# FOMO - FEAR OF MISSING OUT AND ITS IMPACTS ON PURCHASE INTENTION DURING SALES PROMOTIONAL EVENTS IN E-COMMERCE PLATFORM: A CASE STUDY FOR UNDERGRADUATES IN HANOI

Assoc. Prof. Dr. Vu Tri Dung
vtdung23@gmail.com
Ms. Nguyen Thi Thao Nhi
nguyentnhi243@gmail.com
Ms. Hoang Van Anh
hoangvananh31032000@gmail.com
Ms. Nguyen Thi Trang
trangnguyen28122k@gmail.com
Ms. Do Hai Nga
haingado2511@gmail.com
National Economics University, Hanoi, Vietnam

#### **Abstract**

This paper examines the Fear of Missing Out (FOMO) and its influences on purchase intention of Hanoi undergraduates during sales promotional events on E-commerce platforms. The research findings show that FOMO is determined by anticipated elation, anticipated envy, comforting rationalization and herd behavior. The research also finds the positive impact of FOMO on consumers' purchase intent. Thereby, implications are given to marketers in order to take full advantage of FOMO marketing appeals when it comes to applying on sales promotional events.

**Keywords:** *E-commerce, Fear of Missing Out, FOMO, purchase intention, sales promotion.* 

#### 1. Introduction

As Vietnam adapts to the "new normal", consumers have steadily altered their buying patterns from face-to-face transactions to online purchases via e-commerce platforms. This trading platform, which has become a major way of supporting social life, is one of the digital economy's pioneering industries, adding to corporate competitiveness (VECOM, 2020). Given this scenario, firms operating on e-commerce platforms must constantly have unique plans in place to build and strengthen trade promotion activities that will help them establish competitive advantages for their products. The most common method is for firms to provide consumers with particular perks when they purchase their items - this is known as promotional activities (Truong Hoang Len, 2018). Currently, promotional events on

special occasions such as 11/11 or Black Friday are among the most successful ways to boost sales and attract consumers. As a result, businesses must upgrade their conventional marketing strategies and, in particular, utilize psychological effects to meet Industry 4.0 in order to trigger clients' purchase requirements right at the moment of visiting the boot, among which FOMO (Fear of Missing Out) is one psychological effect that can be made use of. In the scope of this research, FOMO is identified as a factor that boosts customers' purchasing intent. The effective use of FOMO in promotional events has been proved to result in a significant increase in revenue. Furthermore, as the Internet has grown in popularity, individuals have begun to check their mobile devices on a daily basis to ensure that they do not miss any important information or events taking place around them. The utilization of social media utilities has made it simpler than ever to learn about the variety of online and offline social activities one may participate in, which has increased the Fear of Missing Out, particularly among millenials (Przybylski et al. 2013). Despite the fact that FOMO is a well-known phenomena in modern society and the popular press throughout the world, it hasn't been fully explored, leveraged and exploited in Vietnam. As a result, the goal of this study was to conduct an in-depth research on FOMO in the context of Vietnam in order to provide a deeper understanding of this psychological effect. Based on the process of assessing and synthesizing prior studies, this research focuses on analyzing and demonstrating the factors affecting consumers' Fear of Missing Out, as well as the impact of FOMO on purchase intention. Implications, thereby, are given in order for marketers to fully exploit FOMO marketing appeals when it comes to applying on sales promotional events.

## 2. Literature Review

#### 2.1. Previous studies

Many different studies regarding FOMO and the effects of FOMO on human intentions and behavior in numerous aspects have been conducted up till 2020. Those studies, on the other hand, have mostly concentrated on understanding the mechanism of formation and development of a FOMO scale depending, for example, people attending events, concerts, and addiction to cell phones and social media. The association between FOMO and purchase intention or behavior has mostly been described in terms of luxury products or services. Przybylski et al (2013) published "Motivational, emotional, and behavioral correlates of fear of missing out," which effectively developed 10 scales for FOMO and demonstrated the relation between FOMO and emotional, behavioral, and demographic aspects. However, there has not been much research on the impact of FOMO on purchase intent in the context of common-goods at promotional events. Moreover, up to now, few studies relating to the influence of FOMO on purchases on e-commerce platforms are found, which are currently prominent issues.

As far as the authors know, there is presently no formal research on FOMO in

Vietnam. The majority of them are brief or superficial articles published in newspapers, magazines, or personal blogs, whose theories are mostly translated from foreign research and secondary data sources drawn from those studies. As a result, the writers have a strong incentive to do the research.

#### 2.2. Literature review

In this article, the term FOMO refers to an individual's anxiety about missing out on purchase opportunities during sales promotional events on an e-commerce platform that other people are taking part in. An in-depth analysis of the definition of FOMO shows three main stages of FOMO: Stage One – Awareness of Opportunities (major promotional event); Stage Two – Arousal of emotions (excitement, fear of missing out); Stage Three – Alleviating the negative tension (by forming purchase intention and then purchase behavior) (Zi Cheng Wesley Lim, 2016).

In the case of online shopping, a sales promotion is a form of substantial discount provided for a short period on e-commerce websites for certain items (Kaaviya R, n.d). An online flash sale, for example, is a mix of the following four principles: (1) Well-known brands at deeply discounted prices, (2) a limited number of products, (3) for a limited time, and (4) making exclusive offers to website members (Ayadi et al, 2013). As a result, the tendency of FOMO of consumers is examined in this study in light of two different scarcity messages: limited supply scarcity and limited time scarcity.

Purchase intention is indicated as a measure of customer's willingness to purchase a product (Ajzen, 1991) or defined as what a person thinks they will buy (Tirtiroglu & Elbeck, 2008). According to Javadi et al (2012), the intention of making an online purchase is based on external factors from which consumers synthesize, evaluate, choose and decide whether or not to buy such products from sellers on the Internet (electronics stores). This paper focuses on purchase intent during significant promotional events on e-commerce platforms. Accordingly, purchase intent is defined as a state of awareness about promotional events and the desire to make a purchase at these events due to the impact of FOMO.

This paper determines and assesses four factors affecting customers' fear of missing out: (1) Anticipated Elation (AE), (2) Anticipated Envy (AEnvy), (3) Comforting Rationalization (ComRat), and (4) Herd Behavior (HB), and examines the link between FOMO and purchase intention. In specific, anticipated elation, anticipated envy and herd behavior are believed to positively influence FOMO, whereas comforting rationalization is believed to negatively influence FOMO. In addition, both FOMO and herd behaviour have a positive influence on the purchasing intention of consumers in big promotional events on e-commerce platforms.

#### (i) Anticipated Elation (AE)

Anticipated elation is a euphoric emotion associated with assessment of the value of an imaginary transaction (Brandstatter & Kriz, 2001). In this case, anticipated action might stimulate excitement in the next event (e.g., purchasing things at a discounted price during a large promotional event) (Mandel & Nowlis, 2008). Similarly, an invitation with the implication of a FOMO-laden appeal creates positive expectations about experiencing an event while simultaneously suggesting the possibility of missing out on that event, which will cause anxiety regarding FOMO and other states to consumers (Mandel & Nowlis, 2008). Accordingly, in this study, the fact that an individual feels excited about the promotional event on an e-commerce platform will likely increase the fear of missing out on attractive discounts.

# (ii) Anticipated Envy (AEnvy)

Subjective conjecture in interpersonal relationships leads to envy, which manifests as worry, fear, grief, and acute anxiety (Baker et al. 2016; Elhai et al. 2016). FOMO is a syndrome characterized by feelings of envy, worry, self-doubt, and a gnawing sensation of inadequacy (Tomczyk and SelmanagicLizde 2018). In addition, consumers make decisions in order to maximize benefits or boost their self-esteem (Yen et al., 2013). Therefore, "envy" from others is one of the significant aspects in helping customers fulfil that demand of benefit optimization and increase in self-esteem (Good & Hyman, 2020). Inducing envy in others, such as through consumption, may also promote purchase intent (Hyman et al., 2002; Van de Ven et al., 2011). Anticipating the envy from others or jealousy of others' accomplishments can increase FOMO when consumers consider buying during the big promotional event in which a lot of people are participating at that moment. Based on the research model of Megan C. Good and Michael R. Hyman (2020), the authors propose that FOMO will increase when customers believe they will be envied by others whenever considering purchasing at a big promotional event attended by a large number of people.

#### (iii) Comforting Rationalization (ComRat)

Comforting rationalization is comforting arguments that refer to "events and experiences you are afraid to miss out on that don't really matter." Comforting rationalization in the context of FOMO entails adopting a pessimistic attitude and doing a cost-benefit analysis in order to minimize enjoyment while accepting other alternatives in order to obtain satisfaction (Megan C. Good & Michael R. Hyman, 2020).

#### (iv) Herd Behaviour (HB)

In this study, herd behavior is examined on two aspects: Normative Herd Behavior and Informational Herd Behavior (Inwon Kang et al., 2020). Consumers are positively impacted by others' interests and behaviors in terms of obtaining information, comprehending reality, maintaining relationships, and developing their own values (Wood & Hayes, 2012). Furthermore, Zi Cheng Wesley Lim (2016) outlined the moderating function of the two components "informational" and "normative" in consumer susceptibility

to interpersonal influence (also referred to as herd behavior) when validating the relationship between tendency towards FOMO and purchase intention. The research also found that one's purchase intention and behavior or brand preference are influenced by purchase decisions from those around him/her.

#### 3. Method

The study employs qualitative and quantitative methods to accomplish the research objectives. While the qualitative method is used to explain the feasibility of applying the research model in Vietnam, the quantitative method is used to test the research hypotheses. Primary and secondary data are both used in this study.

## 3.1. Research model and hypotheses

Based on the research model of Megan C. Good & Michael R Hyman (2020) together with the theoretical synthesis of related previous studies, as well as the consultation of experts conducted by qualitative interviews, the research model and hypotheses are proposed

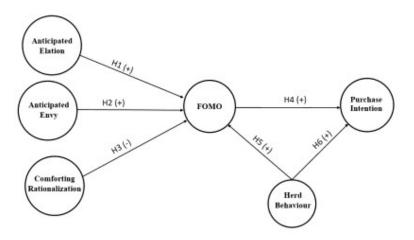


Figure 3.4 - Proposed research model

Source: Authors, 2021

as follows:

The impacts on FOMO in the context of big promotional events on e-commerce platforms:

**H1:** Anticipated elation has a positive effect on FOMO when customers make online purchases during big promotional events on e-commerce platforms.

**H2:** Anticipated envy has a positive effect on FOMO when customers make online purchases during big promotional events on e-commerce platforms.

**H3:** Comforting rationalization has a negative effect on FOMO when customers make online purchases during big promotional events on e-commerce platforms.

**H4:** Herd behavior has a positive effect on FOMO when customers make online purchases during big promotional events on e-commerce platforms.

The impacts on purchase intention in the context of big promotional events on e-commerce platforms:

**H5:** FOMO has a positive effect on purchase intention when customers make online purchases during big promotional events on e-commerce platforms.

**H6:** Herd behavior has a positive effect on purchase intention when customers make online purchases during big promotional events on e-commerce platforms.

#### 3.2. Procedures

First, the authors carried out a qualitative research through two interviews: (1) interviewing marketing experts and e-commerce experts in person by giving related questions which helped show the rationality of the variables and develop the research hypotheses; (2) in-depth group interviews about the direct research subjects related to 06 topics with the goal to assess the relevance of the research variables and scales.

Next, the authors conducted quantitative research by collecting primary data through an online questionnaire survey with the interviewees who are the undergraduates at universities in Hanoi. After 17 days (from February 18 to March 6, 2021), the authors collected 503 online responses with 472 qualified responses for further analysis. The objective of the quantitative research is to test the research model and hypotheses as well as determine the reliability of the variables that are measured.

## 3.3. Data collection and analysis

Secondary data for the study were collected from research papers, academic theses, and journals officially published nationally and internationally. Based on these materials, the authors analyzed, researched, compared and synthesized to establish the proposed research model and the scale for the variables.

Primary data were collected from both qualitative and quantitative research with the aim of identifying variables and testing the model. Due to the impact of the COVID-19 pandemic, primary data collection was mainly done through online questionnaire surveys on social networking platforms such as Facebook and Zalo. The authors also sent the questionnaire surveys to experts and posted them on forums in which there were potential candidates from a number of universities in Hanoi. Then, the collected data were processed using SPSS 22.0 and SmartPLS 3.0. Cronbach's Alpha reliability test, exploratory factor analysis, SEM analysis techniques were used to test the data, determine how the variables are measured and the relevance of the research model and hypotheses.

#### 4. Results

## Cronbach's Alpha Reliability Test

Analysis results of internal consistency is presented in Table 4.1. Values of Cronbach's Alpha range from .817 to .893, meaning that the internal consistency is good. In other words, indicators in each variable reflect the same underlying entity.

**Table 4.1 Analysis of Internal Consistency** 

Variables	Cronbach's Alpha	Number of items
Anticipated Elation (AE)	0,856	5
Anticipated Envy (AEnvy)	0,861	3
<b>Comforting Rationalizations (ComRat)</b>	0,893	4
Fear of Missing Out (FOMO)	0,872	5
Herd Behavior (HB)	0,817	4
Purchase Intention (PI)	0,822	3

Source: Authors, 2021

# **Exploratory Factor Analysis**

The results of exploratory factor analysis (EFA) stop at the first rotation. The analysis results show that the factor loading of all factors are greater than 0.5. Kaiser-Meyer-Olkin measure of sampling adequacy is 0.898. P-value of Bartlett's test of Sphericity is 0.000. Total variance extracted is 62.536%. Therefore, all variables are kept and qualified for further analysis.

Table 4.2 KMO and Bartlett's Test of Sphericity

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.898
Bartlett's Test of Sphericity	Approx. Chi-Square	5953.975
	df	276
	Sig.	.000

Source: Authors, 2021

## **Structural Equation Modeling**

Test of measurement model shows that composite reliability coefficients (CR) are greater than 0.7 and the average variance extracted (AVE) is greater than 0.5 with anticipated elation (AE) having the least value of 0.638. The VIF values are less than 5 in the collinearity test with the greatest value of 2.692. Test of structural model shows that Chi-square

coefficient is 895.448 and the p-value is 0.000. Moreover, according to Hulland (1999), the model is regarded to be in agreement with the data if SRMR is less than 0.1. As a result, the research model is found to be acceptable for the study area in Hanoi, with SRMR of 0.061.

Regression test 1: the influence of Anticipated Elation (AE), Anticipated Envy (AEnvy), Comforting Rationalizations (Comrat) and Herd Behavior (HB) on Fear of Missing out (FOMO).

Table 4.3 Model Summary of regression test 1

Model	R Square	Adjusted R Square
	0.467	0.462

Source: Authors, 2021

**Table 4.4 Coefficients of regression test 1** 

Model	<b>Unstandardized Coefficients</b>		t	Sig.
	Beta	Standard Deviation (STDEV)		
$AE \rightarrow FOMO$	0.349	0.046	7.494	.000
$\mathbf{AEnvy} \to \mathbf{FOMO}$	0.171	0.040	4.357	.000
$ComRat \rightarrow FOMO$	-0.290	0.036	7.668	.000
$HB \rightarrow FOMO$	0.272	0.044	6.326	.000

Source: Authors, 2021

The results of hypothesis test through SEM analysis show that R-square is 0.467, indicating that the factors in the study account for 46.7% to the change of FOMO. The Beta coefficients of AE, AEnvy, Comrat and HB to FOMO are 0.349, 0.171, -0.290 and 0.272 respectively with independent variables in the study model statistically significant at the level of 5%.

Regression test 2: the influence of Fear of Missing out (FOMO) and Herd Behavior (HB) on Purchase Intention (PI).

Table 4.5 Model Summary of regression test 2

Model	R Square	Adjusted R Square
	0.342	0.339

Source: Authors, 2021

**Table 4.6 Coefficients of regression test 2** 

Model	Unstandardized Coefficients		t	Sig.
	Beta	Standard Deviation (STDEV)		
$\mathbf{FOMO} \to \mathbf{PI}$	0.460	0.041	11.337	.000
$HB \to PI$	0.210	0.054	3.495	.000

Source: Authors, 2021

The results of hypothesis test through SEM analysis show that R-square is 0.342, indicating that the factors in the study account for 34.2% to the change of PI. The Beta coefficients of FOMO and HB to PI are 0.460 and 0.210 respectively with independent variables in the study model statistically significant at the level of 5%.

In summary, results of regression analysis are shown in table 4.7.

Table 4.7 Summary of overall findings

Results
Supported

Source: Authors, 2021

Based on the finding analysis, the authors are able to prove (1) Anticipated elation has a positive effect on FOMO when customers make online purchases during big promotional events on e-commerce platforms; (2) Anticipated envy has a positive effect on FOMO when customers make online purchases during big promotional events on e-commerce platforms; (3) Comforting rationalization has a negative effect on FOMO when customers make online purchases during big promotional events on e-commerce platforms; (4) Herd behavior has a positive effect on FOMO when customers make online purchases during big promotional events on e-commerce platforms; (5) FOMO has a positive effect on purchase intention when customers make online purchases during big promotional events on e-commerce platforms; and (6) Herd behavior has a positive effect on purchase intention when customers make online purchases during big promotional events on e-commerce platforms; make online purchases during big promotional events on e-commerce platforms.

#### 5. Discussion and Conclusion

The researchers introduced a framework that shows the impact of FOMO on purchase intention of discounted items on e-commerce platforms in Vietnam. The implementation of the research review and the actual survey of the author's team has shown and proved (1) Anticipated elation, anticipated envy, comforting rationalization, and herd behavior have positive/negative impacts on Fear of Missing Out; and (2) Fear of Missing Out and herd behavior have positive influences on purchase intention.

This paper will go through two groups of hypotheses in the study as follows.

Group 1: The relationship between Anticipated elation, Anticipated envy, Comforting rationalization, Herd behavior and FOMO.

The research findings show that anticipated elation, anticipated envy, and herd behavior have multiple regression results on FOMO of 0.349, 0.171, and 0.272 respectively. These findings prove that the three factors have positive and significant impacts on FOMO. Comforting rationalization, on the other hand, has the multiple regression result on FOMO of -0.290. This finding prove that this factor has a negative and significant impact on FOMO.

Anticipated elation, as the most direct factor influencing FOMO according to this research's findings, can be properly understood and leveraged by marketers by: (1) promoting the enjoyment of the experience rather than the products themselves; (2) creating striking images and messages; and (3) convincing customers to predict positive future consumption outcomes.

Although anticipated envy is the lowest among the four factors affecting FOMO ( $\beta$  = 0.171), that consumers predict themselves will make others jealous when owning a product at an affordable price with accompanied gifts also urges them not to miss out the opportunity to purchase the product. Marketers can (1) arouse consumers' competitiveness and self-expression, (2) publish a specific number of people who have won the opportunity to buy a good product at a good price, or the number of people who have a desire to own that product, (3) encourage customers to share the "results" they have obtained in each promotional event on their personal social networks.

According to the findings, comforting rationalization, with the coefficient of -0.290, reducing the effect of fear of missing out. Although this factor can be harmful to businesses when using FOMO marketing strategies, if marketers know how to use them effectively and control them appropriately, they can still elicit purchase intentions from customers by (1) reducing alternatives and (2) emphasizing the value that customers can receive when they participate in the promotional event.

*Group 2: The relationship between FOMO, Herd behavior and Purchase intention.* 

The research findings show that FOMO and herd behavior have multiple regression results on purchase intention of 0,460 and 0,210 respectively. These findings prove that the two factors have positive and significant impacts on purchase intention.

The research shows that FOMO positively influences Purchase intention, which coincides to the findings of the previous studies (Zi Cheng Wesley Lim, 2016; Good &

Hyman, 2020). The authors, however, are able to prove the direct impact of FOMO to purchase intention.

The results showing the impact of herd behavior on purchase intent do not demonstrate a strong influence purchase intention as compared to the other factors. This may be because when asking others about a product, individuals will have more knowledge about it. However, this does not necessarily lead to the customer's purchase intention because information about the product can be either positive or negative.

Thereby, based on FOMO, marketers can (1) convey scarce messages about time and product availability, (2) emphasize what customers are about to miss, and (3) design an ecommerce website as a social network. Based on herd behavior, marketers can (1) encourage customers to comment or recommend the purchased products, (2) build functions on the ecommerce platform to inform about purchasing status of customers' friends, however, when taking this measure, businesses need to be careful in using consumers' private information, and (3) ncrease the credibility of herd behavior by ensuring product quality, which means product quality must coincide to the advertisement.

Further research can expand the scope of the study to include other types of customers so that differences in psychology and in the relationship between FOMO and purchase intent, if any, can be easily compared. Future research should also focus on specific industries, such as luxury goods, or broaden the scope of the study beyond the commercial context. Furthermore, herd behavior should be taken into account and measured as a moderating variable that influences the relationship between FOMO and purchase intent.

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