percentage of participants had incomes between $20,001 and $50,000. These observations give a quick overview of the demographic make-up of the dataset's members.

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4.2. Determination of Reliability and validity:

4.2.1. Construct Reliability and Validity:

Table 2. Construct Reliability and Validity

	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
FL	**0.845**	**0.85**	**0.495**
IBB	**0.832**	**0.9**	**0.749**
PCA	**0.835**	**0.879**	**0.552**
PS	**0.657**	**0.793**	**0.496**

The measurement model criteria established by Hair, Hult, Ringle, and Sarstedt (2017) are often referenced and used to assess the validity and reliability of the model. The reliability of the model is evaluated using the Cronbach alpha with a cutoff value of 0.7 and the same standards for composite reliability.

Results are in line with the requirement (0.7 and above), as the range of Cronbach alpha values is between 0.897 and 0.809. All of the constructs meet the composite reliability requirements and are in the 0.887–0.927 range.

Instead of only Hair, et al. (2017), our study's findings are comparable to the published values and cutoffs of other authors. (Nair, Ali and Leong, 2015).

Following reliability, partial least squares establish the model's validity using a variety of indices, of which the well-known ones are selected for analysis in this study. Through AVE, the relevance between metrics measuring the same notion is established. There is convergent validity because all of the AVE scores for the various variables are in the range of 0.495 to 0.749 over the cutoff-0.5 (Table 5).

4.2.2. Discriminant validity:

According to Sekaran, (2003) To establish discriminant validity, two measures that were thought to be uncorrelated (from a theoretical standpoint) were out to be such following practical testing.

Moreover, outer loading, and Heterotrait-Monotrait (HTMT) values are used for this assessment.

4.2.2.1. Outer Model loadings:

Table 3. Outer Model loadings

	FL	IBB	PCA	PS	FL x PCA
FL1	**0.563**				
FL2	**0.711**				
FL3	**0.935**				
FL4	**0.764**				
FL5	**0.607**				
FL6	**0.565**				
IBB1		**0.859**			
IBB2		**0.9**			
IBB3		**0.837**			

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PCA1	**0.66**		
PCA2	**0.66**		
PCA3	**0.84**		
PCA4	**0.865**		
PCA5	**0.81**		
PCA6	**0.577**		
PS2		**0.635**	
PS3		**0.821**	
PS5		**0.702**	
PS6		**0.63**	
FL x PCA			**1**

All of the factor loadings are more than the threshold set by Hair, Hult, Ringle, and Sarstedt (2017), which is between 0.4 and 0.6. The lowest loadings are for FL1 (0.563), FL6 (0.565), and PCA (0.577), but based on Hair et al.'s (2013) criterion, they are still kept. The removal of PS1, PS7, PS8, FL7, and FL8 is due to their low outer model loading.

4.2.2.2. heterotrait-monotrait ratio (htmt)

Table 4. Table 8: heterotrait-monotrait ratio (htmt)

	FL	**IBB**	**PCA**	**PS**	**FL x PCA**
FL					
IBB	**0.18**				
PCA	**0.172**	**0.714**			
PS	**0.195**	**0.709**	**0.724**		
FL x PCA	**0.066**	**0.03**	**0.085**	**0.075**	

To have discriminant validity, a construct's HTMT cutoff-0.9- was established by Henseler, Ringle, and Sarstedt (2015). Since all the constructions fall short of this standard, they are all distinct from one another.

4.3. Assessment of Path Model:

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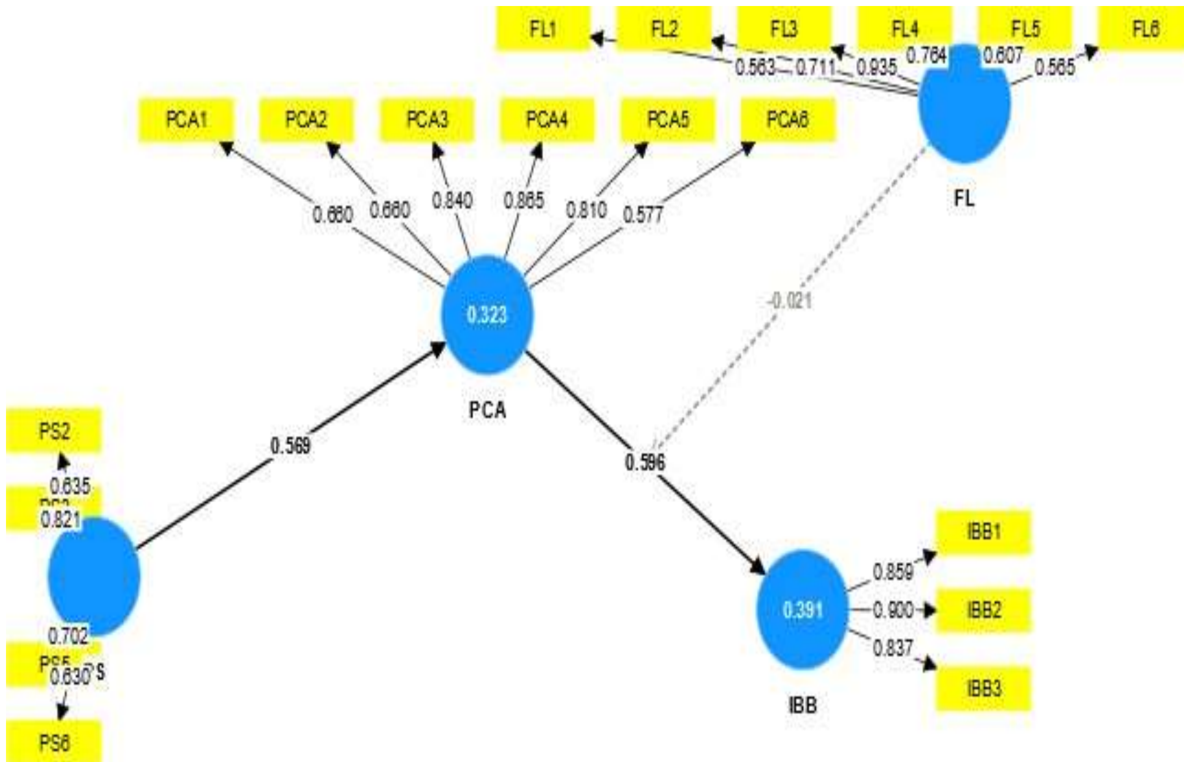

Figure 1. Assessment Path Model

4.3.1. Statistical Significance:

Table 5. Statistical Significance

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
FL -> IBB	**-0.101**	**-0.105**	**0.148**	**0.686**	**0.246**
PCA -> IBB	**0.596**	**0.591**	**0.097**	**6.134**	**0.00**
PS -> IBB	**0.339**	**0.347**	**0.072**	**4.692**	**0.00**
PS -> PCA	**0.569**	**0.584**	**0.054**	**10.445**	**0.00**
FL x PCA -> IBB	**-0.021**	**-0.018**	**0.088**	**0.241**	**0.405**

It can be seen that there exists a statistically insignificant impact of Financial Literacy on Impulsive Buying Behavior (t=0.686, p =0.246); significant impact of perceived competitive arousal (t=6.134, p=0.000) and perceived scarcity (t=4.692, p=0.000) on impulsive buying behavior; Perceived scarcity also has the significant impact on perceived competitive arousal (t=10.445, p=0.000); whereas Financial Literacy doesn't show any interaction in the relationship of Perceived competitive arousal and impulsive buying behavior (t=0.241, p=0.405).

4.4. Hypotheses assessment Summary:

Table 6. Hypotheses assessment Summary

S.No	Hypotheses	Retain/reject	Criteria
1	Perceived Scarcity leads to higher level of Impulsive Buying Behavior	Retained	(t=4.692, p=0.000)
2	Perceived Competitive Arousal has a positive impact on Impulsive Buying behavior.	Retained	(t=6.134, p=0.000)
3	Perceived Competitive Arousal will mitigate the link between perceived scarcity and impulse buying behavior.	Retained	(t=10.445, p=0.000)
4	Financial literacy of consumer moderates the relationship between competitive arousal and impulsive buying behavior.	Reject	(t=0.241, p=0.405).

Discussion

5.1. Impact of Perceived Scarcity on Impulsive Buying Behavior

According to the concept, perceived scarcity affects impulsive purchasing. The statistical analysis (t=4.692, p=0.000) backs up this conclusion, which is consistent with other studies.
According to research by Gourville (2006), scarcity has a significant effect on consumer behaviour. It can elicit a sense of urgency and lead to impulsive purchases. The association between perceived scarcity and impulsive purchase behaviour is further supported by recent studies by Bhatnagar and Ghose (2020) and Wu and Lee (2021).

5.2. Impact of Perceived Competitive Arousal on Impulsive Buying Behavior

According to this theory, larger levels of perceived competitive arousal are linked to more impulsive purchasing. This notion is confirmed by the statistical analysis (t=6.134, p=0.000), which is consistent with current research. According to research by Dholakia et al. (2016), individuals who demonstrate more competitive arousal are more likely to engage in impulsive purchasing. This study emphasizes the impact of competitive conditions on impulsive buying inclinations. Studies by Choi et al. (2019) and Yang et al. (2022) and others have also provided evidence for the link between competitive arousal and impulsive purchasing behavior.

5.3. Mediation of Perceived Competitive Arousal in relation to Impulsive Buying Behavior

This hypothesis suggests that the association between perceived scarcity and impulsive buying behavior might be mediated by perceived competitive excitement. This association is confirmed to be significant by the statistical analysis (t=10.445, p=0.000). This mediation effect is supported by recent study by Wang et al. (2020), which shows that competitive arousal is a key factor in the relationship between scarcity and impulsive purchasing behavior. These findings, which have been supported by a number of recent researches, are compatible with the theoretical model that proposes competitive arousal as a mediating mechanism (Dholakia et al., 2000).

5.4. Financial Literacy in interaction with impulsive buying theory

The theory contends that the association between competitive arousal and impulsive purchasing behavior is moderated by financial literacy. However, the statistical analysis (t=0.241, p=0.405) does not support this claim. Lea et al. (2020) and Wang et al. (2021) are two recent studies that looked at the impact of financial literacy on impulsive purchase behavior, and they both found that financial literacy did not significantly reduce this association. It seems that other elements may have a greater impact on our comprehension of the connection between competitive arousal and impulsive purchasing behavior.

Financial literacy may not have a major effect on how competitive arousal promotes impulsive buying behavior, according to the weak moderating relationship between financial literacy and the impulsive buying behavior and competitive arousal. In other words, the association between competitive arousal and impulsive purchasing behavior is unaffected by people's level of financial understanding.

This lack of relevance might be due to a number of factors:

Financial knowledge has a minimal impact: Individuals' knowledge and comprehension of financial concepts, such as budgeting, saving, and investing, are the focus of financial literacy. Although financial literacy is crucial for making wise financial decisions, there may be no direct effect on impulsive purchase. Numerous psychological, emotional, and social elements can counteract the impact of financial literacy and have an impact on impulsive purchase behavior.

Additional moderating elements Other moderating factors that were not considered during the investigation may have an impact on the association between competitive arousal and impulsive purchasing behavior. In mitigating the connection, for instance, individual variations in self-control, impulsivity, or personal financial objectives may be more important.

Limitations of measurement: The ability to evaluate financial literacy may be constrained by the use of self-reported evaluations or a limited scope of financial knowledge. Different methods or a more thorough evaluation of financial literacy can provide different outcomes.

Sample characteristics: The study's sample may have particular traits that prevent the results from being generalized. Age, income, and cultural background are a few variables that may have an impact on the association between financial literacy, competitive arousal, and impulsive purchasing.

The intricate nature of impulse purchasing: The complicated phenomena of impulsive purchasing is impacted by a variety of elements, such as emotional, cognitive, and social impacts. Financial literacy may not be a relevant moderator since the association between competitive arousal and impulsive purchase behavior may be modified by a number of interrelated variables.

6. Conclusion

We may get the following conclusion about how buyers might think psychologically: Noting that the limited-product promotion is hard to come by has an impact on Customers that are more competitively inclined than those who are less competitively stimulated to make impulsive purchases. Given the results, it appears that the impacts of stock scarcity promotion on experiential services were effective via the underlying component competitive arousal. Stock scarcity promotion was primarily researched and shown to be successful for tangible items.

Because perceived competitive arousal significantly mediates the association between perceived scarcity and impulsive purchase behavior, it is likely that perceived competitive arousal is a key factor in the explanation of how perceived scarcity affects impulsive behavior. In other words, the influence of perceived scarcity on impulsive purchasing behavior is transmitted through perceived competitive excitement, which serves as a mediator.

Individuals feel a sense of urgency and a dread of losing out when they believe that a good or an opportunity is scarce. Competitive arousal, a psychological reaction characterized by heightened drive, greater attention, and a desire to surpass others in obtaining the rare resource, is brought on by this feeling of scarcity. The desire to make hasty purchases in order to secure the scarce resource and obtain a competitive edge is heightened by the sensation of competition.

The relationship between impulsive purchasing and perceived scarcity has been emphasized in several research. According to the research, People are more likely to make impulsive purchases when they believe a good or opportunity is rare because they want to prevent having a regret or feeling left out. However, a deeper comprehension of the underlying mechanism is provided by the mediator function of perceived competitive arousal.

The perception of scarcity influences impulsive purchasing behavior through an intermediate mechanism called perceived competitive arousal. As people race to outdo rivals and snag the limited supply, it increases the motivation and desire to indulge in impulsive purchase. Individuals' feelings of competitive arousal operate as an emotional trigger, increasing their desire to make impulsive purchases.

Financial literacy is a crucial component of consumer behavior, although it may have only a limited direct impact on the link between competitive arousal and impulsive purchasing behavior. To investigate additional possible modifiers and to get a more thorough knowledge of the intricate dynamics underpinning impulsive purchasing behavior, more study is required.

6.1. Theoretical Implications

The study aims to make a valuable addition to Reactance theory (Brehm, 1966) and enhance our comprehension of the reactance phenomenon encountered in online promotions. Information regarding limited time promotions elicits psychological reactance, which then impacts consumers' purchasing choices. Price promotions have a general influence on consumer behavior (Beasley and Shank, 1997; Huang et al., 2014). However, when combined with appeals of limited time availability, they can stimulate impulse buying and thereby increase sales for retailers. This study contributes to the existing body of research on scarcity, specifically by examining the factors that contribute to impulsive purchasing behavior. While other studies investigate the impact of different emotions triggered by time-limited scenarios, our research specifically examines customers' anxiety as a reaction to time constraints in online retail promotions. Fear, as an emotion, plays a significant role in influencing impulsive buying behavior, hence contributing to the existing research on scarcity promotions and impulsive purchases. This study enhances the existing literature on impulsive buying behavior by employing a robust methodology that accurately captures customers' real-time impulse purchases. Unlike previous studies that rely on self-reported measurements, this study creates a lifelike online retail environment. Furthermore, the study utilized a sample of general consumers rather than a group of students, so restricting the extent to which the findings may be applied to the broader population (Mou and Shin, 2018).

6.2. Managerial Implications

The findings have significant consequences for marketers, particularly those in the online retail industry. Online buying offers consumers the opportunity to make decisions at their convenience, regardless of location, which leads to an increase in deferred decision-making compared to the typical in-store shopping experience. This study acknowledges the beneficial influence of Limited time promotions on a rise in impulsive customer purchases. Therefore, in order to boost product sales, businesses can depend on efficiently utilizing appeals that create a sense of limited availability. Additionally, the study emphasizes the significance of emotional responses to consumer advertising, including feelings of anxiety and perceived arousal.
Consumers who have a higher level of anxiety about missing out on chances and are more

stimulated by the importance of few resources tend to react favorably to promotional appeals. Hence, businesses can optimize their promotional strategies by utilizing compelling appeals that instill a sense of FOMO (fear of missing out) among consumers. Retailers should be aware of how often they use scarcity appeals, as this can trigger consumers' awareness of persuasive tactics and lead to unintended consequences.

Companies may need to modify their marketing techniques to appeal to a diverse audience, given that financial literacy may not play a large role in moderating impulsive buying in competitive conditions. Understanding additional psychological and emotional triggers is equally important for marketers who want to attract the attention of a large consumer base and elicit impulsive behavior. Marketers can benefit from understanding how the competitive environment influences impulsive purchasing patterns. Crafting advertising and promotional methods that appeal to customers' emotions and generate a feeling of urgency may be especially effective in competitive marketplaces. Personalized marketing communications that address individual tastes and requirements can be effective. By personalizing messaging to specific customer wishes and goals, marketers may improve the success of their campaigns in generating impulsive purchases. Feeling of urgency can be created by introducing limited-time offers and promotions. Creating a sense of scarcity or exclusivity can compel customers to act swiftly, mirroring the competitive arousal caused by market forces. With the widespread usage of digital platforms, marketers may intentionally employ online channels to generate competitive arousal. Social media, in particular, may be an effective instrument for building enthusiasm and engagement, resulting in spontaneous purchasing decisions.

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