

Louvain School of Management

The role of FOMO as an amplifier of network effects on digital marketplaces.

Author(s): Colonello Lydia 82192400 & Bizet Lionel 91762400
Supervisor(s): Paul Belleflamme
Academic year 2025-2026
Dissertation for the master of Management Sciences with specialization track
Master subject and focus European Business and International Finance
Daytime schedule

Abstract:

This thesis examines how the "fear of missing out" (FOMO) acts as a psychological mechanism amplifying network effects and stimulating user engagement on digital marketplaces. While FOMO has already been studied in the context of social networks, it remains largely unexplored from an economic, marketing and social dynamics perspective. This study proposes a psycho-economic framework drawing on several theories, social comparison, self-determination and network effects. In this framework, FOMO acts both as a mediator, converting platform activity signals into individual behaviours and as a moderator, amplifying these signals among users exhibiting high levels of FOMO.

A mixed-methods approach was adopted, combining an online survey conducted among 184 individuals aged 18 to 30 and ten semi-structured interviews. The results partially validate the conceptual model, a positive and significant correlation was observed between FOMO and social signal-generating behaviours ($r = 0.42$; $p < 0.001$). Furthermore, FOMO proves to be a significant predictor of user engagement, accounting for approximately 22.8% of its variance ($R^2 = 0.228$; $\beta = 0.68$).

However, no significant difference was observed across platforms regarding FOMO intensity, suggesting that FOMO is more deeply rooted in individual psychological profiles than in the algorithmic design specific to each platform. Qualitative findings further reveal an awareness paradox, users recognise persuasive tactics while remaining susceptible to them. These results contribute to bridging the gap between digital psychology and platform economics, with implications for platform design, marketing strategy and the ethics of digital consumption.

UNIVERSITÉ CATHOLIQUE DE LOUVAIN
Louvain School of Management

Place des Doyens, 1 bte L2.01.01, 1348 Louvain-la-Neuve
Boulevard Emile Devreux 6, 6000 Charleroi, Belgique
Chaussée de Binche 151, 7000 Mons, Belgique

www.uclouvain.be/lsm

Foreword

DECLARATION

The declaration below is **mandatory and must appear on the first page (after the front page) of your master's thesis.**

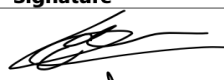
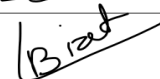
STATEMENTS ON YOUR USE OF GENERATIVE AI

Confirm the following statements:

Statements on responsible use of generative AI	Confirmation: Yes
The content of my/our master's thesis is my/our original input, even if I/we used generative AI to help prepare it.	☒
I/we master the theories, tools and methods that I/we use for the thesis.	☒
I/we verified that the output presented in the thesis is accurate and valid, and that it contains no hallucination, no false reference, etc.	☒
I/we acknowledge that I/we master the final output and that I am/we are able to explain it and answer questions about it.	☒

SIGNATURE

Sign your declaration:

Author last name, first name(s)	Date	Signature
1 Colonello Lydia	12/05/2026	
2 Bizet Lionel	12/05/2026	

In preparing this thesis, the authors used ChatGPT, Claude AI and Grammarly exclusively for linguistic and editorial purposes such as rephrasing sentences to improve clarity, enhancing style and correcting grammatical errors. However, every idea, argument and line of reasoning in this thesis is our own. The theoretical framework, the conceptual model, the hypotheses, the data collection and analysis, and the interpretation of results all emerged from our own reading, thinking, and discussions, not from any automated tool.

Wherever AI was involved in refining the phrasing, we carefully reviewed and edited the output to make sure it accurately reflected what we actually meant and aligned with the goals of our research. We also independently verified every reference used.

The authors of this work declare on their honour that it is the result of their own original work. Any use of the ideas or statements of a third party, whether through translation or information processing software, is clearly identified and referenced as such. .

Acknowledgements

We wish to express our deepest gratitude to all those who, directly or indirectly, contributed to the completion of this dissertation.

First and foremost, we would like to thank our loved ones who supported us throughout this emotionally rich period, for their careful reading and their kind listening, which helped improve and shape this work.

We would also like to thank those who participated in the development of this dissertation through their responses and their involvement. Thank you to the ten participants in our interviews who, through our exchanges, helped make this dissertation more concrete and well-founded.

We would then like to extend our special thanks to our supervisor, Paul Belleflamme, for the trust he placed in us and for the invaluable advice he provided throughout this work. His availability, his always insightful feedback and his expertise were a true lifeline during the completion of this dissertation and continuously pushed us to deepen our research.

To conclude, after five years of hard work, we close this chapter with the pride of having seen this project through to completion. This experience has profoundly enriched us, and we now open the door to a new chapter of our lives.

Table of Content

Introduction	1
Chapter 1 : Literature Review	6
1. FOMO in digital environments	7
1.1 FOMO on social media	7
2. FOMO, digital marketing, and purchasing behavior	8
2.1 FOMO and impulsive buying	8
2.2 FOMO in e-commerce and social commerce	9
2.3 FOMO and engagement	9
3. Network effects and digital platforms	10
3.1 Theory of network effects	10
3.2 Network Effects in Digital Marketplaces	10
3.3 Psychology of Network Effects	11
3.4 Integrating FOMO as a Driver	11
4. FOMO as a mechanism amplifying network effects	12
4.1 Existing Contributions from the Literature	13
4.2 Theoretical Gaps and Fragmentation	14
4.3 Proposed Conceptual Model	15
Chapter 2: Methodology	17
1. Theoretical framework	17
2. Research hypotheses	18
2.1 H1 - FOMO and social signals	19
2.2 H2 - FOMO, engagement and attractiveness	20
2.3 H3 - The role of algorithmic mechanisms	21
2.4 Articulation between the three hypotheses and the research question	22
3. Data and Data Collection	22
3.1 Overall research design	22
3.2 Population and sampling	22
3.3 Quantitative questionnaire	23
3.4 Qualitative interviews	23
4. Variables and Measures (Questionnaire)	23
Chapter 3: Analysis	27
1. Purpose of the analysis	27
2. Qualitative analysis	27
2.1 Profile and relationship with marketplaces	28
2.2 FOMO and the fear of missing out on a deal	30
2.3 The influence of others' opinions, popularity and behaviour	32
2.4 The role of notifications, emails and emergency messages	33
2.5 Commitment, loyalty and self-control	35
2.6 Final reading by assumption	36
3. Quantitative analysis	38
3.1 Sample description	38
3.2 Descriptive statistics	39

3.3 Reliability analysis	40
3.4 Analysis of H1	40
3.5 Analysis of H2	40
3.6 Analysis of H3	41
4. The link between qualitative analysis and quantitative analysis	42
4.1 A global view of purchasing behavior	42
4.2 FOMO as part of the online experience	42
4.3 FOMO truly influences engagement	43
4.4 All platforms are similar in this respect	43
5. Discussion of results	44
5.1 Alignment with existing literature	44
5.2 Extension of the literature	45
5.3 Divergences from the literature	46
5.4 Theoretical implications	47
Conclusion	48
1. Main findings	48
2. Theoretical implications	50
3. Managerial implications	51
4. Ethical considerations	52
5. Limitations of the research	52
6. Areas for future research	53
7. Personal learning and professional development	54
Bibliography	55

Introduction

"Offer valid for the next 10 minutes," "Stock is limited," "30 people are viewing this product right now." Behind these phrases lies a formidable psychological mechanism that digital marketplaces have learned to master: the Fear of Missing Out.

We are living in an age where the digital world affects every moment of our lives and shopping is no longer limited to the simple act of buying a good or service. It has become a social, connected and permanent practice, driven by constant flows of content, recommendations and signals of collective activity. Platforms like Amazon, Vinted, Zalando and TikTok Shop are no longer simply digital shopping malls. They are advanced ecosystems that aim to attract and retain users by using deep economic and psychological mechanisms.

Among these psychological factors, one of the most powerful is what the academic literature refers to as FOMO, an acronym for Fear of Missing Out. This phenomenon, initially studied in the context of social media, describes a form of social anxiety arising from the apprehension of missing out on experiences that others appear to be having (Przybylski & al., 2013; Gupta & Sharma, 2021). On digital shopping platforms, this fear manifests in very concrete ways: a user confronted with messages such as "Only 2 items left in stock," "47 people are currently viewing this product," or a countdown timer indicating the imminent end of a promotion experiences a form of psychological pressure that may prompt swift, and sometimes impulsive action.

This is not a negligible phenomenon. Recent studies have indicated that FOMO is particularly prevalent in young adults aged 18-30, a generation who has grown up in a pervasive digital environment and whose consumption behaviours are significantly impacted by online social dynamics (Przybylski & al., 2013; Gupta & Sharma, 2021). This age group is now one of the main target audiences of digital marketplaces, who spend billions on marketing schemes based on scarcity, urgency and social proof.

At the same time, digital platforms derive their power from another well-documented economic phenomenon: network effects. This principle holds that the more users a platform attracts, the greater its value becomes. The more buyers a marketplace draws in, the more

sellers it attracts, reviews accumulate, activity signals multiply and the platform becomes increasingly appealing to new users. This self-reinforcing mechanism lies at the heart of the dominance model of platforms such as Amazon and Vinted, which have successfully achieved a critical mass of users that confers upon them a competitive advantage that is difficult to challenge.

At the intersection of these two dynamics psychological on the one hand, economic on the other, lies a question that remains underexplored in the literature: to what extent does FOMO act as an amplifying mechanism for network effects on digital marketplaces? In other words, does the fear of missing out reinforce the feedback loops that drive the growth and attractiveness of platforms? This is the question the present dissertation sets out to answer.

Research Question and Originality

The central research question of this dissertation is as follows: *"How does the Fear of Missing Out (FOMO) act as a psychological mechanism amplifying network effects and driving user engagement in digital marketplaces?"*

This question is genuinely novel in several respects. While FOMO has been extensively studied in the context of social media platforms (Facebook, Instagram, TikTok), its specific role within digital shopping marketplaces which combine commercial logic with social dynamics remains largely unexplored (Enginkaya & Sağlam, 2025; Tresna, 2025). Most existing work conceptualises FOMO either as a driver of individual anxiety or as a trigger for isolated impulsive purchases without examining its effects at the collective, platform-wide level.

The literature on network effects, moreover, is primarily anchored in platform economics and business strategy, focusing on mechanisms such as critical mass, tipping points and user lock-in. While largely overlooking the psychological dimension particularly the role of emotions and cognitive biases in sustaining these self-reinforcing loops (Rochet & Tirole, 2003; Katz & Shapiro, 1985).

More specifically, this dissertation seeks to bridge this gap by articulating both approaches. Within an integrated conceptual framework, in which FOMO plays a dual role as both a mediator and a moderator between platform activity signals and user engagement behaviours.

Finally, few studies have attempted to empirically test this relationship using a sample of young adults in real-world marketplace usage contexts. This dissertation thus makes an empirical contribution by combining quantitative and qualitative data to capture the full complexity of the phenomenon.

Methodological Approach

This dissertation uses a mixed-methods design to explore this question, combining both quantitative and qualitative approaches. Theoretical motivation for this choice, the research question deals with two dimensions: individual psychological mechanisms and collective platform dynamics. Which cannot be fully captured at once using one methodological approach. The quantitative strand shows that there are relationships and the strength of these relationships, the qualitative strand shows the how and why of these relationships.

On the quantitative side, an online questionnaire was completed by 184 valid respondents aged 18 to 30, all of whom were active users of at least one digital marketplace in the three months preceding data collection. The questionnaire measured several key variables: marketplace-specific FOMO levels, users' behavioural engagement, social signal-generating behaviours (reviews, recommendations, shares), perceived platform attractiveness and the perceived intensity of algorithmic mechanisms. Statistical analyses, including Pearson correlation, linear regression and ANOVA were conducted to test three research hypotheses concerning the relationships between FOMO, engagement, social signals, and algorithms.

On the qualitative side, ten semi-structured interviews were carried out with young adults that fulfilled the same selection criteria. These conversations provided a deep dive into how users understand, experience and make sense of the FOMO mechanisms used by platforms such as urgency messaging, notifications, social proof and algorithmic recommendations. The qualitative analysis provided further depth and nuance to the statistical findings, emphasising the complexity of decision-making for individuals.

Main Findings

This research partially validates the proposed conceptual framework and makes several contributions to the existing literature.

First, a significant positive correlation was found between FOMO levels and social signal-generating behaviours ($r = 0.42$; $p < 0.001$). This confirms the hypothesis that users with higher FOMO levels are more likely to leave a review, share a link or recommend the platform to their social circle. These observable behaviours, in turn, feed into the collective activity signals that sustain the network effects.

Secondly, FOMO was a major moderate predictor of the user engagement on the platforms, explaining approximately 22.8% of the variance of this variable ($R^2 = 0.228$; $\beta = 0.68$; $p < 0.001$). That is, the greater the fear of missing an opportunity, the more likely the user is to visit the platform, participate in promotions and spend time browsing recommendations.

Third, and more surprisingly, no significant difference in FOMO levels was observed across the platforms used ($F(12,171) = 1.37$; $p = 0.184$). This result suggests that FOMO is a cross-cutting psychological mechanism that is relatively independent from platform-specific features or algorithmic designs. However, it is important to note that this result could be partly due to a methodological limitation. The ANOVA used to test H3 compares mean FOMO levels across platforms but cannot establish moderation in the strict statistical sense, which requires an interaction term within a regression framework. It is primarily the user's psychological profile and emotional context, rather than the technical affordances of platforms that determines the intensity of the FOMO experience.

The qualitative data validate these quantitative findings and bring to the fore, especially, a paradox of awareness: most of the respondents are perfectly aware of the persuasive techniques that are being used against them, scarcity messages, countdown timers, social proof, but this awareness does not protect them from their effects. Eventually, some purchase specifically to “close the loop” and relieve the psychological discomfort that these signals create.

Dissertation Structure

This dissertation is divided into three chapters, progressing logically from theoretical framing through methodological presentation to data analysis.

The first chapter is devoted to the literature review. It establishes the theoretical foundations of the research by organising four major axes: the conceptualisation of FOMO in digital environments and its relationship to user behaviour on social media, the role of FOMO in digital marketing and online purchasing behaviour, network effect theory and its applications to digital platforms. And, finally, a synthesis of these contributions leading to an integrated conceptual model in which FOMO is theorised as an amplifying mechanism of network effects.

The second chapter presents the methodology employed to empirically test this model. It sets out the theoretical framework, the research hypotheses, the design of the quantitative questionnaire and qualitative interview guide, as well as the data collection and analysis procedures.

The third chapter is devoted to data analysis. It presents in turn the results of the qualitative analysis organised around six thematic categories drawn from the interviews and the results of the quantitative analysis, encompassing sample description, descriptive statistics, scale reliability analysis, and hypothesis testing. This chapter concludes with a contextualisation of the findings in relation to existing literature, highlighting points of convergence, theoretical extensions, and observed divergences, as well as a discussion of the complementarity of the two methodological approaches.

Chapter 1 : Literature Review

This literature review aims to build a comprehensive understanding of FOMO and digital platforms in order to address the following research question: “How does the Fear of Missing Out (FOMO) act as a psychological mechanism amplifying network effects and driving user engagement in digital marketplaces?”

As established in the introduction, FOMO is commonly defined as a form of social anxiety arising from the fear of missing rewarding experiences or opportunities that others seem to enjoy, which pushes individuals to stay constantly connected and attentive to what happens online (Przybylski & al., 2013; Gupta & Sharma, 2021). In line with empirical findings showing that FOMO tends to be higher among younger individuals and decreases with age (Milyavskaya & al., 2018), our analysis focuses on young adults aged 18-30 who constitute one of the most vulnerable and highly connected groups in digital environments.

We structure the literature in four parts, starting with individual psychological processes and ending with collective dynamics on platforms.

First, we examine how FOMO has been conceptualized and studied in digital environments, with a particular focus on social media and communication technologies. This section reviews key psychological theories (such as Social Comparison Theory, Self-Determination Theory and Uses and Gratifications) and empirical findings on FOMO’s links with usage intensity, compulsive checking and well-being.

Secondly, we focus on digital marketing and consumer behaviour to look at how FOMO is actively used in e-commerce and social commerce. This section shows its role in impulsive buying, limited-time offers, scarcity strategies and app engagement, and explains how it influences users’ engagement and purchase decisions on digital platforms.

Third, we review the literature on network effects and digital platforms, drawing on platform economics and management studies. This section clarifies the distinction between direct and indirect network effects, introduces concepts such as critical mass, tipping point, lock-in and feedback loops. In fact, it highlights how user-generated content, reviews and activity signals contribute to the growth and competitiveness of marketplaces.

Finally, we bring these strands together by examining how FOMO can be theorized as a psychological mechanism that amplifies network effects. This last section synthesizes existing contributions and identifies the main theoretical gaps. Notably the weak integration between psychological and economic approaches and proposes a conceptual model in which FOMO acts as both a mediator and a moderator between network signals and engagement outcomes on digital marketplaces.

1. FOMO in digital environments

As highlighted by Przybylski and al. (2013) and Gupta and Sharma (2021), FOMO is characterized as an anxiety driven by the fear of missing out on rewarding experiences or information shared online which is especially common among highly connected young adults. This phenomenon has been related to needs for belonging and social comparison, as well as to individual factors like self-control. In particular, low self-control and high expectations related to social media predict FOMO and problematic Internet use (Wegmann & al., 2017; van Rooij, 2022).

1.1 FOMO on social media

In social media environments, various studies support the fact that high levels of FOMO are related to high levels of use, compulsive checking behavior and high levels of sensitivity to notifications. Individuals tend to interact more frequently, interrupt their current activities more easily and feel pressure to monitor their peers' stories and presence in real-time (Beyens & al., 2020; Wegmann & al., 2017). This can be explained by the fact that constant content flow and permanent visibility of peers' activities create a feeling of being 'behind' or 'excluded' when one does not interact with peers in real-time (Przybylski & al., 2013).

Nevertheless, this increased level of use comes with a risk to individuals' well-being. Several studies have found that FOMO correlates with increased levels of anxiety, stress and sadness, as well as lower life satisfaction and Internet communication disorder (Wegmann & al., 2017; Elhai & al., 2021; Gupta & Sharma, 2021). FOMO thus seems to be a complex mechanism that not only enhances individuals' engagement and participation in online environments but may come at a cost to their well-being and their tendency to develop problematic Internet communication behavior.

Beyond these general correlations, some studies have discovered more specific consequences for mental health. Wegmann and al. (2017) demonstrates that online FOMO, combined with high expectations of communication apps, is a factor in the manifestation of symptoms of internet communication disorders such as difficulty disconnecting, irritability when the smartphone is unavailable, or neglect of other activities. Furthermore, Elhai and al. (2021) emphasize that FOMO exacerbates pre-existing vulnerabilities. That will reinforce the use of social media as a means of emotional avoidance, leading to a vicious cycle of negative emotions, compulsive use and reduced well-being.

In summary, the literature consistently describes FOMO as a psychological mechanism rooted in social comparison and unmet belonging needs which is expressed in compulsive checking behaviours, heightened notification sensitivity and increased platform engagement (Przybylski & al., 2013; Wegmann & al., 2017; Gupta & Sharma, 2021). Crucially, however, this body of work has been developed almost entirely in the context of social media platforms geared towards communication and self-presentation.

Digital marketplaces, a structurally distinct environment that combines commercial logic, social proof signals and algorithmic curation, have received comparatively little attention. In particular, existing research fails to address the possibility that FOMO-driven behaviours on marketplaces might aggregate to collective dynamics rather than remain individual-level phenomena. This gap provides the motivation for the next section that examines how FOMO is deliberately mobilised by digital marketing strategies and the consequences this has for purchasing behavior.

2. FOMO, digital marketing, and purchasing behavior

2.1 FOMO and impulsive buying

According to the literature by Gupta and Sharma (2021) and Mustikasari and al. (2025), on digital marketing, there is a significant link between FOMO and impulsive or compulsive purchasing behaviors, particularly among young consumers influenced by social media and online platforms. Numerous studies have shown that FOMO is one of the main drivers of impulsive purchasing behavior, especially among consumers whose purchasing decisions are influenced by perceptions of scarcity, limited promotional offers or exclusivity (Mustikasari & al., 2025; Enginkaya & Sağlam, 2025).

FOMO is also more significant among younger generations, particularly among those whose buying behavior is influenced by the relationship between FOMO as a mediator between hedonic motivation, exposure to content and purchase intention (Bui & al., 2021; Putri & al., 2025).

2.2 FOMO in e-commerce and social commerce

In the context of e-commerce and social commerce, this phenomenon is reinforced by various mechanisms that include flash sales, stock counters, countdown timers and live shopping, which contribute to feelings of urgency and artificial scarcity (Mustikasari & al., 2025; Enginkaya & Sağlam, 2025). In this manner, FOMO is revealed to play an important role in facilitating the relationship between promotional strategies, scarcity marketing, influencers and users in terms of their outcomes in relation to engagement and conversion on platforms (Bui & al., 2021; Gupta & Sharma, 2021). These strategies are not only effective in facilitating purchases but also in creating loyalty and repurchase intentions by emphasizing the importance of the platform as a space where users cannot afford to miss out (Mustikasari & al., 2025).

2.3 FOMO and engagement

Lastly, FOMO contributes to the “stickiness” of consumer application and engagement through push notifications, badges and reminders like “X has just purchased this product,” “limited stock.” And, also reminders about abandoned shopping carts which instigate the need for constant and continuous interactions with the application (Enginkaya & Sağlam, 2025; Elhai & al., 2021).

Overall, the literature by Mustikasari and al. (2025) has clearly demonstrated that FOMO can lead to consumer purchasing, engagement and impulsivity behavior at the individual level. However, it has paid little attention to the role that these interactions play in facilitating collective network effects at the marketplace level, that is, how they make the platform more appealing to other consumers through visible cues and increased consumer interactions (Mustikasari & al., 2025).

3. Network effects and digital platforms

The concept of network effects is a major theme in the study of digital platform growth and it is often discussed from an economic or strategic point of view, while the psychological aspect, i.e., FOMO, remains relatively less explored. Network effects describe the way in which a digital platform creates value through self-reinforcing mechanisms as long as FOMO accentuates these processes by adding a sense of social pressure and fear of missing out to them (Neha & Walia, 2025; Enginkaya & Sağlam, 2025; Bui & al., 2021).

3.1 Theory of network effects

Two main kinds of network effects mechanisms can be differentiated. First, direct network effects are present when the value of a platform increases for every user as the total number of users increase. Such as in the case of social networks, where every new user increases the value of the network of potential contacts and interactions for all users. Indirect network effects, instead, are based on complementarities between two or more sides of the platform. A classical example is the case of a marketplace, where every new buyer increases the number of sellers, hence the value of the platform for all buyers.

The literature by Enginkaya and Sağlam (2025) also points to a number of important concepts that relate to the above dynamics. Thus, critical mass refers to a certain level of users that a platform needs to reach in order to become attractive enough to sustain growth. After that, a tipping point may be reached, i.e., a point after which growth will be rapid and nonlinear with a strengthening of the competitive advantage of the platform over others. Lock-in refers to a situation where, after a certain amount of value has been accumulated on a certain platform, users become reluctant to leave it because of the costs involved or because they will lose that value if they were to leave. Feedback loops, finally, refer to a process through which an increase in users and interactions will lead to even more users and interactions with a strengthening of the competitive advantage of a certain platform (Enginkaya & Sağlam, 2025).

3.2 Network Effects in Digital Marketplaces

In all these platforms, including social commerce, trading and e-commerce sites, the size of the user base, reviews and user-generated content (UGC) increase the network effects. This is because these elements increase the liquidity and attractiveness of the platform. The more the

users, the more sellers are attracted, which increases the trust levels based on reviews and ratings (Enginkaya & Saglam, 2025; Kurnianingsih & al., 2024). Additionally, activity signals increase the attractiveness of the platform. This includes notifications such as “X people are viewing this product,” “10 sold today,” or other notifications that increase the sense of vitality, hence encouraging sales (Enginkaya & Saglam, 2025; Bui & al., 2021).

3.3 Psychology of Network Effects

This is made possible through various psychological biases, including social proof, imitation and herding, whereby the masses are influenced to follow the majority in order to avoid feelings of isolation or error, especially in the context of social media platforms (Enginkaya & Salam, 2025; Tresna & al., 2025). The process is also made easier through the use of influencers and algorithms. These take advantage of the sense of belonging that is characteristic of social commerce platforms. This enables the rapid achievement of critical masses through the process of viral diffusion (Enginkaya & Salam, 2025; Bui & al., 2021).

The concept of network effects taps into various psychological biases including social proof, which is a phenomenon whereby individuals conform to what others do as a measure of appropriateness. Herding behavior, meanwhile, refers to a phenomenon whereby individuals conform to what the majority do as a result of fear of making an individual mistake or because of group belonging motives (Tresna & al., 2025; Ali & al., 2024). These effects are most evident within social media platforms or marketplaces, which individuals conform to what others do as a result of fear of being isolated or misjudged (Enginkaya & Salam, 2025). Moreover, influencers or algorithms are also responsible for speeding up this process through leveraging belonging motives thus helping to cross the critical mass threshold through viral cascades (Enginkaya & Salam, 2025; Bui & al., 2021).

3.4 Integrating FOMO as a Driver

From an economic and strategic point of view, traditional techniques are dominant in terms of pricing strategies and competitive barriers. Nonetheless, psychology is still in its infancy in terms of theory. FOMO acts as a motivator through loss aversion and social comparison. It creates emotional loops from feedback loops in terms of scarcity, urgency and social pressure (Enginkaya & Salam, 2025; Bui & al., 2021; Tresna & al., 2025).

FOMO-related activity signals refer to the compulsive behavior on social commerce platforms in an attempt to avoid missing out on other users' purchases or experiences. These platforms, combining social interactions and online shopping, accelerate tipping points and lock-in effects. Although this behavior facilitates impulsive buying behavior, it also leads to feelings of anxiety, overconsumption and fatigue (such as PSMU (Problematic Social Media Use) and nomophobia) (Enginkaya & Salam, 2025). It is important to raise awareness in terms of increasing transparency in order to address the balance between design and well-being (Kurnianingsih & al., 2024; Tresna & al., 2025).

The platform economics literature has developed a strong explanation of network effects as self-reinforcing drivers of growth, building on the foundational contributions of Katz & Shapiro (1985) and Rochet and Tirole (2003). Furthermore, it was further developed through later studies on critical mass, tipping points and user lock-in (Enginkaya & Sağlam, 2025; Parker & al., 2016). More recent scholarship has started to recognize the role of user-generated content and activity signals, reviews, popularity counters, real-time purchase notifications in sustaining these feedback loops (Kurnianingsih & al., 2024; Neha & Walia, 2025). Yet a striking omission remains in this literature: the psychological processes by which individual users perceive and respond to these signals are largely untheorised.

Network effects are seen as structural features of platforms and the emotional and cognitive processes that turn the overall activity on the platform into the behavior of individual users are excluded. This is precisely where the concept of FOMO becomes theoretically indispensable. If activity signals partly drive network effects by triggering loss-aversion and social comparison in individual users, then FOMO is not just a by-product of platform design, it is an amplifying mechanism embedded in the very logic of network growth. The next section builds this argument out in an orderly way.

4. FOMO as a mechanism amplifying network effects

This last section integrates the three strands of literature discussed above to suggest an integrated theoretical framework. The argument is developed in three stages. First, drawing on Social Comparison Theory (Festinger, 1954), we demonstrate how signals of collective activity on marketplaces systematically trigger upward social comparisons, which generate the loss-oriented anxiety that characterizes FOMO. Second, we draw upon

Self-Determination Theory (Deci & Ryan, 2000) to account for the translation of this anxiety into observable engagement behaviours. When the perception of missing out threatens the needs of autonomy and competence, users regain a sense of control through participation, buying, reviewing and sharing.

Third, we use the theory of network effects to show how these individual incentives aggregate to create collective dynamics that increase the platform's attractiveness and growth. Therefore, FOMO operates as a mediator (converting platform signals into individual behaviour) and as a moderator, heightening the influence of these signals among users with greater baseline levels of FOMO, especially young adults aged 18-30 (Milyavskaya & al., 2018).

4.1 Existing Contributions from the Literature

The literature indicates that the Fear of Missing Out increases the awareness of popularity and collective activity as a catalyst for direct network effects (increasing value with the density of users) and indirect network effects (complementarities between supply and demand) (Katz & Shapiro, 1985; Enginkaya & Salam, 2025). On social media and e-markets, the Fear of Missing Out is related to compulsive behaviors and instant reactions to messages received, which increases the visibility of peer behaviors and mimetic herding (Beyens & al., 2016; Tresna & al., 2025).

In the context of social commerce and digital trading, FOMO facilitates impulsive buying via scarcity marketing campaigns. These create observable transactions that help to attract new members and allow the platform to reach critical mass (Enginkaya & Salam, 2025; Kurnianingsih & al., 2024). For example, in cryptocurrency markets, FOMO facilitates speculative cascades where social signals (such as shared volume trend information) trigger mass entry that reinforces network effects via herding and viral effects (Balcilar & Ozdemir, 2023; Ivantchev & Ivantcheva, 2024). In e-commerce marketplaces, FOMO is exploited via live shopping and updates, which convert individual anxiety into collective engagement (Mustikasari & al., 2025; Neha & Walia, 2025). This creates feedback loops, where observable transactions create more FOMO. This, in turn creates more interactions and hence increases platform attractiveness (Farronato, 2020; Gawer, 2021).

Algorithmic mechanisms are further seen to strengthen personal recommendations and push notifications that utilize FOMO to attain stickiness through the conversion of individual

engagement into aggregated signals that enhance network effects (Bui & al., 2021; Elhai & al., 2021). Empirical research validates the role of FOMO as a mediator between peer content exposure and purchase or engagement intentions, especially for Gen Z users on social media platforms such as Instagram and TikTok Shops (Gupta & Sharma, 2021; Putri & al., 2025).

4.2 Theoretical Gaps and Fragmentation

The existing literature is characterised by three structural limitations. FOMO research and platform economics have evolved in parallel without meaningful cross-fertilisation: psychological accounts treat FOMO as an individual-level trait or state (Przybylski & al., 2013; Wegmann & al., 2017). By contrast, economic accounts of network effects model platform growth without reference to the emotional architecture that sustains user engagement (Rochet & Tirole, 2003; Katz & Shapiro, 1985). The limited studies that span across the two domains do so as a byproduct and not as their primary theoretical contribution (Enginkaya & Sağlam, 2025).

Second, empirical work on FOMO in commercial contexts has been largely confined to single purchase events or discrete promotional tactics, flash sales, scarcity messages, countdown timers, without examining how these micro-level interactions aggregate into the macro-level dynamics that influence platform competitiveness (Mustikasari & al., 2025; Tresna, 2025). Third, the moderating role of algorithmic mechanism, push notifications, personalized recommendations, real-time activity feeds, has been qualitatively acknowledged but not empirically tested as a boundary condition on the FOMO-engagement relationship. Below is a conceptual model to address each of these gaps.

Another gap is the fragmentation of the literature on psychology and marketing, where FOMO is conceptualized as a psychological driver of anxiety and herding (Wegmann & al., 2017; Gupta & Sharma, 2021). And the literature on economics of platforms, where network effects are conceptualized in strategic terms (critical mass, lock-in, tipping points) without the emotional component of FOMO as a "viral engine" (Rochet & Tirole, 2003).

No study has fully theorized the role of FOMO in modulating the impact of activity signals (volume, reviews) on feedback loops nor has it explored the role of FOMO in helping cross the tipping point via behavioral visibility. Current contexts are limited in their scope due to their failure to consider social marketplaces in which FOMO and algorithms drive engagement cascades (Enginkaya & Salam, 2025). The dual nature of FOMO

(overconsumption, digital fatigue) has also not been sufficiently theorized as a barrier to network effects (Jabeen & al., 2023).

4.3 Proposed Conceptual Model

To address these gaps, we propose an integrative framework that places FOMO as a mediator-moderator between network signals and engagement and network outcomes.

- **Background** : Collective activity signals (visible purchase volumes, recent reviews, “X people are viewing this product”) + algorithmic mechanisms (push notifications, personalized recommendations, time-limited promotions) → FOMO activation (loss-oriented anxiety + social comparison).
- **Processus** : These signals cause FOMO which can be seen in individual behaviors that are observable and quantifiable, such as:
 - impulsive purchasing
 - review and rating production
 - link or code sharing
 - platform recommendations to peers
- **Outcomes** : These behaviors contribute to:
 - increased engagement (session frequency, duration, participation in multi-sided features), and
 - reinforced network effects (denser activity signals → increased attractiveness → attainment of critical mass → tipping point → user lock-in).

Figure 1 presents the conceptual framework developed in this study, which recapitulates the proposed relationships between platform signals, FOMO activation, user behaviors and engagement outcomes. FOMO also functions as a moderator, its degree amplifies the impact of activity signals on observable behaviors, a phenomenon that is more pronounced among younger (18-30 years old) high FOMO profiles.

This model helps us answer our research question by revealing how FOMO translates personal psychological pressure into self-reinforcing group dynamics to build engagement and fuel marketplace dominance. This model builds upon and extends existing theories in digital psychology (Social Comparison Theory) and platform economics (theory of network effects) to create a psycho-economic model.

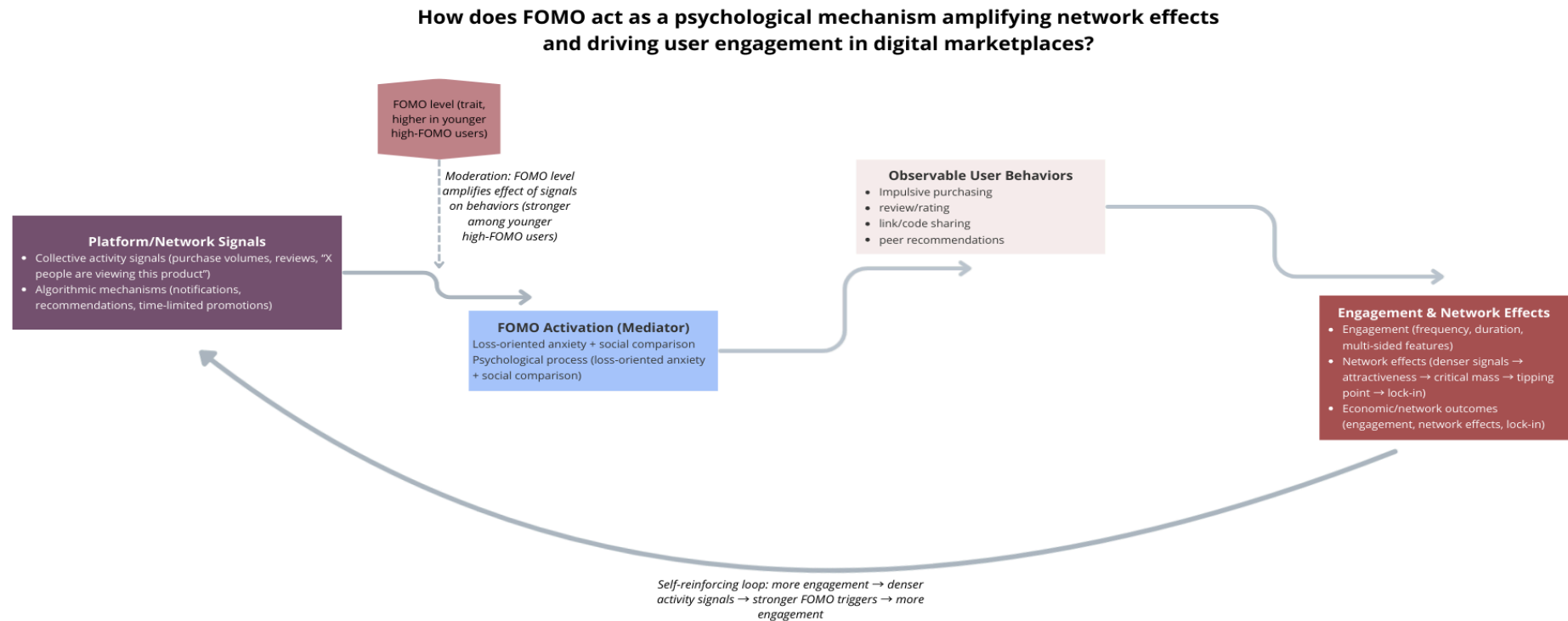


Figure 1 Conceptual framework explaining how FOMO amplifies network effects and engagement in digital marketplaces.

Note. Own elaboration.

* FOMO level is measured as a trait variable, the moderating effect is stronger among younger, high-FOMO users.

Chapter 2: Methodology

This chapter presents the methodological choices made for the empirical investigation and argues for their suitability for the research question. The central question, how FOMO acts as a psychological amplifier of network effects on digital marketplaces brings together two distinct levels of analysis: an individual psychological level (how users experience and react to FOMO) and a collective platform level (how these reactions aggregate into engagement and network dynamics). No single methodological approach can adequately represent both levels at once. A purely quantitative design would enable hypothesis testing across a large sample, but would flatten the complexity of individual decision-making processes and not capture the subjective meaning users attach to FOMO experiences.

However, a purely qualitative design would generate rich process data but would not be able to establish the generalisability or the statistical significance of the relationships proposed in the conceptual model. Thus, a mixed-methods design is not a pragmatic compromise but a theoretically motivated choice. It allows quantitative findings to establish the existence and strength of relationships while qualitative data shed light on the mechanisms and conditions under which these relationships hold (Creswell, 2019). The two strands are seen as complementary not hierarchical qualitative insights are used to contextualise, nuance and where necessary challenge the statistical results.

1. Theoretical framework

The present theoretical framework combines three main aspects, namely, social and motivational psychology theories on FOMO emergence, network effects theory. That is based on platform economics and studies in digital marketing concerning algorithmic mechanisms of user engagement and social proofs.

The research on the basis of Social Comparison Theory, Self-Determination Theory and Utilization/Gratifications Theory indicates that FOMO is a result of a preponderance of a need to belong, comparison and sometimes a lack of information/cultural fulfillment. This particularly prompts individuals, especially young adults, to stay constantly connected and most importantly, be constantly interactive through electronic communication channels.

However, at the same time, platform economics literature highlights that one of the key factors for growth for the online platform is the concept of network effects. This implies that as more and more users are added, the more attractive the platform becomes for additional customers.

Lastly, research on digital marketing, specifically on social commerce, has shed light on various mechanisms that influence FOMO even further. These include product recommendation, promotions, scarcity, notifications and UGC.

Within this framework, the construct of FOMO can be viewed as a psychological driver that may boost aggregate usage/consumption behavior as well as observed contribution behavior. These behaviors, in turn, fuel network effects thereby strengthening the overall attractiveness of digital marketplaces. This theoretical framework also incorporates Nudge Theory (Thaler & Sunstein, 2008) and Kahneman's dual-process framework (2011) as complementary explanatory tools. Scarcity messages, urgency signals and algorithmic recommendations deliberately activate System 1 thinking fast, automatic and emotion-driven, while bypassing the more deliberate System 2 evaluation. FOMO thus functions as the psychological bridge between these platform design choices and the observable engagement and social behaviors that feed network effects.

2. Research hypotheses

Based on this theoretical framework, the following hypotheses can be developed, concerning users who belong to the 18 to 30 years old group, based on the findings of our literature search. The three hypotheses form a coherent empirical sequence that directly operationalizes the conceptual model proposed in Chapter 1. In this model, FOMO acts as both a mediator converting platform activity signals into individual behavior and a moderator amplifying the impact of these signals among users with higher baseline FOMO levels. Each hypothesis addresses a specific relationship within this model, targets a gap in the existing literature and contributes to answering the central research question: how does FOMO function as a psychological mechanism that amplifies network effects on digital marketplaces?

Current studies reveal that FOMO promotes interactivity, participation and shopping in digital environments, particularly through mechanisms such as limited-time offers, influencer marketing and social proof.

For example, within digital marketplaces, this would likely result in behaviors that lead to the creation of salient social signals that are subsequently shared or recommended. Thus, it can be interpreted that FOMO would lead to behaviors that would ultimately lead to network effects.

2.1 H1 - FOMO and social signals

FOMO leads users to produce visible social signals on digital marketplaces. It is grounded in Social Comparison Theory (Festinger, 1954), which explains how exposure to others' purchasing behaviors and experiences creates upward social comparisons that generate loss-oriented anxiety. On digital marketplaces, activity signals such as "X people are currently viewing this product," make other users' behaviors highly visible, systematically triggering this comparison process. The resulting FOMO motivates users to participate publicly by reviewing, sharing or recommending as a way of asserting their own participation and reducing the anxiety of being left behind.

Young adults, particularly those aged 18 to 30, tend to engage more actively on online marketplaces. This engagement correlates positively with their participation in notable social interactions, including product reviews, sharing links or promotional codes, recommending the platform to others and posting reviews.

Moreover, a number of studies reveal that FOMO is positively associated with more frequent use, more participation in various promotional activities and loyalty in making repurchases. This effect is particularly pronounced in situations where personalized recommendations and scarcity-based tactics are utilized. This implies the mediating effect of FOMO in influencing the attractiveness of a marketplace or consumer loyalty, through more user engagement.

Empirically, Bui and al. (2021) show that FOMO in digital environments enhances participation and social visibility online. As documented by Enginkaya and Sağlam (2025), the FOMO-driven behaviors on social commerce platforms are transformed into visible social signals such as reviews, shares and recommendations. Gupta and Sharma (2021) also observe a positive association between FOMO and higher levels of engagement in promotional activities and social sharing, especially in the age group of young adults from 18 to 30 years.

Crucially, while these relationships have been documented on communication platforms such as Instagram or TikTok, H1 has not been directly tested in the specific context of digital

marketplaces where commercial logic and social dynamics are combined. Testing H1 thus addresses this gap and provides the first empirical link in our model. If FOMO produces visible social signals, it indirectly feeds the collective activity cues that sustain network effects, consistent with the feedback loop mechanisms described by Katz and Shapiro (1985) and Rochet and Tirole (2003).

2.2 H2 - FOMO, engagement and attractiveness

FOMO predicts user engagement on digital marketplaces. It builds on Self-Determination Theory (Deci & Ryan, 2000), which posits that when individuals perceive a threat to their needs for belonging and competence as occurs when they feel they are missing out on experiences others are having they are motivated to act in order to restore those needs. On digital marketplaces, this translates into increased engagement, users visit more frequently, participate in flash sales and spend more time exploring recommendations as a way of regaining a sense of control and inclusion.

This mechanism is further reinforced by Nudge Theory (Thaler & Sunstein, 2008), platforms are designed to make purchasing and engagement as frictionless as possible, reducing the moments of reflection that might otherwise interrupt FOMO-driven impulses. As Kahneman (2011) explains, once System 1 is activated by urgency or scarcity cues, the smoother the user journey, the less opportunity System 2 has to intervene.

Among users aged 18 to 30, the effect of FOMO on the perceived attractiveness of the marketplace and on the intention to continue using it is mediated by user engagement (frequency of use, participation in promotions, and content contributions such as reviews and comments).

Finally, existing literature on engagement algorithms indicates that notifications, personal recommendations, popular content and time-constrained promotions tend to heighten perceptions of scarcity. This, in turn, heightens FOMO and its behavioral correlates.

Mustikasari and al. (2025) and Gupta and Sharma (2021) show that FOMO enhances platform stickiness by encouraging users to return and interact continuously. Elhai and al. (2021) similarly document that FOMO increases compulsive checking behaviors and notification sensitivity, sustaining habitual engagement over time. While these studies establish the relationship at the individual level, none have quantified the proportion of

engagement variance explained by FOMO in a marketplace context specifically which is precisely what this hypothesis tests. Testing H2 is also essential for answering our research question. If FOMO significantly predicts engagement, this means that an individual psychological state is directly driving the platform activity that feeds network effect feedback loops (Katz & Shapiro, 1985; Rochet & Tirole, 2003).

2.3 H3 - The role of algorithmic mechanisms

Platform design strengthens the impact of FOMO on user behaviour through algorithmic engagement mechanisms. It is theoretically motivated by the observation that platforms do not merely observe user behavior, they actively shape it through algorithmic design choices that target the psychological vulnerabilities documented in H1 and H2.

Additionally, the relationship between FOMO and social signal generation behaviors is stronger among users aged 18 to 30 years when the perceived intensity of engagement algorithms is higher.

Elhai and al. (2021) and Enginkaya and Sağlam (2025) argue that push notifications, personalized recommendations and real-time activity feeds are key amplifiers of FOMO, heightening the perception of scarcity and social pressure and thereby intensifying its behavioral consequences. Bui and al. (2021) further show that algorithmic mechanisms contribute to platform stickiness by converting individual FOMO responses into sustained engagement patterns. However, while the moderating role of algorithms has been qualitatively acknowledged in the literature, it has never been empirically tested as a boundary condition on the FOMO-to-behavior relationship, one of the key theoretical gaps identified in Chapter 1. Testing H3 would establish whether the strength of the FOMO-to-behavior link depends on the technological environment in which it occurs, which has direct implications for both platform design and for the validity of our theoretical model.

It should be noted that, due to the constraints of this dissertation, H3 is operationalized via a one-way ANOVA comparing mean FOMO levels across platforms, used as a proxy for differences in algorithmic intensity. This operationalization is an approximation: a full moderation test would require an interaction term between FOMO and perceived algorithmic intensity within a regression framework (Baron & Kenny, 1986), which represents a direction for future research.

2.4 Articulation between the three hypotheses and the research question

Together, the three hypotheses form a coherent empirical sequence. H1 tests if FOMO generates the visible social behaviors that drive network activity signals. H2 tests for the Role of FOMO in the General Engagement Patterns that Support Platform Growth and H3 tests if algorithmic design amplifies this psychological mechanism. If H1 and H2 are validated, they offer empirical support for the claim that FOMO converts individual psychological pressure into the collective dynamics that drive marketplace dominance, directly addressing our research question. If confirmed, H3 would also indicate that this mechanism is not uniform, but is amplified by certain platform design choices, with direct managerial and regulatory implications.

3. Data and Data Collection

3.1 Overall research design

We propose to follow a mainly quantitative research strategy with the addition of a small qualitative study. For the former, we propose using an online survey to test our hypotheses among a population of 18 to 30 year olds. For the latter, we propose to conduct a handful of semi-structured interviews to shed light upon the processes described above.

3.2 Population and sampling

The target population is individuals aged between 18 and 30 years old, who have made at least one purchase in a digital marketplace in the three months before data collection. The minimum and maximum ages are theoretically motivated: empirical studies consistently find that young adults are the most susceptible to FOMO due to their intensive digital socialisation and sensitivity to social comparison (Przybylski & al., 2013; Milyavskaya & al., 2018). Limiting the sample to active users of the marketplace ensures that respondents have direct experiential knowledge of the platform mechanisms under study and thus enhances the construct validity of self-reported measures.

For the quantitative part of the study, a minimum sample size of 150 participants was set for the planned statistical analyses with adequate statistical power. The final sample of 184 valid responses exceeds this threshold and is in line with recommendations to detect medium effect sizes with a power of 0.80 at $\alpha = .05$ (Cohen, 1992). Data were collected through social

media channels using convenience and snowball sampling, which was an appropriate method for a master's dissertation given the constraints of time and resources for accessing a population of digitally active young adults, though the implications for the representativeness of the sample are discussed in the limitations section.

The qualitative strand involved ten semi-structured interviews. This number is small but it is consistent with the logic of purposive saturation in exploratory qualitative research: the goal was not representativeness but theoretical depth. In fact, thematic redundancy was noted from the eighth participant in the interviews, indicating sufficient coverage of the key dimensions being investigated (Creswell, 2019).

3.3 Quantitative questionnaire

The questionnaire (see appendix 3) will be administered via Google Forms, and split into several sections: screening questions (age, recent use of a marketplace), identification of the most frequently used marketplace, measurement of the main variables-FOMO, engagement, social signal-generating behaviors, perceived attractiveness and perception of algorithmic mechanisms-and basic socio demographic questions. In order to make the responses comparable, participants will be asked to focus on the marketplace they use most frequently from a list of platforms commonly used by 18-30 year olds, or to point out another one if it applies.

3.4 Qualitative interviews

Moreover, a small set of semi-structured interviews will be carried out among young people who fulfill the age and marketplace use requirements. Typically, for such research, 5 to 8 individuals will be asked to take these types of interviews. Here, further research objectives would include exploring, with greater depth. This would encompass situations wherein young people experience FOMO, as well as their perceptions of recommendations, notifications, promotions, and social influence from other users.

4. Variables and Measures (Questionnaire)

The main latent variables are measured using Likert-type scales (1 = strongly disagree, 5 = strongly agree). The items below are indicative and may be adjusted. Each set of items is

designed to operationalize one of the constructs in the conceptual model and to contribute directly to the testing of one or more hypotheses, as detailed below.

- **Marketplace-specific FOMO (independent variable)**

- “Which digital marketplace do you use the most?”
- “I am afraid of missing good deals or promotions on the platforms where I shop online.”
- “I feel uncomfortable if I cannot regularly check offers or new products on this marketplace.”
- “When I see that others have benefited from a good deal or a trending product, I regret not having done the same.”

These four Likert items capture the core dimensions of marketplace FOMO identified by Przybylski and al. (2013): loss-oriented anxiety, compulsive checking behavior and social comparison. They constitute the independent variable used in the Pearson correlation test for H1 and in the OLS regression for H2.

- **Mobile Notification Responsiveness**

- “I quickly glance at my phone when I get a notification.”
- “I find it hard to ignore notifications on my smartphone.”
- “How long have you been using this marketplace primarily?”

These items provide contextual information on general notification sensitivity and platform familiarity, which helps interpret the role of algorithmic mechanisms tested in H3.

- **User engagement (mediating variable for H2)**

- “I visit this marketplace several times a week.”
- “I often participate in promotions (flash sales, limited offers, codes) offered on this marketplace.”
- “I spend a lot of time exploring products and recommendations on this marketplace.”

These three items operationalize engagement as a behavioral construct across three dimensions, visit frequency, promotional participation and browsing intensity. Their aggregated score serves as the dependent variable in the OLS regression testing H2, allowing us to quantify the proportion of engagement variance explained by FOMO.

- **Social signal-generating behaviors (dependent variable for H1, mediating variable for H3)**

- “I often leave reviews or ratings for products I purchase on this marketplace.”
- “I share product links or promotional codes from this marketplace with my friends.”
- “I frequently recommend this marketplace to other people.”

These items capture the visible behaviors through which individual FOMO responses aggregate into collective network signals, as theorized by Katz and Shapiro (1985) and Enginkaya and Sağlam (2025). Their aggregated score serves as the dependent variable in the Pearson correlation for H1 and as the outcome variable in the moderation logic of H3.

- **Perceived attractiveness and intention to continue using the marketplace (dependent variable for H2)**

- “This marketplace is one of my first options when I want to shop online.”
- “I intend to continue using this marketplace in the future.”
- “I regularly repurchase on this marketplace rather than switching to another platform.”

These items capture the platform-level outcomes of engagement, consistent with the network effects logic of lock-in and user retention (Katz & Shapiro, 1985; Rochet & Tirole, 2003). They complement the engagement items in H2 by measuring the attitudinal and behavioral consequences of sustained FOMO-driven engagement.

- **Perceived algorithmic engagement mechanisms (moderating variable for H3)**

- “I often receive notifications from this marketplace (promotions, cart reminders, new products).”
- “The product recommendations I see on this marketplace seem well tailored to my preferences.”
- “I frequently see messages such as ‘limited stock’, ‘offer valid for X more hours’, or ‘X people are viewing this product’ on this marketplace.”

These items operationalize the perceived intensity of algorithmic mechanisms as identified by Elhai and al. (2021) and Enginkaya and Sağlam (2025). Their aggregated score serves as the moderating variable in H3, allowing us to test whether higher perceived algorithmic intensity strengthens the relationship between FOMO and social signal-generating behaviors.

These measures will allow us to empirically test our hypotheses by examining, among users aged 18 to 30, how FOMO is related to behaviors that fuel network effects, user engagement and the perceived attractiveness of digital marketplaces. Specifically, the FOMO items and social signal items together allow testing of H1 via Pearson correlation. The FOMO items and engagement items together allow testing of H2 via OLS regression and the algorithmic mechanism items, combined with FOMO and social signal items, provide the basis for testing H3 via ANOVA across platforms.

Chapter 3: Analysis

1. Purpose of the analysis

As part of this thesis, we decided to conduct a qualitative study in addition to our quantitative analysis. This approach appears relevant in order to examine consumer behavior toward marketplaces and to better understand individual decision-making processes. The qualitative analysis, based on 10 interviews conducted with individuals aged between 18 and 30, provides a deeper understanding of respondents' perceptions, emotions and trade-offs. While quantitative analysis allows us to verify the recurrence of certain results on a larger sample. Using both qualitative and quantitative methods allowed us to have a clearer and more complete view of the topic.

2. Qualitative analysis

To ensure the anonymity and confidentiality of the participants, all first names used in this thesis have been changed. The names appearing in the interviews are therefore pseudonyms and do not correspond to the respondents' real identities.

The ten participants were recruited through personal and university networks using purposive snowball sampling, applying the same selection criteria as the quantitative survey: being aged between 18 and 30 and having made at least one purchase on a digital marketplace in the three months preceding data collection. In order to avoid potential gender bias in the responses, we deliberately recruited an equal number of men and women, five of each so that the qualitative sample would be balanced in terms of gender. In addition, we selected participants of different ages (with a maximum of three people of the same age) in order to better represent and analyze the entire age group selected for this study (18–30 years old). The table below presents the profile of each participant:

Table 1 *Profile of qualitative interview participants*

Pseudonym	Age	Gender	Primary marketplace
Emma	23	F	Shein
Lucas	25	M	Amazon
Chloé	29	F	Amazon
Jean	24	M	Amazon/Aliexpress
Sarah	24	F	Amazon
Bruno	23	M	Amazon
Emilien	24	M	Amazon/Vinted
Louise	21	F	Amazon/Fast-fashion websites
Marc	28	M	Amazon/Cdiscount
Camille	18	F	Shein/Zalando/Amazon

Note. Own's elaboration. F = female, M = Male

2.1 Profile and relationship with marketplaces

Before entering into the analysis of persuasion mechanisms, it seemed important to first take a more general look at the profiles encountered and their usual relationship with marketplaces. This initial step shows that respondents do not all use these platforms in the same way. Some use them frequently while others only go on them when needed. In other words, even before talking about FOMO, promotions or notifications, there are already very different ways of engaging with these online shopping tools.

The analysis of the interviews shows that marketplaces are not just purchasing spaces. For some users, they also act as spaces for browsing, discovering or even simple consultation. For several respondents, usage remains occasional and focused on a specific need, while for others it is more part of a regular habit of browsing, sometimes without any immediate intention to buy.

Three main profiles can be identified. It is important to note that these profiles were not defined in advance as recruitment criteria. Rather, they emerged inductively from the

thematic analysis of the interviews themselves, as recurring patterns of marketplace usage became apparent across participants. This typification is therefore a result of the analysis, not a premise of it, which is consistent with the exploratory and inductive logic of qualitative research (Creswell, 2019).

The first is the more exploratory user. This type of user browses marketplaces quite spontaneously, sometimes to pass the time, to look at new products or to spot items they might like. This is the case of Emma (23 years) who explains that she goes on Shein even without a specific need, simply to see what is new as she explained : “Quand je m’ennuie, parfois je vais sur Shein pour voir”¹. This type of behavior shows that the platform can also function as a space for searching or inspiration, and not only as a purchasing tool.

The second profile is the more functional user. This is the case of Lucas (25), Chloé (29) and Jean (24). Lucas explains that he mainly uses marketplaces to buy something specific. He adds that he may sometimes compare prices but his usage remains limited. Chloé (29) expresses a similar idea explaining that she mainly uses them to “acheter des choses précises quand j’ai une chose en tête”² or to make “des achats rapides dont j’ai besoin rapidement”³.

For these users, the marketplace is mainly seen as a practical tool that helps them quickly find what they are looking for. Jean shares a similar perspective. He explains that he usually already knows what he wants before even opening the platform: “je sais ce que je veux donc s’il y a une promo c’est un plus, mais sinon tant pis”⁴. This shows that for him, the main purpose of the marketplace is not to create desire or discovery but rather to meet an already defined need.

Finally, the third profile is the more critical user. Louise (21), for example, emphasizes the importance of website features, ease of use and also ethical criteria. She explains that she does not order from certain platforms such as Shein or Temu, as they do not align with her personal values. In this case, the purchasing decision does not depend only on price or offers but also on a broader reflection about quality, trust and the impact of consumption practices.

It is important to note that, for our respondents, loyalty to certain marketplaces is rarely based on a strong attachment to a brand. Instead, it is mainly explained by habit, trust and positive

¹ “When I’m bored, I sometimes go on Shein just to look.”

² “to buy specific items when I have something in mind.”

³ “to make quick purchases when I need something urgently.”

⁴ “I know what I want, so if there’s a promotion it’s a bonus, but otherwise it doesn’t matter.”

experiences accumulated over time. Respondents return to the same platforms because they are familiar with them, they understand how they work and they have already had good experiences in terms of delivery, returns or service quality.

This first point shows that the influence of marketplaces does not affect all consumers in the same way. Some are more exposed because they spend a lot of time browsing and searching for various products. Others are more influenced because they place greater trust in these platforms while some remain more cautious regarding their commercial strategies. It is precisely this diversity that makes the rest of the analysis relevant particularly regarding FOMO, social proof and notifications.

2.2 FOMO and the fear of missing out on a deal

After examining respondents' general relationship with marketplaces, it is now important to focus on the core of our topic, namely FOMO. This refers more precisely to the feeling of pressure when a product seems to be selling out quickly when a promotion is time-limited or when there is a sense that an opportunity might disappear. In the interviews, this feeling does not appear in the same way for everyone. Some are very sensitive to it, while others take more distance.

It is immediately noticeable that scarcity messages do not trigger the same reactions depending on the profiles. For some respondents, they create a sense of urgency. Emma (23), for example, explains that she has already felt this pressure when she saw that only a few items in her size were left. She states: "ça m'est déjà arrivé... j'avais peur d'arriver trop tard pour commander"⁵. In her case, the fear of missing out on the purchase outweighs rational thinking especially if she already likes the product and finds the price attractive. She also adds that the fact that only a few items remain pushes her to act quickly because "ça peut disparaître"⁶.

A similar logic can be observed with Sarah (24), who explains that when she repeatedly sees the same products on social media that have been widely purchased by others, it can also encourage her to act quickly. She mentions that when "tout le monde a l'air de dire que c'était bien"⁷, she feels like trying it herself in order not to miss out on a good experience. Here,

⁵ "It has already happened to me... I was afraid of being too late to order."

⁶ "It might disappear."

⁷ "Everyone seems to say it was good."

FOMO is not only driven by the material scarcity of the product but also by the feeling that one needs to follow the trend in order not to “miss” something everyone is talking about.

On the other hand, some respondents remain more distant from these signals. Lucas (25), for example, does not seem particularly affected by FOMO. He explains that he acts quickly only when he already knows he needs the product. Similarly, Bruno (23) explains that he does not overreact when a promotion disappears as he believes that if it disappears in one place it will likely reappear elsewhere or at another time. He expresses this idea very simply: “je me dis que si cette offre-là disparaît sur un certain site, elle peut être disponible sur une autre”⁸. This way of thinking significantly reduces the impact of FOMO, as the offer is no longer perceived as unique or irreplaceable.

Two distinct attitudes toward scarcity therefore emerge. On the one hand, some respondents react almost immediately when they feel that a product might slip away from them. On the other hand, others put things into perspective and consider scarcity as just one signal among others without necessarily giving it much importance.

FOMO is also linked to product popularity and not only to scarcity. Several respondents explain that when items are highly viewed, frequently commented on or widely purchased, it draws their attention. For Emilien (24), for instance, seeing that a product is very popular can even be reassuring. He says: “si tout le monde l’achète, je vais me dire beh le produit est probablement bon et je vais l’acheter”⁹. This shows that product popularity acts as a form of reassurance for respondents.

In other words, if many people buy a product, it can be interpreted as a positive signal rather than a constraint. FOMO therefore plays a more emotional role and varies from one individual to another.

Louise (21) clearly illustrates this emotional dimension of FOMO. For her, when she sees a product she likes and fears missing out on it, she can react quite strongly. She explains that at certain moments when she feels more emotionally vulnerable she might think: “t’es en train de chialer, tu dis oh je sors ma carte directe”¹⁰. This statement is particularly revealing as it shows that the purchase decision does not depend solely on the product itself but also on the

⁸ “I tell myself that if this offer disappears on one site, it might be available on another.”

⁹ “If everyone is buying it, I’ll think the product is probably good and I’ll buy it.”

¹⁰ “You’re crying and you think, okay I’ll just take out my card immediately.”

emotional state of the individual at that precise moment. FOMO becomes more powerful when it combines with a form of emotional vulnerability.

Overall, this section highlights that the fear of missing out is not a uniform or always conscious feeling. For some, it is very present and leads them to act quickly. For others, it is much more controlled or even neutralized by a more rational mindset. In all cases, however, scarcity, popularity and emotional context can influence the decision to purchase. FOMO therefore acts as a triggering mechanism especially when the consumer is already hesitating, perceives the offer as attractive or is going through a more sensitive period.

2.3 The influence of others' opinions, popularity and behaviour

In the world of e-commerce, the inability to physically touch or try a product before purchasing changes the way consumers perceive things. Consumers are faced with a screen and must build their trust based on simple information and images. To reduce this uncertainty, almost all of our respondents rely on “substitutes” like reviews, ratings from other buyers or simply the number of sales displayed. This section aims to understand how these external elements concretely influence the final decision.

First, it appears that reviews on marketplaces are not only used to assess the quality of a product, they mainly act as a sign of reliability for the platform itself. Consulting reviews thus becomes a key step whenever doubt arises. Contrary to common assumptions that view social proof as constant marketing pressure, most of our respondents perceive it primarily as a source of reassurance. Emilien (24) summarizes this well: “Ça me rassure vraiment plus parce qu'à ce moment-là je me dis OK, beaucoup de gens l'ont acheté”¹¹. Here, the number of buyers is not seen as a marketing promotion but rather as a guarantee that the platform is trustworthy and that the product has already been tested by others.

The overall rating, on the other hand, often acts as a binary filter. It allows users to quickly eliminate what seems suspicious. A low rating immediately creates distrust while a high rating reinforces the idea that the product is acceptable and reliable. For some respondents, the review system has become such an important criterion that they can no longer do without it. Sarah (24) openly expresses this dependency: “Sans avis, je ne commande pas”¹². This need for external validation shows that, online, consumers fear not receiving their order or

¹¹ “It really reassures me because at that moment I tell myself, okay, a lot of people have bought it.”

¹² “Without reviews, I don't order.”

being disappointed by the product quality. To reassure themselves, they rely on the opinions and experiences of others.

Beyond reassurance, a form of mimetic behavior (imitation) can also be observed especially among younger consumers. Wanting a “trendy” product is not only about its usefulness but also about feeling integrated into a group and following social norms. When a product goes viral on platforms such as TikTok, the question is no longer whether it is technically “good” but whether it is “validated” by the community.

Some respondents even admit having purchased items solely because they had become standard within their social circle. However, this tendency to purchase through imitation is often followed by a phase of rationalization, during which the respondent tries to justify their decision afterward. Emilien illustrates this well: “Je suis passé d'Android à l'écosystème Apple parce que tout le reste de mon groupe avec Apple alors que j'aurais pu très bien continuer sur Android mais je pense que je me suis fait influencer sans m'en rendre compte réellement.”¹³. This rationalization shows that even when consumers are aware of the influence, they often prefer to believe that they acted based on rational choice.

Finally, platforms such as TikTok transform product popularity into a form of technical proof. Seeing a product repeatedly appear in videos creates a sense of familiarity and trust that facilitates the purchase decision. At that point, the desire to follow others combines with a form of confidence in the product if “everyone” is talking about it, it must be effective. Even if this is not always truly useful, this phenomenon remains one of the strongest drivers of online consumption today.

2.4 The role of notifications, emails and emergency messages

To retain users and encourage them to return, marketplaces rely on highly targeted direct marketing tools such as push notifications, newsletters, cart reminders and similar techniques. Although these strategies are designed to be effective, our analysis shows that reactions are quite varied. In reality, everything depends on whether users perceive them as relevant. If the message does not resonate with them, it is seen as intrusive, however, if it is well targeted, it is accepted and sometimes even appreciated.

¹³ “I switched from Android to the Apple ecosystem because everyone in my group had Apple, even though I could have continued with Android. But I think I was influenced without really realizing it.”

Within our sample, we observed differences in how respondents perceive these marketing tools. Mobile notifications, for instance, are often experienced as the most intrusive. They appear on the screen without solicitation, which leads many users to adopt avoidance strategies. Some even go as far as uninstalling the most persistent applications to regain a sense of calm. Louise (21) is very clear on this point, as she does not have any apps installed in order to avoid being disturbed. Notifications only become a purchase trigger when they are considered truly useful such as alerts about price drops on items added to favorites.

Email marketing, on the other hand, appears less aggressive since it requires a voluntary action to be consulted. However, it still faces a high rejection rate. Most respondents engage in what could be described as systematic “selective sorting” promotional messages are either ignored or deleted in bulk without even being opened, as they are generally perceived as spam. For many individuals, these emails no longer generate interest and are simply seen as “noise” accumulating in their inbox.

We also observe ambivalent reactions toward so-called “urgency messages” such as countdown timers or low-stock alerts (“only 2 items left in stock”). On the one hand, several respondents show a clear awareness of these techniques. They fully understand that these are persuasion strategies. Marc (28) who works in sales, expresses this directly: “Je comprends la logique commerciale”¹⁴. For him, as for others, these signals eventually fade into the background becoming similar to spam messages that are no longer really noticed.

However, a real paradox emerges although users identify these tactics as manipulative, their effect on behavior remains very real, sometimes at a subconscious level. Several respondents admit that these messages create a slight psychological discomfort. Even when they know that the “limited stock” may not be entirely accurate, the idea of missing out on the offer creates tension. In this case, the act of purchasing becomes a way to “close the loop” by buying, the user relieves the pressure and eliminates the discomfort generated by the platform.

In response to these marketing strategies, we observe that individuals aged 18-30 develop several forms of “cognitive defense” strategies. They do not passively endure marketing, instead they act preventively. This may involve systematically disabling notifications upon

¹⁴ “*I understand the commercial logic.*”

installing an app or deleting the application once a purchase has been completed to avoid the temptation of browsing without purpose.

Some respondents also engage in critical rationalization, deliberately ignoring these messages in order to avoid validating a purchase under the pressure of an urgency they know is not entirely real. We are therefore far from a passive consumer rather we observe users who learn, experiment, and eventually develop strategies to protect their attention.

2.5 Commitment, loyalty and self-control

The relationship between a user and a marketplace is not always straightforward. It ranges from occasional use, aimed at purchasing a specific product, to a more established habit. At the center of this dynamic lies a key question: to what extent do users really believe they maintain control over their choices when interacting with platforms specifically designed to capture their attention?

From our interviews, it first appears that loyalty to platforms (such as Amazon or Zalando) is not truly based on emotional attachment. It is not driven by passion but rather by convenience and the desire to simplify the purchasing process. Respondents tend to choose platforms they are already familiar with and those where they understand the interface, payment system and return procedures. This creates a reassuring form of routine.

Moreover, the perceived risk associated with unfamiliar websites acts as a strong barrier. As Emilien (24) clearly explains: “Si je vois une nouvelle marketplace, je vais assez difficilement aller dessus parce que je suis en mode : est-ce que je peux lui faire confiance ?”¹⁵. The fear of scams or unpleasant surprises thus becomes an obstacle to exploration.

At the same time, being used to navigating a platform reinforces this default loyalty. Since everything is smooth and easy, users remain within their comfort zone and make purchases without much reflection. This may resemble loyalty but it is primarily a way of keeping things simple. However, the interviews reveal a gap between perception and reality. The majority of respondents claim that they “remain in control” of their purchases, yet their statements reflect a paradoxical form of awareness. They recognize the presence of persuasive mechanisms (such as notifications, scarcity messages, or algorithmic

¹⁵ “If I see a new marketplace, I will find it quite difficult to go on it because I’m thinking: can I trust it?”

recommendations) but they tend to underestimate the actual influence these tools have on their behavior.

To justify impulsive purchases, respondents often engage in rationalization. This serves as a way to protect their self-image as rational consumers. This can be seen in Sarah (24) and Camille who explain their behavior by saying: “J’ai pris le même téléphone que tout le monde”¹⁶ or in other respondents who end up convincing themselves that “it has become a necessity” in order to justify a purchase that was not initially planned. This type of justification allows them to maintain the belief that they remain in control, even when the platform’s design has significantly influenced their decision.

To counter this influence, some respondents adopt disengagement strategies such as not downloading the application, deleting their search history or limiting their use to a computer in order to avoid constant mobile exposure. These strategies show that control is not something natural but rather something that must be consciously regained.

2.6 Final reading by assumption

To conclude our qualitative analysis, it is necessary to compare our interview findings with the research hypotheses formulated at the beginning of this study. Our analysis shows that the relationship between the consumer and the marketplace is not just a simple and convenient transaction. Rather, it is an ongoing process of adjustment that continuously evolves over time. Even when users identify persuasive techniques, they implement strategies to maintain a certain level of autonomy.

Table 2 *Summary of hypothesis validation and qualitative findings*

Hypothesis	Status	Summary of the analysis
H1 : FOMO triggers the urge	Validated	Loss aversion is a powerful driver but it depends on the context. It mainly arises when the user is tired or in a more emotionally vulnerable state.

¹⁶ “I chose the same phone as everyone else.”

H2 : Social proof is reassuring	Validated	Rather than simply imitating others, respondents primarily rely on others' opinions to reduce perceived risks, particularly regarding delivery reliability, rather than due to social pressure.
H3 : Effectiveness of notifications	Nuanced	Intrusiveness often triggers psychological reactance. When users see a message as too intrusive, they may react by uninstalling the app or blocking notifications.

Note. Own elaboration

As introduced in our theoretical framework (Chapter 2), Nudge Theory (Thaler & Sunstein, 2008) provides a useful lens to interpret the behaviors observed in our interviews. Our qualitative findings confirm and illustrate the three pillars of this framework in the specific context of digital marketplaces. In marketplaces, a “nudge” consists of modifying the way choices are presented. The platform does not force purchasing but it makes certain options easier to choose without removing alternatives.

Our findings show that this digital nudge is based on three pillars.

The first is the “temporal shortcut” linked to FOMO. For example, by displaying messages such as countdown timers or limited stock alerts, the platform creates a sense of urgency that pushes users to decide quickly. To understand this, we can refer to Daniel Kahneman, who distinguishes between two modes of thinking “System 1”, which is fast, automatic and emotional and “System 2”, which is slower, more deliberate, and logical. Scarcity marketing, described by Robert Cialdini, precisely aims to activate System 1 while weakening System 2. When faced with urgency, users often react more instinctively because they are afraid of missing an opportunity .

Once this feeling of urgency is created and System 1 takes over, the platform uses a second mechanism called social proof. When people are uncertain, they often rely on the opinions of others instead of analysing everything themselves because it feels more reassuring and requires less effort. Reviews and ratings then become indicators of trust. For example if many people bought the product, the risk seems lower. As a result, the decision feels easier and safer.

Finally, the third pillar is the smoothness of the user journey also referred to as “minimal friction”. Platforms are designed and optimized to make purchasing as simple as possible with saved payment methods, one-click purchases and fast, intuitive steps. Everything is done to reduce moments of reflection where users might hesitate. By removing these “frictions” the transition to purchase is facilitated. Ultimately, the consumer is not forced but guided through a process designed to turn an impulse into a purchase, as long as they do not take the time to pause and reflect. The faster the process, the less time the brain has to think critically.

Our interviews also reveal a paradox of awareness. Most respondents are conscious of the marketing strategies used by platforms (e.g., “Je sais que c'est de l'arnaque marketing”¹⁷). However, knowing these mechanisms does not prevent them from being influenced by their effectiveness.

Urgency (FOMO) and risk perception reduced by social proof, create psychological discomfort. To relieve this discomfort, purchasing often becomes the simplest solution. The consumer ultimately accepts the rules of the game imposed by the platform in order to eliminate the stress generated by constant stimulation.

In conclusion, the marketplace does not manipulate a passive subject, rather it creates an interaction in which the user, through their cognitive biases, actively participates in the influence process. Digital maturity, that is, the ability to deliberately slow down the process by comparing, delaying and verifying, remains the main way to limit the impact of these nudges on purchasing decisions.

3. Quantitative analysis

3.1 Sample description

The initial sample included 203 respondents. After cleaning and filtering allowing us to retain only individuals aged 18 to 30 the final sample consisted of 184 participants.

The gender distribution within this sample shows a majority of women, accounting for 83.7%, compared to 16.3% for men. A Student's t-test (T-test) was conducted to analyze differences in FOMO by gender. This test allows you to compare the means of groups to determine whether the differences are statistically significant. The results indicate that the

¹⁷ “I know it's marketing trickery.”

observed difference between women and men is not statistically significant, with a p-value of 0.056.

Table 3 *Welch's t-test results for gender differences in FOMO-related purchasing behavior*

Variable	Test used	Results (t)	P-Value	Mean W	Mean M	Conclusion
Gender (M/F)	Welch's t-test	1.961	0.056	2.93	2.65	Not significant

Note. Own elaboration. Mean W = mean score for women; Mean M = mean score for men. Results based on a Welch's t-test assuming unequal variances.

* The significance threshold used is $\alpha = .05$. A p-value of 0.056 falls marginally above this threshold and should be interpreted with caution.

Regarding the platforms used, those most frequently mentioned were Amazon (43.5%), Vinted (24.5%) and Zalando (20.1%), while the other platforms account for only marginal shares (see Appendix 1, Figure 2).

3.2 Descriptive statistics

Descriptive statistics were calculated for the main variables of the study.

Table 4 *Descriptive statistics for FOMO, engagement, and network variables*

Variable	Mean	Standard deviation
FOMO	2.88	0.75
Engagement	2.28	1.06
Network	3.49	0.67

Note. Own elaboration based on survey data ($n = [\text{the number of respondents}]$). Values represent means and standard deviations computed from Likert-scale items.

* Scores range from 1 to 5, where higher values indicate greater perceived intensity of the construct.

The results show that the average level of FOMO is 2.88 (SD = 0.75), indicating a moderate level of fear of missing out.

For engagement, the mean is 2.28 with a standard deviation of 1.06, suggesting a high variability in responses among participants.

Finally, the network effects variable shows a higher mean of 3.49 with a standard deviation of 0.67. This indicates that network effects have a significant influence on participants' behavior.

3.3 Reliability analysis

The internal consistency of the scales was assessed using Cronbach's alpha. This test measures the reliability of a measurement scale.

Table 5 Cronbach's alpha reliability coefficients for main constructs

Variables	Cronbach's alpha	Interpretation
Engagement	0.80	Excellent reliability
FOMO	0.64	Satisfactory reliability
Network effects	0.60	Acceptable threshold reached

Note. Own elaboration based on survey data (n = [the number of respondents]).

* Reliability thresholds applied: $\alpha \geq .80$ = excellent; $.70 \leq \alpha < .80$ = good; $.60 \leq \alpha < .70$ = satisfactory; $\alpha < .60$ = unacceptable (George & Mallery, 2003).

The results show that for all variables the reliability level is acceptable to good. But the network effects are at the lowest acceptable level, suggesting more divergent responses for these items, despite generally good results. So, the results should be viewed with some caution.

3.4 Analysis of H1

To test H1, a Pearson correlation coefficient was computed between FOMO scores and social signal-generating behaviours. This test is appropriate here as both variables are measured on continuous Likert-derived scales and the hypothesised relationship is expected to be linear and directional. Pearson correlation measures both the strength and direction of this linear association, producing a coefficient ranging from -1 to 1.

The results show that there is a significant positive correlation ($r = 0.42$, $p\text{-value} < 0.001$). The 95% confidence interval is 0.29 to 0.53.

3.5 Analysis of H2

To test H2, a simple ordinary least squares regression was conducted with user engagement as the dependent variable and FOMO as the independent variable. Regression was selected

over correlation here as H2 is not merely asking whether the two variables are associated but whether FOMO predicts and explains variance in engagement. This allows estimation of both the magnitude of the effect (β coefficient) and the proportion of variance accounted for (R^2).

The model specification:

$$\text{Engagement} = 0.320 + 0.678 \cdot \text{FOMO} + \varepsilon$$

Table 6 Regression Table

	β	Std. Error	t	p
Intercept	0.320	0.275	1.162	0.247
FOMO	0.678	0.092	7.335	< 0.001 ***
$R^2 = 0.228$	Adj. $R^2 = 0.224$	$F(1,182) = 53.8$	$p < 0.001$	$n = 184$

Note. Own elaboration based on RStudio results

The model is statistically significant ($F(1,182) = 53.8$; $p < 0.001$) and explains 22.8% of the variance in engagement ($R^2 = 0.228$; $R^2 \text{ adj.} = 0.224$). The regression coefficient associated with FOMO is positive and significant ($\beta = 0.678$; $SE = 0.092$; $t = 7.335$; $p < 0.001$), which indicates an increase a one-point increase on the FOMO scale is associated, on average, with a 0.678-point increase on the engagement scale. These results allow us to validate hypothesis H2 with a high level of confidence. The y-intercept is not significantly different from zero ($\beta = 0.320$; $p = 0.247$), which is consistent with the model's interpretation.

All these results allow us to validate H2. FOMO is a significant and moderate predictor of user engagement on digital marketplaces. Although not exclusive, the effect size is theoretically consistent with a multi-causal model in which FOMO is one of the psychological determinants of engagement, alongside other factors such as habit, trust or price sensitivity.

3.6 Analysis of H3

To test H3, a one-way ANOVA was conducted to examine whether mean FOMO levels differ significantly across the platforms used by respondents. ANOVA is appropriate when comparing means across more than two independent groups. It should be noted, however, that

this operationalisation represents a simplification of the original hypothesis: a full test of moderation would require an interaction term ($\text{FOMO} \times \text{perceived algorithmic intensity}$) within a multiple regression framework (Baron & Kenny, 1986). The ANOVA provides a preliminary indication of platform-level variation but cannot establish moderation in the strict statistical sense a limitation that is discussed further in the conclusion.

No statistically significant differences were found in the results across platforms ($F(12,171) = 1.37$; $p = 0.184$). Our Tukey test shows no significant differences between groups ($p > 0.05$).

Overall, the results allow us to validate hypotheses one and two, while hypothesis three is not supported.

4. The link between qualitative analysis and quantitative analysis

4.1 A global view of purchasing behavior

By combining the results of the interviews with those of our quantitative questionnaire, we obtain a fairly consistent understanding of marketplace user behavior. The numerical data help measure the phenomena, while the interviews allow us to go further and understand the underlying reasons.

4.2 FOMO as part of the online experience

The results show that FOMO (fear of missing out) is indeed present but at a moderate level (2.88/5). This means it is not extreme anxiety but rather a feeling that is part of the online experience. However, it remains above average, indicating that it affects most individuals.

The interviews help explain when FOMO arises, generally it occurs when users are tired, distracted or highly exposed to social media, and sometimes when they are in a more emotionally sensitive state. This contextual dimension is not captured by a cross-sectional questionnaire, which measures FOMO as a stable average rather than a fluctuating state.

Thus, the quantitative moderate mean score ($M = 2.88$) may mask substantial within-person variability, in which some users experience high levels of FOMO in given moments but low mean levels overall. A more accurate understanding of this dynamic might be provided by future research using experience sampling methods, which entail measuring FOMO in real time across multiple daily interactions.

We also find that this fear is associated with a need to follow others. The data confirm this with a clear relationship between FOMO and group influence ($r = 0.42$): the more others consume or recommend, the more the user is influenced. Also the majority of the respondents confirmed this relationship, stressing that when a product is popular and widely used, it motivates them to look into it and possibly buy it.

4.3 FOMO truly influences engagement

The analyses also show that FOMO plays an important role in platform activity, explaining approximately 22.8% of the differences in engagement between users.

In the interviews, it already seemed that buying could be a way to “relieve” hesitation or mental pressure. The quantitative results point to this being not an exception but a general mechanism. FOMO is an important factor in keeping users engaged on platforms.

4.4 All platforms are similar in this respect

A more surprising result is that the level of FOMO does not significantly vary depending on the platform used.

This aligns with what some interviewees mentioned, like it is not so much the design or notifications that matter, but rather the user’s mindset. FOMO therefore seems to depend more on psychology than on the platform itself. The qualitative data, however, paint a different picture. As several interviewees explained, they were well aware of platform-specific persuasion tactics, countdown timers, scarcity messages, cart reminders but were still vulnerable to them.

This paradox implies that algorithmic mechanisms may be running below the level of conscious deliberation, influencing behaviour without registering as platform differences in self-report surveys. This discrepancy between stated awareness and actual behaviour may partly explain the lack of statistical support for H3 and underlines the complementary value of qualitative inquiry in making sense of non-significant quantitative findings. Respondents also emphasized the need for reassurance, noting that they generally remain loyal to platforms they know and trust.

5. Discussion of results

5.1 Alignment with existing literature

The results of our study allow us to confirm a large part of the main conclusions in the literature on FOMO in marketplaces.

First, our sample selection enabled us to focus on individuals aged 18 to 30. This choice is theoretically grounded in the work of Przybylski and al. (2013) and Milyavskaya and al. (2018), who consistently show that FOMO levels are higher among younger individuals due to their intensive digital socialisation and heightened sensitivity to social comparison. The literature highlights that young adults tend to exhibit higher levels of FOMO due to their strong exposure to digital environments in everyday life. This observation is consistent with our empirical framework and strengthens the validity of our sample.

One aspect worth emphasizing is the effect of gender. The p-value of 0.056 suggests that FOMO is a cross-cutting phenomenon. In the literature we reviewed, gender differences were not prominently addressed. Therefore, our analysis indicates that gender does not play a major role, as the p-value is not statistically significant. This suggests that FOMO operates in a relatively similar way across genders in this age range, a finding that extends the work of Milyavskaya and al. (2018), who focused primarily on age as a moderator of FOMO intensity rather than gender. It cements the cross-cutting nature of FOMO as a psychological mechanism among young adults.

Furthermore, our results support the relationship between FOMO and social signaling behaviors (H1). The strong and significant correlation, consistent with findings from the literature, indicates that users with higher levels of FOMO are more likely to engage in behaviors such as sharing, recommending or interacting on various marketplaces. These results align with Bui and al. (2021), who highlight that FOMO in digital environments increases participation, visibility and responsiveness in online behavior. And with Enginkaya and Sağlam (2025), who specifically document how FOMO-driven behaviors on social commerce platforms translate into visible social signals such as reviews, shares and recommendations. That is, what starts out as a psychological response to perceived scarcity or social pressure, becomes manifest in observable behaviors that make the platform more attractive to other users, feeding the feedback loops described by Katz and Shapiro (1985) and Rochet and Tirole (2003) as the engine of network effects growth. This finding thus

provides empirical support to the theoretical argument that FOMO not only acts on the level of the individual, but also contributes to collective platform dynamics.

Additionally, the results for hypothesis two confirm the relationship between FOMO and user engagement. The regression analysis shows that FOMO explains a significant and moderate portion of the variance in engagement ($R^2 = 0.23$), demonstrating that it is an important determinant of user activity on digital platforms. This finding is consistent with Mustikasari and al. (2025) and Gupta and Sharma (2021) showing that Fear of Missing Out enhances platform stickiness by encouraging users to return and interact continuously. This effect is particularly driven by mechanisms like limited-time promotions, scarcity signals and influencer-driven content.

On its own, the moderate size of this effect—about 23% of variance explained—is theoretically consistent: as Enginkaya and Sağlam (2025) and Elhai and al. (2021) acknowledge, FOMO is one psychological driver (among several, including habit, convenience, trust and price sensitivity) that together determine engagement. It is an important but not exclusive factor, being one of the factors with a 23% contribution, which is coherent with the multi-causal framing of the conceptual model. This result also echoes the theoretical role assigned to FOMO by Deci and Ryan's Self Determination Theory (2000): when users feel that missing out threatens their sense of belonging and competence, engaging with the platform by visiting, browsing or purchasing becomes a way to restore that sense of control, thereby sustaining habitual engagement over time.

5.2 Extension of the literature

Not only do existing studies confirm much of the underlying drivers of FOMO, but this research also contributes to enriching the literature.

Previous research has identified FOMO as a factor influencing consumer engagement and behavior; our results show that its impact is significant and moderate. While Mustikasari and al. (2025) and Tresna (2025) documented FOMO's role in isolated purchasing events and discrete promotional contexts, our study extends this by showing that FOMO's influence on engagement is measurable and consistent across a broader range of marketplace interactions or limited to a single purchase trigger.

Indeed, the correlation between FOMO and social signals supports the idea that FOMO contributes to amplifying network effects. By encouraging users to engage in visible behaviors such as reviews, recommendations and sharing, FOMO indirectly increases the attractiveness of marketplaces and supports their growth dynamics. This observation aligns with theoretical frameworks proposed by Kurnianingsih and al. (2024) and Neha and Walia (2025), who suggest that user-generated content and activity signals are key drivers of network effect feedback loops. The present study extends this by providing empirical evidence that FOMO is a psychological mechanism connecting individual behavior to these collective dynamics. This observation aligns with theoretical frameworks in the literature, suggesting that FOMO acts as a mechanism that transforms individual psychological pressure into collective dynamics. In doing so, our findings respond directly to the gap identified by Enginkaya and Sağlam (2025), who noted that the emotional and cognitive processes linking individual users to platform-level network signals had remained largely untheorized.

5.3 Divergences from the literature

However, not all results are consistent with existing literature. Contrary to the expectations formulated in hypothesis three, our analyses do not show a statistically significant effect of platforms or algorithmic features on the relationship between FOMO and user actions, despite a larger sample. This stands in contrast with the claims of Elhai and al. (2021) and Enginkaya and Sağlam (2025), who argue that push notifications, personalized recommendations and scarcity mechanisms are key amplifiers of FOMO and its behavioral consequences.

A possible explanation is that FOMO operates as a relatively common psychological mechanism among young users, regardless of platform-specific characteristics. This interpretation is consistent with Milyavskaya and al. (2018), who conceptualize FOMO primarily as a trait-level variable rooted in individual psychological profiles rather than situational or technological triggers. In a context where individuals are highly immersed in digital environments, differences between marketplaces may become secondary compared to the intensity of the phenomenon. It is also worth noting, as Przybylski and al. (2013) and Wegmann and al. (2017) suggest, that FOMO is fundamentally driven by unmet needs for belonging and social comparison, psychological needs that are activated across platforms rather than by any specific algorithmic design.

5.4 Theoretical implications

First, the results confirm that FOMO can be considered a central element of user engagement and behavior on digital marketplaces. This supports the integrative psycho-economic model proposed in Chapter 1, in which FOMO acts simultaneously as a mediator converting platform activity signals into individual behavior and as a moderator, amplifying the impact of these signals among users with higher baseline FOMO levels (Przybylski & al., 2013; Milyavskaya & al., 2018). Second, they provide theoretical support for conceptualizing it as a process that reinforces network effects by transforming social signals into visible individual actions.

However, the absence of a significant impact from algorithmic processes suggests that technological factors may be less dominant than previously assumed. This nuances the position of Bui and al. (2021) and Elhai and al. (2021), who attributed considerable weight to algorithmic mechanisms in sustaining FOMO-driven engagement loops. Instead, psychological elements such as FOMO may play a significant, though not exclusive, role in shaping behavior. This finding invites future research to explore the distinction, suggested by Kahneman (2011), between System 1 automatic responses to algorithmic nudges and the more deliberate System 2 evaluations that users employ when they become aware of persuasive design, a distinction that our qualitative data illuminate through the paradox of awareness documented in section 2.5.

Thus, this study helps bridge a gap explicitly identified by Rochet and Tirole (2003) and Katz and Shapiro (1985), whose foundational work on network effects largely excluded the emotional architecture that sustains user engagement by demonstrating how an individual emotion can influence collective dynamics on platforms.

Conclusion

1. Main findings

This thesis started from a simple observation that is rarely clearly addressed in academic literature, online marketplaces do not simply connect buyers and sellers. They deliberately create a psychological environment in which the fear of missing something such as a good deal, a trending product or an experience shared by others becomes a key driver of user behavior. Based on this observation, this research aimed to understand how FOMO (Fear of Missing Out) relates to the network effects that drive the growth of digital marketplaces and to what extent it acts as a mechanism that strengthens them.

To answer this question, we adopted a mixed-method approach, combining an extensive literature review, a quantitative survey conducted with 184 respondents aged 18 to 30 and ten semi-structured interviews with participants from different backgrounds. This methodological choice was intentional, as it reflects the idea that psychological phenomena linked to digital consumption cannot be reduced to simple statistical correlations. They also need to be understood through the subjective experiences, words and reasoning of individuals themselves. Combining both approaches therefore made it possible not only to measure relationships, but also to better understand why and how they exist.

The results offer a nuanced view of the role of FOMO in the engagement dynamics of young adults on marketplaces. The analyses first confirm the presence of FOMO in our study population, at a moderate level ($M = 2.88/5$). This suggests that it is not an intense or overwhelming anxiety but rather a more subtle pressure that has become a part of the normal online browsing and shopping experience. This finding is consistent with the work of Andrew K. Przybylski and al. (2013) and Gupta and Sharma (2021), who describe FOMO as an underlying psychological state rather than a sudden or extreme reaction.

Hypothesis H1, which predicted a positive relationship between FOMO and behaviors that generate social signals such as leaving reviews, sharing links or recommending the platform to others was validated with a significant correlation ($r = 0.42$; $p < 0.001$). This result is theoretically important because it shows that FOMO does not remain limited to the individual level. It translates into visible behaviors that reinforce network mechanisms by making the

platform more visible and attractive to other users. In other words, what starts as an individual anxiety eventually contributes to the collective growth of the platform, which is exactly what network effect theory describes as a positive feedback loop.

Hypothesis H2, which examined whether FOMO could predict user engagement on platforms, was also validated. The regression model shows that FOMO explains around 22.8% of the variance in engagement ($R^2 = 0.228$; $\beta = 0.68$; $p < 0.001$). While this percentage may seem relatively modest at first, it is actually consistent with the fact that online engagement is influenced by many different factors. FOMO is an important element but it exists alongside other determinants such as habits, trust, price sensitivity and the practical convenience of the platform, which were not directly measured in this study. The objective is therefore not to claim that FOMO explains everything but rather to show that it represents a significant and independent psychological driver of engagement.

Hypothesis H3, however, was not supported by the data. The ANOVA analysis did not reveal any significant differences in FOMO levels depending on the platform used ($F(12,171) = 1.37$; $p = 0.184$). This result suggests that the role often attributed to algorithmic mechanisms such as notifications, personalized recommendations or urgency messages may sometimes be overestimated in the creation of FOMO. Our interpretation is that FOMO is more strongly linked to the user's psychological profile and emotional state than to the technical characteristics of a specific platform.

The results highlight the important role of FOMO in user engagement with marketplaces and their interactions, while also suggesting its potentially cross-cutting nature, independent of specific platforms. Together, H1 and H2 provide empirical validation for the dual role of FOMO theorized in our conceptual model: as a mediator between platform signals and individual behavior (consistent with Social Comparison Theory, Festinger, 1954) and as a driver of the engagement behaviors that fuel network effects (consistent with Self-Determination Theory, Deci & Ryan, 2000, and Network Effects Theory, Katz & Shapiro, 1985). The non-validation of H3, while diverging from expectations, reinforces the view that FOMO is, as Przybylski and al. (2013) originally theorized, a fundamentally psychological phenomenon rooted in individual traits rather than a simple reaction to external technological stimuli. This reinforces its importance as a key factor among others for understanding the growth dynamics of digital platforms.

The qualitative interviews also provide valuable insight on this point. Several participants explained that they were aware of the persuasive strategies used by platforms, while still admitting that these strategies continued to influence their decisions. This paradox of awareness, like recognizing the manipulation without necessarily resisting it is one of the most interesting findings of this research.

In summary, this is not simply a case of platforms manipulating passive users, but rather an interaction between the two.

Platforms set up environments that incentivize certain behaviors, but users also act according to their own biases (fear of missing out, desire to follow others, habits). Each feeds the other.

This dynamic is analogous to the lock-in mechanism in network effects theory (Katz & Shapiro, 1985), but is psychologically conceptualized, users stay not because of prohibitive switching costs but because of reduced cognitive effort and perceived risk. In this case, FOMO is less a dramatic driver and more a background pressure, maintaining habitual engagement over time, quietly amplifying the feedback loops that propel platform growth.

We observed in both the questionnaire and the interviews that most respondents claim they are able to maintain control. However, when probing further during interviews, many admitted that they are indirectly influenced and recognize underlying marketing mechanisms. In reality, most are not always aware that they are experiencing FOMO. In this context, digital maturity, that is, the ability to step back, compare options and avoid acting too quickly becomes the main way to regain control over decision-making.

2. Theoretical implications

From a theoretical perspective, this thesis helps bridge a gap that has only been partially addressed in previous research. On one side, studies in digital psychology often describe FOMO as an individual phenomenon linked to social anxiety and comparison with others. On the other hand, platform economics research focuses on network effects as structural mechanisms, without paying much attention to the cognitive and emotional processes behind them. This thesis proposes a more integrated model in which FOMO plays a double role. First, it acts as a mediator by transforming the platform's visible social signals into measurable individual behaviors. Second, it acts as a moderator by increasing the impact of

these signals among users who already have higher levels of FOMO, especially young adults aged 18 to 30.

This theoretical framework is based on three well-established concepts. First, Leon Festinger's Social Comparison Theory (1954) helps explain how visible activity signals on marketplaces such as "X people are viewing this product right now," or "47 verified reviews," encourage users to compare themselves with others, which can create anxiety when they feel left behind. Second, Edward Deci and Richard Ryan's Self-Determination Theory (2000) explains how this anxiety can turn into engagement behaviors. By buying, sharing or leaving reviews, users regain a sense of belonging and competence that may have been threatened by the feeling of missing out.

Finally, the Network Effects Theory, developed by Michael L. Katz and Carl Shapiro (1985) and later by Jean-Charles Rochet and Jean Tirole (2003), explains how these individual behaviours aggregate into collective dynamics that improve the competitiveness and attractiveness of platforms. In this sense, FOMO is not only a side effect of platform design, but a function of how these platforms work.

3. Managerial implications

The results of this research also have practical implications for online commerce platforms. For marketing and product teams, they confirm that FOMO is a real engagement driver that can be activated through social signals such as view counters, recent purchase notifications, low-stock alerts or limited-time promotions. However, the findings also suggest the need for caution. The qualitative analysis showed that users are not passive when they face messages that are perceived as too intrusive or too obviously manipulative. Many develop cognitive defense strategies such as disabling notifications, deleting applications or rationalizing purchases made under pressure afterward. This means that the effectiveness of FOMO as a marketing tool does not depend only on its intensity but also on how it is presented and perceived by users.

In addition, the fact that FOMO does not significantly vary depending on the platform used suggests that marketplaces cannot rely forever on the same persuasive mechanisms to differentiate themselves from competitors. If every platform uses similar psychological techniques with the same level of intensity, users may gradually become less sensitive to

them or simply start seeing them as a normal part of the online experience. In the long term, user loyalty seems to depend more on trust, ease of use and positive past experiences than only on the psychological pressure created by FOMO.

4. Ethical considerations

Beyond the strategic implications, this research also raises an ethical question that academic literature is only beginning to address more directly: to what extent is it legitimate to exploit consumers' cognitive biases in order to maximize engagement on digital platforms? In online marketplaces, FOMO is not a completely spontaneous phenomenon. It is largely created, maintained and reinforced through deliberate design choices such as notification systems, artificial scarcity and the visibility of other users' purchasing behaviors. While this type of persuasive design can create value for platforms, it can also generate psychological pressure for some users, leading to impulsive purchases, overconsumption and digital fatigue.

Interviewees across interviews expressed a feeling of being stuck in a system that they understand, but cannot easily escape from. One participant articulated this well when they said that sometimes they buy things just to "close the loop" and return to a state of calm. It is telling to say that this purchase is not just about meeting a real need, but becomes a form of emotional regulation that the platform itself encourages.

In light of these findings, it seems important to reflect on possible forms of regulation that could better protect users, especially younger ones, without denying the legitimacy of digital business practices. Future research could explore ideas such as mandatory transparency regarding artificial scarcity techniques, the right to a less intrusive digital experience or digital education programs introduced from adolescence onward.

5. Limitations of the research

This research also has several limitations that should be acknowledged honestly. The first one is methodological and concerns the composition of the quantitative sample. Data collection relied on convenience sampling and snowball sampling through social media, which resulted in a significant overrepresentation of women (83.7% of the sample). Although the Student's t-test did not reveal any statistically significant difference between men and women regarding

FOMO levels ($p = 0.056$), this imbalance limits the extent to which the results can be generalized to the entire 18–30 age group.

The second limitation is linked to the cross-sectional nature of the questionnaire. By measuring FOMO as a relatively stable variable, the study does not fully capture how much the phenomenon can vary within the same individual over time. A person may experience strong FOMO in certain situations for example when tired, emotionally vulnerable or heavily exposed to online content while barely experiencing it in other moments. This point was strongly supported by the interviews and suggests that real-time data collection methods, such as the Experience Sampling Method, would provide a better understanding of the dynamic and contextual nature of FOMO.

The third limitation is related to the testing of hypothesis H3. The ANOVA used to compare FOMO levels between platforms is a crude approximation of what the original hypothesis was trying to explore, which is the moderating role of algorithmic mechanisms on the relationship between FOMO and engagement. A more rigorous test of moderation would have involved adding an interaction term in a multiple regression framework, as Reuben Baron and David Kenny (1986) suggested, but such analysis was outside the scope of this thesis. Thus, the conclusions about H3 should be considered with care.

6. Areas for future research

These limitations also open the door for future research. First, it would be interesting to replicate this study with a more balanced sample in terms of gender and socio-cultural diversity in order to test the robustness of the relationships identified here. A longitudinal approach could also help track how FOMO evolves over time among the same individuals and determine whether long-term exposure to platform persuasion mechanisms leads to habituation or, on the contrary, to greater sensitivity.

In addition, including a complete moderation analysis with an interaction term between FOMO and the perceived intensity of algorithmic mechanisms would allow future studies to examine the question raised by H3 with greater statistical rigor. This would allow testing whether high-algorithmic environments genuinely amplify FOMO-driven behaviours or whether the non-significant result obtained here reflects a real absence of moderation rather than a methodological artefact. A within-subjects design, in which the same user interacts

with platforms of varying algorithmic intensity, would be particularly well suited to isolating this effect.

Comparative studies between countries or across broader age groups would also make it possible to assess whether these findings can be generalized beyond the Belgian context and the 18-30 age group. Finally, adding physiological or behavioral measures such as time spent on the platform, click rates on urgency messages or real purchase histories could usefully complement self-reported data, which are often influenced by social desirability bias.

Ultimately, this thesis aimed to show that the fear of missing out is neither a simple generational trend nor just a reaction to aggressive marketing. It is a deeper psychological mechanism rooted in fundamental needs for belonging and social comparison, which digital platforms have learned to capture, amplify and monetize. Understanding this mechanism not only helps explain the growth dynamics of marketplaces but may also help individuals take a step back from digital environments that are designed to constantly keep their attention.

7. Personal learning and professional development

This dissertation allowed us to experience a learning journey that went beyond the academic framework. The mixed-methods approach led us to mobilise skills such as statistical reasoning, active listening and the rigour required to integrate two methodological approaches into a coherent argument.

Our Master of Management Sciences made this research possible through all the foundations we acquired, such as the ability to think across disciplines and to connect an emotional mechanism to broader market dynamics.

On a more personal level, this work has taught us more about critical thinking: knowing the limits of our methodology, not over-interpreting results and presenting our conclusions with nuance. These are skills that count in any work environment, in any sector we will work in in future.

Bibliography

- Acharya, S. (2025). The rhetoric of FOMO (Fear of missing out) in digital marketing. *Literary Oracle*, 9(1), 102–117. <https://doi.org/10.70532/lomay2509>
- Alfina, Hartini, S., & Mardhiyah, D. (2023). FOMO related consumer behaviour in marketing context: A systematic literature review. *Cogent Business & Management*, 10(3). <https://doi.org/10.1080/23311975.2023.2250033>
- Alvita, M. (2025). Fear of Missing Out (FOMO) and Consumer Behavior in the Digital era: A PRISMA systematic review. *Dinasti International Journal of Digital Business Management*, 6(6), 1565–1576. <https://doi.org/10.38035/dijdbm.v6i6.5676>
- Balcilar, M., & Ozdemir, H. (2023). On the risk spillover from Bitcoin to altcoins: The fear of missing out and pump-and-dump scheme effects. *Journal of Risk and Financial Management*, 16(1), 41. <https://doi.org/10.3390/jrfm16010041>
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173-1182.
doi:10.1037/0022-3514.51.6.1173
- Beyens, I., Frison, E., & Eggermont, S. (2016). “I don’t want to miss a thing”: Adolescents’ fear of missing out and its relationship to adolescents’ social needs, Facebook use, and Facebook related stress. *Computers in Human Behavior*, 64, 1-8.
<https://doi.org/10.1016/j.chb.2016.05.083>
- Bui, M., Krishen, A. S., Anlamlier, E., & Berezan, O. (2021). Fear of missing out in the digital age: The role of social media satisfaction and advertising engagement. *Psychology and Marketing*, 39(4), 683–693. <https://doi.org/10.1002/mar.21611>
- Cialdini, R. B. (2009). *Influence: The psychology of persuasion* (Rev. ed.). New York: HarperBusiness.
- Classen, B., Wood, J. K., & Davies, P. (2020). Social network sites, fear of missing out, and psychosocial correlates. *Cyberpsychology Journal of Psychosocial Research on Cyberspace*, 14(3). 1-12. <https://doi.org/10.5817/cp2020-3-4>
- Cohen, J. (1992). A power primer. *Psychological Bulletin*, 112(1), 155-159.
doi:10.1037/0033-2909.112.1.155

- Creswell, J. W. (2019). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). Thousand Oaks, California: SAGE Publications.
- Deci, E. L., & Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11(4), 227-268.
doi:10.1207/S15327965PLI1104_01
- Elhai, J. D., Yang, H., & Montag, C. (2021). Fear of missing out (FoMO) and social media's impact on daily-life and productivity at work: Do WhatsApp, Facebook, Instagram, and Snapchat Use Disorders mediate that association? *Addictive Behaviors*, 114, 1-7.
<https://doi.org/10.1016/j.addbeh.2020.106745>
- Elsayed, H. a. E. (2025). Fear of Missing Out and its impact: exploring relationships with social media use, psychological well-being, and academic performance among university students. *Frontiers in Psychology*, 16, 1582572.
<https://doi.org/10.3389/fpsyg.2025.1582572>
- Enginkaya, E., & Sağlam, M. H. (2025). Social commerce Platforms Role in FOMO Driven Consumption: The hidden psychological toll of continuous use. *IEEE Access*, 13, 77395–77417. <https://doi.org/10.1109/access.2025.3565127>
- Farronato, C. (2020). *Measuring network effects using a digital platform merger* (NBER Working Paper No. 28047). National Bureau of Economic Research.
https://www.nber.org/system/files/working_papers/w28047/w28047.pdf
- Festinger, L. (1954). A theory of social comparison processes. *Human Relations*, 7(2), 117-140. doi:10.1177/001872675400700202
- Gawer, A. (2021). Digital platforms' boundaries: The interplay of firm scope, platform power, and complementors. *Long Range Planning*, 54(5), 1-13.
<https://doi.org/10.1016/j.lrp.2020.102045>
- Harvard Business School Online. (2020). *What are network effects?* Business Insights Blog.
<https://online.hbs.edu/blog/post/what-are-network-effects>
- Ivantchev, B., & Ivantcheva, M. (2024). FOMO effect: social media and online traders. *Journal of Management and Financial Sciences*, (48).
<https://doi.org/10.33119/JMFS.2023.48.4>
- Jakhar, O. P. (2025, December 17). *The rise of Social Commerce: How to Sell Smarter on social Media in 2026*. SocialPilot. <https://www.socialpilot.co/blog/social-commerce>
- Kahneman, D. (2011). *Thinking, fast and slow*. Farrar, Straus and Giroux.
- Khetarpal, A., & Singh, P. (2023). *The impact of Cialdini's principles of scarcity and social*

proof with e-commerce platforms. [Master's thesis, University of Twente] University of Twente Research Repository.

https://essay.utwente.nl/98841/1/Hufen_MA_BMS.pdf

- Kurnianingsih, A., Noviani, L., Alvita, M., & Haerani, A. (2025). FOMO in Digital Consumer Behavior: A Systematic review of theories, Strategies, and Psychological Outcomes (2010–2024). *Dirosatuna.*, 7(2), 126–148.
<https://doi.org/10.31538/dirosatuna.v7i2.8781>
- Milyavskaya, M., Saffran, M., Hope, N. H., & Koestner, R. (2018). *Fear of missing out: Prevalence, dynamics, and consequences of experiencing FOMO. Motivation and Emotion.* <https://doi.org/10.1007/s11031-018-9693-5>
- Mustikasari, A., Hurriyati, R., Dirgantari, P. D., Sultan, M. A., & Sugiana, N. S. S. (2025). Fear of missing out (FOMO) and recommendation algorithms: analyzing their impact on repurchase intentions in online marketplaces. *International Journal of Advanced Computer Science and Applications*, 16(4).
<https://doi.org/10.14569/ijacsa.2025.0160412>
- Neha, & Walia, P. S. (2025). The impact of fear of missing out (FOMO) on online consumer behaviour: A theoretical study of social media users. *RESEARCH HUB International Multidisciplinary Research Journal*, 12(4), 08–16.
<https://doi.org/10.53573/rhimrj.2025.v12n4.002>
- Ojala, A., & Lyytinen, K. (2022). How do entrepreneurs create indirect network effects on digital platforms? A study on a multi-sided gaming platform. *Technology Analysis and Strategic Management*, 36(5), 886–901.
<https://doi.org/10.1080/09537325.2022.2065977>
- Parker, G., Van Alstyne, M., & Choudary, S. P. (2016). *Platform revolution: How networked markets are transforming the economy and how to make them work for you*. New York: W.W. Norton & Company.
- Przybylski, A. K., Murayama, K., DeHaan, C. R., & Gladwell, V. (2013). Motivational, emotional, and behavioral correlates of fear of missing out. *Computers in Human Behavior*, 29(4), 1841–1848. <https://doi.org/10.1016/j.chb.2013.02.014>
- Putri, N. a. H., & Fadhilah, I. (2025). The role of FOMO (Fear of Missing Out) in improving consumer perspectives for Skintific purchase decisions on the TikTok application in the Surabaya area. *Pedagogic Research - Applied Literacy Journal*, 2(3), 456–461.
<https://doi.org/10.70574/6f71fx08>

- Roberts, S., Malcolm, C., McCarty, K., & Pollet, T. (2024). No relationships between self-reported Instagram use or type of use and mental well-being: A study using a nationally representative online sample of UK adults. *Cyberpsychology Journal of Psychosocial Research on Cyberspace*, 18(1), 1-12.
<https://doi.org/10.5817/cp2024-1-3>
- Thaler, R. H., & Sunstein, C. R. (2008). *Nudge: Improving decisions about health, wealth, and happiness*. New Haven: Yale University Press.
- The rhetoric of FOMO (Fear of Missing Out) in digital marketing - Literary Oracle*. (2025, June 24). Literary Oracle.
<https://literaryoracle.com/the-rhetoric-of-fomo-fear-of-missing-out-in-digital-marketing/>
- Tresna, I. C. (2025). Fear of Missing Out (FOMO) in Consumer Behaviour: A Systematic literature review on antecedents, consequences, and moderating factors. *Journal of Information Systems Engineering & Management*, 10(36s), 626–639.
<https://doi.org/10.52783/jisem.v10i36s.6542>
- View of The Influence of Hedonic Motivation and Influencer Marketing on Purchasing Decisions with FOMO (Fear of Missing Out) as A Mediating Variable (Empirical Study: Cupika Online Store Customers)*. (n.d.).
<https://ejournal.ipinternasional.com/index.php/ijec/article/view/1006/925>
- Wegmann, E., Oberst, U., Stodt, B., & Brand, M. (2017). Online-specific fear of missing out and Internet-use expectancies contribute to symptoms of Internet-communication disorder. *Addictive Behaviors Reports*, 5, 33–42.
<https://doi.org/10.1016/j.abrep.2017.04.001>
- What are network effects?* | HBS Online. (2020, November 12). Business Insights Blog.
<https://online.hbs.edu/blog/post/what-are-network-effects>