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Decoding Psychological Scarcity in Digital Consumption: A Framework for Ethical Marketing

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Abstract

The digital marketing space is increasingly turning to psychological stimuli like scarcity signals, a sense of urgency, and social comparison processes to motivate buyers to buy. Despite the popularity of these strategies to motivate interest and buying behaviour, their larger ethical implication and psychological effects are yet to be well-considered in existing marketing models. To fill this gap, the current study formulates a theoretical framework that elucidates the role that psychological scarcity plays in determining the impact of marketing ethics in digital consumption situations. Using the knowledge about consumer psychology, digital marketing, and business ethics literature, the suggested framework makes psychological scarcity a determining factor, which triggers consumer psychological processes, including anxiety, urgency, and perceived value, which, in turn, influence the results, including consumer trust, consumer well-being, and sustainable interaction. Besides this, the model adds the ethical orientation of firms, as a moderating condition, which shapes the way the scarcity cues are used and perceived in the digital marketplace. Through a combination of these constructs, the study offers a theoretically supported description of the potential consumer outcomes of scarcity-based marketing strategies to generate positive and otherwise potentially detrimental outcomes. The framework promotes the current debate around responsible digital marketing and provides the basis of future empirical studies about ethical marketing behavior in digitally mediated consumption settings.

Keywords: Psychological Scarcity, Fear of Missing Out (FOMO), Ethical Marketing, Consumer Psychological Responses, Consumer Well-Being, Sustainable Engagement, Digital Marketing

Introduction

Digital environments have transformed the way consumers interact with brands, products, and marketing communications. Online platforms increasingly deploy psychological triggers such as scarcity cues, urgency tactics, and social comparison signals to influence consumer behavior (Cialdini, 2009; Good & Hyman, 2020). Psychological scarcity refers to a perceived limitation of time, availability, or opportunity, which can heighten consumers' desire for a target object or experience, thereby affecting decision-making processes (Kristofferson et al., 2017; Kim et al., 2008).

A central form of psychological scarcity in the digital age is Fear of Missing Out (FOMO), an emotional state in which individuals worry that others are having rewarding experiences from which they are absent. FOMO has been shown to shape purchase intentions, brand engagement, and social media fatigue across diverse consumer segments (Hodkinson, 2019; Good & Hyman, 2020). Systematic reviews further identify FOMO as a significant driver of consumer engagement, impulse purchasing, and psychological responses to digital marketing stimuli (Hodkinson, 2019).

Scarcity-induced cues, whether embedded in countdown timers, exclusive offers, or limited stock indicators, generate not only cognitive evaluations of value but also affective responses such as anxiety and urgency (Good & Hyman, 2020; Hodkinson, 2019). These psychological reactions are central to understanding how scarcity strategies translate into consumer behavior outcomes, particularly in online purchase contexts where quick decisions are incentivized by algorithm-driven promotions (Kahneman, 2011; Luo et al., 2022). The interplay between scarcity, urgency, and social comparison aligns with cognitive-affective mechanisms that marketers often exploit to increase engagement and conversion rates while maintaining perceived value.

While such tactics can boost short-term commercial success, there is growing scholarly concern about their ethical implications and impact on consumer well-being. Research suggests that aggressive scarcity messaging can erode trust if consumers perceive manipulation or lack of transparency (Kristofferson et al., 2017; Kim et al., 2008). Moreover, psychological distress linked to scarcity cues including increased anxiety, rushed decision-making, and potential reduction in long-term well-being indicates the need for responsible marketing strategies that balance effectiveness with ethical considerations.

Ethical marketing frameworks emphasize consumer trust and sustainable engagement as critical outcomes of responsible marketing practices. Trust reflects consumers' confidence in a brand's integrity, transparency, and commitment to delivering value without exploiting psychological vulnerabilities. Sustainable engagement highlights participation that promotes long-term consumer welfare rather than mere transactional behavior, aligning with broader paradigms of ethical and sustainable consumer behavior (Belz & Peattie, 2009).

Although it is observable that a considerable body of empirical research has been done on one on one relationships like the impact of scarcity on purchase intention or the impact of FOMO on impulse buying there is still a huge gap in the conceptual models involving psychological drivers coupled with its ethical marketing consequences that have been integrated using consumer psychological responses. In particular, there have been very limited researches to explain the intervening processes and the moderating circumstances (including firm ethical orientation) that determine such multifaceted

relationships in the digital environment. This gap is critical to fill in order to come up with comprehensive theoretical theories that can inform both the research and sound marketing practice.

Thus, the current research finds a conceptualization that brings psychological scarcity to play as an independent variable in the ethical marketing outcome due to consumer psychological reactions, and the ethical orientation of companies as a boundary condition that determines these relationships. The framework attempts to offer a solid theoretical framework on how cues of digital scarcity are converted into ethical behaviors and provides clear avenues on how this can be empirically confirmed in the future.

2. Theoretical Background and Conceptual Foundations

2.1 Psychological Scarcity in Digital Consumption

Psychological scarcity is a cognitive and affective construct representing the perceived limitation of resources or opportunities that consumers experience in consumption environments (Tikkanen et al., 2023). In online contexts, scarcity manifests through cues such as limited-time offers, countdown timers, and low-stock indicators, which signal to consumers that an opportunity may soon vanish (Gupta, 2021). These cues not only affect cognitive evaluations of value but also trigger emotional responses that influence subsequent purchase intentions (Good & Hyman, 2020).

A key form of psychological scarcity in the digital sphere is Fear of Missing Out (FOMO) a social and temporal anxiety characterized by the apprehension of missing desirable experiences others are having (Przybylski et al., 2013). FOMO has been empirically linked to increased engagement with social media content, impulsive purchasing, and greater susceptibility to scarcity-driven marketing tactics (Hodkinson, 2019; Good & Hyman, 2020). Besides FOMO, *time pressure* cues and *social comparison* dynamics play crucial roles in forming scarcity perceptions. Time pressure accelerates decision urgency and increases perceived product attractiveness, while social comparison enhances the salience of scarcity when others are visible as competitors for limited resources.

Psychological scarcity is grounded in the Scarcity Principle from social psychology, which posits that people assign greater value to resources perceived as scarce (Cialdini, 2009). This theoretical grounding supports the claim that scarcity is not merely a marketing tactic but a psychological lever affecting consumer cognition and emotion. Therefore, psychological scarcity functions as the independent variable (IV) in the current framework.

2.2 Consumer Psychological Responses as a Mediating Mechanism

Consumer psychological responses mediate the link between psychological scarcity cues and broader consumption outcomes. Two types of reactions are pivotal in this context: cognitive evaluations (e.g., perceived value) and affective responses (e.g., anxiety and urgency).

Perceived value reflects the consumer's evaluation of the benefits of a product relative to its costs and alternatives. Scarcity increases perceived value by signaling exclusivity and desirability (Lemon & Verhoef, 2016). When consumers perceive higher value, they are more likely to engage in purchase behavior and exhibit stronger brand loyalty.

Affective reactions such as anxiety and urgency emerge directly from scarcity cues. Under pressure or FOMO, consumers experience an immediate sense of urgency to act prioritizing rapid decision-making over deliberation (e.g., impulse buying) (Luo et al., 2022). Anxiety in consumption contexts is linked to uncertainty and perceived threat, leading consumers to prefer immediate resolution through decision/action (Li et al., 2024).

Theorists often explain these mediating processes using Dual-Process Models of cognition and emotion, which recognize that fast, affect-driven processing (System 1) interacts with slower, rational processing (System 2) in shaping consumer behavior (Kahneman, 2011). In the presence of scarcity cues, the affective system gains prominence, leading to increased urgency and anxiety which, in turn, influence the decision outcomes.

Therefore, consumer psychological responses serve as a mediating variable (MV) in the conceptual model, delineating *how* psychological scarcity affects ethical marketing outcomes

2.3 Ethical Marketing Outcomes

The current study conceptualizes ethical marketing outcomes as consumer trust, consumer well-being, and sustainable engagement. Ethical marketing emphasizes practices that protect consumer interests, ensure transparency, and foster long-term value creation rather than short-term transactional gains.

Consumer trust is a construct representing the belief that a brand will act consistently with consumer expectations, maintain transparency, and avoid manipulative practices. Trust is fundamental to ongoing consumer–brand relationships and has been linked to brand loyalty and positive word-of-mouth (Kim et al., 2008)

Consumer well-being highlights the psychological and experiential benefits consumers derive from transactions and interactions with brands. In digital contexts, well-being is threatened when consumers feel pressure, anxiety, or manipulation from scarcity tactics.

Sustainable engagement refers to consumer participation that supports ongoing value creation, rather than impulsive, short-lived interactions. Ethical marketing outcomes thus combine emotional, cognitive, and behavioral components of consumer experiences.

The adoption of ethical marketing practices, such as honest scarcity communication, non-exploitative urgency cues, and consumer-centric messaging, is posited to enhance these outcomes. Ethical outcomes

align with broader sustainability frameworks and corporate social responsibility (CSR) perspectives, making them relevant for both theory and practice.

2.4 Ethical Orientation of Firms as a Boundary Condition

Ethical orientation of firms refers to the degree to which firms embed ethical considerations such as fairness, transparency, and consumer welfare into their strategic decisions and marketing practices. This construct has its roots in business ethics theory and can be measured through strategic commitment to ethical policies, CSR engagement, and ethical decision-making systems (Forsyth, 1980).

In the context of scarcity marketing, the ethical orientation of a firm may moderate how psychological scarcity cues influence consumer responses and outcomes. A firm with a strong ethical orientation may deploy scarcity cues responsibly, clearly communicate limitations, and prioritize consumer interests reducing negative affective responses such as anxiety and fostering trust (Homburg et al., 2013).

By positioning ethical orientation as a moderating variable (MoV), the framework accounts for situational variability in how scarcity cues and consumer psychological responses translate into ethical marketing outcomes.

3. Conceptual Framework Development

Conceptual frameworks play a critical role in advancing theory by organizing existing knowledge, clarifying causal mechanisms, and proposing integrative relationships among constructs (Jabareen, 2009). In conceptual research, such frameworks are not intended to test relationships empirically but to provide theoretically grounded explanations that guide future research and practice. Accordingly, the present study develops a conceptual framework that explains how psychological scarcity influences ethical marketing outcomes through consumer psychological responses, while accounting for the ethical orientation of firms as a boundary condition.

3.1 Psychological Scarcity as an Antecedent of Consumer Responses

Psychological scarcity is positioned as the primary antecedent in the proposed framework. Prior research consistently demonstrates that perceived scarcity whether driven by limited availability, time constraints, or social comparison alters consumers' cognitive evaluations and emotional states (Cialdini, 2009; Gupta, 2021). In digital environments, scarcity cues are amplified by real-time feedback mechanisms such as countdown timers, stock indicators, and visibility of others' actions, increasing the salience of scarcity perceptions (Good & Hyman, 2020).

Fear of Missing Out (FOMO), time pressure, and social comparison are conceptualized as key dimensions of psychological scarcity in the current framework. FOMO reflects a socially driven form of scarcity rooted in perceived exclusion from rewarding experiences (Przybylski et al., 2013). Time

pressure represents temporal scarcity, compelling consumers to make rapid decisions under perceived constraints (Luo et al., 2022). Social comparison intensifies scarcity by signaling competition for limited opportunities, thereby heightening perceived value and urgency (Festinger, 1954). Collectively, these dimensions justify positioning psychological scarcity as a foundational driver of consumer psychological processes in digital consumption contexts.

3.2 Consumer Psychological Responses as the Underlying Mechanism

While psychological scarcity influences consumer behavior, its effects are rarely direct. Instead, scarcity cues operate through consumer psychological responses, which function as the underlying mechanism translating external stimuli into outcomes. In the proposed framework, anxiety, urgency, and perceived value are conceptualized as core mediating responses.

Scarcity cues often generate anxiety by introducing uncertainty and perceived threat associated with potential loss, particularly in digital environments characterized by information overload (Li et al., 2024). Simultaneously, scarcity induces urgency, prompting consumers to prioritize immediate action over reflective decision-making (Hodkinson, 2019). These affective reactions are accompanied by heightened perceived value, as scarce offerings are evaluated as more desirable and exclusive (Cialdini, 2009).

This mediating logic aligns with dual-process theories of cognition, which posit that affect-driven, fast processing dominates decision-making under conditions of pressure and uncertainty (Kahneman, 2011). By incorporating consumer psychological responses as a mediating variable, the framework explains *how* psychological scarcity exerts influence rather than merely asserting that such influence exists.

3.3 Ethical Marketing Outcomes as Consequential Effects

The framework positions ethical marketing outcomes specifically, consumer trust, consumer well-being, and sustainable engagement as the ultimate consequences of scarcity-driven consumer responses. Ethical marketing outcomes extend beyond transactional metrics and reflect the long-term quality of consumer–firm relationships.

Consumer trust is widely recognized as a critical outcome of ethical and transparent marketing practices, particularly in digital contexts where consumers face heightened vulnerability (Kim et al., 2008). Excessive or manipulative use of scarcity cues may undermine trust if consumers perceive deception or coercion. Similarly, consumer well-being captures the psychological and experiential consequences of marketing interactions, with recent studies emphasizing that digital pressure tactics can negatively affect emotional well-being. Sustainable engagement, in turn, reflects ongoing, value-driven participation that supports long-term relational outcomes rather than impulsive or regret-based behavior (Belz & Peattie, 2009).

By linking psychological scarcity to these ethical outcomes through consumer psychological responses, the framework highlights the dual potential of scarcity marketing its capacity to create engagement and its risk of ethical erosion.

3.4 Ethical Orientation of Firms as a Moderating Condition

The ethical orientation of firms is introduced as a moderating variable that shapes the strength and direction of relationships within the framework. Ethical orientation reflects the extent to which organizations prioritize fairness, transparency, and consumer welfare in strategic decision-making (Forsyth, 1980).

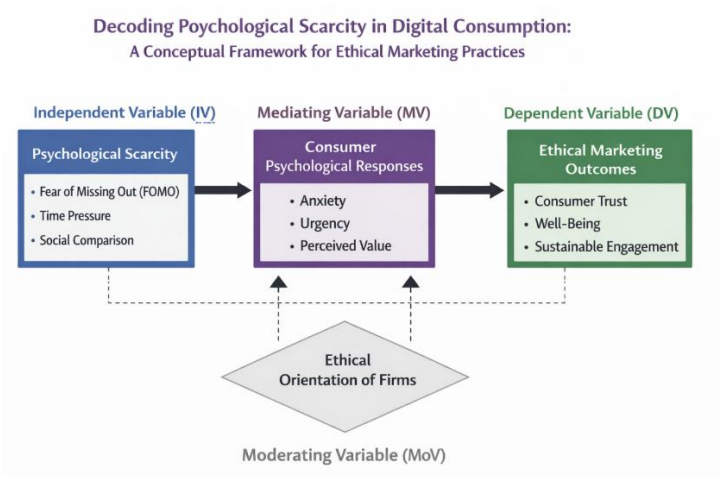
Firms with strong ethical orientations are more likely to deploy scarcity cues responsibly, ensuring accuracy, transparency, and consumer autonomy. In such contexts, psychological scarcity may enhance perceived value without triggering excessive anxiety or undermining trust. Conversely, firms with weaker ethical orientations may intensify scarcity cues in ways that exacerbate psychological pressure, leading to diminished trust and compromised consumer well-being (Homburg et al., 2013).

Positioning ethical orientation as a boundary condition strengthens the conceptual rigor of the framework by acknowledging that marketing outcomes are not solely determined by consumer psychology but are contingent upon firm-level ethical commitments.

3.5 Integrative Overview of the Framework

Collectively, the given conceptual framework comprises psychological, ethical, and strategic viewpoints explaining the nature of the operation of scarcity within the context of digital consumption. The driving force is psychological scarcity, the psychological reactions to consumers are the reasoning behind the process, the outcome of ethical marketing is the resultant effect, and ethical orientation of firms is the circumstances in which these relationships occur.

Figure 1. Proposed Conceptual Framework



This combination method fills one of the major gaps in the current literature, which has tended to analyze the influence of scarcity separately without giving due focus to moral consequences or mediating processes.

4. Propositions Development

In conceptual research, propositions serve to articulate theoretically grounded relationships among constructs without implying immediate empirical testing (Jabareen, 2009). Rather than predicting outcomes statistically, propositions clarify the *directional logic* and *conceptual mechanisms* embedded within the proposed framework. Guided by prior theory and extant literature, the following propositions are developed to explain the relationships among psychological scarcity, consumer psychological responses, ethical marketing outcomes, and the ethical orientation of firms.

4.1 Psychological Scarcity and Consumer Psychological Responses

Psychological scarcity cues such as Fear of Missing Out (FOMO), time pressure, and social comparison signals are designed to heighten consumers' awareness of limited opportunities. Prior research suggests that such cues increase emotional arousal and reduce deliberative processing, particularly in digital consumption environments characterized by immediacy and visibility (Cialdini, 2009; Good & Hyman, 2020). When consumers perceive scarcity, they are more likely to experience affective reactions such as anxiety and urgency, alongside elevated perceptions of value and desirability (Przybylski et al., 2013; Gupta, 2021).

Dual-process theories further explain that under conditions of pressure and uncertainty, affective and heuristic processing becomes dominant, shaping consumer judgments and responses (Kahneman, 2011). Accordingly, psychological scarcity is expected to activate a set of consumer psychological responses that mediate subsequent outcomes.

Proposition 1 (P1):
Psychological scarcity is positively associated with consumer psychological responses, including anxiety, urgency, and perceived value, in digital consumption contexts.

4.2 Mediating Role of Consumer Psychological Responses

Although scarcity cues are externally imposed, their influence on marketing outcomes depends on how consumers internally process these cues. Consumer psychological responses function as a mechanism that translates perceived scarcity into behavioral and attitudinal consequences. Anxiety reflects emotional discomfort arising from perceived loss or uncertainty, while urgency captures the pressure to act quickly. Perceived value represents a cognitive evaluation influenced by exclusivity and desirability signals (Hodkinson, 2019; Luo et al., 2022).

Existing literature suggests that these psychological responses significantly shape consumer trust, satisfaction, and engagement patterns. For instance, heightened urgency may prompt immediate engagement, whereas excessive anxiety may undermine trust and long-term relationship quality (Kim et al., 2008). Thus, consumer psychological responses play a central mediating role in determining whether scarcity-based marketing yields ethically positive or negative outcomes.

Proposition 2 (P2):
Consumer psychological responses mediate the relationship between psychological scarcity and ethical marketing outcomes.

4.3 Consumer Psychological Responses and Ethical Marketing Outcomes

Ethical marketing outcomes emphasize long-term relational value rather than short-term transactional gains. Consumer trust depends on perceptions of fairness, transparency, and respect for autonomy, while consumer well-being reflects the psychological and experiential quality of marketing interactions (Belz & Peattie, 2009). Sustainable engagement captures ongoing, voluntary participation that supports mutual value creation.

Psychological responses such as perceived value may enhance trust and engagement when scarcity cues are perceived as legitimate and transparent. Conversely, elevated anxiety and excessive urgency may reduce well-being and erode trust if consumers feel manipulated or pressured (Kristofferson et al., 2017; OECD, 2024). Therefore, consumer psychological responses are conceptually linked to both positive and negative ethical marketing outcomes.

Proposition 3 (P3):
Consumer psychological responses are significantly associated with ethical marketing outcomes, including consumer trust, consumer well-being, and sustainable engagement.

4.4 Direct Relationship Between Psychological Scarcity and Ethical Marketing Outcomes

Beyond indirect effects, psychological scarcity may also exert a direct influence on ethical marketing outcomes. Scarcity strategies can enhance perceived exclusivity and brand attractiveness, potentially strengthen trust and engagement when applied responsibly. However, when scarcity cues are exaggerated or misleading, they may undermine ethical perceptions and consumer welfare (Good & Hyman, 2020).

This duality highlights the ethical tension inherent in scarcity-based marketing and justifies examining both direct and indirect pathways within the framework.

Proposition 4 (P4):

Psychological scarcity is directly associated with ethical marketing outcomes, with the nature of this association contingent upon contextual factors.

4.5 Moderating Role of Ethical Orientation of Firms

The ethical orientation of firms reflects organizational commitment to responsible marketing practices, transparency, and consumer welfare (Forsyth, 1980). Firms with strong ethical orientations are more likely to deploy scarcity cues in ways that respect consumer autonomy and provide accurate information. In such cases, scarcity-induced psychological responses may enhance perceived value without generating excessive anxiety, thereby supporting trust and sustainable engagement.

Conversely, firms with weaker ethical orientations may intensify scarcity cues in manipulative ways, amplifying anxiety and urgency while diminishing consumer well-being. Prior business ethics and CSR research supports the view that firm-level ethical commitments shape how marketing practices are perceived and evaluated by consumers (Homburg et al., 2013).

Proposition 5 (P5):

The ethical orientation of firms moderates the relationship between psychological scarcity and consumer psychological responses.

Proposition 6 (P6):

The ethical orientation of firms moderates the indirect relationship between psychological scarcity and ethical marketing outcomes through consumer psychological responses.

5. Discussion

The current research makes a contribution to the existing literature on the topic of digital marketing by conceptually exploring the premises of psychological scarcity on the ethical marketing success derived the consumer psychological reaction and considering the ethical orientation of firms as a boundary condition. The paper combines the knowledge gained in consumer psychology, marketing ethics, digital consumption literature to answer the emerging academic interests about the ethical aspect of scarcity based marketing practice on the internet space.

First, the framework is useful in the body of literature pertaining to psychological scarcity since it is not limited to short-term behavioral impacts such as impulse buying or purchase intention. Although most studies on this topic have placed greater emphasis on transactional effects of scarcity cues, the current framework introduces psychological scarcity as a wider psychological construct with potential implication on trust, consumer welfare and sustainable interaction. The study provides a more integrative perspective on the functioning of scarcity in online settings by the conceptualization of Fear

of Missing out (FOMO), time pressure, and social comparison as mutually related variables of psychological scarcity.

Second, it is pointed out that the psychological consumer reactions play a pivotal role as a mediating factor in which scarcity effects present themselves. The available literature tends to develop direct connections between scarcity cues and consumer behavior without adequately describing the processes that go on in the minds of consumers. Using the anxiety, urgency and perceived value as mediating responses, the framework elucidates how external marketing stimuli are converted into either an ethical or an unethical outcome. This has been done in line with dual-process theories of thought, which focus on the interaction between affective and cognitive processing when perceived constraint and uncertainty is perceived.

Third, the research contributes significantly to the study in that it explicitly predicts the ethical marketing outcomes as the point of focus in terms of consequences of scarcity-driven strategies. Consumer trust, consumer well-being and sustainable interaction are increasingly being identified as key measures of responsible marketing performance in digital ecosystems. The framework emphasizes that scarcity cues are not necessarily unethical but it is their effect on consumer psychological responses and the extent to which they enhance or erode consumer interests in the long-term that makes them ethical or not. This view alters the debate on the dichotomous approach to evaluating scarcity strategies to a more rational and morally explicit one.

Lastly, the framework recognizes the situationalism of marketing ethics by proposing the ethical orientation of the firms as a moderating condition. Ethical commitments at the firm level affect the manner in which scarcity of information is framed, conveyed and received by consumers. This moderation rationale fills a significant literature lapse where marketing strategies were commonly viewed independently of organisational values and ethical principles. Ethical orientation also enhances explanatory ability of the framework and makes the claim that consumer psychology and firm conduct co-produce ethical outcomes in marketing.

On the whole, the discussion makes the suggested framework an analytically based answer to the current issues in digital marketing. It highlights that scholars and practitioners should revisit the moral limits of scarcity-based approaches and focus on consumer health and well-being as well as engagement and performance indicators.

6. Implications

The proposed conceptual framework of the present study has some significant implications to the theory, managerial practice, and ethical and policy issues. The connection between psychological scarcity and

ethical marketing results through consumer psychological reaction and ethical orientation of firms leads to a more responsible and all-encompassing knowledge of digital marketing practices in the study.

6.1 Theoretical Implications

Theoretically, this research has various contributions to literature. First, it expands the concept of psychological scarcity into areas it never had before, namely purchase intention, impulse buying and temporary consumer reaction. The framework expands the concept of scarcity research and puts it in line with modern debates on consumer well-being and ethical marketing by placing psychological scarcity as a pre-cursor to ethical marketing results. Second, the research is theoretical because it explicitly includes consumer psychological responses as a mediating variable. Although previous studies frequently have found direct connections between scarcity signals and consumer behavior, this model illuminates the psychological mechanisms of action and reason as to why and how such influences take place. This mediation-based account is more accurate and reacts to the plea of providing more psychological foundations in the study of digital marketing. Third, the moderating conditions of ethical orientation of firms have a contribution in business ethics and marketing ethics literature. The ethical commitment at the firm level, identified as a boundary condition, is a way of incorporating the ethics of organizations into consumer behavior theory. This viewpoint sustains the thesis that ethical results in marketing are not only consumer-centric but also firm and strategic and ethical decisions. Lastly, the framework provides a platform of future empirical investigations as it clearly defines constructions, relations, and boundary conditions. This conceptual model can be used to advance studies to examine moderate mediation effects on various digital platforms, cultural backgrounds, and industry environments.

6.2 Managerial Implications

The conclusions of this theoretical discussion give some practical lessons to marketing managers and digital strategists. First, although psychological scarcity can be an important instrument to capture consumer attention and make them engage, managers ought to be aware of its psychological implications. Too much dependency on the scarcity signals can increase anxiety and urgency of the consumer which can erode the trust and long-term brand relationship. Second, managers are urged to develop scarcity-based campaigns in a transparent and restraint way. Limited awareness, proper representativity of the availability, and avoidance of misleading urgency indicators can manage the perceived value development and the ethical accountability. Such moral use of scarcity would increase consumer confidence and a durable interaction as opposed to a transient or remorseful interaction. Third, the framework emphasizes strategic significance of incorporating ethical orientation in the marketing decision making. Companies, which focus on ethical issues, can use scarcity cues more effectively without affecting consumer welfare. Ethical orientation should be regarded more as a

strategic resource as opposed to compulsory compliance and applied to the formation of digital marketing strategies and their implementation. Lastly, the model proposes the use of consumer psychological responses as one of the critical indicators of campaign effectiveness by managers. Measures of emotional welfare, perceived pressure and post-purchase satisfaction can be useful in helping understand whether the scarcity tactics are producing sustainable value or unintended ethical hazards.

6.3 Ethical and Policy Implications

Ethically and policy wise, the research highlights why there should be more degree of responsibility in digital marketing activities. With increasing attention to scarcity cues by the algorithm-driven platform, the risk of psychological manipulation, especially among susceptible consumer groups, increases. Regulators and policy makers can then look at coming up with more explicit regulations on the appropriate use of scarcity and urgency tactics in online space. The framework also endorses the fact that consumer well-being should be incorporated as a central benchmark in marketing effectiveness. Ethical marketing can no longer be evaluated based on the performance indicators like clicks or conversions but include the psychological effect of the marketing on the consumers. Self-regulatory efforts and codes of conduct in the industry can be enhanced with a view to add the principles, which involve psychological pressure and transparency. Besides, the research urges companies to implement positive ethical governance strategies, including the use of internal review systems in digital campaigns and the provision of marketing specialists with ethics-oriented training. These measures may assist in making sure that scarcity-based strategies do not conflict with the wider societal expectations and bring about sustainable market practices.

7. Future Research Directions

Although the current study builds a multidimensional conceptual model that connects the concept of psychological scarcity and ethical marketing performance, there are still some opportunities in the further research to empirically expand and develop the proposed associations. The following guidelines are meant to be followed by the scholars in a systematic validation and a contextual expansion of the framework using different digital consumption environments.

One, future research can empirically evidence the framework suggested with the help of quantitative studies, including structural equation modeling, to investigate the mediating role of consumer psychological responses and moderating impact of firm ethical orientation. To verify the moderated mediation relationships proposed in this research, testing the relationships would be a strong evidence that would give the conditional mechanisms by which psychological scarcity influences the outcome of ethical marketing. Second, the framework can be further explored in the future through the context of

other digital platforms as well as marketing settings, such as social media, e-commerce marketplaces, mobile applications, and emerging technologies such as live-streaming commerce. The features of the platform can exacerbate or dampen scarcity cues, which will impact the consumer psychological reactions and ethical perceptions in different ways. Third, cross-cultural research is a potential path of building the framework. The time, uncertainty and social comparison cultural orientations can influence the perceptions of scarcity cues and their ethical judgment. The generalizability of the framework can be improved by comparing its use in developed and emerging markets, which would add to the literature on international marketing. Fourth, the future studies can elaborate on the conceptualization of ethical orientation of firms with the inclusion of multidimensional measures, including corporate social responsibility programs, ethical leadership, and transparency. Longitudinal research design would be used to even further test the effects of the long-term commitment to ethics on consumer trust, well-being, and engagement. Fifth, the qualitative methods including in-depth interviews or netnography might be used as the ways to supplement quantitative results and gain more insight into the minor experiences of scarcity-based digital marketing experienced by consumers. This can reveal subtle emotional and ethical meanings that are difficult to believe using survey tools. Lastly, further studies in this area may investigate other consequences of ethical marketing such as consumer empowerment, brand advocacy, and non-submission to manipulative marketing approaches. Researching these protracted impacts would further explain the relational and social impacts of psychological scarcity in online-based marketing conditions in the long term.

8. Conclusion

The growing dependence on the digital approach to marketing has accelerated the application of psychological scarcity signals like Fear of Missing Out (FOMO), time pressure, and social comparison. Although these strategies are very effective in attention capture and engagement, they have not been studied extensively in an integrated and theory-based approach on their ethical implications. To fill this gap, the current paper formulated a conceptual model that demonstrates the effect that psychological scarcity has on marketing ethically as a result of consumer psychology response and takes into consideration the ethical orientation of companies as a boundary condition.

Placing psychological scarcity as a multidimensional concept and associating it with consumer trust, well-being, and sustainable interaction, this research supersedes a more traditional result-oriented approach towards scarcity marketing. The framework underlines that the impacts of scarcity are not entirely positive and cannot be inherently unethical, and instead, they rely on the psychological processes that they trigger and the ethics that govern the actions of firms. The psychological reaction of consumers that can be singled out as anxiety, urgency, and perceived value experience become the key factors that can influence ethical behavior in digital consumption settings due to scarcity cues.

Another significant issue highlighted by the study is the significance of firm-level ethical orientation to mediate such relationships. Ethical orientation will rule whether scarce cues are believed to be valid indicators of value or as deceptive strategies that will harm the consumer welfare. With the inclusion of this moderating view, the framework emphasizes the joint role of the firms and consumers in co-creating the ethical marketing results.

In general, the conceptual work can be said to add value to the literature on marketing, consumer psychology, and business ethics by providing a logical and integrative framework that brings together effectiveness in marketing and the ethical accountability. The offered model forms the basis of the future empirical research and offers valuable insights to the practitioners and the policymakers who want to align convincing digital marketing practices with the ultimate well-being and trust of the consumers. By thus, the paper supports the perception that the ethical considerations are not the marginal restrictions, but rather the key elements of responsible and sustainable marketing in the digital era.

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