



FOMO AND STUDENT BUYING BEHAVIOR: AN ECONOMIC ANALYSIS OF DEMAND DURING SALES

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ABSTRACT

This study investigates how FOMO affects students' impulsive online purchases during sales events, taking into consideration the moderating influence of scarcity signals and the mediating influence of price sensitivity. A time-lag cross-sectional survey was conducted in Mumbai, India, with the participation of students from four separate private universities. In order to ensure the psychological separation of variables, a total of 384 respondents were questioned after two rounds of data collecting. The majority of these respondents were female students who were enrolled in accounting and management courses. Every response was documented using a Likert scale that included five points. Additionally, established measures were used to assess fear of missing out (FoMO), price sensitivity (PS), impulse purchase (IG), and scarcity signals. Descriptive statistics revealed that the subjects had moderate levels of fear of missing out (FoMO), sensitivity to price fluctuations, feelings of scarcity, and impulsive purchasing. The results of the correlation study showed that there was a positive relationship between price sensitivity and fear of missing out (FoMO), despite the fact that there was a negative connection between the two. According to the findings of a moderated mediation research that used the PROCESS Macro Model 17, fear of missing out (FoMO) is a significant factor in the increase of impulsive purchases ($\beta = 0.217, p < 0.001$). Furthermore, scarcity signals have been shown to exacerbate this effect ($\beta = 0.188, p < 0.01$). When fear of missing out (FoMO) and impulsive purchasing behavior were analyzed, it was shown that price sensitivity had a slight mediation impact on the relationship between the two variables ($\beta = -0.016, LLCI = -0.038, ULCI = -0.002$). The findings demonstrate that students who experience a significant amount of fear of missing out (FoMO) are more likely to make spontaneous purchases, especially when they believe that they are running out of something. Additionally, price is just one of many critical considerations when making a purchase. These studies reveal that, from a monetary point of view, customers are more sensitive to changes in price during times of sales. This is due to the influence of psychological and environmental elements. Although marketers have to consider the ethical implications of exploiting behaviors associated with the fear of missing out (FoMO), shops might see an increase in sales from students by using scarcity signals and discounts that are only available for a short amount of time.

Keywords: Fear of Missing Out (FoMO), Impulse Buying, Price Sensitivity, Scarcity Cues, Student Consumer Behavior, Online Shopping, Sales Promotions, Demand Response

INTRODUCTION

The act of making a purchase on the spur of the moment without giving it any consideration at all is referred to as impulse buying. This widely observed pattern of client behavior has a significant effect on both the retail and e-commerce industries. The fashion sector, which is always evolving, is defined by the prevalence of impulsive purchases that are motivated by the appeal of goods that are now fashionable, the influence of marketing on the internet, and the speed at which trends rise and fall. Impulsive purchases are made with less deliberation than planned purchases, and they are more often driven by external factors such as advertising, promotions, social pressure, and the convenience of buying things online [1]. Due to the fact that they have buying patterns that are unlike those of other generations, the members of Generation Z (also known as Gen Z) are a demographic that is of great significance. The generation that was the first to have grown up in a completely digital world is Generation Z, which comprises individuals who were born between the mid-to late 1990s and the early 2010s. The rapid rate at which fashion trends are changing on social media platforms like as Instagram, TikTok, and Snapchat has a huge influence on the decisions that they make while buying. In addition to the effect of peers and influencers, the visual aspects of these platforms serve to stimulate unplanned and impulsive purchases [2].

The fear of missing out (FOMO) is one of the primary psychological variables that play a role in the impulsive purchasing decisions made by Generation Z consumers. This occurs when individuals have feelings of anxiety around the possibility that they may be excluded from significant events or chances for advancement that other people seem to be taking advantage of. When customers perceive specific trends, items, or promotions as being available for only a short amount of time or as exclusive, the phenomenon known as fear of missing out (FOMO) emerges in the fashion business. The desire to avoid regret in the future causes individuals to feel pressured into making hasty purchases, and this feeling is exacerbated by the influence of social media. This effect is amplified and made more accessible to customers by personalized artificial intelligence-driven suggestions, limited-edition product launches, influencer endorsements, promotional offers, and other such features, which encourage customers to make impulsive purchases.

The fashion business use both psychological and technological clues in an attempt to boost the amount of impulsive purchases that are made. Retailers use a wide range of digital marketing techniques, including flash sales, aesthetically pleasing shop layouts, and scarcity signals, in order to encourage consumers to make spontaneous purchases. The ease of this process is further enhanced by the availability of both one-click purchase and various payment options [3]. Brick-and-mortar merchants make use of sensory signals, such as music, lighting, and product placement, in order to stimulate impulsive purchases, in addition to internet marketing.

Making impulsive purchases may be a method for individuals of Generation Z to express them, improve their mood, and feel acknowledged by society. One of the advantages is the rapid satisfaction of emotional needs; nevertheless, prolonged exposure to advertising stimuli and fear of missing out (FOMO) may lead to anxiety, low self-esteem, decision fatigue, and dissatisfaction [4]. This research aims to examine the dynamics of fear of missing out (FoMO), scarcity signals, price sensitivity, and

impulsive buying behavior among students belonging to Generation Z in the context of purchases made online. The understanding of these dynamics might prove to be very beneficial for fashion companies as they strive to create effective marketing strategies. In addition, it can contribute to our overall understanding of consumer behavior in the digital age.

OBJECTIVES

1. To investigate how students' online impulsive purchasing behavior during sales is impacted by Fear of Missing Out (FoMO), taking into account the moderating influence of scarcity signals.
2. To examine how price sensitivity affects students' impulsive purchases and determine if it acts as a mediator in the connection between FOMO and impulsive purchasing.

HYPOTHESIS

H1: Students' impulsive purchasing behavior is positively impacted by fear of missing out (FoMO).

H2: Students' price sensitivity is adversely impacted by FoMO, with more FoMO resulting in lower price sensitivity.

H3: Students' impulsive purchasing behavior is favorably impacted by price sensitivity.

H4: The link between FOMO and impulsive purchasing is positively moderated by scarcity signals, meaning that a high level of scarcity cues strengthens the influence of FoMO on impulse buying.

H5: The link between price sensitivity and impulsive purchasing is positively moderated by scarcity signals, meaning that when scarcity cues are high, the impact of price sensitivity on impulse buying is greater.

H6: The association between FoMO and impulsive purchasing behavior is partly mediated by price sensitivity.

RESEARCH METHODOLOGY

Sample and Procedure

The target sample consisted of students who attended one of the four private institutions located in Mumbai, India. The process of collecting data was facilitated by the distribution of an online questionnaire via WhatsApp groups, which was carried out by six academics. After having obtained the permission of their respective teachers, the participants joined the study of their own will.

A cross-sectional questionnaire based on time-lag theory was used. Two phases of data gathering were carried out:

1. **Stage 1:** The respondents provided biographical information, such as their gender, age, and the amount of online purchases they had made in the previous three months, in addition to their

responses to questions about scarcity cues and fear of missing out (FoMO). Participants were excluded from Stage 2 if they had made fewer than two transactions.

2. **Stage 2:** Four hundred and seventy-eight individuals who were in Stage 1 were reached via email and asked to take a survey on their price sensitivity and the impulse purchases they make. Podsakoff and colleagues (2012) found that the purpose of this split was to decrease the likelihood of respondents to "psychologically link" one variable with another [5].

The final sample consisted of 384 respondents; this number was derived from the 392 answers that were received for Stage 2 after completeness was confirmed. Undergraduates constituted 78.38 percent of the whole student body, and male students constituted 75.26 percent of the total number of students. Only a small percentage of students, namely 2.86%, did not indicate a major, whereas the bulk of students were majoring in accounting (34.63%) and management (62.50%). Because the main information was not assessed, all of the replies were included in the data analysis.

Measurement

In order to guarantee validity and reliability, all scales were modified from prior research:

1. **Fear of Missing Out (FoMO):** Using a 5-item measure, as reported by Kaur et al. in 2020. Something like, "I'm concerned when other people buy things and I don't [6]."
2. **Price Sensitivity:** It used eight items for measurement. Item example: "Pricing is the most important factor for me when selecting a product [7]."
3. **Impulse Buying:** The three-item scale was retested and developed by Darrat et al. (2016) and Zhang et al. (2022) into a measurement tool [8,9]. [I frequently purchase items without thinking] is an example of an item.
4. **Scarcity Cues:** A total of four items were used for the measurement, with two items each evaluating the scarcity of time and products [10]. "The quantity of products offered is limited" and "The product you purchased has a sales time limit" are two examples of such things.

We used a 5-point Likert scale for everything, where 1 was never and 5 was always.

Control Variable

In the course of their research, Atulkar and Kesari (2018) discovered that males tend to make impulsive purchases more often than women [11]. They thus implemented the code 1 for men and 2 for women in order to keep this behavior under control.

Data Analysis Procedures

1. **Common Method Bias (CMB):** Verified for any bias caused by data coming from only one source. It was determined using Harman's one-factor test [12].

2. **Confirmatory Factor Analysis (CFA):** Used Jamovi for the scale evaluation [13]. Composite reliability and Cronbach's alpha were used to evaluate internal consistency.
3. **Hypothesis Testing:** According to Hayes (2017), a moderated mediation technique called MODMED was used together with Macro Process 4.0 [14]. The analysis was both accurate and persuasive, thanks to the bootstrapping using 5,000 samples.

RESULT

Descriptive Analysis

Preliminary descriptive statistics provide a brief overview of the means and standard deviations of the variables that were examined. The average scores of the components ranged from 2.868 to 3.574, with a median score of 2.5, as can be shown in Table 1. Furthermore, there was not much diversity in the data since every one of the standard deviations was lower than the average scores.

Table 1. Respondents' Characteristics

Characteristic	Frequency	Percent
Gender		
Female	289	75.26
Male	95	24.74
Program		
Undergraduate	301	78.39
Master/Magister	83	21.62
Major		
Management	240	62.50
Accounting	133	34.63
n.a	11	2.87

Table 1 displays the demographic information of the participants. It was evident that there was a significant gender imbalance in the sample, as 75.26 percent of the people that participated were female students. The poll found that 78 percent of the respondents were enrolled in undergraduate programs, whilst 21.6 percent were enrolled in graduate programs. Among the students who were polled, 62.50 percent declared management as their area of concentration, 34.63 percent declared accounting, and 2.87 percent did not indicate a major at all. According to the distribution, the majority of the sample

consists of female undergraduate students who are studying in management. The responses of these students to signs indicating that a deal is happening and their fear of missing out (FoMO) while making purchases may be influenced by this demography.

Table 2. Descriptive Statistics and Correlation Matrix

No	Variable	Mean	SD	1	2	3	4	5
1	Gender	-	-	1				
2	FoMO	3.341	0.896	-0.064	1			
3	Price	3.100	1.068	0.073	-0.149**	1		
4	Impulse	2.868	0.865	0.031	0.248**	0.07	1	
5	Scarcity	3.574	0.765	-0.039	0.171**	-0.180**	0.131*	1

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

Table 2 provides a depiction of the descriptive statistics and correlation relationships that exist between the variables under investigation. The mean scores of the factors, which range from 2.868 to 3.574, show that people have a moderate amount of fear of missing out (FoMO), price sensitivity, impulsive purchase habits, and sensitivity to scarcity signals. Given that the standard deviations are lower than the mean values, it would seem that there is not much diversity in the responses. Because there is a negative connection between FoMO and price sensitivity ($r = -0.149$, $p < 0.01$), students who score higher on FoMO are less sensitive to price changes, according to the findings of the correlation research. There is a greater probability that students who get a higher score on the Fear of Missing Out (FoMO) scale would make impulsive purchases and will have a stronger response to signals of scarcity. This is evident in the positive correlations between FoMO and impulse buying ($r = 0.248$, $p < 0.01$) as well as scarcity cues ($r = 0.171$, $p < 0.01$). Even while the correlation between impulse buying and price sensitivity is slightly positive, it is not statistically significant. On the other hand, scarcity signals are strongly negatively connected to price sensitivity, with a correlation coefficient of $r = -0.180$ and a p-value of less than 0.01. The positive association that exists between impulsive buying and scarcity signals ($r = 0.131$, $p < 0.01$) demonstrates the influence that perceived scarcity has on impulsive purchase behavior. The fact that the gender associations did not reach statistical significance demonstrates that they constitute an appropriate control variable.

Moderation and Mediation Analysis

By using Macro Process Model 17, we conducted mediation and moderation analyses with 5,000 bootstrap resamples and 95% confidence intervals (lower limit = LLCI, upper limit = ULCI).

Table 3. Moderation-Mediation Analysis

Model	Variable	Coeff	SE	t	p	LLCI	ULCI
Model 1: Price Sensitivity	Gender	0.158	0.125	1.258	0.209	-0.089	0.404
	FoMO	-0.173	0.06	-2.859	0.004	-0.292	-0.054
Model 2: Impulse Buying	Gender	0.102	0.098	1.047	0.296	-0.090	0.295
	FoMO	0.217	0.049	4.458	0.000	0.121	0.312
	Price	0.095	0.040	2.340	0.020	0.015	0.174
	Scarcity	0.154	0.057	2.682	0.008	0.041	0.267
Moderating Interactions	FoMO x Scarcity	0.188	0.065	2.898	0.004	0.060	0.315
	Price x Scarcity	0.109	0.053	2.072	0.039	0.006	0.213
Mediation	Indirect	-0.016	0.009	-	-	-0.038	-0.002
	Index ModMed	-0.019	0.012	-	-	-0.045	-0.001

Table 3 provides a summary of the findings from the moderated mediation study that was conducted using the Macro Process Model 17. The negative impact of FoMO on price sensitivity in Model 1 ($\beta = -0.173$, $p < 0.01$) provides evidence that supports the hypothesis that an increase in FoMO leads to a reduction in price sensitivity. The FoMO variable ($\beta = 0.217$, $p < 0.05$) has a beneficial impact on impulse purchase, and in Model 2, impulsive purchasing is significantly boosted by both price sensitivity ($\beta = 0.095$, $p < 0.05$) and scarcity signals ($\beta = 0.154$, $p < 0.01$), as can be shown from the expected relationships. The findings of the moderation analysis show that the interaction variables between scarcity signals and price sensitivity ($\beta = 0.109$, $p < 0.05$) as well as FoMO and scarcity cues ($\beta = 0.188$, $p < 0.05$) have a significant influence on impulsive purchase behavior. This indicates that the impact of both FoMO (fear of missing out) and price sensitivity is amplified by signs of scarcity. The results of the mediation study ($\beta = -0.016$; LLCI = -0.038, ULCI = -0.002) suggest that there is a moderate but significant indirect connection between fear of missing out (FoMO) and impulsive purchase behavior. The findings demonstrate that price sensitivity is a partial mediating factor in the relationship between FoMO and impulsive shopping. Neither of the two dependent variables exhibits a noticeable change after accounting for gender.

Conditional Effects Based on Scarcity Cues

Table 4. Conditional Effects of FoMO and Price Sensitivity on Impulse Buying

Independent Variable	Scarcity Level	Effect	SE	t	p	LLCI	ULCI
FoMO	Low	-0.073	0.074	0.988	0.324	-0.072	0.218

	Mean	0.217	0.049	4.458	0.000	0.121	0.312
	High	0.360	0.065	5.582	0.000	0.233	0.487
Price Sensitivity	Low	0.011	0.056	0.197	0.844	-0.100	0.122
	Mean	0.095	0.040	2.340	0.020	0.015	0.174
	High	0.178	0.058	3.081	0.002	0.065	0.292

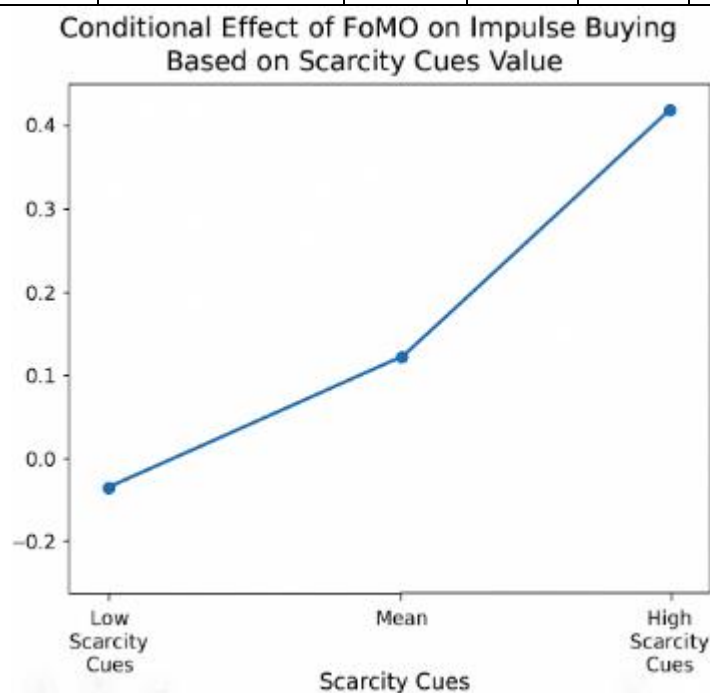


Figure 1. Conditional Effect Of FOMO on Impulse buying based on scarcity cues value

The conditional effects of fear of missing out and price sensitivity on impulsive purchase are disclosed in Table 4 for low, moderate, and high levels of scarcity signals. The effect on impulsive purchases, as FoMO suggests, is not statistically significant when scarcity signals are low ($\beta = -0.073$, $p > 0.05$), but it becomes statistically significant when scarcity signals are at a medium ($\beta = 0.217$, $p < 0.001$) and high level ($\beta = 0.360$, $p < 0.001$). This demonstrates that the cues of scarcity heighten the impact of the fear of losing out on impulsive purchases. In addition, when considering the influence of price sensitivity, the effect on impulsive purchases is not substantial at low scarcity cues ($\beta = 0.011$, $p > 0.05$). However, it becomes statistically significant at middle levels ($\beta = 0.095$, $p < 0.05$) and high levels of scarcity cues ($\beta = 0.178$, $p < 0.01$). This demonstrates that scarcity cues have the effect of amplifying the effects of price sensitivity. When considered as a whole, the results of our research demonstrate the significance of scarcity signals as a moderating factor, which increases the influence of both fear of missing out (FoMO) and price sensitivity on the nature of impulsive purchases that are made via the internet.

Findings

1. The students exhibited moderate levels of impulsive purchase, price sensitivity, scarcity perception, and Fear of Missing Out (FoMO) when there was a low degree of heterogeneity among the responses.
2. The finding that students who have a higher degree of Fear of Missing Out (FoMO) are more likely to make impulsive purchases during sales events demonstrates that FoMO has a positive influence on their impulse buying behavior ($\beta = 0.217$, $p < 0.001$).
3. Price sensitivity and scarcity signals have a significant impact on impulsive purchases, which demonstrates that students respond to both the perceived economic cost and the limited availability of products ($\beta = 0.095$ and $\beta = 0.154$, respectively).
4. Signals of scarcity serve to exacerbate the impact of fear of missing out (FoMO) and price sensitivity on impulsive purchases. The effect of fear of missing out (FoMO) does not have a substantial influence when scarcity is at a low level. On the other hand, when scarcity is at a high level, it becomes very important ($\beta = 0.360$, $p < 0.001$), which proves that scarcity is a key moderating factor in the sales situation.
5. The finding that price sensitivity serves as a mediating factor between the fear of missing out (FoMO) and impulsive purchasing ($\beta = -0.016$, LLCI = -0.038 , ULCI = -0.002) suggests that students who experience a high degree of FoMO are indirectly encouraged to make impulsive purchases due to the fact that they are somewhat less sensitive to price.

CONCLUSION

According to the findings of this study, the fear of missing out (FOMO) is significantly exacerbated by scarcity signals, which in turn encourages students to make impulsive online purchases during times of discount. Even if price sensitivity does have an impact on the actions of customers, an elevated fear of missing out (FoMO) may offset the influence of price concerns and encourage impulsive buying. When this behavior is seen from an economic perspective, it is evident that the demand response rises during sales seasons, which is a result of both psychological factors (fear of losing out) and environmental signals (scarcity). This knowledge might be advantageous for retailers that are targeting students, since they could use it to strategically provide limited-time offers and scarcity signals in order to stimulate demand. On the other hand, marketers must exercise caution to ensure that they do not take advantage of students' ethical tendencies.

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