Conquering fear and embracing joy in shaping marketing strategy

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Abstract

This research investigates the complex relationship between Problematic Internet Use (PIU) and various psychological aspects, including Psychology and Mental Health (PMH), Fear of Missing Out (FOMO), and Social Media Fatigue (SMF). Furthermore, this study was designed to test various psychological conditions regarding the Desire to Disconnect (DD), which ultimately results in the Joy of Missing Out (JOMO). Through a structural equation model involving 310 college student respondents, this study found that PIU is associated with suffering in PMH, heightened FOMO, increased SMF, and that FOMO exacerbates SMF. Moreover, SMF drives DD, and ultimately, DD causes JOMO. In response to these findings, we argue that achieving a balance in marketing between FOMO-based online strategies and JOMO-based offline strategies needs to be a priority for sustainable brand marketing. Additionally, it is crucial to consider ethical issues in content moderation aligned with FOMO to safeguard consumers' psychological well-being.

Keywords: Fear of missing out; joy of missing out; consumer behavior; marketing

Introduction

The rise of technology has brought forth numerous advantages, enhancing the value of products and services in various domains (Fineberg et al., 2018). A significant testament to technological progress is the omnipresence of the internet. In today's era, it not only serves as a communication tool but also functions as a conduit for information retrieval and digital entrepreneurship. The widespread adoption of the internet among children and adolescents over time has led to a multitude of issues (Fineberg et al., 2018). This claim finds support in survey data from the Association of Indonesian Internet Service Providers in 2022, revealing that a vast majority of internet users are students, with a staggering 99.26% penetration rate for accessing social media (APJII, 2022). These findings resonate with an earlier survey conducted among students at Universitas Internasional Semen Indonesia (UISI), highlighting a prevalent use of the internet among UISI students, primarily for online shopping, constituting 78.3% of their internet activity.

It becomes evident from the preceding discussion that excessive internet usage contributes to mental health issues among users. This association is accentuated by the addictive nature often accompanying prolonged internet usage can transform into addictive behavior, necessitating consideration from a mental health perspective (Osborn et al., 2022). The addictive nature stemming from excessive internet use also presents advantages, particularly in the business sphere, where it fuels the phenomenon termed the "fear of missing out" (FOMO). FOMO is extensively utilized as a marketing strategy, leveraging the apprehension experienced by social media users, who are the target consumers, to drive engagement (Hamutoglu et al., 2020; Rautela & Sharma, 2022).

However, excessive exposure to such conditions can lead to a phenomenon known as social media fatigue (SMF). Individuals may experience annoyance, disappointment, anger, and diminished interest or

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motivation in interacting across various facets of social media due to the overwhelming information overload from social media conten (Logan et al., 2018). The prevalence of such conditions can prompt individuals excessively engaged in social media activities to yearn for the desire to disconnect (DD) from their online activities. This longing for disconnection leads to a desire to seek real-world pleasure and enjoyment, a behavior recognized as the Joy of Missing Out (JOMO) (Aitamurto et al., 2021).

The shift in behavior from FOMO to JOMO poses a challenge requiring careful consideration, especially for marketers when shaping marketing strategy. Consequently, the objective of this research is to comprehend and expound on the transformation of consumer behavior from FOMO to JOMO and their associated factors. These factors encompass Problematic Internet Use (PIU), Psychological and Mental Health (PMH), Social Media Fatigue (SMF), and the Desire to Disconnect (DD). Expanding on the groundwork laid by Hamutoglu et al. (2020); Logan et al. (2018); and Rautela & Sharma (2022), this study delves into unexplored territories. Our goal is to illuminate the shift in behavior from FOMO to JOMO, characterized by distinctive settings and specific research participants among college students—extending beyond the boundaries of previous research.

This research is anticipated to make a valuable contribution to marketing strategies that consider consumer behavior, digital marketing, and consumer psychology, all of which significantly influence business activities. Moreover, the findings of this study are expected to offer a conceptual framework guiding business practitioners and digital marketers in determining future actions and decisions with ethical considerations.

Literature Review

Problematic Internet Use (PIU) and Psychological and Mental Health (PMH)

The evolution of internet technology has significantly transformed communication, introducing digital tools like email, instant messengers, and social media platforms, marking substantial changes over the past decade (Deen et al., 2013). While these changes bring positive benefits to individuals' lives, they also carry negative consequences, particularly linked to excessive internet usage, which can give rise to various issues. Notably, these issues are connected to behavior that deviates from societal norms and standards—termed problematic behavior (De Leo & Wulfert, 2013). Concerning internet usage, the resulting issues due to excessive usage, posing risks to mental health, are known as PIU (Benka et al., 2014). This explanation highlights the association between PIU and PMH issues. Such a condition might surface in individuals striving for well-being, facing pressure in life, grappling with self-awareness, and seeking ways to contribute to society—commonly referred to as PMH (Osborn et al., 2022). Consequently, this condition warrants considerable concern.

The manifestation of mental health disorders could be attributed to continuous internet usage. Individuals experiencing loneliness, heightened pressure, and compulsive psychological disturbances due to excessive internet use may be indicative of this condition (Barthakur & Sharma, 2012). Thus, excessive internet usage represents an aspect of internet-related issues that can potentially lead to PMH problems.

Problematic Using Internet (PIU) and Fear of Missing Out (FOMO)

The complexities surrounding internet usage have garnered significant attention within the scientific community (Dunbar et al., 2018), notably addressing the issue of excessive internet use, particularly prolonged engagement with social media, leading to addiction and constituting a part of PIU (Fineberg et al., 2018). Studies consistently support the notion that PIU can induce addiction due to excessive internet usage (Mullen et al., 2018). Such situations often result in an individual's inability to detach from internet usage, giving rise to behaviors associated with FOMO. PIU is characterized by compulsive and excessive internet use, compelling individuals to spend prolonged periods online. Extended online presence exposes individuals to social media platforms where FOMO prevails (Reyes et al., 2018). The frequent exposure to social media reinforces feelings of FOMO, bombarding users with the latest posts and updates. Individuals with PIU frequently compare themselves to others on social media platforms (Hamutoglu et al., 2020), closely following others' lives, which can evoke feelings of envy and inadequacy when perceiving others having more fun or engaging in seemingly more interesting activities. This behavior of comparison significantly fuels FOMO, as individuals become anxious about missing out on perceived experiences in others' lives.

Moreover, individuals with PIU often prioritize online interactions over face-to-face ones (Cabrera et al., 2019), fostering a reliance on virtual social connections within social media friendships, online communities, or gaming networks. FOMO intensifies in these online spaces when individuals observe their peers engaging in activities without them, further exacerbating their FOMO related to social interactions and events (Przybylski et al., 2013). This elucidates the close relationship between PIU and FOMO.

Problematic Internet Use (PIU) and Social Media Fatigue (SMF)

The escalation in internet usage can be attributed to the transition from conventional communication methods to electronic means (Deen et al., 2013). The advent of electronic communication, notably the internet, has significantly facilitated interpersonal interactions. One consequential product of electronic communication is the widespread adoption of social media platforms (Abel et al., 2016). Electronic communication tools are extensively utilized across various domains, including entrepreneurial endeavors, catering to both sellers and buyers. From the consumer's perspective, the internet serves as a pivotal tool for online socialization, integrated within marketing channels, particularly for digital marketers analyzing consumer behavior (Vinerean et al., 2013). However, prolonged internet usage can lead to issues referred to as PIU. One of the consequences associated with this condition is the amplified usage of social media platforms, a direct outcome of internet development. While social media stands as an invaluable tool for fostering interactions, excessive usage can result in an additional issue recognized as SMF (Shyahnaz & Takwin, 2022).

Individuals experiencing PIU often find themselves continuously scrolling through social media feeds, checking notifications, and engaging with online content for prolonged durations. The excessive time spent online can contribute to SMF, as continuous interaction with social media content can be mentally and physically draining (Logan et al., 2018). Moreover, individuals with PIU tend to perpetually compare themselves with others on social media, feeling compelled to keep pace with the online activities and accomplishments of their peers, inducing sensations of pressure and inadequacy. This constant comparison and the pressure to maintain an online presence may contribute to SMF, as individuals might feel overwhelmed and fatigued by the unrealistic standards set on social media platforms (Dzandu et al., 2016; Dhir et al., 2018). Additionally, surveys indicate that young people exhibit the highest penetration in internet and social media usage (APJII, 2022), thereby suggesting a greater probability for the younger demographic to experience SMF.

Fear of Missing Out (FOMO) and Social Media Fatigue (SMF)

The advent of the internet and social media has significantly facilitated interpersonal interactions, enabling individuals to establish and maintain social connections (Rautela & Sharma, 2022). These platforms have exerted various influences, notably fostering the emergence of FOMO behavior. It's widely observed, particularly among young individuals, notably college students (Cahyadi, 2021). FOMO engenders a compelling urge in individuals to incessantly engage in social network connectivity (Elhai et al., 2016). Consequently, individuals are prompted to remain continuously connected on social media platforms. However, excessive usage often leads to a natural sense of exhaustion due to the inundation of information, leading to what is termed as Social Media Fatigue (SMF), wherein individuals encounter challenges in processing overwhelming information (Logan et al., 2018). Therefore, it can be inferred that FOMO behavior can trigger the exhaustion associated with SMF.

Social Media Fatigue (SMF) and the Desire to Disconnect (DD)

An influential factor contributing to Social Media Fatigue (SMF) is the inundation of information prevalent on social media platforms. Users continuously encounter an overwhelming stream of posts, updates, news, and notifications, often leading to feelings of stress, anxiety, and mental exhaustion. As these emotions intensify, the DD from social media grows stronger. Individuals yearn for respite from the ceaseless influx of information to regain mental clarity and tranquility (Logan et al., 2018). Social media frequently fosters a culture centered on comparison, potentially resulting in negative self-perceptions, diminished self-esteem, and heightened feelings of inadequacy. As SMF develops, individuals may seek to detach from social media to break free from the comparison cycle and restore their self-confidence and self-worth (Bright et al., 2015). Moreover, SMF often correlates with symptoms of anxiety and depression. Individuals may feel emotionally drained due to online interactions, cyberbullying, or exposure to negative content. The emergence of DD serves as a means to prioritize mental well-being and seek relief from the emotional burden associated with social media (Swar et al., 2017).

Additionally, SMF can contribute to a decline in real-world relationships and face-to-face social interactions. Increased time spent on social media may lead individuals to feel disconnected from their physical surroundings, resulting in a sense of isolation and detachment from meaningful offline relationships. The DD surfaces when individuals recognize the necessity to rebuild and reinforce their connections in the real world (Logan et al., 2018; Swar et al., 2017). Consequently, the exhaustion stemming from social media usage can prompt a longing for disconnection.

Desire to Disconnect (DD) and Joy of Missing Out (JOMO)

The decision to abstain from using the internet or social media often arises from accumulated fatigue due to prolonged engagement with these platforms. These experiences act as a catalyst, prompting individuals to disengage from the online realm and liberate themselves from incessant connectivity (Rautela & Sharma, 2022). This inclination leads to a strong urge in individuals to disconnect from technology, whether temporarily or permanently—a phenomenon commonly termed as Digital Detox (DD) (Swar et al., 2017). This disconnection process may evoke a sense of loss as individuals distance themselves from the technology-centered world they have grown accustomed to (Fusté-Forné & Hussain, 2021), compelling them to seek liberation in the tangible, real world.

Moreover, this state aligns with the concept of JOMO as introduced by Jacobsen (2021). JOMO encapsulates the sensation of contentment and pleasure derived from successfully detaching oneself from elements deeply associated with the virtual world. It epitomizes the ease and solace individuals experience when not entangled in the digital domain. Notably, behaviors linked to JOMO may be stimulated by alternative options for information and communication beyond the realm of social media, providing a means to disconnect from excessive mobile phone usage (Aitamurto et al., 2021).

Building upon this literature review, the study presents a preliminary model depicted in Figure 1.
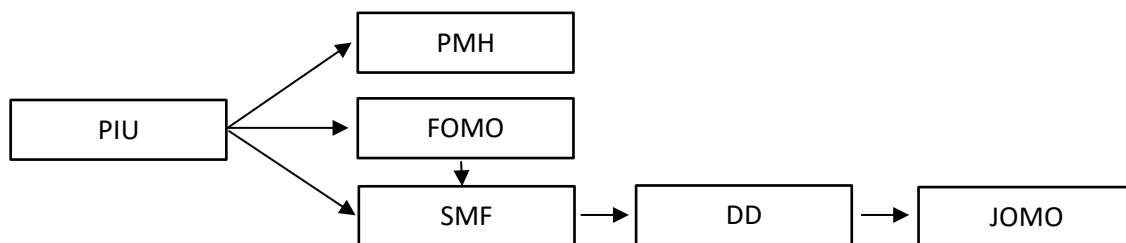

Figure 1. Research model framework

Research Method

Utilizing the operational definition developed, as delineated in Table 1, a research questionnaire was formulated. The construction of this questionnaire, employing a Likert scale, aligns with the approach presented by Hakim (2021). The questionnaire was structured by assembling items corresponding to the variables and indicators outlined in the research problem. Subsequently, these items were tested on selected respondents drawn from the specific population and sample identified for this research. Respondents were requested to complete the questionnaire by assessing each item on a scale ranging from 1 to 5, denoting from "strongly disagree" to "agree." Subsequently, the cumulative score for each respondent was calculated, representing the sum of scores across all items. Items displaying a low correlation with the total score were eliminated to ensure the internal consistency of the prepared statements.

The determination of the sample size was computed using a formula involving the addition of the number of indicators and the multiplication of the number of variables by 10, as outlined in Hair et al. (2010). With a total of 25 indicators and 6 variables, the study engaged a sample size comprising 310 respondents. The criterion for the minimum sample size for Structural Equation Modeling (SEM), as indicated by Santoso (2021), is met as it exceeds the suggested threshold of 150. The study sample comprised active UISI students in 2022, chosen due to their representation of the prevailing trend of internet and social media usage predominantly among the younger demographic.

Data Analysis Technique

The data analysis method adopted for this research is Structural Equation Modeling (SEM), a robust multivariate analysis technique that amalgamates factor and regression analysis to scrutinize relationships between variables, encompassing both indicators and constructs (Santoso, 2021). The first phase involves the measurement model test. This step evaluates the validity and reliability of the research questionnaire employed for data collection. Confirmatory Factor Analysis (CFA) is utilized for this test, encompassing assessments for convergent validity, discriminant validity, and reliability. Convergent validity is evaluated by observing factor loading values, typically considered acceptable if they exceed or equal 0.5 (Hair et al., 2010). Discriminant validity is ascertained by comparing the Average Variance Extracted (AVE) against the Average Shared Squared Variance (ASV). AVE is calculated as the average value derived from factor loadings raised to the power for each item in every variable, divided by the total

error value obtained through a formula. ASV, on the other hand, is computed by averaging factor loading values for each item within a variable divided by the number of items. Reliability is assessed using Cronbach's alpha formula, where the Composite or Construct Reliability (CR) should surpass 0.7 to indicate reliability (Rautela & Sharma, 2022).

Table 1. Operational definition and indicators

Variable	Operational Definitions	Indicator
Problematic internet use (PIU)	The consequences experienced by individuals due to pathological issues such as loneliness, anxiety, or depression can lead to cognitive and maladaptive behaviors in internet usage (Andangsari et al., 2019).	Preference for online social interaction Mood regulation Compulsive internet use Cognitive preoccupation Negative outcomes
Psychological and mental health (PMH)	The possibilities that individuals have regarding well-being include the potential to cope with life's pressures, being aware of their abilities, learning and functioning effectively, and making contributions to society (Osborn et al., 2022).	Loneliness Comfort Interaction with others Social media usage
Fear of missing out (FOMO)	The widespread worry related to the lack of valuable experiences (Milyavskaya et al., 2018).	Fear Worry Anxiety
Social media fatigue (SMF)	Mental exhaustion caused by an individual receiving an overwhelming amount of information, leading to feeling overwhelmed (Rautela & Sharma, 2022).	Perceived usefulness Received information or information acceptance Emotions experienced while using social media
Desire to disconnect (DD)	The individual's feeling of restraining oneself from using social media, either temporarily or permanently (Swar et al., 2017).	Desire for disconnection Technological dependence
Joy of missing out (JOMO)	The feeling of joy due to having multiple options and the freedom to choose, allowing the individual to disconnect from something related to the virtual world and engage in social activities (Aitamurto et al., 2021).	Happiness Smartphone usage Disconnection or detachment

The subsequent phase is the structural model test, which comprises multiple assessments. This stage involves data normality testing, outlier detection, Goodness of Fit Model testing, and hypothesis testing. Data normality is evaluated through the multivariate determined by the critical ratio (C.R.) on kurtosis and skewness value, falling within the range of -2.58 to 2.58 (Santoso, 2021). For outlier detection, the Mahalanobis distance is calculated against the table *chi*-square value with a significance level of $\alpha = 0.001$ and degrees of freedom (df) equal to the number of study variables. Goodness of Fit Model assessment relies on six index criteria: CMIN/DF $\leq$ 2, GFI $\geq$ 0.90, AGFI $\geq$ 0.90, CFI $\geq$ 0.90, TLI $\geq$ 0.90, and RMSEA $\leq$ 0.08. These indices are selected based on recommended criteria for adequate model fit assessment (Hair et al., 2010). Hypothesis testing uses a criterion where a *p*-value less than 0.05 indicates the acceptance of the hypothesis.

Result and Discussion
Measurement Model

The outcomes of the Confirmatory Factor Analysis (CFA) test, align with detailed results of the convergent validity, discriminant validity, and reliability test are delineated in Table 2. The results indicate that each item's factor loading for the variables utilized in this study surpasses the specified threshold of 0.50. Additionally, the Average Variance Extracted (AVE) value exceeds the Average Shared Squared Variance (ASV), affirming the validity of the discriminant validity test in this study. Furthermore, the Construct Reliability (CR) value for each variable surpasses the prescribed threshold of 0.70. Hence, the outcomes of the reliability test in this study are deemed satisfactory.

Structural Measurement Test
Normality

During the initial stages of this research, the data displayed non-normality, necessitating the removal of 55 data points. Subsequent retesting was performed until achieving normality, resulting in 310 valid samples for analysis. The outcomes of the normality test are presented in Table 3. The findings indicate that the values obtained from the multivariate normality test align with the predefined criteria set for this study. Specifically, each C.R. value for all variables falls within the range of -2.58 to 2.58, affirming adherence to the univariate normality assumption.

Table 2. Confirmatory factor analysis

Variable	Item	Factor Loading	CR	AVE	ASV
PIU	I am more interested in and prefer online communication over face-to-face.	0.712	0.842	0.516	0.253
	I use the internet when I'm feeling down, and engaging online significantly.	0.722			
	I struggle with maintaining control over my internet usage.	0.719			
	I often find myself fixating on staying connected online even during periods of offline activity	0.690			
	The utilization of the internet has led to challenges in various aspects of my life.	0.749			
PMH	I often experience excessive loneliness.	0.765	0.828	0.547	0.230
	I feel more comfortable in the virtual world than in the real world.	0.732			
	I frequently avoid interactions with those around me.	0.735			
	I often turn to social media when I feel sad or down.	0.726			
FOMO	I frequently check my phone to stay updated on my friends' lives and the events happening with them.	0.665	0.808	0.513	0.184
	I feel compelled to share every detail of my activities on online platforms by consistently updating my status.	0.754			
	I monitor my friends' activities even while on vacation.	0.721			
	Sometimes, I question the time I spend keeping up with current trends and events.	0.723			
SMF	I often feel overwhelmed by the sheer volume of information when using social media.	0.582	0.853	0.542	0.273
	I often feel overwhelmed by the sheer volume of information I receive from social media.	0.814			
	I find that social media often fails to deliver detailed and timely information on the topics I'm interested in.	0.634			
	The abundance of information on social media often leaves me feeling stressed and overwhelmed.	0.849			
	I frequently find myself giving up on searching for information on social media because the sheer volume of content becomes overwhelming.	0.764			
DD	I desire to break free from a life tethered to cables and embrace a more vibrant, real-world experience.	0.789	0.798	0.570	0.306
	I want to take a break to enhance my experiences with the people I love, stepping away from the constant connectivity of the virtual world.	0.795			
	I feel well when I distance myself from dependence on technology.	0.675			
JOMO	I experience greater happiness when engaged in offline activities that involve connecting with others.	0.672	0.807	0.514	0.197
	I tend to refrain from using smartphones when I'm on vacation.	0.741			
	Disconnecting allows me to take a break from daily routines and achieve the desired peace.	0.801			
	I can restore balance in my life by disconnecting.	0.642			

Outlier Test

The outcomes of the multivariate outlier test employing Mahalanobis distance are presented in

Table 4. The result reveals that the highest Mahalanobis distance value is 16.298, which remains below the critical valu of *chi*-square table of 22.458 (α=0.001; df=6). This observation indicates the absence of multivariate outlier values within the research dataset. Moreover, the results in Table 5, corresponding to the univariate outlier test, demonstrate no samples meeting the criteria for univariate outliers. This is evident from the Z-score values consistently falling within the range of -3 to 3.

Table 3. Result of normality test

Variable	Min	Max	Skewness (C.R.)	Kurtosis (C.R.)
PIU	1.000	5.000	0.173 (1.241)	-0.281 (-1.011)
FOMO	1.000	5.000	0.141 (1.014)	-0.287 (-1.031)
SMF	1.000	5.000	0.175 (1.257)	-0.220 (-0.792)
DD	1.000	5.000	-0.127 (-0.916)	-0.301 (-1.082)
JOMO	1.000	5.000	-0.129 (-0.924)	0.082 (0.295)
PMH	1.000	5.000	0.348 (2.499)	-0.282 (-1.013)
Multivariate				1.485 (1.334)

Table 4. Results of the multivariate outlier test

Observation Number	Mahalanobis d-squared	p_1	p_2
66	16.298	0.012	0.978
237	15.908	0.014	0.936
300	14.301	0.026	0.989
91	14.193	0.028	0.972
10	13.560	0.035	0.984
111	13.544	0.035	0.963
⋮	⋮	⋮	⋮
130	7.819	0.252	0.006
224	7.808	0.253	0.005
166	7.748	0.257	0.006

Table 5. Univariate outlier with Z-Score value

	N	Minimum Value	Maximum Value
Zscore (PIU)	310	-2.04869	2.40654
Zscore (PMH)	310	-1.86562	2.33478
Zscore (FOMO)	310	-2.07230	2.33345
Zscore (SMF)	310	-2.31201	2.29418
Zscore (DD)	310	-2.50248	1.94321
Zscore (JOMO)	310	-2.56113	2.13680

Table 6. Goodness of Fit index of regression path

Good of Fit Index	Cut-off Value	Research Model	Information
CMIN/DF	≤ 2.00	1.277	Good
GFI	≥ 0.90	0.989	Good
AGFI	≥ 0.90	0.971	Good
CFI	≥ 0.90	0.996	Good
TLI	≥ 0.90	0.993	Good
RMSEA	≤ 0.08	0.030	Good

The Goodness of Fit Test

The structural model, illustrated in Figure 2, was developed to assess its fit with the data. Initially, the results of the Goodness of Fit Model test were deemed inappropriate, necessitating adjustments to the index output values. Consequently, the Goodness of Fit Model test was rerun by incorporating the relationship between error 1 (e1) and error 2 (e2). The revised results of the Goodness of Fit Model testing are presented in Table 6. Based on the findings in Table 6, it can be concluded that all the criteria for Goodness of Fit testing in the context of regression path analysis have been satisfied and meet the critical standards. Thus, the results derived from the regression path analysis model can be effectively utilized to examine the causality of the determined path.

Table 7. Result of hypothesis test

Path Influence			Coeffcient estimation	S.E.	p-Value
PIU	=>	PMH	0.670	0.045	0.001
PIU	=>	FOMO	0.401	0.053	0.001
PIU	=>	SMF	0.274	0.053	0.001
SMF	=>	DD	0.635	0.046	0.001
DD	=>	JOMO	0.624	0.042	0.001
FOMO	=>	SMF	0.286	0.052	0.001

Hypotheses Testing

The results of the estimated regression coefficients obtained from path analysis are presented in Table 7. It is evident that all the hypotheses proposed and tested demonstrate *p*-values below the predetermined threshold of 0.05. Therefore, the test results confirm that all hypotheses proposed in the research are significant.
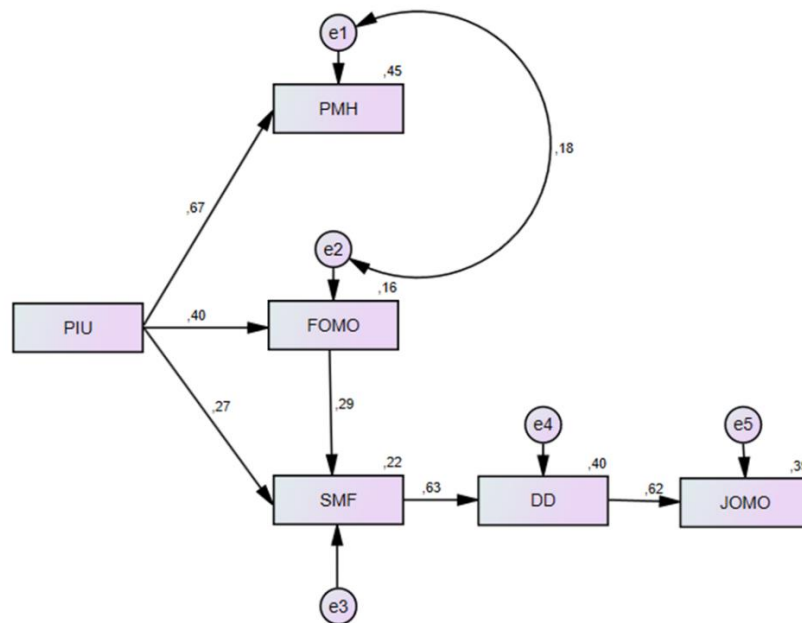

Figure 2. Loading factor path analysis

Problematic Internet Use (PIU) exacerbates Psychological and Mental Health (PMH)

The influence of PIU on PMH carries significant implications for marketing strategies (Fineberg et al., 2018). This underscores the paramount importance of ethical considerations in marketing practices, especially when targeting individuals vulnerable to PIU (Rautela & Sharma, 2022). Prioritizing ethical marketing approaches can help mitigate the potential adverse impacts of excessive internet use on mental health. Furthermore, the concept of content moderation is pivotal, particularly within social media platforms and online communities. Preventing cyberbullying and harassment, aligned with studies highlighting the prevalence of such negative experiences (O'Neill & Dinh, 2014), becomes a key concern for maintaining users' mental well-being. Brands advertising on these platforms can contribute significantly by fostering a safe and positive online environment, aligning their strategies with a commitment to user welfare.

In recent times, several companies have integrated the concept of a "digital detox" into their marketing strategies, urging users to take breaks from screens and prioritize real-world experiences (Aranda & Baig, 2018). Such initiatives resonate with individuals struggling with PIU, offering a path towards healthier internet habits and showcasing brands' responsibility in promoting digital well-being (Forsman & Nordmyr, 2017). Moreover, brands can actively participate in raising awareness about mental health and providing resources for individuals dealing with PIU-related mental health issues. This might involve collaborating with mental health organizations, initiatives to destigmatize seeking help, or facilitating access to mental health services. By integrating mental health support into their marketing strategies, brands

not only exhibit social responsibility but also contribute positively to enhancing users' overall well-being in the digital realm (Schmitt, 2012).

Problematic Internet Use (PIU) increases the Fear of Missing Out (FOMO)

The relationship between PIU and the FOMO has far-reaching implications for marketing strategy (Cabrera et al., 2019). Understanding this connection offers insights for more effective marketing approaches. One key strategy for marketers is the creation of FOMO-inducing content, which exploits consumers' desire to engage in exclusive, time-sensitive opportunities (I. H. Santoso et al., 2021). Crafting content such as limited-time offers, exclusive promotions, and teasers capitalizes on consumers' FOMO, compelling immediate engagement and purchase decisions (Syafaah & Santoso, 2022). Additionally, marketers should prioritize engagement strategies, especially on social media platforms. This involves creating interactive content, hosting contests, and organizing events to sustain user participation, minimizing the sense of missing out on brand-related experiences.

Influencer marketing is another avenue for leveraging FOMO. Collaborating with influencers who resonate with target audiences can trigger FOMO among followers. Influencers often share compelling experiences or endorse products in ways that drive followers to engage with brands and explore offerings (Good & Hyman, 2020). Encouraging user-generated content is also effective in stimulating FOMO. By inspiring customers to share their positive experiences and testimonials, brands can prompt potential customers to fear missing out on similar experiences (Christy, 2022).

Furthermore, scarcity marketing, creating a perception of limited availability, can intensify FOMO. Communicating high demand or limited-time availability often prompts quick action and purchases (Hodkinson, 2019). However, ethical considerations are critical when leveraging FOMO in marketing strategies. Marketers should present accurate representations of limited availability, avoiding deceptive practices that could harm brand reputation and consumer trust (Rautela & Sharma, 2022). Ethical marketers prioritize honesty, respect for consumer autonomy, and avoid exploiting vulnerabilities, especially in susceptible consumer groups like compulsive buyers or young consumers (Hodkinson, 2019).

Balancing FOMO with consumer well-being is a key ethical challenge. While FOMO can drive sales, ethical marketers ensure it does not encourage harmful consumption patterns affecting financial or mental health (Christy, 2022). Clarity in disclosure is essential; marketers must transparently communicate any limitations or restrictions associated with FOMO-driven offers. Compliance with advertising laws and standards, fostering long-term relationships, responsiveness to feedback, and making necessary adjustments are integral aspects of ethical marketing (Good & Hyman, 2020; Çelik et al., 2019).

In summary, ethical considerations are vital when employing FOMO in marketing. Ethical marketers strike a balance between leveraging FOMO for engagement and sales while upholding transparency, consumer autonomy, and ethical principles. By adhering to ethical standards, brands can build trust, maintain their reputation, and nurture lasting relationships with customers.

Problematic Internet Use (PIU) escalates Social Media Fatigue (SMF)

The revelation that PIU significantly influences SMF highlights the crucial need for responsible and consumer-centric marketing strategies. Acknowledging the impact of excessive internet use on mental health, brands can take proactive steps to foster healthier online interactions and promote offline experiences. By prioritizing initiatives that encourage a balanced digital lifestyle, brands not only build trust and goodwill but also contribute significantly to consumers' overall digital well-being in an increasingly interconnected world. The utilization of the internet and social media as tools for sharing among consumers in shopping experiences, encompassing the use of payment tools and electronic channel purchases, further highlights the need for empathetic understanding of consumer needs. This approach underscores the brand's commitment to crafting a positive and harmonious digital experience for their audience (Vinerean et al., 2013).

These findings resonate strongly, particularly among digital marketers, given the fundamental reliance of digital marketing on the internet and social media. Undeniably, social media usage has become an irreplaceable promotional tool for digital marketing activities (Shyahnaz & Takwin, 2022). However, the emergence of SMF due to PIU raises significant concerns, necessitating a reevaluation of digital marketing strategies. Digital marketers must exercise caution and develop strategies that account for various factors, including content format, conveyed information, communication approaches, and other elements that could potentially trigger SMF (Rautela & Sharma, 2022).

Fear of Missing Out (FOMO) encourages Social Media Fatigue (SMF)

The advent of social media has revolutionized the way marketers engage with consumers, with

FOMO emerging as a potent tool in their arsenal (Wolniewicz et al., 2018). This strategy exploits individuals' inherent fear of being left out, compelling them to maintain connectivity and engagement. However, this marketing approach is not devoid of ethical consequences, as it raises concerns for consumer welfare. Digital marketers strategically employ FOMO to induce a sense of dependency among users, reinforcing their apprehensions about missing out on current events or trends (Cahyadi, 2021). This heightened level of awareness serves as a compelling motivator, propelling consumer engagement and participation. Nevertheless, the repercussions of such exploitation manifest in what researchers'term SMF.

Consumers inundated with copious amounts of information on social media platforms undergo fatigue (Dhir et al., 2018). Symptoms of SMF encompass feelings of frustration, a sense of resignation, and a waning interest in real-world interactions due to prolonged and excessive use of social media (Fan et al., 2020). The study conducted by Bright and Logan (2018) aligns with the findings of this study, indicating a correlation between FOMO and the emergence of SMF.

Therefore, while the strategy of exploiting FOMO is undoubtedly feasible, the ethical implications of capitalizing on excessive fear cannot be morally justified. Striking a balance between endeavors to achieve consumer engagement and a steadfast commitment to consumer well-being is imperative for marketers navigating the intricate landscape of social media marketing. This equilibrium not only contributes to a brand's enduring success but also promotes a more ethical and sustainable approach to digital marketing.

Social Media Fatigue (SMF) shows a positively significant effect on Desire to Disconnect (DD)

These findings underscore individuals' inclination towards seeking respite from the digital realm, manifested in various discernible ways. Firstly, it reflects a desire to alleviate Digital Overload. SMF acts as a catalyst, prompting individuals to acknowledge the weight of their digital commitments and consequently leading to a profound DD temporarily or permanently, aiming to regain control over their digital lives and overall well-being (Logan et al., 2018) (Aitamurto et al., 2021). Secondly, SMF motivates individuals to re-engage with the Real World. The weariness stemming from excessive social media interactions instigates a longing for more meaningful and genuine relationships in the physical world (Bright et al., 2015). The DD arises from the recognition that a healthier balance between online and offline interactions is crucial for personal contentment.

The relationship between excessive internet use, SMF, and DD holds significant implications for enhancing consumer engagement in marketing strategies. Hence, prioritizing Relevance and Content Moderation becomes imperative. Marketers can focus on delivering content that doesn't overwhelm consumers, thereby reducing information overload and cognitive fatigue, subsequently decreasing the likelihood of SMF (Rautela & Sharma, 2022). Tailoring content to be more relevant and manageable enables brands to keep audiences engaged without inducing fatigue. Moreover, marketers can champion authenticity and well-being, aligning with consumers' growing inclination towards authentic experiences and a balanced digital life (Aranda & Baig, 2018). Brands that emphasize these values not only resonate with consumers but also contribute positively to their overall well-being.

Understanding the positive influence of SMF on the DD has prompted the advent of the Offline Engagement Initiative. Brands can develop campaigns and initiatives encouraging consumers to partake in real-world experiences and foster meaningful relationships beyond the digital sphere. Recognizing the significance of periodic disconnection, this initiative allows consumers to explore the richness of offline interactions (Rautela & Sharma, 2022). These research findings illuminate forthcoming challenges and provide digital marketers with considerations to undertake appropriate steps in digital marketing endeavors. These behaviors align with the essence of JOMO, signifying a sense of fulfillment independent of cyberspace in internet and social media usage (Swar et al., 2017).

Desire to Disconnect (DD) motivates the Joy of Missing Out (JOMO)

As previously mentioned, our research highlights the importance of offline campaign initiatives and demonstrates that DD indeed fosters the JOMO. Considering consumers in this phase, the implications for marketers outlined earlier, which predominantly focused on the digital world, may no longer apply. When consumers embrace JOMO, marketing must be conducted in an integrated manner, encompassing offline strategies (Rautela & Sharma, 2022). This doesn't imply the obsolescence of online campaigns; rather, it emphasizes the need for a balanced approach, acknowledging the consequences of information overload.

Marketers can harness the concepts of both FOMO and JOMO as strategic tools to craft campaigns that leverage FOMO to drive consumer engagement in the digital realm while embracing offline initiatives that celebrate the JOMO away from the digital sphere (Aranda & Baig, 2018). Adapting to the increasingly

intricate shifts in consumer behavior, marketers must continually integrate offline initiatives into their marketing mix. By doing so, they can offer relevant value and address consumers' aspirations for a balanced online-offline life. Embracing FOMO and JOMO within the marketing mix aligns with Bayesian marketing strategies. Similar to Bayesian probability, the success rates of FOMO and JOMO hinge on multifaceted factors, encompassing the product type and consumer characteristics. This complexity requires thorough research and may involve implementing the concept of open innovation.

Conclusions, suggestions and limitations

The research findings establish a significant link between Problematic Internet Use (PIU) and several aspects such as Psychology and Mental Health (PMH), Fear of Missing Out (FOMO), and Social Media Fatigue (SMF). These outcomes carry implications for various domains, including digital marketing, consumer behavior, and marketing psychology. For digital marketers, navigating these conditions presents a challenge in conducting marketing activities such as product introductions, sales, and promotions. The emergence of these conditions triggers a Desire to Disconnect (DD), leading individuals to reduce their reliance on the virtual world and seek joy in real-world experiences. This pursuit of joy, often termed the Joy of Missing Out (JOMO), needs consideration alongside the coexistence of FOMO as a strategic marketing tool. Marketers can leverage these concepts by developing campaigns that harness FOMO to drive consumer engagement in the digital realm. Simultaneously, embracing offline initiatives can celebrate the gratification of disconnecting from the digital world. Ethical marketing practices, involving content moderation on social media platforms and integrating mental health support into marketing strategies, can play pivotal roles for sustainability marketing brands.

Acknowledgments

Competing Interests

The author(s) declare that there are no competing interests relevant to the content of this article.

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