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How Does Information Overload Impact Social Media Fatigue and Consumer Choices in Indonesia and Malaysia?

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ABSTRACT

This study aims to examine the effects of information overload on consumer confusion and decision-making challenges, with a focus on the mediating role of social media exhaustion. Using a quantitative approach, data were gathered through questionnaires, with purposive sampling applied to select 426 student respondents from Indonesia and Malaysia. The findings show that information overload significantly contributes to social media exhaustion, especially in Indonesia. This exhaustion, in turn, leads to increased consumer confusion, decision difficulties, and delays in decision-making. Information overload in Indonesia has a greater impact on social media exhaustion than in Malaysia, resulting in higher levels of confusion and decision postponement. Additionally, mediating factors like consumer confusion and decision-making challenges further intensify these outcomes. This research provides key insights into how improved information management can enhance decision-making processes and support psychological well-being in today's digital landscape.

Keywords: Information Overload, Social Media Exhaustion, Customer Confusion, Decision Difficulty, and Decision Postponement.

1. Introduction

In today's digital era, social media users, particularly students, often face the phenomenon of information overload, which can lead to mental exhaustion. This overwhelming amount of information not only comes from the content they consume but also from intense social interactions across various platforms. Studies have shown that the quality of individuals' decisions is significantly influenced by information overload, which can result in customer confusion, decision difficulty, and decision postponement (Graf, Antoni, & Psychology, 2021; Phillips-Wren & Adya, 2020).

Information overload is defined as a situation where the amount of information received exceeds the recipient's processing capacity, leading to decreased efficiency in utilizing that information (Klausegger, Sinkovics, & Planning, 2007). According to (Eppler & Mengis, 2008), excessive

information can lead to poor performance, while (Klapp, 1986) emphasizes that an overload of information can cause stress, errors, and other costs that reduce an individual's ability to process information effectively. In the context of social media, excessive interaction with online friends compels users to constantly respond, draining their mental resources and resulting in a sense of exhaustion (Arnold, Goldschmitt, & Rigotti, 2023).

Social media exhaustion not only impacts mental health but also relates to physical well-being. (Dhir, Kaur, Chen, & Pallesen, 2019) note that compulsive social media use can negatively affect cognition and performance, contributing to social media exhaustion. (Jiang, 2022) found that excessive social media use disrupts cognitive processes, while (H. Liu, Liu, Yoganathan, Osburg, & change, 2021) highlights that social media exhaustion encompasses a lack of willingness to engage in social interactions, making individuals more likely to avoid complex situations and diverse interpersonal relationships online.

Information overload can also lead to customer confusion, which may contribute to decision postponement. As described by (Maier, Laumer, Eckhardt, & Weitzel, 2015; S. Zhang, Zhao, Lu, Yang, & Management, 2016), information overload occurs when individuals are exposed to more information than they can efficiently process. This can lead to decision difficulty, where individuals feel trapped by diverse choices and struggle to determine the next steps (Y. Liu & He, 2021). Research by (Klausegger et al., 2007) illustrates an inverted U-shaped relationship between the amount of information and decision quality, where increased information can lead to negative outcomes beyond a certain point.

As the pressure from overwhelming information and intense social interactions increases, students often experience confusion in decision-making. This exhaustion can lead to difficulties and postponements in decision-making, impacting their academic and psychological well-being. This study aims to explore the relationships between social media exhaustion, customer confusion, decision difficulty, and decision postponement among students, thereby providing deeper insights into the impacts of these digital phenomena on decision-making behavior.

2. Literature Review

2.1 Information Overload

Information overload, a state of excessive information exposure, is exacerbated by digital technology and the internet, which has significantly increased the speed and volume of information dissemination. According to (Arnold et al., 2023), Interventions to address information overload include job design, information technology, and organizational regulation, addressing overwhelming feelings and lack of time to manage relevant information (Bawden & Robinson, 2020). When there is too much information accessible for people or systems to comprehend, it is known as information overload, which impairs decision-making and other tasks' efficiency and effectiveness. (Roetzel, 2019) highlights that the phenomenon of information overload is not new, but has intensified due to modern information systems that facilitate instant access to large amounts of data. The complexity and redundancy of information further complicates the ability to process it efficiently.

2.2 Social Media Exhaustion

Social media exhaustion is a state of emotional and cognitive fatigue marked by aimless browsing, reduced time on platforms, or complete withdrawal from social media (Dhir, Yossatorn, Kaur, & Chen, 2018; Sheng, Yang, Han, & Jou, 2023). Key factors contributing to this exhaustion include information overload, where the vast amount of content on social media overwhelms users, leading to cognitive fatigue (Zolkepli, Tariq, Isawasan, Shamugam, & Mustafa, 2024). Another factor is social overload, driven by the pressure to maintain social connections and constant responsiveness to notifications, which increases stress (Sheng et al., 2023). Additionally, the Fear of Missing Out (FOMO) intensifies anxiety, as users worry about missing key updates, events, or interactions, further contributing to fatigue (Zolkepli et al., 2024). These interconnected elements illustrate the broad impact social media fatigue has on both mental and emotional well-being.

2.3 Consumer Confusion

Consumer confusion occurs when individuals are confronted with excessive information or face products with minimal differentiation, making it difficult to process and compare options. This reduces buying confidence and can result in delayed or unsatisfactory decisions (G. Zhang, Cao, & Liu, 2023). It negatively impacts consumer satisfaction and brand loyalty, as increased perceived risk decreases trust in the brand or market. This confusion is prevalent in digital marketing environments where content overload can overwhelm consumers, hindering their focus on key product attributes (Giombi et al., 2022). Additionally, confusion often leads to negative emotions like frustration, anxiety, and stress, further affecting decision quality and consumer satisfaction (Chauhan & Sagar, 2021).

2.4 Decision Difficulty

Decision difficulty refers to the challenges individuals face when choosing between multiple alternatives. The complexity of the decision can stem from the characteristics of the options, personal preferences, or external environmental factors. (Schneider, Stapels, Koole, & Schwarz, 2020) highlight that decision difficulty is often conceptualized spatially, as difficult choices are perceived as being “too close to call,” indicating a connection between cognitive processes and perceptual experiences. Research in various domains, such as abortion (van Ditzhuijzen, Brauer, Boeije, & van Nijnatten, 2019) and career decision-making (Kulcsár, Dobrean, & Gati, 2020), has identified factors like uncertainty, external pressure, and lack of social support that contribute to decision complexity. These findings suggest that both social influences and cognitive processes play significant roles in shaping decision difficulties. Understanding these mechanisms is crucial for developing effective support strategies, as decision difficulty can affect outcomes, memories, and future behaviors in diverse areas like consumer choices and career development. This multi-faceted nature of decision difficulty underscores its impact across various fields, and ongoing research will help refine strategies to mitigate the challenges it presents.

2.5 Decision Postponement

Decision postponement refers to the strategy where individuals or organizations delay making a choice until a later time, often due to the complexity or uncertainty of the decision. Berens and Funke (2020) define it as the postponement of a decision, distinct from rejecting a choice. This delay often arises in situations of choice overload, where too many options overwhelm individuals, making it difficult to compare alternatives. As a result, postponement acts as a strategy to avoid the pressure and potential regret of making a wrong choice. This procrastination serves as a protective mechanism against dissatisfaction (Berens & Funke, 2020).

2.6 Information Overload on Social Media Exhaustion

(Li, Jiang, Yan, & Li, 2024) found that information overload is a key factor contributing to user fatigue on social media platforms, referred to as social media exhaustion, which is the emotional and mental weariness caused by excessive social media use. Users overwhelmed by information feel helpless and fatigued, and the study shows a positive correlation between high levels of information overload and increased social media exhaustion. Similarly, (Fu et al., 2020) also recognized the close relationship between information overload and online social media fatigue. (Singh, Gupta, Jasial, & Mahajan, 2023) further confirmed that users experiencing information overload tend to suffer higher levels of social media exhaustion.
H1: *There is an effect of Information Overload on Social Media Exhaustion*

2.7 Social Media Exhaustion on Consumer Confused

Social Media Exhaustion can cause users to feel overwhelmed by the amount of choices and information available, which is a major factor in Consumer Confusion (Tolba, 2024). Study (Zheng, Ling, & Informatics, 2021) argues that using social media excessively may lead to stress and worry, which can impede consumers' ability to make decisions and exacerbate confusion. Users that suffer from Social Media Fatigue may find it more difficult to properly absorb information, which might lead to a rise in consumer confusion (Pellegrino, Abe, & Shannon, 2022).
H2: *There is an effect of Social Media Exhaustion on Consumer Confused*

2.8 Social Media Exhaustion on Decision Difficulty

Research by (Sriwilai, Charoensukmongkol, & Health, 2016) found a connection between higher usage of emotion-focused coping mechanisms and decreased mindfulness in problematic and addictive social media use. This decline in attention may hinder logical judgment. Excessive social media users experience a mental imbalance between impulsive and reflective thinking processes, interfering with their ability to make deliberate decisions (Zahrai, Veer, Ballantine, de Vries, & Prayag, 2022).
H3: *There is an effect of Social Media Exhaustion on Decision Difficulty*

2.9 Consumer Confused on Decision Postponement

Consumer confusion, characterized by product similarity, choice overload, information overload, and ambiguous information, may lead to decision delay as a coping mechanism. (Alarabi & Grönblad, 2012). When consumers face complex or overwhelming choices, they tend to delay purchase decisions to better manage the confusing situation (Mourali, Yang, Pons, & Hassay, 2018). Decision postponement, also known as choice postponement, is a strategy that allows consumers to temporarily avoid making a choice when faced with multiple attractive options or when struggling to establish a clear preference. This behavior is often seen in situations where consumers experience confusion or high uncertainty. (Han, Quadflieg, & Ludwig, 2023).
H4: *There is an effect of Consumer Confused on Decision Postponement*

2.10 Decision Difficulty on Decision Postponement

Decision difficulties, marked by complexity and uncertainty, often lead individuals to postpone their choices (Wei, Hai, Zhu, & Lyu, 2021) Research by (Yuki, Kubo, & Marketing, 2023) shows that people commonly use coping strategies like choice avoidance or delay to manage stress and potential regret in tough decision-making scenarios. This tendency is particularly evident when significant stakes or unclear outcomes are involved. Additionally, studies on consumer behavior reveal a positive relationship between decision complexity and procrastination, indicating that consumers are more likely to delay purchases when confronted with complicated options or excessive information (Norrman & Prataviera, 2023).
H5: *There is an effect of Decision Difficulty on Decision Postponement*

2.10 Social Media Exhaustion on Decision Postponement

Social media exhaustion is frequently attributed to the pervasiveness of abundant information (information overload). This condition may result in limitations and hesitations while making decisions, which might affect the decision to postpone (Świątek et al., 2023). Social Media Exhaustion can lead to decreased motivation and energy (Qin et al., 2024), necessary to make an active decision. This can encourage individuals to postpone decisions as a coping strategy. By considering these mechanisms, it can be hypothesized that the higher the level of Social Media Exhaustion a person experiences, the greater the tendency to make Decision Postponement.
H6*: There is an effect of Social Media Exhaustion on Decision Postponement*

3. Research Methodology

Total 426 people participated in this study, with 204 from Malaysia and 192 from Indonesia. Accidental sampling is the sampling method used; quantitative analysis is used to collect data that consists of variables and intercepts. Questionnaires are distributed to all participants who voluntarily participate in the process, and if they are found to meet the data criteria, they will be classified as samples. Untuk menganalisis data, partial least squares-structural equation modeling (PLS-SEM) method was used. SmartPLS software version 4.0 was also used.

4. Results

4.1 Outer Model (Measurement Model)

In this model there are two measurement models, namely the test:

4.1.1 Convergent Validity

This measurement is considered fulfilled when the outer loading is above 0.7 and the AVE value with a minimum value of 0.5 (Ulum, Ghozali, & Chariri, 2008). Minimum value of 0.5 (Ulum, Ghozali, & Chariri, 2008). The results of the convergent validity test on the research model can be seen in Table 1.

Table 1. Convergent Validity Test from Indonesia, Malaysia and Combination

Indicator	***Outer loading***	**Indonesia**		**Malaysia**		**Combination**	
		AVE	**Result**	**AVE**	**Result**	**AVE**	**Result**
IO1	0.799	0.662	Valid	0.672	Valid	0.661	Valid
IO2	0.832						
IO3	0.800						
IO4	0.804						
IO5	0.787						
SME1	0.738	0.624	Valid	0.638	Valid	0.616	Valid
SME2	0.797						
SME4	0.762						
SME5	0.826						
SME6	0.799						
CF1	0.773	0.647	Valid	0.641	Valid	0.649	Valid
CF2	0.746						
CF3	0.730						
CF4	0.867						
CF5	0.774						
CF6	0.869						
CF7	0.831						
CF8	0.842						
DD1	0.805	0.666	Valid	0.658	Valid	0.673	Valid
DD2	0.863						
DD3	0.839						
DD4	0.845						
DD5	0.744						
DP1	0.884	0.772	Valid	0.771	Valid	0.775	Valid
DP2	0.905						
DP3	0.852						
DP4	0.879						

Source: Output data from SmartPLS version 4.0 (Processed)

The results indicate that the indicators for Information Overload, Social Media Exhaustion, Confusion, Decision Difficulty, and Decision Postponement are valid for both Indonesia and Malaysia, as they have values above 0.7 in the convergent validity test and an AVE value above 0.5. Additionally, the combined sample also shows these indicators are valid based on the same criteria.

4.1.2 Reliability Test

Table 2. *Composite reliability & Cronbach's alpha* from Indonesia, Malaysia and Combination

Variabel	Indonesia			Malaysia			Combination		
	Composite reliability	**Cronbach' alpha**	**Keterangan**	**Composite reliability**	**Cronbach' alpha**	**Keterangan**	**Composite reliability**	**Cronbach' alpha**	**Keterangan**
IO	0.922	0.902		0.925	0.908		0.921	0.902	
SME	0.892	0.852		0.898	0.860		0.889	0.847	
CF	0.936	0.921	Reliabel	0.934	0.920	Reliabel	0.936	0.922	Reliabel
DD	0.909	0.876		0.905	0.871		0.911	0.880	
DP	0.931	0.902		0.931	0.901		0.932	0.903	

Source: Output data from SmartPLS version 4.0 (Processed)

In the Reliability Test, it can show that the indicators of all variables get a value above 0.7 and get a value above 0.7, so it can be declared reliable.

4.2 Inner Model (Measurement Model)

The inner model is a model used to project causal relationships between variables that cannot be measured directly and hidden variables.

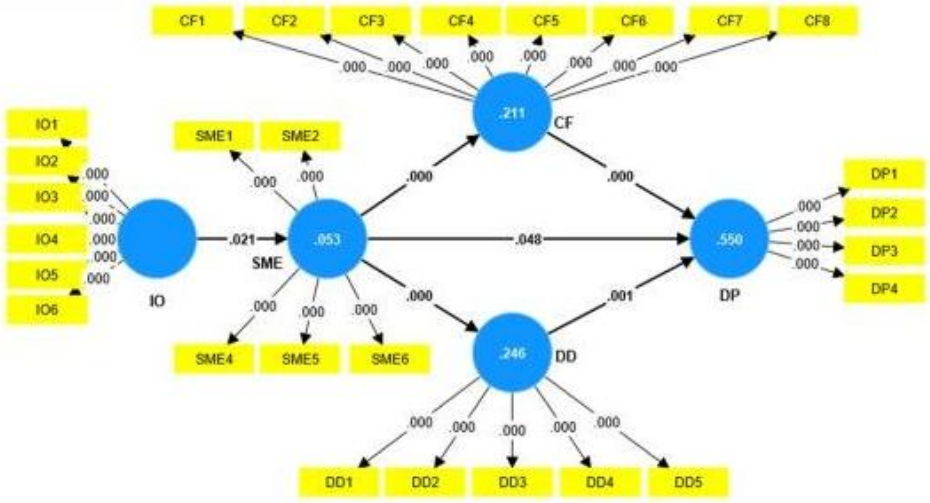

Figure 1. Structural Model Indonesia

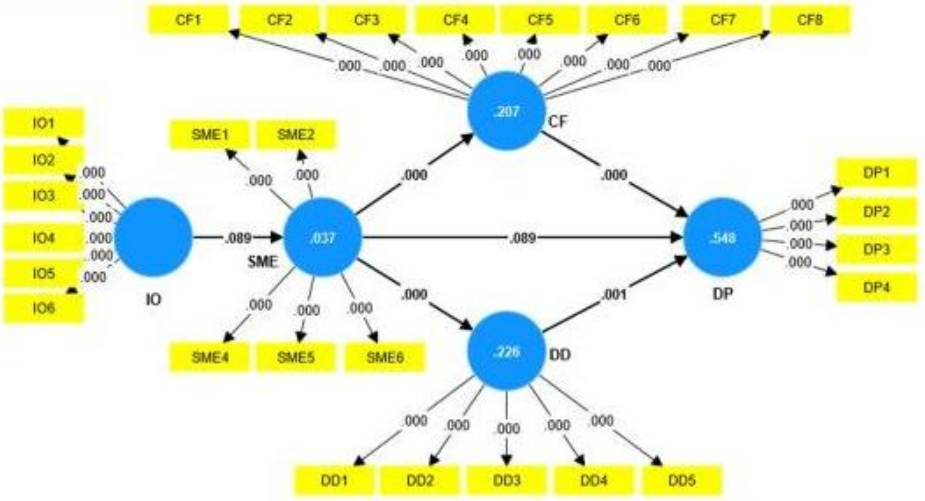

Figure 2. Structural Model Malaysia

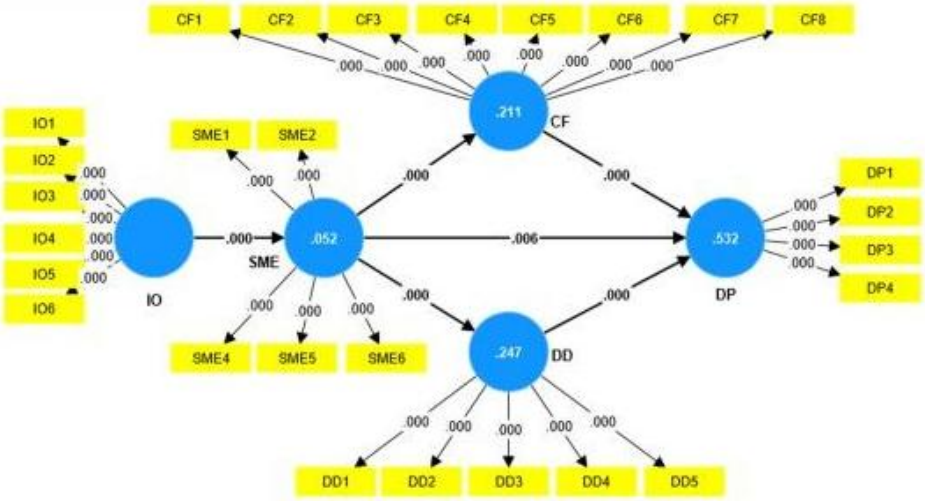

Figure 3. Structural Model Combination

4.3 R-square

R-square is a test used to indicate the extent of the impact of the independent variable on the dependent variable. When the R-square reaches 0.67, it is considered to have a strong influence, it is considered moderate when it reaches 0.33, and it is considered weak when it reaches 0.19.

Table 3. *R-square* dari Indonesia, Malaysia and Combination

Variabel	**Indonesia**		**Malaysia**		**Combination**	
	R-square	R-square adjusted	R-square	R-square adjusted	R-square	R-square adjusted
SME	0.053	0.048	0.037	0.032	0.052	0.050
CF	0.211	0.207	0.207	0.203	0.211	0.209
DD	0.246	0.242	0.226	0.222	0.247	0.246
DP	0.550	0.543	0.548	0.541	0.532	0.529

Source: Output data from SmartPLS version 4.0 (Processed)

The analysis shows that Information Overload affects Social Media Exhaustion among Generation Z in Indonesia and Malaysia, explaining 5.3% of the variance in Indonesia and 3.7% in Malaysia. Combined, it accounts for 5.2% of the variance, indicating a weak impact, with 94.8% of the variance attributed to other factors not studied. For Customer Confusion, Social Media Exhaustion explains 21.1% of the variance in Indonesia (R-square = 0.211) and 20.6% in Malaysia (R-square = 0.207). Combined, the impact is 21.1% (R-square = 0.211). This indicates a weak effect of Social Media Exhaustion on Customer Confusion, with 78.9% of the variance attributed to other unexamined factors. For Decision Difficulty, Social Media Exhaustion impacts 24.6% of the variance in Indonesia (R-square = 0.246) and 22.6% in Malaysia (R-square = 0.226). The combined results show a 24.7% impact (R-square = 0.247). This indicates a weak influence of Social Media Exhaustion on Decision Difficulty, with 75.3% of the variance attributed to other variables. Social Media Exhaustion accounts for 55% of the variance in Decision Postponement in Indonesia and 54.8% in Malaysia, with a combined impact of 53.2%. This indicates a moderate influence, highlighting its significant role in shaping consumer behavior among Generation Z in both countries.

4.4 Mediation Test

In mediation, there are three scenarios: Non-mediation has a positive independent-dependent relationship and negative mediating variables; Full mediation has a negative independent-dependent relationship with positive mediating variables; Partial mediation features positive relationships for both independent-dependent and mediating variables. Using SmartPLS 4.0, P values indicate effects: P > 0.05 suggests a negative effect, while P < 0.05 indicates a positive effect.

Table 4. *Path Coeffien* from Indonesia, Malaysia and Combination Indonesia-Malaysia

Variabel	**Original sample (O)**	**Sample mean (M)**	**Standard deviation (STDEV)**	**T statistics (|O/STDEV|)**	**P value**
INDONESIA					
IO -> SME	0.229	0.248	0.099	2.306	0.021
SME -> CF	0.460	0.468	0.077	5.934	0.000
SME -> DD	0.496	0.506	0.077	6.421	0.000
SME -> DP	0.139	0.135	0.070	1.979	0.048
CF -> DP	0.462	0.467	0.066	6.965	0.000
DD -> DP	0.254	0.254	0.077	3.311	0.001
MALAYSIA					
IO -> SME	0.192	0.207	0.113	1.700	0.089
SME -> CF	0.455	0.463	0.075	6.052	0.000
SME -> DD	0.475	0.485	0.077	6.160	0.000
SME -> DP	0.121	0.118	0.071	1.700	0.089
CF -> DP	0.476	0.482	0.066	7.251	0.000
DD -> DP	0.252	0.252	0.073	3.448	0.001

COMBINATION					
IO -> SME	0.229	0.238	0.060	3.781	0.000
SME -> CF	0.459	0.463	0.051	8.969	0.000
SME -> DD	0.497	0.500	0.053	9.400	0.000
SME -> DP	0.133	0.132	0.048	2.773	0.006
CF -> DP	0.470	0.472	0.045	10.381	0.000
DD -> DP	0.234	0.234	0.053	4.440	0.000

Source: Output data from SmartPLS version 4.0 (Processed)

Table 5. *Specific Indirect Effects* from Indonesia, Malaysia and Combination Indonesia-Malaysia

Variabel	**Original sample (O)**	**Sample mean (M)**	**Standard deviation (STDEV)**	**T statistics (|O/STDEV|)**	**P value**
INDONESIA					
IO -> SME -> CF	0.105	0.120	0.057	1.835	0.067
IO -> SME -> DD	0.114	0.129	0.060	1.886	0.059
IO -> SME -> DP	0.032	0.033	0.023	1.412	0.158
IO -> SME -> CF -> DP	0.049	0.056	0.028	1.721	0.085
IO -> SME -> DD -> DP	0.029	0.033	0.019	1.484	0.138
SME -> CF -> DP	0.212	0.218	0.048	4.456	0.000
SME -> DD -> DP	0.126	0.128	0.043	2.903	0.004
MALAYSIA					
IO -> SME -> CF	0.087	0.101	0.059	1.485	0.138
IO -> SME -> DD	0.091	0.105	0.061	1.502	0.133
IO -> SME -> DP	0.023	0.025	0.021	1.094	0.274
IO -> SME -> CF -> DP	0.042	0.048	0.029	1.414	0.158
IO -> SME -> DD -> DP	0.023	0.027	0.018	1.278	0.201
SME -> CF -> DP	0.120	0.122	0.040	2.991	0.003
SME -> DD -> DP	0.217	0.223	0.048	4.523	0.000
COMBINATION					
IO -> SME -> CF	0.105	0.112	0.036	2.931	0.003
IO -> SME -> DD	0.114	0.121	0.038	3.011	0.003
IO -> SME -> DP	0.030	0.031	0.014	2.143	0.032
IO -> SME -> CF -> DP	0.049	0.053	0.018	2.782	0.005
IO -> SME -> DD -> DP	0.027	0.028	0.012	2.302	0.021
SME -> CF -> DP	0.216	0.219	0.032	6.720	0.000
SME -> DD -> DP	0.117	0.117	0.028	4.105	0.000

Source: Output data from SmartPLS version 4.0 (Processed)

Based on the attached tables 4 and 5, the conclusion is:
The effect of Information Overload on Customer Confusion is mediated by Social Media Exhaustion.
Indonesian data shows a positive path coefficient for Information Overload towards Social Media Exhaustion with a P value of 0.021, but no significant mediation towards Customer

Confusion (P = 0.067). In Malaysia, the path coefficient is positive but not significant (P = 0.089), and mediation is also not significant (P = 0.138). Combined results reveal a significant positive path coefficient for Information Overload (P = 0.000) and significant partial mediation towards Customer Confusion (P = 0.003)..

The effect of Information Overload on Decision Difficulty is mediated by Social Media Exhaustion.

Indonesian data indicates a positive path coefficient for Information Overload on Social Media Exhaustion (P = 0.021) and significant mediation on Decision Difficulty (P = 0.000), with a marginally significant indirect effect (P = 0.059). Malaysian data shows a positive path coefficient (P = 0.089) and significant effect of Social Media Exhaustion on Decision Difficulty (P = 0.000), but no significant mediation (P = 0.133). Combined results reveal a significant path coefficient for Information Overload (P = 0.000) and significant effect on Decision Difficulty (P = 0.000), with significant partial mediation (P = 0.003).

The effect of Information Overload on Decision Postponement is mediated by Social Media Exhaustion.

In Indonesia, Information Overload positively affects Social Media Exhaustion (P = 0.021), and Social Media Exhaustion significantly impacts Decision Postponement (P = 0.048), but the indirect effect is not significant (P = 0.158). In Malaysia, the path coefficient is positive but not significant (P = 0.089), with no significant effects on Decision Postponement (P = 0.089) or mediation (P = 0.274). Combined results show a significant path coefficient for Information Overload (P = 0.000) and a significant effect on Decision Postponement (P = 0.006), with significant partial mediation (P = 0.032).

The effect of Information Overload on Decision Postponement is mediated by Social Media Exhaustion and Customer Confusion.

In Indonesia, Information Overload positively influences Social Media Exhaustion (P = 0.021), which significantly affects Customer Confusion (P = 0.000) and Decision Postponement (P = 0.048). The indirect effect on Decision Postponement through both mediators is marginally significant (P = 0.085). In Malaysia, the path coefficient is not significant (P = 0.089), while Social Media Exhaustion significantly impacts Customer Confusion (P = 0.000) but not Decision Postponement (P = 0.089). The indirect effect is also not significant (P = 0.158). Combined results show significant effects for both countries, with partial mediation indicated (P = 0.005).

The effect of Information Overload on Decision Postponement is mediated by Social Media Exhaustion and Decision Difficulty.

In Indonesia, Social Media Exhaustion significantly affects Customer Confusion (P = 0.000) and Decision Postponement (P = 0.048), with Customer Confusion mediating the relationship (P = 0.000). In Malaysia, Social Media Exhaustion significantly impacts Customer Confusion (P = 0.000), but not Decision Postponement (P = 0.089). Yet, Customer Confusion significantly mediates this relationship (P = 0.003). Combined results confirm significant effects for both countries, indicating strong partial mediation by Customer Confusion (P = 0.000).

The Effect of Social Media Exhaution on Decision Postponement mediated by Customer Confusion

In Indonesia, Social Media Exhaustion significantly impacts Decision Difficulty (P = 0.000) and Decision Postponement (P = 0.048), with Decision Difficulty significantly mediating this relationship (P = 0.004). In Malaysia, Social Media Exhaustion significantly affects Decision Difficulty (P = 0.000), but not Decision Postponement (P = 0.089). However, Decision Difficulty still significantly mediates the relationship (P = 0.000). Combined results confirm significant

effects on both Decision Difficulty (P = 0.000) and Decision Postponement (P = 0.006), indicating clear partial mediation by Decision Difficulty (P = 0.000).

The Effect of Social Media Exhaution on Decision Postponement mediated by Decision Difficulty

In Indonesia, Social Media Exhaustion significantly affects Decision Difficulty (P = 0.000) and Decision Postponement (P = 0.048), with Decision Difficulty mediating this relationship (P = 0.004). In Malaysia, it significantly impacts Decision Difficulty (P = 0.000), but not Decision Postponement (P = 0.089); however, Decision Difficulty still mediates significantly (P = 0.000). Combined results show significant effects on both Decision Difficulty (P = 0.000) and Decision Postponement (P = 0.006), indicating clear partial mediation by Decision Difficulty (P = 0.000).

4.5 Hypothesis Test

In hypothesis testing, T statistics and P value can be seen. The hypothesis can be accepted if the P value <0.05. To find out, it can be found in the Path Coefficient obtained through the Bootstrapping technique in the SmartPLS version 4.0 program.

Table 6. Hypothesis Test Results from Indonesia, Malaysia and Combination Indonesia-Malaysia

Hypothesis	**INDONESIA**	**MALAYSIA**	**COMBINATION**
	Analysis	Analysis	Analysis
IO -> SME	Coeffisien = 0.229	Coeffisien = 0.192	Coeffisien = 0.229
	P value = 0.021	P value = 0.089	P value = 0.000
	T statistcs = 2.306	T statistcs = 1.700	T statistcs = 3.781
	T-tabel = 1.645	T-tabel = 1.645	T-tabel = 1.645
	T statistics > T-tabel	T statistics > T-tabel	T statistics > T tabel
SME -> CF	Coeffisien = 0.460	Coeffisien = 0.455	Coeffisien = 0.459
	P value = 0.000	P value = 0.000	P value = 0.000
	T statistcs = 5.934	T statistcs = 6.052	T statistcs = 8.969
	T-tabel = 1.645	T-tabel = 1.645	T-tabel = 1.645
	T statistics > T-tabel	T statistics > T-tabel	T statistics > T tabel
SMMA -> PERC **SME -> DD**	Coeffisien = 0.496	Coeffisien = 0.475	Coeffisien = 0.497
	P value = 0.000	P value = 0.000	P value = 0.000
	T statistcs = 6.421	T statistcs = 6.160	T statistcs = 9.400
	T-tabel = 1.645	T-tabel = 1.645	T-tabel = 1.645
	T statistics > T-tabel	T statistics > T-tabel	T statistics > T-tabel
SME -> DP	Coeffisien = 0.139	Coeffisien = 0.121	Coeffisien = 0.133
	P value = 0.048	P value = 0.089	P value = 0.006
	T statistcs = 1.979	T statistcs = 1.700	T statistcs = 2.773
	T-tabel = 1.645	T-tabel = 1.645	T-tabel = 1.645
	T statistics > T-tabel	T statistics > T-tabel	T statistics > T-tabel
CF -> DP	Coeffisien = 0.462	Coeffisien = 0.476	Coeffisien = 0.470
	P value = 0.000	P value = 0.000	P value = 0.000
	T statistcs = 6.965	T statistcs = 7.251	T statistcs = 10.400
	T-tabel = 1.645	T-tabel = 1.645	T-tabel = 1.645

Hypothesis	INDONESIA	MALAYSIA	COMBINATION
	Analysis	Analysis	Analysis
	T statistics > T-tabel	T statistics > T-tabel	T statistics > T-tabel
DD -> DP	Coeffisien = 0.254	Coeffisien = 0.252	Coeffisien = 0.234
	P value = 0.001	P value = 0.001	P value = 0.001
	T statistcs = 3.311	T statistcs = 3.448	T statistcs = 4.440
	T-tabel = 1.645	T-tabel = 1.645	T-tabel = 1.645
	T statistics > T-tabel	T statistics > T tabel	T statistics > T-tabel

Source: Output data from SmartPLS version 4.0 (Processed)

Hypothesis 1: The Effect of Information Overload on Social Media Exhaustion

Indonesian data revealed a significant positive impact of Information Overload on Social Media Exhaustion, with a coefficient of 0.229, T value of 2.306, and P value of 0.021. In contrast, Malaysian data showed a coefficient of 0.192, T value of 1.700, and P value of 0.089, indicating no significant effect. Combined results confirmed a significant positive impact with a coefficient of 0.229, T statistic of 3.781, and P value of 0.000. Overall, Information Overload significantly influences Social Media Exhaustion, supported by strong Indonesian and combined results, while Malaysian data lacks significance.

Hypothesis 2: The Effect of Social Media Exhaustion on Customer Confusion

Indonesian data showed a significant positive impact of Social Media Exhaustion on Customer Confusion, with a coefficient of 0.460, T value of 5.934, and P value of 0.000. Malaysian data also indicated a positive influence, with a coefficient of 0.455, T value of 6.052, and P value of 0.000. Combined results confirmed this trend with a coefficient of 0.459, T statistic of 8.969, and P value of 0.000. Overall, Social Media Exhaustion significantly influences Customer Confusion across Indonesian and Malaysian data, with consistent results and highly significant P values.

Hypothesis 3: The effect of Social Media Exhaustion on Decision Difficulty

Indonesian data indicates a significant positive influence of Social Media Exhaustion on Decision Difficulty, with a coefficient of 0.496, T statistic of 6.421, and P value of 0.000. Malaysian data also reflects a significant influence, with a coefficient of 0.475, T statistic of 6.160, and P value of 0.000. Combined results confirm this trend with a coefficient of 0.497, T statistic of 9.400, and P value of 0.000. Overall, the study concludes that Social Media Exhaustion significantly impacts Decision Difficulty, supported by consistent findings across all data sets.

Hypothesis 4: The Effect of Social Media Exhaustion on Decision Postponement

Indonesian data reveals a significant positive influence of Social Media Exhaustion on Decision Postponement, with a coefficient of 0.139, T statistic of 1.979, and P value of 0.048. In contrast, Malaysian data shows a coefficient of 0.121, T statistic of 1.700, and P value of 0.089, indicating no significant impact. Combined results present a coefficient of 0.133, T statistic of 2.773, and P value of 0.006, confirming a significant positive effect. Overall, Social Media Exhaustion significantly influences Decision Postponement, particularly in Indonesia and the combined data.

Hypothesis 5: The Effect of Customer Confusion on Decision Postponement

Indonesian data shows a significant positive influence of Social Media Exhaustion on Decision Postponement, with a coefficient of 0.460, T statistic of 6.965, and P value of 0.000. Malaysian data also indicates a positive and significant impact, with coefficients of 0.476 and T statistic of 7.251, P value of 0.000. Combined results show a coefficient of 0.470, T statistic of 10.400, and

P value of 0.000, confirming a significant effect. Overall, Social Media Exhaustion significantly influences Decision Postponement in both Indonesia and Malaysia.

Hypothesis 6: The Effect of Decision Difficulty on Decision Postponement

Data from Indonesia indicates a significant positive influence of Decision Difficulty on Decision Delay, with a coefficient of 0.254, T statistic of 3.311, and P value of 0.001. Malaysian data shows similar results, with coefficients of 0.252 and T statistic of 3.448, P value of 0.001. Combined results confirm this positive influence, with a coefficient of 0.234, T statistic of 4.440, and P value of 0.001. Overall, increased Decision Difficulty is consistently associated with a higher likelihood of Decision Delay in both countries.

5. Discussion

The results of this study illustrate the intricate relationships between Information Overload, Social Media Exhaustion, Customer Confusion, Decision Difficulty, and Decision Postponement. Specifically, in Indonesia, the significant impact of Information Overload on Social Media Exhaustion indicates that users overwhelmed by excessive information tend to experience higher levels of fatigue from social media engagement. This aligns with the findings of (Singh et al., 2023), who highlighted that information overload can exacerbate feelings of exhaustion among users. Additionally, the resulting Social Media Exhaustion contributes to Customer Confusion, as consumers become inundated with choices, making it increasingly difficult to navigate their decisions (Tolba, 2024).

While the Malaysian data did not demonstrate significant mediation effects, the overall findings from both countries indicate a partial mediation role of Social Media Exhaustion and Customer Confusion on Decision Postponement. This is consistent with existing literature, which suggests that when faced with overwhelming options, consumers may choose to delay their purchasing decisions as a coping mechanism to manage the confusion (Mourali et al., 2018). Moreover, Decision Difficulty, characterized by the complexity and uncertainty of choices, emerges as a critical factor influencing delays in decision-making (Wei et al., 2021). This further supports the notion that Social Media Exhaustion, frequently stemming from Information Overload, can hinder effective decision-making and, consequently, contribute to the tendency to postpone decisions (Świątek et al., 2023)

In summary, these findings highlight the necessity of addressing Information Overload in order to improve consumer decision-making processes, particularly in the context of social media interactions. By mitigating the adverse effects of Social Media Exhaustion, it may be possible to reduce Customer Confusion and enhance decision-making efficacy among users.

6. Conclusion

The analysis revealed that Information Overload has a significant effect on Social Media Exhaustion, particularly in Indonesia. This exhaustion leads to notable impacts on Customer Confusion, Decision Difficulty, and Decision Postponement. In Indonesia, information overload more strongly contributes to social media fatigue compared to Malaysia, resulting in higher levels of confusion and decision delays. Mediating factors such as consumer confusion and decision difficulty further amplify these effects.

These findings suggest that companies should be more cautious in delivering information via social media, especially for Indonesian consumers who are more susceptible to information

fatigue. This exhaustion not only confuses consumers but also makes them more likely to postpone decisions, which can negatively affect conversion rates and customer loyalty. It is crucial to design more streamlined and focused communication strategies to reduce the risks of confusion and decision delays.

To mitigate the effects of Social Media Exhaustion, companies should adopt more efficient communication strategies, such as presenting information in a more digestible format, minimizing unnecessary repetition, and segmenting audiences to ensure messages are more relevant. Additionally, training marketing teams on the importance of effective information management is highly recommended to enhance the overall effectiveness of social media strategies.

References

Alarabi, S., & Grönblad, S. (2012). *The effects of consumer confusion on decision postponement and brand loyalty in a low involvement product category*.

Arnold, M., Goldschmitt, M., & Rigotti, T. J. F. i. p. (2023). Dealing with information overload: a comprehensive review. *14*, 1122200.

Bawden, D., & Robinson, L. (2020). Information overload: An overview.

Berens, S., & Funke, J. J. P. o. (2020). A vignette study of option refusal and decision deferral as two forms of decision avoidance: Situational and personal predictors. *15*(10), e0241182.

Chauhan, V., & Sagar, M. J. J. o. C. M. (2021). Consumer confusion: a systematic review and research directions. *38*(4), 445-456.

Dhir, A., Kaur, P., Chen, S., & Pallesen, S. J. I. J. o. I. M. (2019). Antecedents and consequences of social media fatigue. *48*, 193-202.

Dhir, A., Yossatorn, Y., Kaur, P., & Chen, S. J. I. j. o. i. m. (2018). Online social media fatigue and psychological wellbeing—A study of compulsive use, fear of missing out, fatigue, anxiety and depression. *40*, 141-152.

Eppler, M. J., & Mengis, J. J. K. i. W. B. a. J. m. (2008). The Concept of Information Overload-A Review of Literature from Organization Science, Accounting, Marketing, MIS, and Related Disciplines (2004) The Information Society: An International Journal, 20 (5), 2004, pp. 1–20. 271-305.

Fu, S., Li, H., Liu, Y., Pirkkalainen, H., Salo, M. J. I. P., & Management. (2020). Social media overload, exhaustion, and use discontinuance: Examining the effects of information overload, system feature overload, and social overload. *57*(6), 102307.

Giombi, K., Viator, C., Hoover, J., Tzeng, J., Sullivan, H. W., O'Donoghue, A. C., . . . Kahwati, L. C. J. P. o. (2022). The impact of interactive advertising on consumer engagement, recall, and understanding: A scoping systematic review for informing regulatory science. *17*(2), e0263339.

Graf, B., Antoni, C. H. J. E. J. o. W., & Psychology, O. (2021). The relationship between information characteristics and information overload at the workplace-a meta-analysis. *30*(1), 143-158.

Han, Q., Quadflieg, S., & Ludwig, C. J. J. P. o. (2023). Decision avoidance and post-decision regret: A systematic review and meta-analysis. *18*(10), e0292857.

Jiang, S. J. S. M. S. (2022). The roles of worry, social media information overload, and social media fatigue in hindering health fact-checking. *8*(3), 20563051221113070.

Klapp, O. E. (1986). *Overload and boredom: Essays on the quality of life in the information society*: Greenwood Publishing Group Inc.

Klausegger, C., Sinkovics, R. R. J. M. I., & Planning. (2007). Information overload: a cross-national investigation of influence factors and effects. *25*(7), 691-718.

Kulcsár, V., Dobrean, A., & Gati, I. (2020). Challenges and difficulties in career decision making: Their causes, and their effects on the process and the decision. *Journal of Vocational Behavior, 116*, 103346. doi:https://doi.org/10.1016/j.jvb.2019.103346

Li, K., Jiang, S., Yan, X., & Li, J. J. H. (2024). Mechanism study of social media overload on health self-efficacy and anxiety. *10*(1).

Liu, H., Liu, W., Yoganathan, V., Osburg, V.-S. J. T. f., & change, s. (2021). COVID-19 information overload and generation Z's social media discontinuance intention during the pandemic lockdown. *166*, 120600.

Liu, Y., & He, J. J. F. i. P. (2021). "Why are you running away from social media?" Analysis of the factors influencing social media fatigue: An empirical data study based on Chinese youth. *12*, 674641.

Maier, C., Laumer, S., Eckhardt, A., & Weitzel, T. J. E. J. o. I. S. (2015). Giving too much social support: social overload on social networking sites. *24*(5), 447-464.

Mourali, M., Yang, Z., Pons, F., & Hassay, D. J. I. J. o. R. i. M. (2018). Consumer power and choice deferral: The role of anticipated regret. *35*(1), 81-99.

Norrman, A., & Prataviera, L. B. J. J. o. B. L. (2023). Revisiting postponement: The importance of cross-functional integration to understand tax implications in global supply chains. *44*(4), 693-718.

Pellegrino, A., Abe, M., & Shannon, R. J. F. i. p. (2022). The dark side of social media: content effects on the relationship between materialism and consumption behaviors. *13*, 870614.

Phillips-Wren, G., & Adya, M. J. J. o. d. s. (2020). Decision making under stress: The role of information overload, time pressure, complexity, and uncertainty. *29*(sup1), 213-225.

Qin, C., Li, Y., Wang, T., Zhao, J., Tong, L., Yang, J., & Liu, Y. J. F. i. p. (2024). Too much social media? Unveiling the effects of determinants in social media fatigue. *15*, 1277846.

Roetzel, P. G. J. B. r. (2019). Information overload in the information age: a review of the literature from business administration, business psychology, and related disciplines with a bibliometric approach and framework development. *12*(2), 479-522.

Schneider, I. K., Stapels, J., Koole, S. L., & Schwarz, N. (2020). Too close to call: Spatial distance between options influences choice difficulty. *Journal of Experimental Social Psychology, 87*, 103939. doi:https://doi.org/10.1016/j.jesp.2019.103939

Sheng, N., Yang, C., Han, L., & Jou, M. J. C. i. H. B. (2023). Too much overload and concerns: Antecedents of social media fatigue and the mediating role of emotional exhaustion. *139*, 107500.

Singh, S., Gupta, P., Jasial, S. S., & Mahajan, A. J. J. C. C. C. (2023). Correlates of compulsive use of social media and academic performance decrement: A stress-strain-outcome approach. *17*, 131-146.

Sriwilai, K., Charoensukmongkol, P. J. S., & Health. (2016). Face it, don't Facebook it: impacts of social media addiction on mindfulness, coping strategies and the consequence on emotional exhaustion. *32*(4), 427-434.

Świątek, A. H., Szcześniak, M., Aleksandrowicz, B., Zaczkowska, D., Wawer, W., Ścisłowska, M. J. P. r., & management, b. (2023). Problematic smartphone use and social media fatigue: The mediating role of self-control. 211-222.

Tolba, A. A. M. J. T. E. J. o. M. R. (2024). Social media fatigue and its psychological consequences on Egyptian youth. *2024*(88), 1-30.

Ulum, I., Ghozali, I., & Chariri, A. (2008). Intellectual capital dan kinerja keuangan perusahaan; Suatu analisis dengan pendekatan Partial Least Squares (PLS).

van Ditzhuijzen, J., Brauer, M., Boeije, H., & van Nijnatten, C. H. J. P. o. (2019). Dimensions of decision difficulty in women's decision-making about abortion: A mixed methods longitudinal study. *14*(2), e0212611.

Wei, H.-L., Hai, C.-Y., Zhu, S.-Y., & Lyu, B. J. F. i. P. (2021). The impact of consumers' choice deferral behavior on their intertemporal choice preference. *12*, 555150.

Yuki, S., Kubo, T. J. J. o. B., & Marketing, I. (2023). The incompatibility of proactive market orientation and postponement strategy in product differentiation. *38*(13), 92-104.

Zahrai, K., Veer, E., Ballantine, P. W., de Vries, H. P., & Prayag, G. J. J. o. C. A. (2022). Either you control social media or social media controls you: Understanding the impact of self-control on excessive social media use from the dual-system perspective. *56*(2), 806-848.

Zhang, G., Cao, J., & Liu, D. J. P. o. (2023). Examining the influence of information overload on consumers' purchase in live streaming: A heuristic-systematic model perspective. *18*(8), e0284466.

Zhang, S., Zhao, L., Lu, Y., Yang, J. J. I., & Management. (2016). Do you get tired of socializing? An empirical explanation of discontinuous usage behaviour in social network services. *53*(7), 904-914.

Zheng, H., Ling, R. J. T., & Informatics. (2021). Drivers of social media fatigue: A systematic review. *64*, 101696.

Zolkepli, I. A., Tariq, R., Isawasan, P., Shamugam, L., & Mustafa, H. J. P. o. (2024). The effects of negative social media connotations on subjective wellbeing of an ageing population: A stressor-strain-outcome perspective. *19*(1), e0296973.