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Fear of Missing Out (FOMO) and Scarcity Strategies: A Qualitative Exploration of Consumer Communication with Flash Sales on E-Commerce Platforms

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ABSTRACT

This research investigates the impact of the psychological concept of Fear of Missing Out (FOMO) and scarceness marketing strategies on consumer interactions and behaviors during ecommerce flash sales. A qualitative approach was selected to delve into emotions, experiences, and cognitive aspects of decision-making through in-depth interviews with active online shoppers. Results show that FOMO is linked to an increase in feelings of volatility and escalation, which encourages greater and more rapid emotion-laden purchasing behavior that is not thoroughly reasoned out. Countdown clocks and limits on available stock are scarcity strategies that increase the intensity of value placed on the items which make them more desirable and exclusive. Furthermore, the study revolves around consumers' perception of flash sales—extensively shared on social media and other peer networks—illustrating that their personal and social narratives often fuel a collective feeling of urgency. This underscores powerful intersectional dynamics of modern corporate marketing strategies and consumer behavior vis-a-vis the approaches that need to be adopted, especially from an ethical standpoint, in e-commerce business systems.

1. Introduction

Background and Context

The transformative approach of consumer behavior due to digital technology is remarkable. Digital consumerism has fully integrated within peoples' daily activities and interactions; transactions are primarily conducted on e-commerce portals with consumers and producers. Statista (2023) estimates the number of online shoppers exceeds 2.64 billion, confirming the evolving consumer behavior on an international scale. The dynamic development of technology, accessible through digital platforms, provides an environment where the growing sophistication of marketing frameworks shifts consumers' focus from products to experiences.

One of the striking phenomena of e-commerce behavior modification includes the implementation of urgency and scarcity tactics designed to impact consumer purchase behavior. Exclusive products or flash sales along with limited-time offers are examples of these types of strategies designed to create urgency. Numerous consumers, especially younger individuals, experience FOMO or the Fear of Missing Out. FOMO is a term that describes the anxiety caused by the possibility of being deprived of taking part in personally significant opportunities or experiences due to procrastination or inaction (Gao et al., 2021; Przybylski et al., 2021).

The change affects not only the volume of transactions but also the psychological aspects of consumers' relationships with brands and products. These strategies, on the one hand, successfully increase consumer engagement and speed up the purchase decisions. On the other hand, there are increasing concerns regarding psychological manipulation and emotional harm in the long run (Abel et al., 2022).

Moreover, communication with consumers in the digital age is more complicated than before. E-commerce sites function as not only trading outlets, but also social platforms where consumers interact, construct shared 'consumption' identities and create social buzz around a brand using FOMO (Zhang and Mao, 2020). This represents a departure from standard traditional communication approaches of a single direction towards dynamic two-way or multi directional exchange.

In the Indonesian context, this phenomenon is particularly important considering the rapid advancement of the national e-commerce industry. According to the e-Conomy SEA Report (Google, Temasek, Bain & Company, 2022), Indonesia's digital economy was valued at $77 billion in 2022, with e-commerce as its primary driver. Local marketing strategies increasingly incorporate global practices tailored to specific cultural contexts, such as flash sales and scarcity-based events 11.11, 12.12, or *Hari Belanja Online Nasional* (Harbolnas*)*, which have been adopted as cultural phenomena.

Thus, it is critical to investigate the impact of scarcity tactics and the triggering of FOMO on communication during flash sales on e-commerce sites. Exploring these narratives and emotions through a qualitative approach will help capture the complete consumer sentiments that are not adequately portrayed through numbers. Hence, with the pace of technological advancements in Indonesia, the purpose of this study is to address this gap by qualitatively investigating these issues in detail through the lens of available literature.

1.2. The Psychological Triggers Behind Digital Consumption

The deeply implanted behavioral patterns towards digital consumption stems from complex interactions with psychological triggers. Specifically, feelings such as anxiety, excitement, and social belonging notably shape consumer responses to marketing efforts on e-commerce sites. Mapped out strategies aiming to study the response of consumers to the implementation of scarcity as a strategy, activation of FOMO during sales, and understanding these strategies requires knowing the these principles within psychology.

One of the main drives of emotion is the need humans have for immediacy and gratification. Turel and Bechara (2021) argues the structure of digital platforms manipulates elements like marketing funnels aimed towards enabling greater consumer spending to overwhelm patient measures, decision-making, and causing reflection and deep thoughts to become non-existent. This lack of tempered thought is made even worse in situations amplified by scarcity like in flash sales where time sensitive deals exist along with product limited access. That phenomenon creates an environment where rational assessment becomes almost impossible.

Social comparison is another dominating trigger and is rather new in the world of technology. Appel et al. (2020) point out how the visibility of others' purchases whether shared through social network sites or live e-marketing shows heightens competition on a social level. Individuals deeply forget other relevant elements and only focus on the perception of obtaining some of the scarce commodities pushed by advertisements creating an overwhelming focus of FOMO driven actions. That perception establishes social construction of scarcity uncontestably intensifying.

Also, loss aversion is one of the biases that behavioral model economists suggest consumers are ever more susceptible to. This theory, advanced from that partially brought by Kahneman and Tversky to contemporary contexts like Gabaix and Laibson (2021) is that the mental anguish of missed opportunity is always more than that of gaining reward. In flash sales, the discounted price issue invokes the loss aversion bias and as such, consumers are more likely to purchase impulsively.

This effect plays a huge role in e-commerce. The original price of the item functions as an anchor and any price offered subsequently is greatly appreciated, even when offered lower than the true value differential (Carmon & Ariely, 2021). Scarcity signals further strengthen this unique opportunity by implying that the opportunity is not only unique but some time limited as well.

Social identity theory elaborates how from the social aspect, the fulfillment of digital consumption enables an individual to reinforce a consumer persona. In contradistinction, people participating in flash sales or competing for scarce items strategically position themselves so that they achieve social capital and capture alignment with recent social trends (Suki & Suki, 2022). The chances os such stratgic behavior enable enabling flash sales greatly enhances the emotion involvemed to etiquette associated with selling such caps.

Therefore, the blend of impulsivity, social comparison, cognitive distortions, and identity requirements combines to form an elaborate and sophisticated psychology that flash sales are set to take advantage of. But, as Kim and colleagues illustrate, activating anxiety and urgency in excess can lead to detrimental results for the consumer, like post-purchase dissonance, diminished trust in the brand, and mental exhaustion.

Thus, these marketing and policy experts, alongside ethical advocates, need to shift their focus to the engagement strategies concerning these psychological concepts, as they stand to benefit greatly from integrating ethics into their practices.

Moreover, the psychological aspects that motivate consumers to act in regard to flash sales and e-commerce can also be explained through the lens of Attribution Theory.As Weiner (2018) and Fiske & Taylor (2021) described, attribution theory explains how people make sense of the reasoning behind their actions and the actions of others by assigning outcomes to internal aspects (such as abilities or motivations) and external ones (like context or luck).

In relation to digital consumption, participants in a flash sale have at least a basic understanding of attribution processes. For example, having a particular regard of obtaining a product could lead to shopping success. If a consumer manages to secure the product, provided to a limited number of clients, they should see it as a victory, which is typically perceived as an internal factor. People usually cite their internal drives as perceived motional efficacy due to their swiftness, tactical correctness, selectiveness, and decisiveness. On the other hand, most people, when they do not reach the intended goal, cite external obstacles beyond their controls, such as strife for competing resources, scanty availability of resources, or sluggishness of network connections.

1.3. Attribution Theory

The FOMO phenomenon, an urgent social comparison, and others can affect emotion including FOMO can affect the aforementioned attribution process. A consumer who witnesses other successfully purchasing a limited offer (for observers) a product later available to purchase becomes a social influence for selection that suggests a failing frame of reference emerging from personal unfavorable attributes such as being unlucky or *not fast enough* leading to heightened frustration and anxiety.

This fractal is part of the dynamics of controllability and adaptability within the attribution theory framework:

Stability refers why an outcome follows a certain stricture like “I will always be slow” versus “I was just slow this time.”

Controllability relates to the subject's point of view on easier ideals like “I'll improve my strategy next time” vs “I cannot dictate how fast a server e-commerce platform would respond.”

The two perspectives have divergent consequences with a lot of relevance as assuming a consumer lacks ideas that could result to failure disposition strongly suggests that consumer’s actions motivate them strategies and decisions intend to improve withdrawal of commitment tendency toward the platform. In conclusion, the dynamics revolving flash sale and attempts on consumer need interpretation adjustment promotional strategies need deeper understanding on consumer emotions, perception and long-term target behavior modification.

Attribution theory explains how individuals interpret events and how this relates to their thinking and behavior. It focuses on the processes by which people explain the causes of behavior and events. There are two primary types of attribution:

- Internal Attribution (Dispositional Factors): Attributing behavior to internal traits such as ability, effort or personality.

- External Attribution (Situational Factors): Attributing behavior to external causes such as task difficulty, luck, or environmental factors.

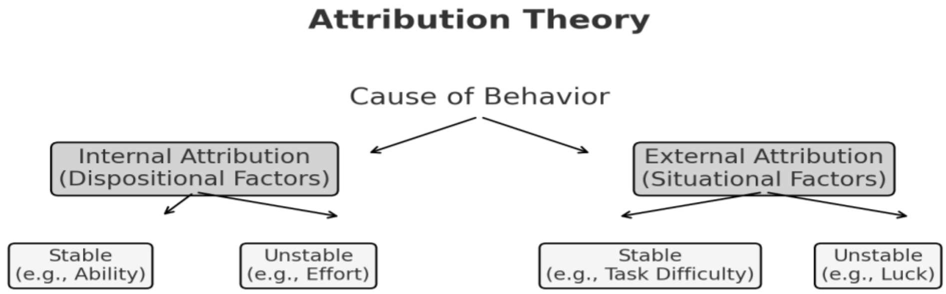

Figure 1. Basic Attribution Theory Model showing the division between Internal and External Attributions.

1.4. Scarcity Effect in Marketing

For a long time, scarcity has been considered a crucial factor of consumer behavior. In marketing terms, scarcity refers to the perception a consumer holds regarding the availability of a good or service. Perceiving unavailability of a good or service tends to increase one's desirability and valuation towards the good (Aggarwal et al., 2021). The "scarcity effect" appears to be stronger in online shopping settings where instant access to products amplifies the urgency behind limited-time or limited-quantity offerings.

Marketing strategies make use of two elementary forms of scarcity: quantity-based scarcity and time-based scarcity. Quantity scarcity, also known as supply scarcity, occurs when the seller only allows a certain number of units of a product to be purchased. This strategy helps convey the exclusivity and rarity of a product (Shi et al., 2020). Time scarcity is the opposite of quantity scarcity. It involves limiting the amount of time during which a product can be purchased. Both mechanisms are flash sale marketing found in many e-commerce platforms.

Behavioral work indicates that relying on the mechanisms of scarcity heightens a person's valuation of goods due to the reactance principle. In Cialdini's revised take on the persuasion model (2021), an indicator of freedom threat facing individuals can stem from a risk posed by the lack of availability or a coveted scarce need. It seems that self-imposed constraint helps restore the lost freedom when such things are actively acted on. More often than not, these impulse purchases aid regain the perceived lost liberty.

Scarcity interacts with social proof cues to further underestimate qualcuno's social behavior. In online contexts, showing how many people are currently viewing or have purchased a product increases consumers' perception of the product's popularity and urgency (Lin et al., 2022). Scarcity marketing, when combined with FOMO, can be an extremely compelling force that drives consumers to make instant purchasing decisions.

Neurosciences broaden the understanding of how scarcity affects consumers cognition. Hints of scarcity activate reward centers of the brain, particularly those linked with valuation and emotion

(Plassmann et al., 2020). This neural reaction indicates that scarcity operates on more than just a cognitive level and likely invokes visceral emotional responses that drive action.Nonetheless, scarcity marketing comes with peril. The absence of scarcity marketing is either its overuse, or perceived inauthenticity which can lead to consumer skepticism, erosion of brand trust, or even negative publicity for the company (Herman et al., 2021). Strategies that utilize scarcity methods must build credibility and transparency if they are to be effective.

In the Indonesian e-commerce industry, scarcity marketing is particularly observable at the national flash sale occasions like “11.11” and “12.12” sales. Research conducted by Rahadi et al. (2022) shows that Indonesian consumers react to scarcity cues, although certain communal cultural factors that involve collective action and seller's trust influence the extent of their impact. Considering the powerful psychological, neurological, sociocultural influences of scarcity, marketers need to apply caution when planning scarcity-triggering promotions. Creating and maintaining the balance between urgency and maintaining ethical boundaries has the potential to build stronger relationships with consumers while maximizing short-term sales strategies.

1.5. FOMO in E-Commerce Contexts

Social media sites like Instagram, TikTok, and Twitter are instrumental in amplifying consumers’ FOMO. Posting pictures, videos, live sale of a certain event, limited edition product launches, or experiences that are considered exclusive, create social pressure on viewers to partake in these activities. (Alt, 2021). Researchers such as Przybylski et al. (2021) document a link between the time spent on social media and the level of FOMO associated with that activity. Increased FOMO, in turn, predicts online spending sprees, suggesting that there is a causal relationship between the two. This relationship is further fueled by digital influencers who actively participate in or promote products during flash sales and limited-time events, effectively functioning as FOMO-marketing agents (Kaur et al., 2021).

In addition, algorithms that seek to maximize viewer engagement often focus on FOMO content that evokes an emotional response (Turel & Bechara, 2021). In this way, consumers come across stimuli that perpetually encourage them to act in a manner that is consistent with scarcity, whereby the need to act is predominant, even outside formal marketing efforts. FOMO is also amplified by the 'social proof' effect, whereby seeing peers participate in or endorse flash sales causes other consumers to view the promotion as more popular and more valuable, thus making them more willing to participate (Cialdini, 2021). This effect accounts for the rapid pace at which certain online sales events go viral and the fast spread of consumption trends among digital networks.

FOMO is carefully curated in e-commerce settings with the use of implements like countdown timers, live purchase notifications, and exclusive member sales. These features cultivate a sense of scarcity that is automatically linked to greater value, encouraging quicker purchasing decisions. Chiu et al. (2021) suggest that FOMO cues on e-commerce websites increase conversion rates and reduce the number of shoppers who abandon their carts. For consumers who are dealing with FOMO, the opportunities they lose from not making a purchase ‘now’ is viewed as much greater than that when reasoned with, leading the consumer to immediate purchase rather than thoughtful evaluation.

The best example of implementing FOMO into marketing strategies is flash sales. Specific days like Shopee’s 12.12, or *Harbolnas* are known to sell at sale prices. Kim et al. (2022) supports this by stating that such events peak FOMO emotions which leads to reduction in sensibility to these impulses, increased chances to be persuaded into buying more (upselling), higher tendency to buy regardless of price, and spending more money than intended.

As noted, the psychological impact of FOMO persists longer than just the initial purchase. Often, consumers will reappraise the value of the goods they purchased or rationalize their decision made under the mental framework of FOMO, thus relieving some cognitive burden associated with the impulsive purchase (Gupta & Sharma, 2022). Still, it is important to note that overreliance on these FOMO-driven tactics may result in dissonance after the purchase which, if unmanaged, could fracture brand loyalty in the long run. So, FOMO is not simply an emotion that a consumer experiences on the spot; it is a strong catalyst for consumption in the digital realm, determining how consumers interact with e-commerce websites. Businesses can tailor their marketing approaches, albeit in a socially responsible manner, to digitally savvy consumers by employing the concepts of FOMO, thereby illuminating the shifting landscape concerning the psychology of consumers.

1.6 Scope of Scarcity in Online Retail

Scarcity strategies refer to the most effective techniques designed to influence consumer behavior by e-commerce platforms. The introduction of a new perception of insufficient supply drives urgency in regard to the purchase, increases FOMO, and encourages impulse buying. In online retail, two main types of scarcity are dominant; scarcity tied to quantity and time.

a. Quantity-Based Scarcity

“Scarcity by quantity” trade refers to one form of marketing strategy known as scarcity by quantity, where a company limits the number of available units for purchase. Most e-marketing technologies utilize phrases such as “Only 3 left in stock!” and “Limited Edition!” to market the products. These became common in advertisement attempts to create stickiness and prompt a sense of urgency (Aggarwal et al., 2021). In reality, such advertisements are interpreted as indicators of a high product value as well as further popularity without objective quality information.

Behavioral studies suggest that quantity-based scarcity activates competitive purchase behavior. Cialdini (2021) claims that when resources are limited, people tend to respond with greater arousal and these resources become scarcer, leading to aggressive competition for acquisition. In the context of online retailing, this can lead to an environment where decisions are made quickly, lower price sensitivity, and a higher tendency to buy extra products to around the stock limitation.

Shi et al. (2020) have demonstrated with experimental studies that quantity scarcity indicators significantly increase click rates and the likelihood of making a purchase, particularly when such indicators are combined with social proofs like user reviews or real-time sales figures. Moreover, the level of emotion caused by quantity limits has been proven to have a more favorable effect on the assessment of outcomes after expenditure as consumers accrue value not only in possessing such stock, but in acquiring what they term as a scarce good (Lin et al., 2022).

However, fragile reliance on quantity scarcity may prove counterproductive if the consumers believe that the scarcity is in some way manipulative, engineered, or fake (Herman et al., 2021). In this regard, transparency and authenticity are fundamental in maintaining credibility about strategies based on quantity scarcity over time.

b. Time-Based Scarcity

Consumers are prompted to take action due to temporal limitations placed by time-based strategies. Popular techniques include coupon codes restricting coupons to a certain timeframe, flash sale events, and countdown timers. Marketers impose deadlines as a way to exploit bias in loss aversion; the fear of missing out on an opportunity is greater than the desire to gain a reward (Gabaix & Laibson, 2021).

Time based scarcity is particularly useful in e-commerce as it shortens the time window within which a decision needs to be made, eliminating the chance for thoughtful consideration and increasing emotional response reliance. Chiu et al. (2021) found that during promotional periods, offering limited time discounts through flash sales boosted purchase intention by 47% in comparison to non-time sensitive promotional offers.

When combined with FOMO triggers such as live purchase alerts or endorsement from influencers, time scarcity becomes even more powerful. Not only do consumers wish to avoid missing out on the deal but also fear losing the associated social status of the event (Kaur et al., 2021).

Furthermore, the value that consumers place on a product can be affected by time-based scarcity. When in a hurried state, time-pressed consumers tend to ascribe more value to a product simply because it is less available in the future (Shi et al., 2020). This perception would, however, lead people to accept greater prices even during flash sales or at exclusive event promotions.

All the same, ethical considerations also have to be made. There is a consumer backlash and loss of trust if countdown timers are manipulated or "limited time" offers are extended too frequently (Herman et al., 2021). Therefore, the use of time-based scarcity needs to be well balanced between cutthroat marketing and honesty.

Ultimately, both quantity and time-based strategies formulate scarcity exploit psychological traits of consumer behavior. If implemented with good intention and ethically, it stands to benefit the consumers by creating better shopping experiences while giving businesses opportunities to deliver genuine chance for sales.

1.7. Research Gaps and the Need for Qualitative Exploration

Though there is an emerging body of literature discussing the phenomena of Fear of Missing Out (FOMO) and scarcity tactics, gaps in the research still exist. In particular, there seems to be a dearth of qualitative research focused on the emotions, narratives, and personal experiences of consumers throughout flash sales, intangible aspects that are equally vital to understanding the phenomena. Most quantitative research attempts to tackle the relationship between FOMO, scarcity, and consumer behavior and provides useful insights, but still misses the mark.

This gap of qualitative understanding stems from the fact that existing studies focus on results that can be measured, like purchase intentions, click-through rates, and impulsivity indices (Kim et al., 2022; Chiu et al., 2021). There is little attention given to how consumers live through and navigate the psychological emotions of scarcity or FOMO in the context of flash sales and promotional offers.

Additionally, this gap stems from a singular perspective taken in most research about consumers being treated as a singular group. Differences in traits such as susceptibility to FOMO and nuances in reaction to scarcity are often ignored. It is likely that personality, culture, past shopping experiences, and even emotional control greatly affect consumer responses (Milyavskaya et al., 2022; Lee et al., 2021). With these insights, it is clear that adopting a qualitative approach can unravel these variations and provide a better understanding of consumer behavior.

Third, you have the concern of Turel and Bechara (2021) regarding the use of digitized hypermarkets or e-commerce platforms for shopping where there is the convergence of flash sales, social media, influencer sponsored ads, and automatic recommendations. You are not only looking at new advertising avenues or methods of selling goods, but entire environments which are dictated by these realms within realms. Virtually, each platform or program has its own social context and its own marketing mechanisms based on algorithms that recommend goods tailored to each specific user. All of this may lead into complex consumption molds which are very difficult to analyze using conventional approaches like survey questions or laboratory-style experiments. Ethnographic observations can be supplemented with focus-group discussions or not-so formal in-depth interviews to study how and why consumers navigate these different strands from a much richer perspective.

Fourth, Mulcahy and Coyle (2022) remark how the ethical dimensions of FOMO and scarcity-based marketing strategies have been added to theoretical frameworks, yet very little attention has been devoted to how these concepts play out in real life through the eyes of the consumers. Marketing practitioners must champion these campaigns cynically labeled as "gatekeeping" for motives usually sculpted in spirits of sociopathy and blatant disrespect for people whom they are trying to sell their products to. In other words, the understanding through perception as to where consumers perceive unfairness, manipulation, emotional impact, and unsustainable practice needs labeling scrutiny, which must be approached differently if we talk about arch ethical frameworks sustaining longevity and sustainability for the practice of marketing nurtured by social responsibility.

These differences that remain have led to the current study, which sets out to analyze e-communication activities related to flash sales from a qualitative exploratory perspective. This approach helps deepen the understanding as relates to the understudied areas of the experiences and interpretations around FOMO and scarcity strategies within the context of the digital marketplace mater and the social interactions and emotions of the consumers shape maters of their narrative construction.

The resulting analysis could add value to the marketing order regarding strategically devised frameworks and paradigms which, currently, are out of resonance with the reality of the reality of consumption behavior associated with the notion of digital scarcity. Focusing on scarcity conditions under which consumer behavior can be observed is new and very promising. These findings can be used for developing proactively constructive actions not only centered around deceit but respectful ethics on how to treat consumers and develop ideas, policies, and instruments to ensure a more balanced commercial objective and consumers' well-being.

1.8. Proposed Conceptual Framework

Building upon the identified research gaps, this study proposes a conceptual framework that centers on understanding consumer emotional and cognitive responses to the combined influence of FOMO and scarcity strategies during flash sales. The framework suggests that exposure to time-limited and quantity-limited offers (external stimuli) simultaneously triggers internal psychological states such as heightened anxiety, urgency, and anticipated regret. These emotional reactions interact with consumers' cognitive appraisals, including perceived social comparison, value judgment, and self-control assessment.

Through these emotional-cognitive pathways, consumers formulate narratives that either justify, rationalize, or critique their purchasing behavior post-event. These narratives, in turn, influence post-purchase outcomes such as satisfaction, remorse, loyalty shifts, or defensive rationalizations.

Thus, the framework **illustrates** a dynamic consumer journey consisting of:
- **External Triggers**: Time scarcity, quantity scarcity, and FOMO-inducing communications.
- **Internal Processes**: Emotional arousal (anxiety, excitement) and cognitive evaluations (value judgment, anticipated regret).
- **Narrative Construction**: Post-event rationalizations, justifications, and emotional reflections.
- **Post-Purchase Outcomes**: Satisfaction, regret, brand loyalty, or brand disloyalty.

By structuring the investigation around this framework, the study aims to reveal the intricate psychological processes underpinning consumer responses to flash sales. It highlights the need for a holistic approach that captures both the real-time and reflective dimensions of digital consumption experiences. The proposed framework will guide the development of interview protocols and thematic analysis, ensuring that both emotional and cognitive aspects of consumer experiences are systematically explored.

In this way, the study fulfills an important gap in the literature on the topic: understanding the intricate psychological, emotional, and communicative layers underlying FOMO alongside analytics-based digital consumption carves out deeper within the context of scarcity.

Given these considerations, this study adopts a qualitative exploratory approach to investigate how consumers experience, interpret, and communicate about flash sales driven by FOMO and scarcity strategies. Through in-depth engagement with consumer narratives, the research seeks to illuminate the emotional and psychological landscapes that accompany contemporary digital consumption practices.

Ultimately, this inquiry aims to contribute to both academic theory and practical marketing ethics by offering richer, more nuanced insights into the effects of FOMO and scarcity in online retail environments. By centering the consumer experience, the study aspires to inform the development of more ethical, transparent, and sustainable digital marketing strategies that prioritize long-term consumer well-being alongside commercial success.

2. Method

1. Research Approach

The aim of this study is to gain insight into consumer experiences and perceptions of FOMO-based communication and scarcity strategies during flash sales on e-commerce platforms. A qualitative approach is adopted as it allows the researcher to delve into the stories, emotions, and thought patterns of consumers that cannot be captured through quantitative methods.

2. Participant Selection

The researcher will employ purposive sampling to select participants who have engaged in flash sales on major e-commerce platforms. Informed consent will be obtained from all participants for their voluntary involvement in this research. Participants will represent a diverse range of demographics, including age, educational background, and online shopping experience.

Inclusion criteria include:

a. Participants must have participated in flash sales at least twice in a year.
b. Participants must be able to articulate their experiences, perceptions, and emotions felt during flash sales.

3. Data Collection

Data will be collected using the following methods:

a. In-depth Interviews**:** Each interview will last 60–90 minutes, conducted online or in person, based on participant preference. Interviews will be recorded (with permission) and will include open-ended questions addressing perceptions of FOMO, product scarcity, and the emotional reactions of participants during flash sales.
b. Non-participant Observation**:** The researcher will observe customer comments and discussions in forums, on social media, and in product reviews on e-commerce platforms during flash sale periods to identify additional themes.
c. Documentation and Field Notes**:** The researcher will document impressions, reflections, and emerging patterns during interviews and observations.

4. Data Analysis

Data from interviews will be analyzed using thematic analysis, as follows:

a. Thematic analysis will be conducted after transcribing the recordings along with field notes.
b. Reviewing transcripts to identify initial contexts and patterns.
c. Initial coding to identify key themes related to FOMO, scarcity, and consumer communication.
d. Grouping similar themes to construct broader categories.
e. Interpreting the data to gain deeper understanding of the impact of FOMO and scarcity strategies on consumer communication and behavior during flash sales.

5. Validity and Credibility

The researcher employs data triangulation, combining in-depth interviews, observation, and document analysis to enhance the validity of findings. Member checks will also be performed by presenting a summary of findings to participants to ensure that the researcher's explanations align with their real-life experiences.

3. Result and Discussion

Results

This study, titled *"Fear of Missing Out (FOMO) and Scarcity Strategies: A Qualitative Exploration of Consumer Communication with Flash Sales on E-Commerce Platforms,"* aims to deeply examine how consumers respond to flash sale phenomena on e-commerce platforms, focusing on the role of Fear of Missing Out (FOMO) and the application of scarcity strategies. The research subjects consisted of five individuals who are active e-commerce users with experience participating in flash sales. This study reveals how emotional drives due to FOMO, scarcity strategies implemented by platforms, and consumers' internal attribution processes influence their purchasing decisions.

Based on in-depth interviews with five informants who actively shop on e-commerce platforms, it was found that consumers' perceptions of flash sales are significantly influenced by intrapersonal communication processes, particularly in the context of Fear of Missing Out (FOMO) and scarcity strategies.

Fear of Missing Out (FOMO)

Zahrotun Azkiyyah Ali, a student at Universitas Muhammadiyah Riau, stated:

> "I actively shop through e-commerce platforms. I often participate in flash sales. Flash sales offer significant discounts, sometimes even half the original price." (interview conducted on April 15, 2025)

Similarly, Ilya Ruri Fazilah, also a student at Universitas Muhammadiyah Riau, said:

> "Usually, I shop on platforms like Shopee or TikTok Shop, looking for products I really need. I often join flash sales because sometimes the prices are much cheaper and the discounts are quite attractive." (interview conducted on April 15, 2025)

Muhammad Zaky Fajar Rizky, a private employee, also revealed:

> "I very often participate in flash sales. Recently, I joined flash sales on Shopee and TikTok Shop, where the offered prices were much lower than normal, especially during live shopping events." (interview conducted on April 15, 2025)

Similarly, Fatiha Maharani and Siti Nurhaliza, both academicians, said:

> "We frequently use flash sales because they not only offer cheaper prices but also bundle deals." (interview conducted on April 15, 2025)

As described by Zahrotun, Ilya, Zaky, Fatiha, and Siti, flash sales on e-commerce platforms benefit consumers by offering discounts that are considerably lower than the original product prices. Flash sales have become a highly attractive sales strategy for both consumers and sellers. For consumers, they offer a golden opportunity to get desired products at much lower prices, with the excitement heightened by limited stock and time constraints. Often, flash sales also feature exclusive or limited-edition products, giving consumers a special sense of satisfaction.

A key element making flash sales so successful is the psychological phenomenon known as Fear of Missing Out (FOMO). This fear drives consumers to make quick, impulsive purchase decisions, worrying they might miss out on special prices or limited stock.

As Zahrotun Azkiyyah Ali said:

> "Of course! E-commerce platforms sometimes offer electronics during flash sales at extremely low prices, even for Rp 1. Naturally, I feel driven to get those deals." (interview conducted on April 15, 2025)

Similarly, Ilya Ruri Fazilah said:

> "Yes, I do feel FOMO. Seeing others get luxurious items makes me tempted too. For example, on Shopee's flash sale, when an iPhone 13 Pro Max was heavily advertised and many people participated, I saw videos about it everywhere. I wanted to experience it too. If I didn't join, I would feel left out." (interview conducted on April 15, 2025)

Muhammad Zaky Fajar Rizky also mentioned:

> "Often! Recently, I wanted to buy something during a flash sale at night where the price was extremely low during live shopping. I hesitated and didn't buy it. The next day, the price returned to normal, and I regretted not checking out immediately. Since then, I make sure to check out and pay immediately during flash sales." (interview conducted on April 15, 2025)

Fatiha Maharani shared a similar experience:

> "Yes, I once missed an opportunity. I wanted to buy clothes on Shopee. When I was about to check out, the stock was already sold out. I kept checking Shopee for a week, but the stock never came back." (interview conducted on April 15, 2025)

Finally, Siti Nurhaliza said:

> "Yes, especially when the stock is limited. I immediately check out. When I succeed in getting a limited stock item, it feels really good." (interview conducted on April 15, 2025)

FOMO emerges as a primary emotional driver pushing consumers to act quickly to secure desired products. This feeling stems from fear of losing a valuable opportunity, possibly not coming again. Under such circumstances, consumers often experience strong emotional pressure, making their decision-making more impulsive and less rational. Instead of considering actual needs or product functionality, the urge to "not miss out" becomes the dominant factor influencing their actions. This phenomenon illustrates the powerful impact of FOMO in shifting consumers' mindsets from logical to emotion-driven decisions.

i. Scarcity Strategies

ii. Scarcity strategies refer to marketing approaches that deliberately create perceptions of limited availability of products or services to increase consumers' urgency to purchase. According to the scarcity principle (Cialdini, 2007), the rarer a product or opportunity is perceived to be, the more valuable and desirable it becomes.

Scarcity strategies operate through two main mechanisms:

1. **Quantity Scarcity**: limiting the number of items available, pushing consumers to act quickly before products run out.
2. **Time Scarcity**: limiting the period in which consumers can buy, creating urgency to make quick decisions.

In modern marketing, particularly on e-commerce platforms, scarcity strategies are implemented through tactics such as showing limited stock notices ("only 5 left!") or limited time offers ("only available for 24 hours!"), often accompanied by real-time stock updates to create psychological pressure. These strategies leverage natural human tendencies like loss aversion and Fear of Missing Out (FOMO).

Consumers' responses to scarcity were highlighted through the interviews:

Zahrotul Azkiyyah Ali said:

> "I panicked, thinking why I didn't immediately checkout. I hesitated even though I really wanted the product, and in the end, it sold out." (interview conducted on April 15, 2025)

Ilya Ruri Fazilah said:

> "Anxious! I even contacted the seller to confirm if the stock would be restocked." (interview conducted on April 15, 2025)

Muhammad Zaky Fajar Rizky said:

> "Sometimes I feel pushed to make payment immediately before the deal is gone." (interview conducted on April 15, 2025)

Fatiha Maharani mentioned:

> "Very worried, because if it sells out, it might not be restocked." (interview conducted on April 15, 2025)

Siti Nurhaliza added:

> "Panic! And immediately checked stock availability to place an order." (interview conducted on April 15, 2025)

Scarcity strategies create a combination of emotional and social pressures that drive consumers to act quickly, often without adequate reflection. While effective in boosting sales for companies, these strategies can negatively impact consumers' financial and mental well-being.

Regarding the fairness of these promotional strategies, the informants said:

Zahrotul Azkiyyah Ali:

> "It feels unfair. Everyone wants the same products, but it's just marketing tricks. Still, I get lured by the promotion." (interview conducted on April 15, 2025)

Ilya Ruri Fazilah:

> "I think it's acceptable from a business perspective, but for consumers, it sometimes feels unfair because decisions are made under pressure, not full awareness." (interview conducted on April 15, 2025)

Muhammad Zaky Fajar Rizky:

> "It feels unfair if you miss out, but that's just their trick." (interview conducted on April 15, 2025)

Fatiha Maharani:

> "It boosts sales, but it's unfair to consumers." (interview conducted on April 15, 2025)

Siti Nurhaliza:

> "Very unfair to consumers." (interview conducted on April 15, 2025)

Promotional strategies like FOMO and scarcity are often perceived as unfair because they deliberately manipulate emotions and weaken rational thinking, forcing decisions under pressure rather than out of real need.

iii. Attribution Theory

iv. In the context of consumer behavior, scarcity strategies are closely related to Attribution Theory, which explains how individuals interpret causes of their own or others' behavior (Heider, 1958; Weiner, 1985). Attribution focuses on whether the cause is internal (self-driven) or external (environment-driven).

When faced with scarcity strategies, consumers often make quick, emotional purchasing decisions. Afterward, they reflect internally to understand why they acted as they did.

According to interviews:

Zahrotul Azkiyyah Ali said:

> "Decisions are made under pressure. It's partly self-control failure, but also external pressures like fear of missing out and attractive discounts." (interview conducted on April 15, 2025)

Ilya Ruri Fazilah said:

> "It's mostly my own weakness in making hasty decisions before stock runs out." (interview conducted on April 15, 2025)

Muhammad Zaky Fajar Rizky said:

> "Both internal and external influences. Seeing influencers promoting products made me checkout quickly." (interview conducted on April 15, 2025)

Fatiha Maharani said:

> "I felt it was a need that had to be fulfilled." (interview conducted on April 15, 2025)

Siti Nurhaliza said:

> "More due to social pressure, afraid of missing out, and stock running out." (interview conducted on April 15, 2025)

In this study, interviews with the five informants revealed that scarcity strategies play a dominant role in shaping consumer behavior during flash sales on e-commerce platforms. These strategies are implemented through various mechanisms like limiting stock quantities, imposing strict time limits, and using visual cues like countdown timers and low-stock alerts.

Consumers reported experiencing significant emotional pressure when faced with information such as "only 5 items left" or "10 minutes remaining," prompting them to make quick purchases, often without fully considering their actual needs.

The informants described that upon encountering limited stock or tight timeframes, they felt surges of anxiety and FOMO. This fear became the main driver in their intrapersonal communication, where logic and emotion battled for dominance. Under normal circumstances, many admitted they might not have purchased the product, but because of time pressure and perceived scarcity, they made impulsive buying decisions.

Additionally, scarcity often correlates with social conformity. Seeing products quickly sell out prompts' thoughts like, "Others are buying this, so it must be good. I need to join before it's gone!", further reinforcing the urge to buy.

The emotional responses were strong informants felt anxious, fearful of missing out, and even panicked when facing stock or time limits, leading to rapid, impulsive purchases with minimal rational consideration. Some informants expressed satisfaction upon successfully obtaining limited products but later reflected critically, sometimes regretting the unnecessary purchases.

From an attribution theory perspective, most consumers attributed their impulsive decisions to external factors, namely the flash sales environment that created urgency. Only a few acknowledged internal factors like lack of self-control. Overall, the results show that scarcity strategies not only increase perceived product value but also significantly affect consumers' intrapersonal communication and post-purchase attribution processes. Scarcity strategies function as emotional catalysts that accelerate decision-making but potentially negatively impact consumer satisfaction and self-evaluation afterward.

4.1. Presenting the Results

5. This research focuses on the reaction of consumers to flash sales on e-commerce websites, specifically how FOMO and scarcity strategies affect consumer behavior. The results were obtained from five informants through semi-structured interviews; all of them were experienced e-commerce users who actively participated in flash sales.

a. Consumer Experience of FOMO during Flash Sales

All participants reported frequent engagement with flash sales, motivated primarily by the opportunity to purchase products at significantly reduced prices. Discounts reaching 50% or more were identified as a major trigger encouraging participation. Zahrotun Azkiyyah Ali, Ilya Ruri Fazilah, Muhammad Zaky Fajar Rizky, Fatiha Maharani, and Siti Nurhaliza all expressed that flash sales offered rare opportunities to purchase desired items at exceptionally low prices. Particularly notable were electronics, where prices could drop dramatically during promotions.

Beyond the appeal of discounts, a more profound psychological phenomenon—Fear of Missing Out (FOMO)—was observed. Informants described emotional tension and anxiety triggered by highly publicized flash sales, especially when peers on social media flaunted successful purchases. Muhammad Zaky Fajar Rizky shared a notable case of regret after delaying a purchase during a flash sale, ultimately leading him to revise his shopping behavior towards faster decision-making. Similarly, Fatiha Maharani and Siti Nurhaliza reported disappointment after missing out on items they had intended to buy, reinforcing the intense emotional stakes involved.

This emotional urgency often displaced rational deliberation. Rather than carefully weighing their needs, informants described being driven by a need to secure a perceived opportunity before it disappeared.

b. The Role of Scarcity Strategies in Heightening Purchase Urgency

Scarcity strategies played a critical role in amplifying emotional responses during flash sales. These tactics manifested primarily through two mechanisms: quantity limitations ("only 5 items left!") and time constraints ("only available for 2 hours!").

Table 4.1 below summarizes the emotional reactions elicited by scarcity cues among the informants:

Informant	Reaction to Scarcity
Zahrotul Azkiyyah Ali	Panic due to out-of-stock products
Ilya Ruri Fazilah	Anxiety prompting immediate inquiry
Muhammad Zaky Fajar Rizky	Urgency to make swift payment decisions
Fatiha Maharani	Concern over irreversible stock depletion
Siti Nurhaliza	Panic leading to expedited stock checking

Scarcity cues were observed to compress consumers' decision-making timelines, effectively reducing the amount of time available for reflective thinking. This induced impulsive behaviors, where the fear of losing the product outweighed considerations such as financial prudence or actual need. Several informants described heightened emotional reactions when encountering real-time stock updates or countdown timers, leading to swift checkout behavior without much cognitive deliberation.

c. Perceptions of FOMO and Scarcity Strategies

Despite the effectiveness of these marketing strategies, informants expressed critical perspectives regarding their fairness and ethicality. Zahrotul Azkiyyah Ali referred to these strategies as "clever marketing tricks" that consumer, despite being aware, still found difficult to resist. Ilya Ruri Fazilah highlighted the emotional burden created by such tactics, which often resulted in decisions made under psychological pressure rather than conscious consumer choice. Muhammad Zaky Fajar Rizky, Fatiha Maharani, and Siti Nurhaliza further reflected on the perceived injustice of these tactics, where speed and impulsivity were rewarded rather than thoughtful decision-making.

This sentiment indicates that consumers, while recognizing the commercial logic behind such strategies, remain ambivalent about their personal effects, often feeling manipulated or disadvantaged.

d. Attribution of Purchase Decisions: Internal Versus External Factors

The informants' reflections on their impulsive purchasing decisions revealed a complex attribution process, aligning with principles of attribution theory.

Some informants, such as Ilya Ruri Fazilah and Fatiha Maharani, primarily blamed internal weaknesses like lack of self-control. Others, such as Zahrotul Azkiyyah Ali and Muhammad Zaky Fajar Rizky, highlighted a combination of internal vulnerabilities and external manipulations—particularly through promotional tactics, influencer endorsements, and environmental cues.

Table 4.2 below summarizes the attribution tendencies observed:

Informant	**Type of Attribution**	**Brief Explanation**
Zahrotul Azkiyyah Ali	Internal and External	Weak self-control combined with promotional influence
Ilya Ruri Fazilah	Internal	Hasty decision-making without thoughtful evaluation
Muhammad Zaky Fajar Rizky	Internal and External	Influenced by both marketing environment and social cues
Fatiha Maharani	Internal	Driven by an urgency to fulfill perceived needs
Siti Nurhaliza	External	Dominated by social pressures and FOMO triggers

Interestingly, while consumers recognized their own role in impulsive behaviors, they also perceived external factors—especially the engineered urgency and scarcity—as significant contributors to their actions. This dual attribution pattern reflects the psychological complexity involved in flash-sale consumer behavior, where both personal vulnerabilities and external environmental structures intersect to influence decision-making under high emotional tension.

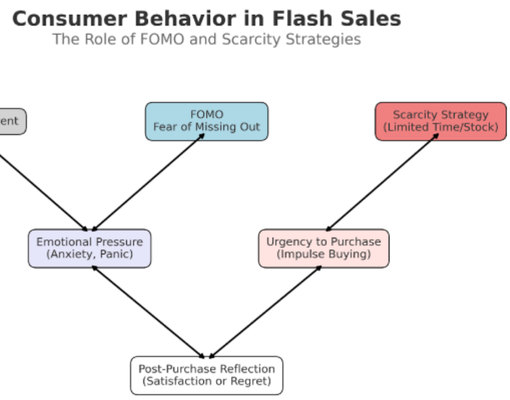

Figure 2. Consumer Behavior in Flash Sale

Figure 2 illustrates the emotional and cognitive process that consumers experience during flash sales, highlighting the interplay between FOMO, scarcity strategies, and purchasing behavior. The process begins with exposure to a flash sale event, which simultaneously triggers FOMO and perceptions of scarcity. These emotional responses heighten psychological pressure, reducing the time available for rational deliberation. Consequently, consumers experience an increased urgency to purchase, often leading to impulsive decision-making. Following the purchase, consumers undergo a phase of post-purchase reflection, which may result in either satisfaction or regret depending on the perceived value of the transaction and the emotional state at the time of purchase. This diagram visually summarizes the central mechanisms uncovered through qualitative analysis of participant experiences.

5.1. Create a Discussion

This study aimed to explore how FOMO and scarcity strategies influence consumer communication and purchasing behavior during flash sales on e-commerce platforms. The findings confirm that both emotional and cognitive processes are deeply intertwined in shaping consumer actions under conditions of artificial urgency.

The emergence of FOMO as a dominant emotional driver aligns with previous research suggesting that consumers under time pressure experience increased anxiety, reduced cognitive control, and heightened impulsivity (Przybylski et al., 2013; Herman et al., 2020). Informants consistently reported emotional distress when faced with limited-time offers, often prioritizing immediate action over rational deliberation. The flash sale environment effectively leveraged consumers' inherent fear of social exclusion and missing advantageous opportunities, thus prompting swift, and sometimes regrettable, purchasing decisions.

Similarly, the scarcity strategies deployed by e-commerce platforms functioned precisely as intended—by compressing decision-making timelines and elevating the perceived value of products through cues such as low stock warnings and countdown timers. These findings corroborate Cialdini's (2007) principles of influence, particularly the scarcity heuristic, whereby items perceived as limited in availability are deemed more valuable.

Notably, while participants acknowledged the effectiveness of these marketing strategies, they also expressed ethical concerns regarding their application. Feelings of manipulation and perceived unfairness were recurrent themes, suggesting that excessive reliance on scarcity tactics could backfire, potentially eroding consumer trust and loyalty over time.

Furthermore, attribution analysis revealed a complex dynamic where consumers internalized some responsibility for their impulsive behaviors (citing lack of self-control) while simultaneously externalizing blame onto the strategic environments crafted by e-commerce platforms. This duality reflects the broader psychological tension between agency and external influence that characterizes digital consumer experiences.

The implications of these findings extend beyond e-commerce practices, pointing toward a need for more ethically conscious marketing strategies that balance commercial objectives with consumer well-being. Overreliance on emotionally manipulative tactics may yield short-term sales boosts but could damage long-term brand equity.

4. Conclusion

This research provides a nuanced understanding of how FOMO and scarcity strategies influence consumer behavior during flash sales on e-commerce platforms. Key findings demonstrate that:

a. FOMO serves as a powerful emotional catalyst, driving consumers to act quickly out of fear of missing valuable opportunities.

b. Scarcity tactics, such as time constraints and limited stock notices, significantly amplify urgency and impulsivity in purchasing decisions.

c. Consumers experience internal conflicts between rational deliberation and emotional urgency, often attributing impulsive behaviors to both personal weaknesses and external manipulations.

While these strategies are commercially effective, their ethical implications merit careful consideration. Excessive use of manipulative marketing tactics can foster consumer dissatisfaction, reduce trust, and potentially harm brand reputation in the long run.

Future research could explore cross-cultural variations in FOMO responses, investigate the long-term psychological effects of repeated exposure to flash sales, and examine potential regulatory frameworks to protect consumers in digital marketplaces. Additionally, further studies may analyze how demographic factors such as age, income level, and digital literacy moderate the relationship between scarcity-induced urgency and purchasing behavior.

Overall, this study contributes to the growing literature on consumer psychology in digital environments and offers practical insights for designing more ethical and sustainable e-commerce marketing practices.

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