INVESTIGATING CONSUMER'S FEAR OF MISSING OUT AND SOCIAL MEDIA FATIGUE: AN EXTENDED LITERATURE REVIEW

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ABSTRACT

The information age has brought about the emergence of many digital tools. One of the tools is social media network sites, such as Facebook, Twitter, and Instagram, that have increasingly gained popularity worldwide. A large percentage of the global population is actively engaged in social media activities which have changed people's way of life. Businesses also have to adapt to this change by being actively involved in social media. To take advantage of social media opportunities many consumer increase their social media activity which results in Fear Of Missing Out (FOMO). Meanwhile, another phenomenon is social media fatigue, which refers to the feeling of being overwhelmed by social media usage. Although the two phenomena have been closely examined as separate topics, the relationship between FOMO and social media fatigue has not been properly addressed. This study fills in this research gap and strives to understand the relationship between consumers' FOMO and consumer social media fatigue and adopted the extended literature review methodology. From the findings, it is clear that FOMO can result in social media fatigue. Particularly, three variables are discovered to be mediators of this relationship, which are information overload, anxiety, and depression. Clear evidence indicates that FOMO can lead to information overload which will cause social media fatigue. This shows that mediators factors may aggravate social media fatigue. In addition to influence by mediators, FOMO and social media fatigue itself also lead to negative emotions. These negative emotions influence FOMO and social media fatigue. Therefore FOMO, social media fatigue and these mediators interact and influence each other. Individuals with depression or anxiety are more likely to be affected by FOMO and social media fatigue. The results of this study provide a research foundation for how to effectively reduce social media fatigue and effective information delivery. It also provides supplementary research data on the relationship between users emotions on social media attitudes. Based on this finding, the study has an implication especially for organizations and how they market their products. Other stakeholders such as medical practitioners and education stakeholders also can form policies that address the effects of social media usage. This study will also have some implications for the treatment of depression patients and social media use.

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ATTESTATION OF AUTHORSHIP

I hereby declare that this submission is my own work and that, to the best of my knowledge and

belief, it contains no material previously published or written by another person (except where

explicitly defined in the acknowledgements), nor material which to a substantial extent has been

submitted for the award of any other degree or diploma of a University or other institution of

higher learning.

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CHAPTER 1 INTRODUCTION

1.0 Preface

The purpose of this chapter is to provide the context for the discussion of fear of missing out and social media fatigue, giving an introduction to social media platforms and the background of the research. This chapter will outline the research purpose and questions, as well as describing the structure of this research to guide further reading.

1.1 Background

Globalization is characterized by various types of interconnectivity, including the Internet (Lebedko, 2014). Globalization has continuously reduced the distance between regions, with its main manifestation being informatization and network, which has improved the efficiency of information sharing. One of the tools is social network sites. Social network sites have undoubtedly had a significant impact on the world, especially on teenagers, who are called the N Gen (network generation) or the generation D (digital generation) (Lebedko, 2014). Compared with older people, this generation grew up with the development of a fast-changing information society. Communicating through a social network is faster and more efficient than traditional ways of communication. The wide use of social media not only provides users with the ability to obtain more information but also satisfies the needs of communication between users, so it can be concluded that social media plays a dual role in our life. Social media is also defined as "new media". It has multiple functions and has brought people's daily life into a highly interconnected and sophisticated level, subverting the traditional meaning of communication and media (Guo-Ming, 2012).

Social media as the product of the highly developed information age, play the dual roles of social communication and media propaganda. Today, people are increasingly relying on fast and straightforward communication methods and channels for obtaining information. As a result, social media has become an indispensable tool in people's lives. It is widely used in brand

operations and plays an essential role in brand marketing, advertising, and customer communication. Brand social media has established a multi-dimensional structure during its operation processes, such as social media strategy, customer engagement, and media analysis (Tafesse & Wien, 2018). It also establishes a close relationship with customers and uses multiple perspectives to help positively influence performance and marketing (Carlson, Wyllie, Rahman, & Voola, 2019; Jamie, Siegfried, Carsten, & Mohammad Mahfuzur, 2019). Brands can establish a virtuous circle of customer relationship management through social media. More personalized content may be pushed from the big data system. Users are eager to collect more comprehensive and exciting information, so increasing the amount of information and the improved accuracy have further attracted their attention(Gensler, Völckner, Yuping, & Wiertz, 2013). When consumers obtain an increasing amount of accurate brand information, they may become afraid of losing this information. This phenomenon is referred as the customers' fear of missing valued information, which is also called "Fear of Missing Out" (FOMO).

Consumers alleviate the emotions associated with FOMO through frequent access to social media information. Although the original intention is to reduce FOMO, excessive information collection may produce negative emotions, which is social media fatigue, a kind of overwhelming emotion caused by the use of several social media, collecting more information, and having too many contact friends (Bright & Logan, 2018). Social media is more popular among the youth groups, but at the same time, fatigue is also gradually increasing. Social media fatigue is a subjective experience, composed of many factors, such as boredom, disappointment, and anger (Park & Lee, 2019). With overloading and frequent access to information, the attitudes of social platform users may gradually change, creating a sense of fatigue on social media. Social media fatigue gradually occurs, which is reflected in the activity of social platform users. Social media is closely connected to users' life, but it may invade their life, involving personal privacy (Xiao & Mou, 2019). The original intention of using social media is to socialize, but the use of it is gradually blurring this intention to transform into a platform for marketing and transmitting the information. With the development of software functions and the awareness of the importance of social platforms, brands use social media platforms for online marketing and publishing information.

Social platform users receive an excessive amount of information, gradually causing users reduce the use of social media either temporarily or permanently (Dhir, Yossatorn, Kaur, and Chen, 2018).

Based on the introduction of the industry environment and background mentioned above, the research of this study between FOMO and social media fatigue is significant. FOMO is an emotion that users experience. It is a kind of fear and concern arising that arises when collecting information through social media platforms. This emotion may cause a large amount of information dissemination, and cause information fatigue through long-term accumulation. It leads to social media fatigue. Studying the effects and causes of FOMO and social media fatigue can help adjust users' emotional and psychological changes. By grasping the balance between FOMO and social media fatigue, the effectiveness of information dissemination will be improved.

1.2 Statement of the Problem

This study will investigate the relationship between users' FOMO and social media fatigue in a variety of environments. The first question is the relationship between FOMO and social media fatigue. When social media users open the software, they will receive product information of the brand, advertisements automatically sent by the system, etc., whether or not this information will arouse consumers' desire for more information. Among the groups of university students, the use of social media has obvious emotional support (Fang, Wang, Wen, & Zhou, 2020). From a psychological point of view, social media users have a certain degree of stickiness and generate FOMO emotions. It is worth studying whether consumers will get tired of social media after getting information frequently. This study investigated whether users will transition from FOMO to social media fatigue during using process, and the relationship between FOMO and social media fatigue.

Secondly, other influencing factors also contribute to the transition of consumer sentiment from FOMO to social media fatigue. This transition plays a role in business decisions in terms of the frequency and content of social media. In going from FOMO to social media fatigue, the user's

emotion has altered, from positive to negative. Whether the three influencing factors will play a regulating role between FOMO and social media fatigue, including information overload, depression, and anxiety requires further investigation

Overall, the literature has separately studied FOMO and social media fatigue, but an examination of the existing literature on the relationship between the two is lacking. This study analyzes the literature by combining various aspects to explore the connection between FOMO and social media fatigue, and the effects of multiple mediator factors on social media fatigue.

1.3 Research Questions, Objectives, and Design

Based on the above discussion, this research has three research questions:

RQ 1: What does the extant literature say about a relationship between FOMO and social media fatigue?

RQ 2: What is the role of mediating factors such as information overload in the relationship between FOMO and social media fatigue as indicated in the literature?

RQ3: What is the relative effect of these mediating factors on social media fatigue?

Based on these three questions, extensive literature reading is necessary and relative research should be conducted, such as rigorous examination of literature on FOMO and social media fatigue, research on the background, and a comprehensive grasp of relevant research literature. Besides, information overload, anxiety, and depression are frequently examined topics in marketing and brand customer relationship management. FOMO and social media fatigue are activities at the psychological level of consumers. There is a process of change in consumer sentiment from FOMO to fatigue. This dissertation studies the three factors of customer management as mediator factors on whether they will affect the customer's experience of using social media. The following are objectives based on these research questions:

• To investigate the relationship between FOMO and social media fatigue.

- To investigate the mediators between the relationship of FOMO and social media fatigue, including information overload, anxiety, and depression.
- To investigate the strength of these mediators on the relationship between FOMO and social media fatigue.

The above objectives are based on academic researches and will successfully answer the questions raised at the beginning of this section during the research process.

1.4 Organisation of the Dissertation

The structure of this dissertation is as follows. Chapter one has briefly introduced the background of FOMO and social media fatigue on social platforms, the research questions and objectives of this dissertation. Chapter two will introduce the background of FOMO and social media fatigue, including definition, development, and current status. It will also introduce the role and development of the three mediator factors in the development from FOMO to social media fatigue, including information overload, anxiety, and depression. Chapter three will discuss the research method of this dissertation and how to select literature for analysis. Chapter four analyses and discusses the existing literature, and discusses contributions of literature, gaps, and frameworks. Chapter five summarizes the particular findings in the study, as well as the contributions and limitations of this research.

CHAPTER 2 BACKGROUND LITERATURE

2.0 Preface

The purpose of this chapter is to further explore the critical issues raised in Chapter one, including Fear of Missing Out (FOMO) and social media fatigue. It provides guidance on the content of Chapter four which presents findings and discusses implications of the findings of this research. This chapter serves as a background explanation of the key literature and explains the relationship between FOMO and social media fatigue. Then, the chapter also analyses the status quo of existing studies on FOMO and social media fatigue. Finally, it will introduce the concept of information overload, depression and anxiety as mediator factors between FOMO and social media fatigue on social media platforms.

2.1 FOMO and FOMO in Social Media

Fear of missing out (FOMO) can be defined as "pervasive apprehension that others might be having rewarding experiences from which one is absent" (Przybylski et al., 2013), arousing more general concerns about or fear of lacking great experience and information. FOMO can also be defined as a desire to keep updated with what other people are doing and is derived from the belief other people are having interesting experiences when one is not present (Fang, Zhou, Wang, & Wen, 2020). For example, people will pay close attention to brand websites to avoid missing new product launches or discounts. Before the promotional events of the Singles' Day shopping festival of Alibaba, there was a significant increase in website traffic (Kharpal, 2019). According to Fang et al. (2020), FOMO is caused by a lack of emotional support and needs in offline life. FOMO is usually accompanied by negative physical and psychological problems, such as addiction, depression, high stress, and bad sleep quality (Riordan et al., 2020). Young people and adults are generally more likely to be affected by FOMO because they are more sensitive and are the main users of social media (Lo Coco et al., 2020).

A number of researches examined FOMO in the context of social media. The feeling of FOMO emotions will drive the development of social media, which further promotes users to strengthen FOMO feelings (Buglass, Binder, Betts, & Underwood, 2017). Thus, FOMO and social media development mutually affect each other. The more the use of social media increases, the stronger the user's FOMO experience (Fang et al., 2020). Under the impact of such development, researchers have discovered that the key link between FOMO and social media is a user engagement and user experience. FOMO means a lack of psychological needs, and individuals with that emotion need to adjust themselves because FOMO can affect psychological health. Users with high FOMO may have lower satisfaction, more negative emotions and feelings (Buglass, Binder, Betts, & Underwood, 2017).

2.2 Social Media Fatigue

Fatigue is a broad concept that can be explained from multiple perspectives such as clinical, and psychological (Xiao & Mou, 2019). In the social media context, FOMO may negatively impact on consumers, and one of the consequences is social media fatigue (Bright & Logan, 2018). Social media fatigue refers to the tendency of social media users to stop using social media when they are overwhelmed, such as with too much information, friends, followers, or time spent on social media for maintaining connections (Bright & Logan, 2018). Lee et al. (2016) defined social media fatigue as a subjective evaluation of tiredness resulted from social media use. The definition of Bright and Logan (2018) indicates that fatigue is caused by cognitive overload, including both information load and communication overload. The definition given by Lee at al. (2016) is broader; nonetheless, it does not explain the factors that can lead to social media fatigue. It is multiple dimensional user experience, including a series of negative emotions and passions such as irritability, depression, and unhappiness; the direct consequence of social media fatigue is holding back from using social media (Lo, 2019). Social media fatigue also differs among individuals, as everyone's feelings and experiences are different (Eoin et al., 2020). Xiao and Mou (2019) observed that fatigue can either be short-term or long term. Through synthesizing these definitions, the definition of social media fatigue in this research is determined as a temporary state of fatigue that is caused by social media over-usage.

Due to the development of informatization, social media is widely used and is grown rapidly worldwide (Xiao & Mou, 2019). Social media refer to web-based tools for communication and which allow people to interact with each other through information sharing and consumption (Lee et al., 2015). An increasing percentage of global population is using the Internet and the number of social media users has also increased. The survey shows that more than 70 per cent of online users are now using social media (Hootsuite, 2017). According to Statista (2020), the average penetration rate of social media in the globe is about 51%, 69% in North America, and 66% in Northern Europe. The time spent on social media has increased significantly, and statistics show that the users spent time on social media has increased by 46 minutes in six years (Statista, 2019). However, Xiao and Mou (2019) reported that against the background of booming social media in recent years, some social network sites were experiencing a downward trend in user activity and login numbers. For instance, the Edison Research (2019) report shows that the number of users of Facebook is decreasing. A similar trend was observed and the monthly login number of users of Renren (Chinese social networking site) decreased by 130 million from 2010 to 2018 (Kandar, 2018). Jian and Mou (2019) proposed that social media fatigue was the major cause of such decline.

The reduction of the number of social media users in major social media platforms, such as the Facebook, is a reflection of social media fatigue (Goasduff & Petty, 2011). Social media fatigue is an inner feeling and a psychological concept, a reflection of the inner emotions of social media users (Cramer, Song & Drent, 2016), and a manifestation of the change from a positive attitude to a negative attitude towards social media platforms. The negative emotions of social media users may manifest as tiredness, boredom, indifference, etc. (Luqman et al., 2017). These negative emotions mainly target information and content on social platforms (Cao & Sun, 2018; Swar et al., 2017; Zhang, Zhao, Lu & Yang, 2016), security, and privacy (Dhir, Kaur, Chen & Pallesen, 2019; Panda, 2018; Xiao & Mou, 2019). Information overload refers to the fact that the information received by users is beyond the scope of their processing capabilities, and it takes a lot of time and attention for them to filter, classify and process the information. There may be conflicts between the limited capabilities and overloaded information, which is the predisposing

factor for negative emotions and the fundamental cause of social media fatigue (Hill & Moran, 2011). Social platform information overload and privacy issues cause negative emotions in users, and the change in emotions promotes users' conflict to social media develops into social media fatigue. Therefore, social media fatigue is a process of the development and transformation of users' emotional changes.

With the popularity of social media among consumers, brands are also using social media as tools for increasing sales, and for customer relationship management (Berthon et al., 2012). To maximize profitability, brands have switched their attention to social media platforms. More than 70 million brands worldwide launched web pages and opened accounts on social platforms, such as advertising on social media platforms, promoting products, and online communication with consumers (Berthon, Pitt, Plangger& Shapiro, 2012). Brands use social media as a platform to communicate with customers, and they can get customer feedback and opinions on the brand immediately (Schivinski & Dabrowski, 2016). As a communication bridge, social platforms can enable customers and brands to establish a good bond of emotional maintenance and emotional communication with each other (Schivinski, Langaro, & Shaw, 2019).

2.3 Mediators Between FOMO and Social Media Fatigue

This section discusses the potential mediators between FOMO and social media fatigue, covering information overload, depression and anxiety.

2.3.1 Information Overload

According to Cao and Sun (2018), with increasingly abundant access to information, to make sense of the information, there is also a greater need to process the information input. This, however, causes information overload. Information overload on social media can be simply defined as the feeling of being overwhelmed by information one is exposed to on social media. Dhir and Midha (2014) defined information overload as the difficulty one has in understanding an issue and making decisions, due to being presented too much information. Toffler (1984) proposed that there are two causes of information overload. This first one is a decreasing signal

to information ratio. This means that much of the information is misleading, irrelevant, or of low quality. Another cause is the limitation of the cognitive capabilities of humans.

Toffler (1984) proposed the connection between FOMO and information overload. He pointed out that media provide a large quantity of information, and the users felt compelled to keep up under the influence of FOMO. However, the users may experience challenges in setting priorities of the information basing personal interests or values because of the sheer amount of information. Particularly, users are easily distracted by new information as users place importance on the recency of information. Dhir and Midha (2014) also argued that information overload occurs when one has difficulties to keep up with the information that they have selected as he/she fails to find time to process the quantity of information that they believe they should. Therefore, FOMO can cause information overload among consumers.

Information overload directly contributes to social media fatigue. For instance, the survey results of 525 respondents show that information overload has a significant impact on social media fatigue which will directly lead to discontinuous usage intention of social media. Similarly, Lee et al. (2016) also examined the factors that cause social media fatigue and discovered that information overload has the greatest effects on social media fatigue. Therefore, a direct correlation between information overload and social media fatigue is observed. It is argued that information overload mediates the relationship between FOMO and social media fatigue.

2.3.2 Depression and Social Media

According to Depression and Anxiety of Association of America (2020), depression refers to one of the main causes of mood disorders that cause constant feelings. Researches showed that social media usage is associated with psychological problems, such as depression. Boer et al. (2018) examined over 3,800 adolescents over four years and measured their time spent on social media, and their level of depression symptoms. Results show that an increased amount of time on social media were associated with an increasing rate of depression. Jean and Farley (2020) also examined the relationship between social media use and depression and discovered that increased

social media will lead to a higher rate of depression. They explained that increased screen time deprived people of time doing more positive activities, and thus leading to an increased rate of depression.

One of the direct consequences of FOMO is depression. The study conducted by Melissa et al. (2018) observed that the impact of FOMO on depression. They observed that greater usage of social media is caused by FOMO, and FOMO will result in feelings of depression. The explained that because of FOMO, users may fail to process the large quantity of information that they feel they need to, which will result in depressive mood disorder. Another study by Baker et al. (2016) also observed a causal relationship between FOMO and depression. They argued that FOMO has negative impacts on well-being, especially depression and a sense of loneliness, and argued that decreased social media use will result in a qualitative shift in users' physical and mental wellbeing. They explained that this is because reduced screen time will increase the opportunities for adolescents to engage in activities that have a positive impact on their mental and physical health.

Depression is closely associated with social media fatigue. According to Dhir et al. (2018), compulsive use of social media is closely related to social media fatigue. They argued that an increased level of anxiety and depression is the direct consequence of social media fatigue. Bashir and Bhat (2014) also conducted a study among undergraduate students and discovered that impulsive use of social media will lead to social media fatigue, and then result in psychological problems, such as depression and anxiety. They further pointed out that depression and anxiety are the symptoms of social media fatigue. Consequently, it is argued that depression mediates the relationship between FOMO and social media fatigue.

2.3.3 Anxiety and Social Media

Depression and anxiety often occur simultaneously in researches as negative psychological impacts of social media use, social media fatigue, or FOMO. Becker et al. (2013) discovered that media usage is associated with psychological symptoms of depression and social anxiety. They discovered that instead of the overall amount of time, multitasking on social media is the major

cause of depression and social anxiety. They explained that this is because multitasking is more demanding in terms of the cognitive skills of the users, and thus are more mentally and psychologically exhausting. Vannucci et al. (2017) discovered that younger adults are more likely to show symptoms of anxiety caused by social media use. They explained that this is because younger adults are more concerned with their social relationships than the general social media users.

Researchers show that anxiety is strongly associated with FOMO (Dhir et al., 2018; Melissa et al., 2018). For instance, discovered that impulsive social media usage (FOMO) will lead to social media fatigue, which will result in anxiety(Dhir et al., 2018). The same study by Melissa et al. (2018) also observed that FOMO will lead to feelings of anxiety. They observed that users who have reduced usage of social media also showed decreased FOMO and feelings of anxiety. In addition, researches also showed that anxiety is a symptom of social media fatigue (Alberts et al., 2015; Dhir et al., 2018). Consequently, it is argued that anxiety mediates the relationship between FOMO and social media fatigue.

2.4 Summary

The above discussion introduces the concepts and existing studies on FOMO and social media fatigue. FOMO is a psychological problem caused by a psychological demand for information. FOMO may be influenced by friends, self-experience, and family. FOMO and social media use mutually affect each other. Social media fatigue is a result of spending too much time and attention on social media platforms. Social media fatigue subjective, self-evaluated state of fatigue caused by social media use. Both FOMO and social media fatigue are psychological states. In addition, the literature review also identified three mediators between the relationship of FOMO and social media fatigue, which are information overload, depression and anxiety.

CHAPTER 3 METHODOLOGY

3.0 Preface

The purpose of this chapter is to explain the methodology and research process. Firstly, the research procedure will be described in this chapter. Following this, an assessment of the literature will be conducted. Additionally, the reviewed literature will be classified for better analysis.

3.1 Research Strategy

An extended literature review is adopted in this research. A literature review is a well-established method for assessing existing knowledge of a particular research topic. Grant and Booth (2009) argued that an extended literature review allows the researcher to gain deep insights into the research topic. This research aims to identify the relationship between FOMO and social media fatigue, and the potential mediators of information overload, depression, and anxiety. An extended literature review allows the researcher to identify the latest trends in the research, and to assess the collective evidence in a specific research topic (Gabbot, 2004). Gabbot (2004) pointed one of the important reasons of conducting a literature review is to identify research gaps that could be addressed in future research. Consequently, the extended literature review methodology is adopted in this study.

3.2 Research Process

This dissertation is an extensive literature review, and the research method used in this dissertation follows the literature review and data analysis strategy proposed by Gabbott (2004). This paper is divided into four steps.

The first step is to read Fear of Missing Out (FOMO) and social media fatigue-related articles extensively. Library databases such as AUT Library, EBSCO, ScienceDirect, Emerald, and

SpringerLink will be used for the article assess. The scope of the articles will be determined through keyword searches which will filter the articles and build a document list. The reference list will be used to search for related literature. Secondly, after preliminary screening, a literature form will be formulated, which will involve the authors' names, publication year, aim, research questions, research methods, and key findings. After completing the literature form, the content will be filtered again where the articles will be classified. As a result, key analysis findings will be sought, analyzed, and summarized through critical conclusions and discussions. Finally, through literature analysis, research questions that are not covered by the existing articles will be explored.

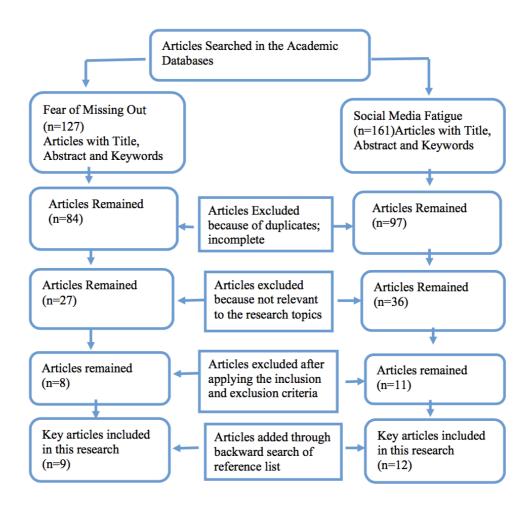
3.3 Literature Identification and Refining the Sample

Performed searches will be conducted on systems in key databases (AUT Library, EBSCO, ScienceDirect, and Emerald, SpringerLink). The keywords are "fear of missing out" (FOMO), social media fatigue, information overload, depression, and anxiety. As shown in Figure 1 at below, five sets of keywords were searched in the process. The collected articles were analyzed to identify ideas and themes. Then the researcher searched further for articles that could confirm the ideas or themes. For instance, the first set of keywords include FOMO AND social media OR network OR the Internet. Two themes emerged from the literature, which are social media addiction and negative emotions of "Problematic Smartphone Use" (PSU). These themes then worked as keywords of the research, and Social media addiction AND Anxiety OR depression OR addiction, and "Problematic Smartphone Use" (PSU) AND Social media use OR Addiction OR Social Media community were searched in the database. A total of 31 articles were included in this process. Searching for information overload and social media shows that the relevance of articles has increased significantly. Through literature lists, keywords are expanded to include information overload, brand engagement, social media attachment, etc. The following figure shows the process of keyword searches.

3.4 Inclusion and Exclusion Criteria

Several criteria were applied to screen the articles retrieved from the database. This study only includes articles that were published in the English language. Meanwhile, as argued by Booth et al. (2011), peer-reviewed articles are of high reliability as they have undergone a rigorous review process. Consequently, peer-reviewed journal articles are included in this study. Meanwhile, governmental reports and book chapters are also considered to be reliable academic sources, and thus are also included in this study. In addition, studies need to be closely related to the topic of FOMO or Social Media Fatigue, or potential mediators, namely, informational overload, depression and anxiety. Accordingly, articles that are no in English, and not related to FOMO or social media fatigue or the three mediators were excluded from this study. Meanwhile, the methodologies of the collected articles were also carefully reviewed and articles with flawed methodologies were further excluded from this research.

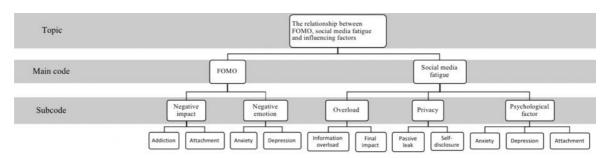
Figure 1 Literature Screening Process



3.5 Coding and Concept Classification

After a keyword search, the articles were initially listed and filtered. After passing the preliminary screening, the articles are classified and coded. The task in this stage is to coding all literature, which is a guide to further reading and analysis. The coding method is to classify the articles according to the field involved and create documents, respectively. The final selected literature in this dissertation is 84, encoding is divided into three levels, based on the main code, sub code, and content code. Figure 2 shows the detailed code types and code levels.

Figure 2. Literature coding



After completing the above work, the article will be carefully read, and the key information of the article will be made into a table, involving the author, publication year, research aim, research question, and key findings. Prepare for follow-up analysis and discussion. After the table is completed, a representative article will be selected to make a table as the key analysis and discussion article.

3.6 Summary

In general, the research method of this dissertation follows the article analysis method of Gabbott (2004), combining and analyzing the article through four steps. Through literature lists, coding, and literature tables, a comprehensive understanding of the research field can be provided to provide article storage for critical analysis and discussion. This dissertation finally contains 84 articles, published between 1973 and 2020. FOMO and social media fatigue as the main codes, and creating five sub-codes in the second level.

CHAPTER 4 FINDINGS

4.0 Preface

The purpose of this chapter is to present the findings of this research. The findings identify the factors that affect the FOMO and the consequences of high-level FOMO. The high-level FOMO is defined as a high degree of fear of missing information. Then it will discuss social media fatigue, identifying the leading causes and outcomes. The existing literature provides a detailed analysis of negative emotions (depression and anxiety) in the field of FOMO and social media fatigue. The three mediators, including information overload, depression, and anxiety are discussed. After describing and analysing the existing literature, the relationship between FOMO and social media fatigue was analysed and discussed.

As mentioned in Chapter three above, each article has been searched and screened. The final number of articles is determined to be 84. It involves many fields, and covering a period of 47 years, from 1973 to 2020. The article involves many research fields such as business, marketing, psychology, and sociology, etc.. The literature review research is divided into quantitative analysis and qualitative analysis. The social media research involves almost all over the world, so the literature covers a wide range of regions. This section analyses the findings and research results of key articles and summarizes the literature on FOMO in detail.

4.1 FOMO

The literature reached the consensus that FOMO is caused by the dissatisfaction of psychological needs (e.g. Dhir et al., 2018). FOMO is a psychological state in which psychological needs cannot be satisfied (Hamutoglu et al., 2020).

4.1.1 FOMO and Social Media Addiction

A major theme that emerged from the literature review is also is the co-relationship between FOMO and social media addiction (Blackwell et al., 2017). It is regarded as an addiction in the field of social media because they fear missing information and social media dynamics cause users to spend a lot of time on social media platforms (Larry, 2014; Przybylski et al., 2013). A survey of young people with FOMO tendencies found out that they spend more than 7 hours a day on social media and use multiple social media at the same time (Hamutoglu et al., 2020). The majority of users who use social media intensively maintain a high FOMO level, which indicates that there is a close correlation between the frequency of use of social media and the level of FOMO (Hamutoglu et al., 2020). The level of FOMO can lead to the more frequent use of social media, and users may become addicted (Griffiths et al., 2015). Addiction may increase curiosity and thereby stimulate FOMO levels (Hamutoglu et al., 2020). Social media addiction has a direct positive effect on FOMO, and social media use has a positive impact on addiction (Hamutoglu et al., 2020).

4.1.2 Personality Traits and FOMO

Another theme emerged from literature is the close relationship between personality traits and FOMO. Agreeableness personality traits refer to being polite, good at cooperating, tolerant, and highly trusting (Glass et al., 2013). Agreeableness (ARG) personality traits are the most likely to produce FOMO, and then become addicted to social media (Hamutoglu et al., 2020). According to a survey by Sette et al. (2020), FOMO among social media users consists of four dimensions, namely; a sense of belonging, popularization needs, anxiety, and addiction. Among them, anxiety and addiction have been confirmed to be highly correlated with online social media use (Sette et al., 2020). Researches other individual traits also impact on the occurrence of FOMO. For instance, according to Cohen (2013), people with negative mood and satisfaction are more likely to encounter FOMO situations (Cohen, 2013). FOMO is usually accompanied by negative emotions and physical conditions (Baker, Krieger, & LeRoy, 2016). People with high FOMO are highly involved in the passive use of social media. In other words, people with ARG personality are

prone to produce high-level FOMO, combined with the personality traits of good cooperation and tolerance; they usually fall into passive use of social media and high participation.

4.1.3 FOMO and Social Media Use

FOMO is closely related to the use of social networking sites. FOMO is also associated with "Problematic Smartphone Use" (PSU) (Billieux et al., 2015). PSU is defined as a high-frequency use of smartphones, which causes damage and disturbance in social, work, and other aspects to users (Billieux et al., 2015). In other words, PSU is the negative effect of excessive use of smartphones. FOMO mediates the relationship between PSU and negative emotions, such as depression and anxiety (Elhai et al., 2020; Wolniewicz et al., 2018; Dempsey et al., 2019). Another article confirmed the conclusion of Billieux et al. (2015), using Facebook as an example. "PFU" refers to the "Problematic Facebook Use", which is the detrimental harm caused by high-frequency use of Facebook. The result and impact of FOMO is the acceptance of more information and the more frequent use of social media. PFU is derived from the frequent use of Facebook, so FOMO has an evident direct impact on PFU. The frequency of Facebook is related to the severity of PFU. FOMO impacts on the severity of PFU. The research by Oberst et al. (2017) confirms that depression has a direct effect. However, in the study by Elhai et al., (2018), it was also found that negative affective variables mediate the relationship between FOMO and PSU severity.

Table 1 Fear of missing out (FOMO) key articles summary

Authors	Aim & Research Questions	Methodology	Key Findings
	Social media addict	tion and attachme	nt
Hamutoglu, Topal, & Gezgin, 2020	Aim Social media addiction (SMA), social media usage (DCMU) and personality traits influence(direct and indirect) to fear of missing out (FOMO). Research Questions - How does Social Media Addiction affect FOMO? - How does Daily Social Media Usage affect Social Media Addiction? - How does Daily Social Media Usage affect FOMO? - How do personality traits affect FOMO?	Online survey of 845 prospective students	-SMA directly and actively estimate FOMO, while DSMU has an important and active effect on SMA, while DSMU does not affect FOMOAgreeableness personality traits have a positive impact on FOMO, and other personality traits have notAddicted individual may have increased FOMO levels can be considered in the light of the results of this study because the SMA variable had a positive effect on FOMO
Sette, Lima, Queluz, Ferrari, & Hauck, 2020	Aim The purpose of this research is to develop and verify the FOMO inventory related to modern social media use. Research Questions - What is the relationship between the four core dimensions of need to belong, need to be popularized, anxiety and addiction and FOMO?	Online survey of 405 community adults	-When the Internet or smartphones are not available, anxiety factors can affect the withdrawal and craving symptoms that FOMO patients are shown. -Addictive factors can solve significant and professional, academic or relationship problems caused by overuse of OSM. -Sense of belonging and popularity have the highest correlation with FOMO, while anxiety and addiction are more related to moderately correlated with online behavior.
Fabris, Marengo, Longobardi, & Settanni, 2020	Aim The main purpose of this study is to research the interaction between social media addiction and FOMO to interpret individual differences in adolescent mood symptoms. Research Questions -The relationship between FOMO and stress, and how does it affect teenagers? -Are FOMO and stress sensitivity related to social media addiction?	Online survey of 472 teenager	-FOMO is an essential factor that makes the public ignore the high sensitivity of online peers to stress. High sensitivity leads to social media addiction, leading to negative emotions in teenagers and affecting emotional health. -FOMO is related to increased sensitivity to stress, which stems from ignoring Internet peers and adverse reactions and social media addiction.
Anxiety, depression and PSU			
Bright & Logan, 2018	Aim - The purpose of this study is to investigate the impact of social media advertising on social media fatigueWhat is the connection between the psychological factors of social media fatigue (privacy issues) and advertising?	Online survey of 518 social media users	 Compared with advertising factors, FOMO has a more significant impact on social media fatigue. Privacy issues continue to affect consumers' use of social media.
	Research Questions - The relationship between FOMO and social media fatigue? - Is there a connection between FOMO and social media attitudes?		

Table 1 Fear of missing out (FOMO) key articles summary (continued)

Elbe: V	Aim	Online arress	EOMO modisted dommai
Elhai, Yang, Gallinari, &	Aim To study the relationship between	Online survey of 316	-FOMO mediated depression severity and non-social smartphone use.
Rozgonjuk, 2020	psychological factors (depression, anxiety and FOMO) and smartphone use, and the relationship between smartphone use and the severity of PSU.	USA undergraduate students	-FOMO is a mediating factor between depression and anxietyThe role of FOMO in individuals who desire social connections, but feel social anxiety.
	Research Questions - What is the relationship between smartphone use and the severity of PSU? - What is the relationship between FOMO and PSU? - What is the relationship between depression and anxiety with FOMO and		-Non-social smartphone use (NSSU) is related to FOMOThe relationship between FOMO mediated depression and anxiety is related to the severity of PSU.
Oberst,	PSU, respectively? Aim	Online survey	-FOMO has a negative impact on
Wegmann, Stodt, Brand, & Chamarro, 2017	This study investigates the relationship between the role of FOMO and the strength of SNS use on psychological factors, the use of mobile devices and the relationship between negative outcomes.	of 296 1468 social media users	adolescents in terms of adopting the technologyFOMO is a mediate factor between psychological factors and the negative consequences of social media use, and mobile devices are a significant carrier.
	Research Questions - What is the mediation effect of FOMO through mobile devices? - How do the negative consequences of depression and anxiety affect further depression through FOMO?		-The negative effects of depression and anxiety are mediated by FOMO, and depression is an obvious direct effect.
Dempsey, O'Brien, Tiamiyu, & Elhai, 2019	Aim Using FOMO and rumination as mediating variables, investigated the relationship between depression, social anxiety, and life satisfaction and the severity of problematic Facebook use (PFU). Research Questions	Online survey of 296 college students Compensatory Internet Use Theory (CIUT)	-FOMO is highly correlated with PFUFacebook usage frequency is obviously correlated with PFURumination is related to the severity of PFURumination is the mediating factor between social anxiety and PFU severityThe relationship between FOMO-
	The cross-relationship between rumination, frequency of use Facebook, FOMO and anxiety, depression, life satisfaction.		mediated social anxiety and the severity of PFU.
Wolniewicz, Tiamiyu, Elhai, & Weeks, 2018	Aim Investigating the negative effects of PSU, the relevance of FOMO, PUS and social smartphones.	Online survey of 296 participants	-FOMO is closely related to PSUFOMO mediates the relationship between fear of evaluation and smartphone use problemsFOMO is the mediating factor
	Research Questions - What is the relationship between FOMO and PSU? - Does FOMO is the mediator between assessed fear and smartphone use?		between the appraised fear and the use of smartphonesFOMO has an active relationship with PSU (especially using social smartphones).
Elhai et al., 2018	Aim Exploring the relationship between negative emotions, FOMO and mobile phone usage frequency and PSU from a psychological perspective. Research Questions	Online survey of 296 undergraduate participants	-Fear of missing out (FOMO) is related to negative affective variablesFOMO is highly related to social and problematic smartphone usage (PSU)Negative affective factors are the mediating factor between the severity of FOMO and PSU.
	- What does the negative impact of FOMO have to do with PSU? - What is the relationship between FOMO and negative emotions?		-FOMO represents a single-factor model with gender differences.

4.2 Social Media Fatigue

Researchers show that social media fatigue is the emotional feedback of social media users. There are three main areas involved in this type of emotion. The first aspect is social media information overload, which can also be considered as the main cause of social media fatigue that also affects some of the emotional changes of users. The second is social privacy. The third aspect is the change in the user's psychological factor, which can be regarded as a risk factor for the user's spirit and emotions.

4.2.1 Information overload

The definition of "overload" can be analyzed from different aspects and industries. First of all, overload can be explained subjectively as an assessment and cognition that exceeds the individual's processing capacity (Cao & Sun, 2018; Saegert, 1973). It includes three types: information overload, communication overload, and system function overload (Lee, Son, & Kim, 2016; Thatcher, Srite, Stepina, & Yongmei, 2003; Zhang, Zhao, Lu, & Yang, 2016), with information overload being the focus in this dissertation. Information overload is defined as the challenge in understanding an issue to make decisions when too much information is given on the issue (Thatcher et al., 2003). In the context of social media, information overload refers to the feeling being overwhelmed by information and communication that one is exposed to on social media channels (Zhang et al., 2016). Information overload not only refers to receiving too much information through social platforms, but also means that users need to spend too much time processing all the information frequently during the interaction and communication, like mail and instant messaging apps (Zhang, Zhao, Lu, & Yang, 2016; Lee, Son, & Kim, 2016). When social media users face a variety of information and interaction needs, their abilities usually cannot support proper information processing (Eoin, Islam, & Stoney, 2020), directly leading to fatigue (Ravindran, YeowKuan, & Hoe Lian, 2014).

Information overload has a significant impact on social media fatigue (Zhang, Zhao, Lu, & Yang, 2016). Analysis of literature proves that there is a direct relation between information overload and social media fatigue. When users receive more information, they will feel more tired. It will

increase dissatisfaction and negative behaviors of discontinuous usage. The state of antipathy is the most direct response to fatigue and could effectively stimulate termination behavior (Zhang et al., 2016). Research shows that when people tend to reduce the use of their social platforms, it may be because of their feeling of being trapped in them. The stronger sense of fatigue has a higher possibility of discontinuance intentions (Cao & Sun, 2018, Maier, Laumer, Weinert, & Weitzel, 2015).

4.2.2 Privacy Invasion and Social Media Fatigue

Studies show that concerns over privacy invasion is positively related to social media fatigue. Privacy invasion is defined as a loophole in the processing of users' personal private information by social media, which violates users' privacy (Alge, 2001). It has a considerable impact on platform users who value personal privacy. Bright et al. (2015) argued that people who place higher value on personal privacy are more prone to social media fatigue than others. The research indicated that, in the workplace, social media users have less desire to communicate or share daily life with other users. Hence, the possibility of privacy invasion is low. However, studies have found that in users' daily life, due to the increase in interaction, the probability of privacy invasion and life invasion has increased significantly, and the likelihood of social media fatigue has also increased considerably (Dhir et al., 2019; Panda, 2018). Xiao and Mou (2019) also discovered that privacy invasion cause users to generate pressure for privacy leakage, and pressure leads to social media fatigue. Privacy issues are one of the main drivers of social media fatigue. Privacy concerns are related to the concept of social media confidence. Social media confidence refers to the perception of one's ability to use social media effectively (Bright et al., 2015). Xiao and Mou (2019) proposed that users with a higher level of social media confidence tend to have a lower level of privacy concerns. Bright et al. (2015) showed that social media confidence can decrease social media fatigue. Xiao and Mou (2019) also confirmed that the degree of certainty of assurance that users process and analyze the content of the social media platform will affect the likelihood of social media fatigue.

A large number of users consider that excessive use of social networks is not emotionally satisfying. In other words, it is called "online social network-induced stress", which has caused a decrease in the frequency of social media use (Maier, Laumer, Eckhardt, & Weitzel, 2012). When the user has a high frequency of interaction, work, and privacy invasion (mainly focus privacy invasion) cause pressure. Dhir and Midha (2014) believe that social media users gradually develop social media fatigue, focusing on privacy issues and fatigue issues. The increase in privacy awareness, stress, and fatigue are closely and positively correlated. That is to say, due to the continuous improvement of users' privacy awareness, the greater the pressure of privacy intrusion and leakage, the higher the possibility of social media fatigue. Social media users are highly concerned about the security of information dissemination and user privacy (Cheng, Fu, & de Vreede, 2017; Wang, Yan, Lin, & Cui, 2017). More information and privacy risks may lead to the interruption or complete loss of social network users.

Self-disclosure is also an antecedent of social media fatigue to the viewers (Dhir et al., 2019). Self-disclosure refers to situations where users intentionally or unintentionally publish information on social media. Self-disclosure may be reasonable behaviour and may be based on the perceived benefits of sharing information. This type of situation refers to consciously and actively posting information on social media, including opinions, suggestions, thoughts, and feelings (Derlega, Metts, Petronio, & Margulis, 1993; Dienlin& Metzger, 2016). For example, users actively post daily life, opinions, and memorable feelings of photos about events around them. Self-disclosure can share information, build closer social relationships, and reduce the distance between people (Burke & Kraut, 2014). The negative impact of self-disclosure is mainly the impact on emotions, which may bring burden and pressure to viewers (Dhir, Kaur, Chen, &Pallesen, 2019). Similarly, Qian and Scott (2007) also observed that self-disclosure of the social media users can cause negative emotions from the viewers and thus result in social media fatigue.

4.2.3 User Negative Psychology in Social Media Usage

Social media has become a commonly used tool, providing convenience and a large amount of information while accompanied by negative effects. More users gradually avoid using social media and reduce their interaction and participation (Guest Post, 2017). Based on the development of technology, different users experience obvious differences and face many problems like technology and privacy, excessive information and communication, user stress and mental distress, etc. (Lee, Son, & Kim, 2016; Bright, Kleiser, & Grau, 2015; Ravindran, YeowKuan, & Hoe Lian, 2014). Users are susceptible to many factors when they experience social media fatigue, mainly from psychological and physical factors, such as satisfaction and performance (Zhang, Zhao, Lu, & Yang, 2016).

This section mainly discusses the influence of psychological factors faced by social media users. Psychological factors may include compulsive use, fear of missing out, anxiety and depression, etc. (Dhir, Kaur, Yossatorn, & Chen, 2018). Compulsive use refers to abnormal use behavior, which refers to the inability to manage daily routines reasonably and autonomously (Hirschman, 1992). In the social media field, it refers to behaviors such as being forced to use social media to receive and publish information in life and work, or to use social media for communication due to work. This behavior of using the Internet and social media usually causes annoyance and psychological distress, leading to mental distress, and aggravating media fatigue (Dhir et al., 2018; Oberst, Wegmann, Stodt, Brand, &Chamarro, 2017).

Dhir et al. (2018) illustrated that adolescents are the main applicable group of social media, and the generation of fatigue is closely related to the high degree of anxiety and depression of this group. The use of media has a vicious circle, which can cause social media fatigue that in turn aggravates anxiety and depression. While using social media frequently, users usually have multiple social media applications or multitasking operations. Complex work can increase symptoms of depression and anxiety (Becker, Alzahabi, & Hopwood, 2013). In other words, anxious and depressive emotions increase the frequency of users' use. The original intention is to relieve the emotions, which will worsen the situation of anxiety and depression during use.

Table 2 Social media fatigue key article summary

Authors	Aim & Research Questions	Methodology	Key Findings	
	Social information overload			
Zhang, Zhao, Lu, & Yang, 2016	Aim Perceived system function overload, information overload and social overload are stressors that involved stress, leading to social media fatigue. Research Questions - What is the relationship between social network fatigue and dissatisfaction? - What are the effects of perceived factors on social network fatigue and not satisfaction?	Online survey of 525 responders S-S-O framework	-System function overload, information overload and social overload have a significant impact on social network fatigue, and social overload is the most obviousSocial network fatigue and dissatisfaction is directly proportional to discontinuous use intention.	
Lee, Son, & Kim, 2016	Aim Study the core factors of SNS fatigue and the three aspects of overload. Research Questions -What are the aspects of overload that cause fatigue in social network services (SNS)? -What characteristics of SNS are related to all aspects of overload?	Online and offline surveys of 201 responders P-E fit model	-Overload is the core determinant of social network service (SNS) fatigueThere are three aspects of overload which is information overload, communication overload and system function overload. It also includes SNS features as a prerequisite for overloadAll three types of overloads are important stressors that affect SNS fatigue.	
Cao & Sun, 2018	Aim Exploring the impact of overloading on social media users' exit intentions, affecting the users' internal psychological state (i.e. exhaustion and regret), thereby prompting them to the termination use. Research Questions What are the effects of information overload, communication overload and social overload on fatigue and regret?	Online survey of 258 Chinese social media users S-O-R framework	-Information overload and social overload have an active effect on fatigue, while communication overload and social overload have a positive effect on regretExhaustion and regret will prompt users to stop using social media.	
Lin, Lin, Xu, & Turel, 2020	Aim Exploring the impact of social media overload on users, including psychological field (fatigue) and behavioural field (termination intention), and the possible impact of process experience on this period. Research Questions - What is the impact of social media overload on fatigue? - How does flow experience (referring to users' addiction and use of social media) affect social media fatigue?	Online survey of 502 WeChat users S-O-R framework and flow theory	-Social media overload can affect fatigue, accompanied by the intention to terminate useThe flow experience weakens the influence of fatigue on the shutdown intentionThe flow experience not only helps to reduce the user's understanding of fatigue and discontinuous intent but also reduces (weakens) the influence of fatigue on discontinuous intent.	

Table 2 Social media fatigue key article summary (continued)

Eoin, Islam, & Stoney, 2020	Aim Investigating the relation of boredom proneness, social media overload and fatigue. Research Questions What relationship between boredom proneness, social media overload and fatigue?	286 heavy social media users S-S-O framework	-Social media overload has an active effect on social media fatigueThe intensity of social media usage, information perception and communication overload interact with each other, thereby affecting the fatigue of social mediaThe use of social media will expand the impact of information overload on social media fatigue and reduce the impact of communication overload.
	Social	l privacy invasion	
Xiao & Mou, 2019	Aim Identify social media characteristics, determine the personality characteristics of the possibility that social media characteristics are regarded as stressors. Research Questions -What are the characteristics of social media that cause personal social media fatigue? -Are the characteristics of social media considered a source of stress?	Online survey of 426 WeChat users SEM with PLS	-Anonymity and social media characteristics of attendees can seriously affect privacy intrusion and life intrusionSocial media fatigue is severely affected by privacy invasion and life invasionNeuroticism and extraversion can alleviate the influence of anonymity and attendees on privacy invasion and life invasion. ("Neuroticism reflects the tendency of an individual to experience nervous tension, depression, frustration, guilt, and self-consciousness. Extraverts are people who are assertive, spontaneous, and energetic.")
Dhir, Kaur, Chen, & Pallesen, 2019	Aim This study investigated the reason for social media fatigue and the consequences of fatigue on social media users Research Questions -What is the relationship between the self-disclosure of social media users and social media fatigue? -What is the relationship between customer social media fatigue and online privacy issues?	Online survey of 1552 SNS and mobile instant messaging (MIM) users S-S-O framework	- Privacy concerns and self-disclosure positively relationship with SNS and MIM fatigue Parental encouragement and worry positively correlated with SNS and MIM fatigue.
Bright, Kleiser, & Grau, 2015	Aim The concept and premise of social media fatigue Research Questions - What is the premise of social media fatigue? - What is the value of privacy issues and confidence to social media fatigue?	Online survey of 750 social media users with a Facebook (age 18–49)	-Confident interviewees reduced social media fatigueRespondents who are more concerned about privacy experienced more social media fatigueSocial media helpfulness is positively related to social media fatigue.

Table 2 Social media fatigue key article summary (continued)

Panda, 2018	Aim Effectively understand the phenomenon of social networking fatigue (SNF). Research Questions - What influence of SNF by privacy issues? - Will the ease of use of social networks have a negative impact on SNF? - What is the relationship between the generation of SNF and the intention to stop production?	Online survey of 306 social networking users	- Social networking privacy concerns positively and significantly affect SNF Social networking self-efficacy positively relate to SNF, which contradicts the intended hypothesis Potent antecedents of SNF – privacy concerns, ease-of-use, and usefulness contribute significantly SNF positively and significantly effect discontinuance usage intention.
Yao & Cao, 2017	Aim The aim is to investigate the negative effects of social media overload, work invasion and privacy invasion. Research Questions - What impact does privacy invasion have on technological pressure? - What impact does privacy invasion have on perceive, and what is the negative impact on SNS?	Online survey, combined with email access of 224 valid questionnaires S-O-R framework	-Social interaction overload, work invasion and privacy invasion have a significant positive impact on technical pressurePerceived SNS usefulness, perceived SNS enjoyment and technical pressure have a significant positive impact on fair useSocial interaction overload has a drawback impact on perceived performance, while privacy violations have a negative impact on performance and happiness.
	Depression, anxiety	y and social media att	achments
Dhir, Kaur, Yossatorn, & Chen, 2018	Aim Social media fatigue leading anxiety and depression. Research Questions -Does compulsive use of the media and the FOMO on social media and other social and psychological welfare measures cause fatigue? -Is social media fatigue the cause of anxiety and depression?	Online survey Two waves of data (N = 1554, 1144) S-S-O framework	-Compulsive social media use to estimate fatigue trends activelyHigh levels of anxiety and depression among adolescents show a correlation with social media fatigueCompulsive use of the media is a mediator factor for fear of disappearance and social media fatigueCompulsive use of media can cause social media fatigue, which in turn leads to increased anxiety and depression.
Cao, Khan, Zaigham, & Khan, 2019	Aim Investigating the antecedents of social media fatigue and social media attachment (SMA), and relationship to internalizing disorders (depression and anxiety). Research Questions - What is the relationship between social media attachment, depression and anxiety? - What impact does cyberbully have on the victim's sentiment? - Can cyberbullying aggravate social media fatigue? - How do depression and anxiety affect social media fatigue?	Online survey of 305 college students S-O-R framework	-Social media attachment (SMA) is associated with more online cyberbullying victims (CV) and greater internalizing disease symptomsCV and internal disorders are positively correlated with social media fatigue.

4.3 Mediators of FOMO and Social Media Fatigue

This section discusses the three potential mediators between the relationship of FOMO and social media fatigue, which are information overload, depression, and anxiety.

4.3.1 Information Overload, FOMO, and Social Media Fatigue

Literature review shows that information overload is the direct consequence of FOMO. Arendt et al. (2018) discovered that FOMO will lead to information overload, which will then result in stress. Similarly, Toffler (1984) also observed that there is a direct relationship between FOMO and information overload. Dhir and Midha (2014) observed that people who have FOMO tend to follow a large quantity of information, yet they may fail to keep up with the information FOMO can cause information overload because users will experience a large volume of information and they lacked the cognitive ability of process the information (Toffler, 1984; Arendt et al., 2018). Information overload has a significant impact on social media fatigue (Zhang, Zhao, Lu, & Yang, 2016; Lee et al., 2016; Lin et al., 2020). Analysis of literature proves that there is a direct relationship between information overload and social media fatigue. When users receive more information, they will feel more tired. It will increase dissatisfaction and negative behaviours of discontinuous usage. The state of antipathy is the most direct response to fatigue and could effectively stimulate termination behaviour (Zhang et al., 2016). Research shows that when people tend to reduce the use of their social platforms, it may be because of their feeling of being trapped in them. The stronger sense of fatigue has a higher possibility of discontinuance intentions (Cao & Sun, 2018, Maier, Laumer, Weinert, & Weitzel, 2015). Therefore, it is argued that information overload is one of the mediators of the relationship between FOMO and social media fatigue.

4.3.2 Depression, FOMO, and Social Media Fatigue

FOMO is a negative psychological state that affects the emotional changes of users. FOMO can be perceived as anxiety. Through the evaluation of adolescents, it is seen that depression is an emotional problem that causes females to overuse social media, while anxiety is a predisposing factor for male users (Oberst et al., 2017). From the perspective of psychiatry, anxiety and

depression are caused by social problems to a certain extent. Anxious and depressed people usually show higher FOMO levels and higher social media participation. In a study by Sette et al. (2020), it was found that people who were depressed and attempted suicide scored higher in the assessment of FOMO levels. It can be seen that people with depression and anxiety have high FOMO levels.

Depression is a major symptom of social media fatigue (Dhir et al., 2018; Alberts et al., 2015). Cao et al. (2019) discovered that social media attachment can expose users to risks, such as cyber bullying, and thus leading negative psychological consequences, such as depression. According to Dhir et al. (2018), social media fatigue will result in negative psychological problems, including anxiety and depression. Nonetheless, according to Qian and Scott (2007), depression is a predictor of social media fatigue. They explained that users with symptoms of depression are more sensitive to stress caused by social interaction, and thus are more likely to experience social media fatigue. It can be argued that depression is a mediator between FOMO and social media fatigue.

4.3.3 Anxiety, FOMO, and Social Media Fatigue

FOMO can result in anxiety (Baek et al., 2014; Fabris et al., 2020). Users with a high level of FOMO will spend more time on online social interactions and collective behaviours (Baek et al., 2014). This fear is not only a fear of missing out information but also a feeling of fear of being abandoned by other people. Therefore, such users have a strong dependence on social media. Fabris et al. (2020) found out that FOMO is closely related to stress sensitivity, and people with high FOMO levels have higher sensitivity. Stress sensitivity is a mediating role between FOMO and social media addiction. In adolescents, FOMO is driven by fearful emotions and is a demand-satisfying and addictive characteristic (Fabris et al., 2020).

Anxiety can increase the occurrence of social media fatigue. Anxiety is a state of being, and anxious users tend to interact with social media to reduce the impact of anxiety and seek attention (Vannucci, Flannery, and Ohannessian, 2017). Another study shows that for anxious users, they

are more likely to have harmful reactions, such as fatigue and exhaustion (Boksem, Lorist, &Meijman, 2005). Therefore, Dhir et al. (2018) believe that social media users may be accompanied by anxiety while experiencing fatigue. According to Bright et al. (2015), people with a higher level of anxiety may perceive social interaction as demanding both emotionally and cognitively, and thus are more likely to experience social media fatigue.

4.4 Discussion

This section is based on the analysis and discussion of the second chapter and the findings part above. The first part analyses and discusses FOMO, social media fatigue, and mediating factors, which are information overload, depression and anxiety respectively. Furthermore, it discusses the value of existing literature and its contribution to the discussion topic. The second part analyzes the relationship between FOMO and social media fatigue in combination with critical findings; the role of three mediator factors; and how social media fatigue is affected. Finally, it discusses gaps in existing literature reviews.

4.4.1 FOMO and Social media fatigue Analysis and Discussion

Through the analysis of key FOMO articles, it is found that FOMO is a universal concept that exists in popular culture that involves many fields. FOMO is widely used in the field of commercial marketing (Hodkinson, 2019). FOMO is a state of insatiable psychological needs. FOMO of social media users is composed of many factors. Among them, addiction is related to the online use of social media. Of course, that correlation is also associated with personality traits. Studies have shown that agreeableness personality traits are most likely to be affected and lead to FOMO. Because these people are more easy-going, they have a higher tolerance and sense of trust. Users spend a lot of time on social media platforms. Intensive use of social media prompts users to have a higher FOMO level, which proves that the frequency of social media use is correlated with the FOMO level. High frequency of use means that customers have a higher FOMO level, and users with higher FOMO level are more likely to have addictive performance.

On the contrary, addiction can also promote the production and level of FOMO. This shows that FOMO, the frequency of social media use, and addiction have a mutual influence on each other. Attachment to social media is a manifestation of addiction, which can bring fear. This sense of fear is the psychological state of FOMO and fear of being abandoned. People with high FOMO levels have high sensitivity, and stress is a mediating factor between FOMO and addiction. In other words, under the effect of stress, when highly sensitive people have a higher FOMO level, they will become addicted to social media and show social media attachment.

Through the research of the social media fatigue literature, it is found that there are three aspects: social information overload, social privacy invasion, and depression, anxiety, and social media attachment. Among them, social information overload and social privacy invasion are the causes of social media fatigue, and depression and anxiety are both causes and effects.

One cause of social media fatigue is social privacy invasion, including active self-disclosure and passive information leakage. The online interaction of social media is very prone to information leakage in daily interactions and posting dynamics which is self-disclosure. Passive information leakage is inseparable from the security of social media network platform technology. Users with a high degree of protection of personal privacy are more likely to be affected, which in turn causes social media fatigue. With high social media engagement, users will have more opportunities to face the risk of information leakage. Privacy leakage will bring pressure to users, which will directly affect social media fatigue, and thus also affect the frequency of use. The possibility of privacy leakage has a certain positive correlation with social media fatigue, which further affects subsequent usage behaviour. In summary, whether it is self-disclosure or passive privacy leakage, social media fatigue will be generated through the impact of information leakage pressure, which will affect subsequent use.

4.4.2 Relationship between FOMO and Social Media Fatigue

Studies that examine the relationship between FOMO and social media anxiety are rare. FOMO can cause social media fatigue (Bright and Logan, 2018; Dhir et al., 2018). A study by Bright and

Logan (2018) found that FOMO will prompt users to obtain information on social platforms, FOMO frequently is the most important factor causing social media fatigue and has a significant influence on social media fatigue. Dhir et al. (2018) also discovered that FOMO triggers social media fatigue because FOMO also leads to excessive use and engagement with social media. Karapanos et al. (2016) through survey 494 users of Facebook and WhatsApp also discovered that these users sought gratifications from social media usage and were driven by FOMO. Nonetheless, FOMO could lead to content fatigue, especially when exposed to undesirable content. Yao and Gao (2017) surveyed in China and discovered that compulsive use of social media will lead to social interaction overload, privacy invasion, and stress. This will lead to discontinued or reduced use of social media. Furthermore, there seemed to be several mediators between the relationship between FOMO and social media fatigue. Literature analysis found that both FOMO and social media fatigue involve depression and anxiety. Two kinds of emotions are the causes and consequences of FOMO and social media fatigue; they are closely related to negative emotions. In other words, depression and anxiety caused by FOMO are the triggers of social media fatigue. FOMO causes users' depression and anxiety, and depression and anxiety can cause users' social media fatigue. FOMO and social media fatigue are linked through emotions such as depression and anxiety; FOMO emotions cause social media fatigue.

4.4.3 Three Mediators Analysis and Discussion

Information overload is the leading cause of social media fatigue. When the amount of information obtained by users is too massive, beyond their processing capabilities, they will have a sense of tiredness, which directly affects the generation of social media fatigue. Users who are tired of processing large amounts of information can cause social media fatigue. Therefore, information overload is the direct cause of social media fatigue. When users face social media, a strong sense of fatigue affects subsequent behaviour. The behaviour refers to the willingness and actual act of consumption after social media fatigue. When fatigue continues to increase, dissatisfaction, and desire to suspend use becomes more apparent, which in turn will lead to the behaviour of termination of use social media. Therefore, this is one reason that information overload affects the degree of social media fatigue and further affects the subsequent conduct of

users. FOMO can cause social overload as users feel the compulsive need to assess to large amount of information (Melissa et al., 2018; Dhir et al., 2018). Consequently, it can be established that information overload mediates the relationship between FOMO and social media fatigue.

The use of media has a vicious circle, which can cause social media fatigue that in turn aggravates anxiety and depression. While using social media frequently, users usually have multiple social media applications or multitasking operations. Complex work can increase symptoms of depression and anxiety (Becker, Alzahabi, & Hopwood, 2013). In other words, anxious and depressive emotions increase the frequency of users' use. The original intention is to relieve the emotions, which will worsen the situation of anxiety and depression during use. The main predisposing factor is depression for females and anxiety for males. Depressed and anxious people have higher FOMO levels and high levels of social media engagement. In other words, people who are anxious and depressed frequently check and follow social media accounts and regularly interact in the media community, because they are afraid of missing information.

Anxiety and depression have distinct adverse reactions and are closely related to social media fatigue. Social media fatigue promotes the continued development of anxiety and depression. Anxiety and depression can also increase the frequency of users' use and cause social media fatigue. It can be seen that depression and anxiety interact with and influence social media fatigue, forming a cycle of negative emotions. Consequently, anxiety and depression are both the cause of social media fatigue and their impact. Social media attachment is the high addiction of users to social media. This high degree of addiction and dependence will have a substantial adverse effect on users, affecting physical and mental health. It can be established that anxiety and depression are the mediators of the relationship between FOMO and social media fatigue.

4.5 Value and Contribution of Existing Literature

This section discusses the significance of present study and the research gap identified through literature review.

4.5.1 Significance of Present Study

This research assessed the existing knowledge of FOMO and social media fatigue. Numerous pieces of literature have contributed a lot to the field of FOMO and social media fatigue and provide valuable information. In terms of FOMO, firstly, the literature clarifies the causes and consequences of FOMO. It was found in research that anxiety and depression are both the cause and the result of FOMO. It is explained that these two kinds of negative emotions and FOMO have a mutual influence relationship. This discovery provides a research direction on how to alleviate users' FOMO and achieve the goal of reducing FOMO through the alleviation of users' negative emotions. Second, clarify that FOMO, the frequency of social media use, and social media attachment affect each other, and the three have a mutually reinforcing relationship. At the same time, it is clear that there is a direct relationship between FOMO and PSU. This has a guiding effect on FOMO and social media addiction.

From the perspective of social media fatigue, this research clarifies the important causes and consequences of social media fatigue. Information overload and infringement of privacy are the leading causes, and depression and anxiety are also the results in addition to the leading causes of social media fatigue. Social media fatigue and depression and anxiety are mutually caused and effect, which forms a vicious cycle. This finding is of great significance for studying the influence of emotional changes on social media fatigue. Secondly, information overload is the leading cause of social media fatigue, which provides an essential basis for studying the relationship between brand information release frequency and social media fatigue. Another significant contribution is that both information overload and privacy invasion have a direct impact on social media fatigue, which in turn will affect the subsequent behaviour of users.

This section is based on the above analysis and discussion of existing literature. The research questions of this paper are discussed in conjunction with the above-mentioned literature review. From the literature review, some research questions can be directly explained in the research results of the literature. Some research questions have no direct evidence to demonstrate. It will be analyzed and interpreted by combining multiple literature analysis methods.

4.5.2 Gaps in Existing Literature Reviews and Future Research

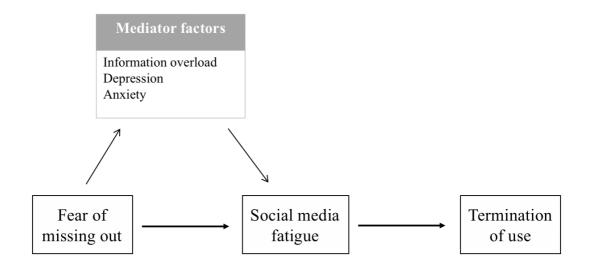
Two results are drawn through the analysis based on the research questions. FOMO and social media fatigue have a positive relationship. In the other words, social media fatigue has increased, following that the emotion of FOMO is serious. In addition, theoretically, three factors, information overload, depression and anxiety, are the mediating factors that affect the emotional changes of FOMO and social media fatigue. Nonetheless, it should be pointed out that there is a paucity of literature that studies one or more mediators between FOMO and social media fatigue. Therefore, future studies can examine the mediators between the FOMO and social media fatigue, preventing the transition from FOMO to social media fatigue. Furthermore, the current literature also failed to identify the factors that could moderate the relationship between FOMO and social media fatigue. Therefore, future studies should focus on examination of the moderators, and minimizing the impact of FOMO on social media fatigue.

4.6 Proposed Conceptual Model

Basing on the findings and discussions of this research, a conceptual framework is proposed. As shown in 4.3, a direct causal relationship between FOMO and social media fatigue is established and this relationship is also mediated by three mediators. FOMO can directly lead to social media fatigue. Then users with social media fatigue will terminate the use of social media use. Furthermore, the causal relationship between FOMO and social media fatigue is mediated by three mediators, including information overload, depression and anxiety. FOMO can lead to information load which has a very direct impact on social media fatigue, making information overload the strongest one among the three mediators. Moreover, FOMO is associated with two negative emotions, which are depression and anxiety respectively. FOMO can cause depression

and anxiety, and these two negative emotions are also the symptoms of social media fatigue. In addition, people who are prone to have depressive mood disorder and are anxious are more likely to transit from FOMO to social media fatigue. Thus, it is argued that depression and anxiety are also the mediators of the causal relationship of FOMO and social media fatigue, although they have weaker mediating effects compared to information overload.

Figure 3 Conceptual Model – The Antecedents of Social Media Fatigue



4.7 Summary

In summarizing this chapter, the conclusive finding is that FOMO leads to social media fatigue. However, before concluding this finding, there was a clear indication of the causes of the two discussion subjects, FOMO, and social media fatigue. FOMO is caused by the dissatisfaction of psychological needs, which are divided into two aspects; social media addiction and attachment and anxiety and depression. The first aspect relates to the obsession that people have on social media hence, they end up spending a lot of time on the different sites. On the other hand, the second aspect is about the negative emotions that social media users have due to FOMO. Besides, people with high FOMO levels are more prone to anxiety and depression. These negative emotions lead to PSU, which is the harmful and excessive use of smartphones, especially

concerning their access to social media sites. FOMO leads to information overload, which has direct impact on social media fatigue.

On the other hand, social media fatigue involves three aspects: social information overload, social privacy invasion, depression, anxiety, and social media attachment. From the used literature findings, it has been found out that information overload and infringement of privacy are the leading causes of social media fatigue. Like FOMO, social media fatigue relates to the three used variables, which also have a similar effect on it, just like FOMO. It is this fact that points to the direct relationship between FOMO and social media fatigue.

This dissertation aims to examine the relationship between FOMO and social media fatigue, and to examine the potential mediators between this relationship. With the above information from this chapter's sections, it can be concluded that FOMO can cause social media fatigue. Both FOMO and social media fatigue lead to depression and anxiety. Additionally, individuals with higher level of anxiety and depression tend to exhibit higher level of social media fatigue. Therefore, three mediators were found between FOMO and social media fatigue, information overload, depression and anxiety. Among the three mediators, information overload is the strongest mediator, while depression and anxiety only mildly mediate the relationship.

CHAPTER 5 CONCLUSION & IMPLICATIONS

5.0 Preface

This final chapter will encompass a conclusion of the above research discussion. This will include a summary of the findings in the above chapter 4. Implications of this study will also be analyzed. This includes the impact that this study will have on future research, relevant fields of interest, and policy decision making. Finally, limitations endured during the research process will be discussed to highlight the challenges that this study underwent.

5.1 Summary of Key Findings

Given the primary research objective of the study was to understand the relationship between consumers' FOMO and consumer social media fatigue, as discussed in Chapter 1, much focus was put on this aim. Much of the research study involved reviewing past literature on the subject of discussion. This was done in chapter 2, where selected literature was reviewed, analyzed, and discussed.

Adding to this, the methodology section in chapter 3 mainly involved an extensive literature review that pointed out the sources of the used literature. Subsequently, based on the analyzed literature, it was found out in chapter 4 that there is a direct relationship between FOMO and social media fatigue. FOMO played a significant role in causing social media fatigue. This is mainly as a result of FOMO being a state of insatiable psychological needs.

These needs mainly involve factors such as addiction, which directly correlate with the FOMO levels of individuals. To stress this fact, it should be noted that addiction promotes the production and level of FOMO. This is done in such a way that attachment to social media (addiction) brings about fear. The aforementioned fear is FOMO, which is a predisposing factor for depression and anxiety, which affects females and males, respectively. It is these negative emotions that are both

the causes and consequences of FOMO and social media fatigue. In making this point clear, it was discovered that these emotions result from FOMO, which finally causes social media fatigue. Even with the above finding, it has been noted that there is an existing gap in the literature used in that there is an existing theoretical explanation on the three variable factors acting as intermediary factors affecting the emotional changes of FOMO and social media fatigue.

5.2 Implications

The main aim of this research study was to analyse the relationship between FOMO and social media fatigue. This has been done by analyzing several literature reviews concerning the topic discussion. Accordingly, with the findings indicating the effect of FOMO and social media fatigue, there are implications that this study will have on different fields.

5.2.1 Implication for Research

A positive relationship between FOMO and social media fatigue is found in researches (Bright & Logon, 2018; Arendt et al., 2018). Bright and Logon (2018) pointed out that although consumers with a high-level of FOMO desire information, but the information overload will lead to fatigue. This research shows that FOMO has many negative impacts, including addiction which causes information overload, fatigue, and anxiety. This research also showed that a number of factors can trigger FOMO, including privacy concerns and information overload. Leveraging the positive effects of FOMO, while avoiding the negative consequences, and triggers of social media fatigue are of critical importance.

From the perspective of business majors, with the rapid development of information technology, social media has become an area that cannot be neglected in research. The research on the relationship between FOMO and social media fatigue lays the foundation for reducing social media fatigue and how to convey information dissemination more effectively.

5.2.2 Implication for Practice

It has been found that FOMO aggravates social media use behaviour where consumers engage in an intense gathering of information on social media. This finding can help corporations to engage more in social media marketing. Organizations can aggressively engage in online marketing campaigns to tap the market, seeing that FOMO forces people to spend a lot of time on social media. This way, they can reach a broad customer base faster, quickly, and cheaply hence, translating to increased revenue and, ultimately, high profits. A significant practical contribution of the present research is providing insights into the relationship between FOMO and social media fatigue. Thus, marketers should pay attention to the factors that will trigger the transition from FOMO and social media fatigue, including information overload, depression and anxiety. Marketers can determine the optimal amount of information being offered to users. Meanwhile, they should also focus on contents that trigger positive emotions, and improve customer engagement.

Medical practitioners also stand to gain from this study. This is specifically for mental specialists such as psychologists and therapists. Findings from the research indicate the adverse effects of FOMO and social media fatigue. These include depression and anxiety. It is common knowledge that these mental illnesses are one of the most rampant globally; hence, when psychologists and therapists get to understand the causation of FOMO and social media fatigue on depression and anxiety of online users, they are better equipped to help treat affected people.

A third implication that this study will have is on education stakeholders. Authorities, school administrations, and teachers can use this study as a foundation to come up with curricula that integrate social media use. With the current Information Age, a majority of students worldwide are actively engaged in social media use hence, there is a high risk of exposing these students to the adverse effects of anxiety and depression. It is, therefore, vital for the aforementioned education stakeholders to teach students about FOMO and social media fatigue, which can be detrimental to them.

5.3 Limitations

Like any other research, this study also had its fair share of limitations. A significant limitation is time constraints. Given that the above analysis is an extensive literature review of the relationship between consumers' fear of missing out and consumer social media fatigue, there was a lot in the discussion. It involved sieving through past literature concerning the topic. This required a lot of time that was short in supply. As a consequence, there was the risk of not covering everything due to the time constraint provided by the course instructors.

There was also the limitation of subjecting the research to bias that may have had a confounding influence on the findings and conclusions. As earlier mentioned, this study mainly incorporated literature review as a source of data and information. Consequently, there was the existing risk of reviewing literature that only conformed to the direct relationship that FOMO had on social media fatigue. In other words, this research may have overlooked other literature that strived to deny the link between FOMO and social media fatigue. There was, therefore, the limitation of engaging in bias.

Supporting the above limitation was the lack of available or reliable data or information regarding the non-existing relationship between FOMO and social fatigue. This limited the study's scope because much focus was put on indicating the effect of FOMO on social media fatigue. Given the above limitations, the results, discussions, and conclusions must be interpreted with caution. Future studies can focus on determining the exact relationship between FOMO and social media fatigue through a large-scale quantitative study. This includes the determination of the exact threshold of information that will trigger social media fatigue and the factors that can remove the triggers.

In summary, this study has three main limitations. The first limitation is the research time. An extensive literature review requires a lot of time for literature reading and extensive research. The second limitation is the bias of the literature. In literature reading, focus on the correlation between FOMO and social media fatigue that it may overlook the possibility of irrelevance. The

third limitation is the limitation of the research scope. Due to the bias of literature research, there are limitations in the scope of research on FOMO and social media fatigue. This dissertation only studies the correlation and impact of FOMO and social media fatigue, ignoring the possibility that there may be irrelevance and impact.

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