IMPACT OF SOCIAL MEDIA ON WELLBEING OF ELDERLY USING STRESSOR-STRAIN-OUTCOME MODEL

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UNIVERSITI SAINS MALAYSIA

2024

IMPACT OF SOCIAL MEDIA ON WELLBEING OF ELDERLY USING STRESSOR-STRAIN-OUTCOME MODEL

by

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Thesis submitted in fulfilment of the requirements for the degree of Doctor of Philosophy

ACKNOWLEDGEMENT

I would like to express my sincere gratitude and heartfelt thanks to those who have guided and supported me throughout my academic journey. My supervisor, Associate Professor Dr. Izzal Asnira Zolkepli, deserves special thanks for her invaluable guidance. I am equally thankful to my co-supervisor, Associate Professor Dr. Hasrina Mustafa, for supporting my progress at every stage. I am also grateful to the honourable members of the Examiner panel, whose critical comments have been instrumental in refining my thesis, particularly during the proposal stage. I am fortunate to have had the opportunity to pursue my undergraduate and postgraduate studies at Universiti Sains Malaysia (USM), which provided an excellent academic environment. My appreciation also extends to the Ministry of Higher Education (MoHE) of Malaysia, for granting me the MyPhD scholarship, an honour that has significantly aided my research. I cannot forget the unwavering social and moral support from my parents, family members, and friends, who have stood by me throughout this venture. Lastly, my sense of gratitude extends to everyone who, directly or indirectly, lent their helping hand in this endeavour.

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LIST OF ABBREVIATIONS

AVE Average Variance Extracted

CMP Complexity

CMV Common Method Variance

CO Communication Overload

CR Composite Reliability

EFA Exploratory Factor Analysis

FA Factor Analysis

FoMO Fear of Missing Out

ICT Information and Communication Technology

IO Information Overload

LS Life Satisfaction

N Negative Feelings

P Positive Feelings

PII Personally Identifiable Information

PLS Partial Least Squares

PRY Privacy

PSU Passive Social Media Use

SCT Social Comparison Theory

SDT Self-Determination Theory

SEM Structural Equation Modelling

SIPT Social Information Processing Theory

SNS Social Network Sites

SSO Stress-Strain-Outcome

SWB Subjective Well-Being

SWLS Satisfaction with Life Scale

TCIU Theory of Compensatory Internet Use

TTSC Transactional Theory of Stress and Coping

VIF Variance Inflation Factor

LIST OF APPENDICES

Appendix A Validation Form Expert I

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Appendix D Survey Questionnaire (Eng)

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IMPAK MEDIA SOSIAL TERHADAP KESEJAHTERAAN WARGA EMAS MENGGUNAKAN MODEL STRESSOR-STRAIN-OUTCOME

ABSTRAK

Jabatan Perangkaan Malaysia melaporkan bahawa populasi Malaysia yang berusia 60 tahun dan ke atas semakin meningkat dari tahun ke tahun dari 5.2% pada tahun 1970 menjadi anggaran 15% pada tahun 2035. Dengan peningkatan ini, pengaruh penggunaan media sosial seperti Facebook atau WhatsApp terhadap masyarakat yang menua menjadi lebih ketara. Dari kajian literatur, jelas menunjukkan manfaat yang diperolehi dari penggunaan Internet, khususnya media sosial, oleh masyarakat yang menua dan bagaimana ini memberi kesan positif terhadap kesejahteraan subjektif (SWB) mereka. Walau bagaimanapun, terdapat literatur yang terhad yang hampir tiada data mengenai apa yang berlaku apabila masyarakat yang menua merasa keletihan dengan penggunaan media sosial dan bagaimana ini memberi kesan negatif terhadap SWB mereka. Oleh itu, kajian ini mengisi jurang dalam literatur sedia ada dengan mengkaji pencetus keletihan media sosial dan hubungannya dengan penggunaan media sosial secara pasif. Untuk mencapai objektif ini, satu model konseptual berdasarkan Stressor-Strain-Outcome (SSO) telah dibangunkan untuk menjelaskan hubungan ini. Kajian ini juga menyiasat kesan SSO terhadap SWB masyarakat yang menua untuk memahami sama ada penggunaan media sosial meningkatkan atau mengurangkan SWB mereka. Kaedah persampelan bertujuan digunakan dalam kajian ini untuk memilih secara rawak orang tua yang berusia 60 tahun dan ke atas dengan media sosial seperti Facebook atau WhatsApp. Soal selidik yang diuruskan sendiri digunakan untuk mengumpulkan data dari responden. Beberapa kaedah pengumpulan data digunakan, di mana beberapa soal selidik dihantar melalui pos kepada responden, beberapa diuruskan secara peribadi kerana sampel terdiri dari orang tua. Kajian ini menggunakan alat Partial Least Squares (PLS) dan Structural Equation Modelling (SEM) untuk mengkaji konstruk yang dikenalpasti dan hubungan antara satu sama lain. Kajian ini mempunyai 19 hipotesis yang berdasarkan analisis literatur dan model penyelidikan untuk kajian ini. Dari 19 hipotesis ini, 9 adalah hubungan langsung. 8 daripada 9 hipotesis hubungan langsung ditemui benar. Dalam hal mediasi dan moderasi, satu hubungan didapati tidak signifikan. Kajian ini mengenal pasti kebosanan dan kerumitan sebagai penyumbang utama kepada keletihan media sosial dalam kalangan warga emas, dengan saiz kesan yang signifikan. Penggunaan media sosial pasif sangat mempengaruhi kepuasan hidup. Penemuan ini mencadangkan bahawa mengurangkan kebosanan dan mempermudahkan antara muka media sosial dapat membantu mengurangkan keletihan media sosial. Meningkatkan aspek positif penggunaan media sosial pasif juga boleh meningkatkan kepuasan hidup dalam kalangan warga emas. Hasil kajian ini mengembangkan model "Stressor-Strain-Outcome" dengan menonjolkan penegas yang paling berpengaruh dan menyediakan strategi praktikal untuk memperbaiki pengalaman media sosial bagi golongan warga emas. Dapatan ini digunakan untuk menyediakan sumbangan penyelidikan dan implikasinya. Selain itu, batasan kajian dan arah penyelidikan masa depan juga dibincangkan.

IMPACT OF SOCIAL MEDIA ON WELLBEING OF ELDERLY USING STRESSOR-STRAIN-OUTCOME MODEL

ABSTRACT

National Statistics Department, Malaysia reported Malaysia's population aged 60 years and above are increasing over the years from 5.2% in 1970 to estimated 15 % in 2035. Due to this increase, the influence of social media usage like Facebook or WhatsApp towards the elderly is becoming more significant. From the literature, it clearly highlights the benefits gained from using Internet, particularly social media, by elderly and how this positively impacting their subjective wellbeing (SWB). However, there is limited literature with almost no data on what happen when elderly feel exhausted with social media usage and how it is negatively impacting their SWB. Hence, this study addressed the gap in existing literature by examining the precursors of social media fatigue and its relationship with passive social media usage. To achieve these objectives, a conceptual model based on Stressor-Strain-Outcome (SSO) is developed to explain these relationships. The study further investigated the impact of SSO on the SWB of the elderly to understand whether social media usage increase or decrease their SWB. Purposive sampling method was used in this study to randomly select elder adults aged 60 years and above with social media such as Facebook or WhatsApp. Self-administered questionnaires were used for gathering data from the respondents. Multiple methods of data collection were employed, whereby some questionnaires were mailed to the respondents, some were personally administered because the sample consist of elder adults. This study used the partial least squares (PLS) and structural equation modelling (SEM) tool to examine the identified constructs and their relationships between one another. The study had 19 hypotheses

that were based on literature analysis and the research model for this study. Out of these 19 hypotheses 9 were direct relations. 8 out of 9 of the direct relation hypotheses were found to be true. In terms of mediation and moderation, one relation was found to be insignificant. Specifically, the study identifies boredom and complexity as major contributors to social media fatigue among the elderly, with significant effect sizes. Passive social media use strongly influences life satisfaction. These findings suggest that reducing boredom and simplifying social media interfaces can help mitigate social media fatigue. Enhancing the positive aspects of passive social media use could also improve life satisfaction among the elderly. The results extend the Stressor-Strain-Outcome model by highlighting the most impactful stressors and providing practical strategies for improving social media experiences for elder adults. These findings were used to provide research contributions and implications. Moreover, the study limitations and future research directions are also presented.

CHAPTER 1

INTRODUCTION

1.1 Research Background

Ageing population is an issue confronted by numerous developed nations in the twenty-first century and the number of elder people is expected to increase in the upcoming decades (Ismail et al., 2021). The shift in age distribution, particularly the increasing share of elder people in the population are categorised as ageing population nation (Nguyen et al., 2022). This trend is particularly evident in developed countries, where the life expectancy of the population is increasing, leading to a larger number of elder individuals and a growing dependent population (Radulović & Kostić, 2021). However, developing countries have also become home to a significant proportion of elder people worldwide (Ismail et al., 2021).

The ageing population has far-reaching implications for various aspects of society, including health policy, economics, and social stratification. Demographic changes, such as the changes in the population's size and age distribution have a big effect on the world economy (Yoon et al., 2014). The increasing number of elder adults also poses challenges for healthcare systems, as there is a need to provide adequate care and support for this population (National Research Council, 1988). Additionally, the ageing population has implications for public health, with forecasts indicating a rise in obesity rates among elder adults (Wang et al., 2007).

The impact of population ageing extends beyond healthcare and economics. It also affects other sectors, such as transportation and infrastructure planning. Projections of future population growth, broken down by age and sex, are essential for planning and research in various fields (Raftery et al., 2012). For example, projections

of population growth are used to predict future demands on the interstate highway system in the United States (Chi et al., 2019).

The ageing population also has implications for social and cultural aspects of society. It is associated with social stratification and can have detrimental effects on the economy (Rupeika-Apoga et al., 2019). Furthermore, the ageing population is a global phenomenon, with countries like China experiencing an increasing composition of elder populations, which puts pressure on economic growth (Hsu et al., 2022). In South Asia, the decline in the working-age population and the rapid increase in the elder population have already begun to impact economic growth (Abeywardhana, 2019).

The issue of an ageing population is a complex and multifaceted challenge faced by many countries in the twenty-first century as the global population life expectancy has increased as a result of advancements in medicine and economic growth (Miladinov, 2020). According to the World Health Organization (2022), in developing countries, 15% of the population is currently aged 60 years or over. This proportion is expected to increase more than twofold by 2050, hitting 22%, and is projected to triple by 2100, rising to 30% (World Health Organization, 2022). It is anticipated to accelerate quickly in United States, Russia, United Kingdom, France, Italy, and Germany in upcoming years (Chung & Mansur, 2018).

Like the rest of the developing countries, the population of elderly in Malaysia is increasing. Malaysia is also experiencing a progressive increase in its elder population, as evidenced by the rising numbers of individuals aged 60 and above, the median age, the dependency ratio, and the ageing index (Cheng et al., 2021). The percentage of elder peoples aged 60 and above in Malaysia has increased from 3.9%

in 1995 to 4.2% in 2000 (Department of Statistics Malaysia, 2021). It is projected to rise further to 7.4% in the coming years (Department of Statistics Malaysia, 2021). This growth in median age in the country indicating the number of young people is decreasing whereby the number of elder peoples increases. The ageing index is a metric used to measure a population's shift towards ageing. It is calculated as the number of individuals aged 65 and elder per hundred individuals under the age of 15. Statista (2022) reported that the percentage of elder people in the world population was 10% in 2022, up from 7% in 2021. This represents a significant increase of 3% in just one year. However, the ratio of those under 15 years of age declined from 27% in 2021 to 25% in 2022.

The ageing population trend in Malaysia is also reflective of global shifts towards greater longevity. As Malaysia progresses economically, healthcare advancements contribute to longer life expectancies, which in turn impact the composition of the workforce and the allocation of social services. With a growing number of individuals transitioning into retirement, there is an increased focus on pension systems, retirement planning, and the financial security of the ageing demographic. Socially, this shift creates a demand for new forms of community engagement and revised social policies that support active ageing, allowing individuals to live with dignity and continue to contribute to society post-retirement. As family structures evolve with urbanisation and modernisation, there is a cultural transition from traditional extended family support systems to a mix of institutional and community-based care solutions, reflecting changing social dynamics within the country. In addition to all this, the well-being of Malaysia's ageing population is an important part of the country's social and economic growth. As Malaysia's population

ages, it is crucial to ensure that the elderly have a high quality of life and can contribute to society in meaningful ways (Tan & Lee, 2022).

The rise in Internet and social media usage among Malaysia's elderly aligns with a global trend of increasing digital engagement among elder people. In Malaysia, the trend is not only indicative of increased technological literacy but also of the elderly's desire to remain connected and informed. The percentage of internet users among the elderly in 2014 was 7.3% and it increased to 8.5% in 2015 and 2016 respectively (Leng et al., 2021). The digital engagement of Malaysia's elderly is growing, and this trend is expected to continue as more seniors embrace technology and recognise the value it adds to their lives. Studies have shown that Malaysian seniors are not only becoming more connected through social networking sites such as Facebook and WhatsApp but are also finding these platforms increasingly useful for maintaining social bonds and fostering new ones, Leng et al. (2021) further claim that elder people are using and learning to use Facebook, WhatsApp, and other social media as technology advances. Study by Teng and Joo (2017) explored the usage of social media in Malaysia and found that Facebook is the predominant platform among the elder population, with WeChat being the second most favoured.

Moreover, the need to connect with family, pursue leisure activities, and the natural curiosity to explore new technological platforms have all contributed to the increasing engagement of elder people with social media in Malaysia. With the realisation that social media provides a convenient avenue for staying informed and engaged with their communities, Malaysian elderly are increasingly active online, which has implications for how they receive information and how social campaigns are directed toward them. For example, health communication initiatives through social media have become important tools for the elderly, offering both opportunities

and challenges in how they interact with health information and the broader community online (Chen et al., 2023).

The implications of this trend are significant in both positive and negative side, particularly in the context of well-being and quality of life. On the positive side, internet usage has been associated with increased social engagement and connectivity among elder people. It provides them with opportunities for virtual volunteering, civic engagement, and participation in online communities (Mukherjee, 2010). The internet can also serve as a source of information and learning for elder people, allowing them to access news, educational resources, and online courses (Omar et al., 2019). They use social media to get connected with their family members and friends, to learn new information and knowledge and for leisure purposes. Social media, virtual communities, and user-generated content constitute the foundation of the modern information system that facilitated ageing population in developing information based connectivity (Amaral & Daniel, 2018). This can contribute to their cognitive stimulation and lifelong learning.

However, the presence of social media is seriously influencing the abovementioned expectations. Social media has become an essential part of everyday lives, enabling people to interact with each other and share their experiences with the rest of the world (Shah et al., 2021). While social media has been widely used by people of all ages, Malaysia's ageing population has been one of the fastest-growing demographics to embrace it. However, despite the numerous benefits that social media may provide, it can also have a detrimental influence on the well-being of elder people (Murukesu et al., 2021). There are also potential negative effects of internet usage among elder people. Studies have found a relationship between excessive internet usage and depression among elder people (Wang et al., 2021; Work & Mohamad 2017). Excessive use of social media platforms, in particular, has been associated with increased feelings of loneliness and decreased subjective well-being among elder people (Omar et al., 2019). A growing concern is that increased social media engagement might lead to isolation for the elderly. People are used to spending most of their time on mobile phones browsing social media which has a variety of health consequences, with depression being one of the most significant (Abdelqadar, 2018; Soh et al., 2020). It is important to note that the prevalence of depression among the elderly in Malaysia is already a concern (Rashid & Tahir, 2014). To mitigate these emotional, mental, and physical repercussions, it's vital for elder people to engage in social interactions, helping to counter feelings of isolation (Soh et al., 2020).

The foregoing situation prompted further investigation on the contribution of social media use among the ageing population's subjective well-being (SWB). Therefore, this study is aimed at developing a detailed insight regarding the negative impacts of increasing use of social media by the elderly in Malaysia. Prior studies, such as those by Gorenko et al. (2021) and Zhang et al. (2020), have highlighted the benefits for elderly in using social media. These advantages include mitigating feelings of loneliness, boredom, and social isolation, which in turn enhance overall well-being. Although the primary motivation for introducing ageing people to social media was to improve their SWB, it is now important to consider the potential drawbacks of this trend. Due to its pervasive nature, social media has also sparked discussions among academics about its influence on users' well-being with its negative connotation (Marttila et al., 2021). One principal lens through which the negative effects of social

media has been examined is the burnout theory. This present study has utilised a Stressor-Strain-Outcome (SSO) framework which derived from burnout theory to understand the relationship between burnout or exhaustion to negative outcomes.

The SSO framework consists of three principal components, stimulators (stressors - S), emotionally stressed states (strain - S) and psychological or physical results (outcome - O). Stressors are factors that cause stress, for instance techno-stress is a form of stress caused by the use of Information and Communication Technology (ICT). Persons experiencing burnout or exhaustion under conditions of perceived stress are likely to display negative outcomes, for example fatigue. Social media fatigue could be affecting elderly as the widespread use of social media creates constant obsession and expectations to respond to others' postings regularly. Constantly using social media leads them to expose to an overwhelming volume of information and results in social media exhaustion (Luqman et al., 2017). Hence, given that using social media excessively leads to social media fatigue, users may suffer from emotional decline, including mental deterioration and a drop in enjoyment or satisfaction (Hsiao, 2017). This negative side of social media use and its impact towards SWB of elderly should be investigated as there is limited literature documented.

1.2 Research Problem

The widespread usage of social media has drastically changed our interactions with one another and with the world around us. As the ageing population grows, so does their engagement with social media platforms (Gorenko et al., 2021). Social media has provided several benefits, such as enabling communication, giving access to information, and connecting individuals beyond geographic boundaries

(Abdelguiom & Iahad, 2021). However, using social media has its own set of problems and possible downsides, particularly for elder people who may be not familiar enough with the technology and thus more susceptible to its negative consequences (Rolandi et al., 2020). Furthermore, Wong et al. (2021) conducted a study on the consumption of COVID-19-related information on social media among elder people. The study found that using social media to obtain information on COVID-19 was associated with more anxiety symptoms among elderly. This indicates that social media use can have negative effects on the mental health of elderly, particularly in the context of pandemic-related information.

While the increased engagement with social media among the elderly presents numerous benefits, it also introduces a range of problems. Experiencing technostressors is one possible problem connected with social media use. A techno-stressor is a feature or aspect of technology that can cause stress in users due to its complex nature, constant connectivity demands, or rapid pace of change. Information and communication overload, privacy problems, fear of missing out, cyberbullying, and the need to maintain a continually updated online identity are all examples of these. Techno-stressors have been demonstrated to have a detrimental influence on psychological well-being, resulting in depression, anxiety, and signs of burnout.

According to a United Nations (UN) report, by 2050, an estimated 1 in 6 individuals will be over the age of 65, compared to 1 in 11 in 2019 (Tobi et al., 2020). This increase in the number of elder people also poses a challenging factor of promoting and maintaining the system of health so that their quality of life can be improved (Ahmad et al., 2018). In Malaysia the percentage of the people aged 65 and above increased from 7.0 per cent to 7.4 percent (Department of Statistics Malaysia, 2021) and it is projected to become an ageing nation by 2035 (Daim, 2016). With this

ageing process together with physical limitation, satisfying social networks has grown to be a problem for elderly in Malaysia.

According to Haase et al. (2021), social networks serve several roles in one's offline existence, providing social and emotional support, information resources and ties to other people. They use to enhance social and also to maintain existing ties and create new online ties (Emerson et al., 2021). Research carried out among the elderly population in Malaysia revealed that the primary objective behind elder peoples' utilisation of social media is to develop connections with their families and to interact with their friends. It has been claimed that participating a virtual community aid the elder people to strengthen their sense of self, sense of freedom, and abnormal state of social availability (Jamil & Shahrom, 2022).

Past studies documented the benefits gained from using social media by elderly which include reducing loneliness, boredom, social isolation (Zhang & Kaufman, 2015; Nowland et al., 2018), directly contributes to well-being. Some studies indicated that Internet use has not shown any impact on the well-being of the elderly (Abdalqader et al., 2018; Soh et al., 2020). On contrary, a study conducted among elderly in Malaysia claimed elder people were excessively preoccupied with social media to the point that they have really forgotten (Teng & Joo, 2017).

Building on the insights from Fang et al. (2020) about potential adverse outcomes of social media usage, it is also crucial to consider the broader implications of technological advancements on the ageing population. Continuous demand for adaptation of new technology has negative consequences towards elder peoples' SWB (Nimrod, 2018). One of the negative consequences is fatigue from using social media, which is really just a personal feeling of being tired and is an outcome of techno-

stressor (Chung et al., 2019; Fan et al., 2021), is something we need to look into, especially for elder people who use social media in their own way. Since elder people make up a big part of Malaysia's population, we need to learn more about how social media could negatively affect their well-being. Most studies so far have focused on younger adults (Dalol, Islam, & Humayun, 2021), so it's important to fill in this gap.

Previous studies have investigated how the living situations and changing social circles of elder people play a role in their mental health and happiness, especially in terms of their overall quality of life (Chung & Mansur, 2018; Lee et al., 2020; Hosen et al., 2021). Studies has shown that elder people with good social support are usually healthier and happier than those who feel alone (Ismail, 2017; Syed Alwi et al., 2021). Studies also show that many elder people live in less-than-ideal conditions and often feel lonely, especially if they have health problems like dementia. This loneliness can make them more depressed, worsen their thinking abilities, and even lead to a shorter life. Having strong social ties can really improve their daily lives and mental health (Hammad & Alqarni, 2021; Teng et al., 2017).

Building on the notion that robust social networks can significantly improve the quality of life for elder individuals, particularly those facing health challenges, numerous studies have delved into the positive outcomes of fostering such connections. The positive aspects associated with enhanced networking among elder people have been studied extensively in the past as it helps in improving mental health (Hammad & Alqarni, 2021). Research has shown that good social connections can improve mental health, but not much is known about the downsides of using social media a lot. More studies are needed to understand all the ways that social media affects mental health (Hammad & Alqarni, 2021). This factor creates a bigger knowledge gap in research and urges the need to conduct research on this aspect as

well. We need to study how using social media might actually make elder people feel more isolated and hurt their relationships (Johns & Cheong, 2019).

The presence of these factors has spurred the idea of conducting a research study aimed at assessing the negative impacts of social media usage among the elderly of Malaysia. The Stressor-Strain-Outcome (SSO) model serves as the theoretical foundation for addressing this issue and responding to the questions outlined in the below sections.

1.3 Research Question

The primary aim of this research is to enhance understanding of elderly social media usage and its effects to their SWB. The problems identified prompt several inquiries that require resolution through empirical research.

- RQ1: What is the impact of techno-stressors on the social media fatigue of the elderly?
- RQ2: What is the relationship between social media fatigue of elderly and their passive social media use?
- RQ3: What is the impact of passive use of social media on subjective wellbeing of elderly?
- RQ4: Does the role of boredom moderate between techno-stressor and social media fatigue of the elderly?
- RQ5: Does the role of social media fatigue of the elderly mediate the relationship between techno-stressors and passive social media use of the elderly?

1.4 Research Objectives

This study has the following objectives:

- RO1: To analyse the impact of techno-stressors, namely information overload, communication overload, complexity, privacy and Fear of Missing Out (FoMO) on the social media fatigue of the elderly in Malaysia.
- RO2: To assess the impact that social media fatigue of the elderly in Malaysia has on their passive social media use.
- RO3: To identify the relationship between passive use of social media and subjective well-being of elderly.
- RO4: To analyse the moderation role of boredom on the relationship between the identified techno-stressors and social media fatigue of the elderly in Malaysia.
- RO5: To analyse the mediation role of social media fatigue of the between techno-stressors and passive social media use of the elderly in Malaysia.

1.5 Research Significance

The study regarding the assessment of negative aspects of social media and its impacts on the elderly is significant for depicting the importance of social networks in the real life of individuals (Wong et al., 2020). The methods of communicating and establishing relationships with other persons, group, or community members form a social network is a great source of providing social support to people. Within any

social network, there are several facets at play, including the establishment of connections with fellow community members through interpersonal communication skills. These skills are instrumental in fostering feelings of affection and companionship among individuals. By effectively engaging in interpersonal communication, individuals can not only create bonds but also promote a sense of care and concern for those around them. This, in turn, contributes to a supportive and empathetic community environment where members are attuned to each other's needs and well-being. Understanding and nurturing these aspects can be pivotal in enhancing the quality and depth of social interactions within the network (Moghavvemi et al., 2017; Wong et al., 2020). This kind of relationship is mostly beneficial for the elderly people because, as they age and may find themselves with less to occupy their time, having a productive and positive social network becomes crucial. Within these networks, they can engage in meaningful communication and dialogue with others, providing not only a sense of purpose but also a sense of belonging and community (Joo & Teng, 2017; Sharif & Yeoh, 2018). Establishing productive and fulfilling relationships in real life aids individuals in becoming integrated into society, where they can find support. This sense of community and support can, in turn, significantly enhance their overall satisfaction and contentment with their lives.

On the other hand, the absence of such real-life social networks may lead to negative consequences on the quality of life of people which results in different health related impacts such as affected mental health, declining cognitive ability, increased rate of mortality, and negative effects on the psychological well-being of individuals (Ahmad et al., 2018; Lim, Ng, & Basha, 2019; Sharif & Yeoh, 2018). However, the presence of social networks in the lives of people protects them from getting depressed and feeling alone. It also promotes their level of satisfaction regarding their lives, and

they get safeguarded from several health-related problems which lead to improve their overall health and quality of life (Hosen et al., 2021). A longitudinal study by Reynolds et al. (2020) conducted over a 10-year period dynamics and depression among elder people. The study found that strong social networks acted as a protective factor against experiences of depressive symptoms (Reynolds et al., 2020). This suggests that having supportive social connections can help prevent the onset of depression in elder people. Furthermore, a systematic review and meta-analysis by Laranjo et al. (2014) found that social networking sites have the potential to positively impact mental health outcomes, including reducing symptoms of depression and loneliness (Laranjo et al., 2014). This suggests that social networks formed through online platforms can provide a sense of connection and support, mitigating the risk of depression and feelings of loneliness.

Given the potential of online social networks to foster a sense of connection and support, this study not only contributes to the expanding domain of communication research but also adds to the expanding compendium of understanding concerning the impact of social media on the elderly. While this area has received a lot of attention throughout the world, it remains at an early phase in Malaysia. As a result, by employing the Burnout Theory and the Stressor-Strain-Outcome Model, this study significantly enhances the predictive capacity regarding the negative associations between social media usage and subjective well-being among the elderly in Malaysia. Moreover, the utilisation of the SSO framework offers comprehensive insights, crucial for comprehending the origins and ramifications of social media fatigue in this demographic.

Furthermore, this study is noteworthy in the field of subjective well-being (SWB) among Malaysia's elderly. It not only demonstrates a quantifiable relationship between social media use and the sense of social media fatigue by providing empirical insights, but it additionally sheds light on the complex ways in which social media engagement may impact the overall well-being of the elderly population. This research fills a significant gap in understanding the complex relationship between digital technology and the well-being of elder people by conducting an in-depth investigation of the impact of social media use on SWB. This not only adds to the confirmation of previous study results, but also offers a solid framework for the development of targeted campaigns and programmes aimed at fostering healthier and more pleasant digital experiences for Malaysia's elderly population.

Additionally, the practical implications of this study extend to the realm of policymaking providing valuable insights for the Malaysian government to refine National Policy for the elderly population. Policymakers may better align with the policy framework with the changing demands and difficulties of the elderly population by incorporating the findings. Furthermore, the study findings serve as a resource for government authorities, non-governmental organisations, and other stakeholders in cultivating an inclusive ecosystem that promotes active and holistic ageing experiences, as well as social connectedness and well-being among elder people. This study not only introduces a systematic approach to investigating the negative aspects of social media usage in elderly, but it also provides framework that elucidates the interplay of relevant variables underlying the negative effects of social media and their intricate relationships. In doing so, this research builds upon and extends existing literature in the field. Previous studies have touched upon the impact of social media on different age groups, but there has been a gap in research specifically addressing

the elderly demographic. By focusing on this segment of society, this study brings attention to the unique challenges and experiences faced by elder adults in the digital age.

1.6 Conceptualisation of Variables

Conceptualisation is the process of determining the meaning of the variables used in research, typically via the usage of concepts and words, by relying on previous research (Krome & Pidun, 2022). This approach establishes explicit and consistent definitions for the variables being used, offering a foundation for analysis and interpretation. In this study, the main factors considered are complexity, communication overload, information overload, fear of missing out, and privacy concerns, which are collectively referred to as techno-stressors. In the Stressor-Strain-Outcome (SSO) model used to assess the impact of social media on the elderly, the five variables are accurately conceptualised as stressors because they represent external pressures that challenge the user's ability to engage with social media effectively. Additionally, the study examines boredom, social media fatigue, passive social media use, affect balance, and life satisfaction.

1.6.1 Complexity

Complexity, as a behavioural-based notion, is a barrier to technological adoption. It is best characterised by the degree to which an invention is seen as being somewhat challenging to utilise. It increases effort to process information (Lee et al., 2016). In social media context, complexity to operate social media. According to research, when something is too difficult to grasp, individuals are less likely to utilise it. High levels of complexity in social media makes it more difficult to use them since

it is linked to uncertainty and unpredictability (Sullivan & Koh, 2019). Sullivan and Koh (2019) explained that complicated and diverse structure of social media platforms, as well as the methods in which users interact with them, is referred to as social media complexity.

Social media platforms' different features and activities, such as posting, commenting, and reacting to content, demonstrate this complexity (Martín-Rojas et al., 2021). It also involves an automated collection of content and customisation which takes into consideration user behaviour, pursuits, and choices, as well as external factors like current happenings and developments. Complexity in social media may also contribute to misunderstanding of available information that can be public sphere especially elderly population (Orben et al., 2019). Considering Lee et al. (2016), Sullivan and Koh (2019) and Martín-Rojas et al. (2021) this study conceptualised complexity as a behavioural notion that describes degree to which social media is seen as being somewhat challenging to utilise for elderly population.

1.6.2 Communication Overload

The excessive amount of information that people are exposed to on a daily basis is referred to as communication overload. The range of content readily accessible to individuals has grown as a result of the expansion of social media, and individuals are finding it more difficult to cope with the volume of information that they are exposed to (Eliyana et al., 2020). Communication overload on social media refers to a circumstance in which a user's social media communication requirements outweigh his or her abilities to communicate, which might disrupt a user's educational or professional schedule (Fan et al., 2021). Communication overload may disrupt users' typical routines, and the frequent disruptions make it hard for them to focus. This might

lead to a decrease in judgement accuracy, which can have a detrimental impact on elderly population's sentiments about trusting the information and even other people (Cao et al., 2020).

Therefore, the past literature (e.g., Cao et al., 2018; Eliyana et al., 2020; Fan et al., 2021) convinced that communication overload occurs when communication requirements from social media surpass an individual's communication capabilities, disrupting the user's workflow and causing cognitive strain. This state of communication on social media is called communication overload.

1.6.3 Information Overload

The subjective assessment and evaluation of the by an individual is referred to as information overload (Fu et al., 2020). Information overload occurs when the amount of information an individual is attempting to comprehend surpasses their ability to manage it efficiently. As social media grows in popularity, users are bombarded with irrelevant content such as fake news, rumours, and forced material, which may aggravate the problem (Zhang et al., 2022). The idea of information overload contrasts an individual's ability to comprehend information with the expectations placed on them. Users are flooded with too much information in the age of mobile internet, resulting in poor performance. Information overload has been researched in a variety of settings, including social networking sites, online commerce, online healthcare information searches, and mobile technology (Hwang et al., 2020).

Users can acquire accustomed to specific ways of presenting and organising information, but network feature upgrades can disturb their information processing, requiring them to spend more time determining what information is meaningful to them. This can eventually lead to information overload (Fu et al., 2020). In the light

of past literature this study conceptualises information overload as the excessive amount of information amount of information that is challenging for an individual of average cognitive capacity to absorb and comprehend.

1.6.4 Fear of Missing Out

Fear of missing out is a complex concept with two basic components. First, it entails the fear that others have rewarding experiences that one does not. This component is linked to cognitive aspects of anxiety, such as concern and contemplation. Second, FoMO is characterised by a continual need to maintain contact with people in one's social network. This desire is a behavioural approach for reducing anxiety, comparable to how desires reduce anxiety in people with obsessive-compulsive disorder (Elhai et al., 2020).

FoMO is defined by Fang et al. (2020) as a need for keeping up with what other people are doing and the assumption that others encounter more fascinating circumstances when one is not present. FoMO is commonly recognised as an overwhelming worry that others are having fulfilling experiences while one is missing out. Individuals with a high level of FoMO are constantly looking for ways to connect with others and keep others up to date on their activities (Tandon et al., 2021). The need to belong and feel linked to others is a basic psychological urge that drives human behaviour. Roberts and David (2020) discovered that a lack of the psychological demand for connectivity might enhance FoMO. As a result, this increased FoMO frequently presents itself in social media, where users may stay in constant contact with their peer group (Elhai et al., 2020). Referring to the above discussion, this study conceptualises FoMO as a desire to keep up with what other people are doing

accompanied by a widespread concern that one might be missing out on fulfilling experiences that others are having.

1.6.5 Privacy

Privacy refers to an individual's capacity to regulate the personal information they reveal pertaining to themselves and ensuring that others cannot access or use that information without their permission (Bright et al., 2022). It is seen as a fundamental human right and is critical in safeguarding an individual's personal autonomy and dignity. Many users, including young people, adolescents, and elder people are concerned about their online privacy (Payton & Claypoole, 2023). With the increasing popularity of social media, there has been an increase in concerns about privacy and security. Privacy on social media refers to an individual's total sense of vulnerability over their personal information available on social media (Dhir et al., 2019). The concept of privacy has been described in numerous ways in extant literature.

According to Krämer and Schäwel (2020), privacy in a social media setting means a widespread sense of powerlessness in terms of personal data security. While the platform or system may contribute to privacy concerns, it is generally the information that users intentionally or unintentionally disclose that causes these concerns (Payton & Claypoole, 2023). Available information on social media is gathered to evaluate user behaviour, such as the pages they visit, the postings they like, and the advertisements they click on. This information is then utilised to customise the user experience and target advertisements. The fear of utilising the social media user related information for hidden purpose develops sense of privacy concerns among users (Bibhu et al., 2021). In the light of above discussion, this study conceptualises

privacy as a sense of control over personal information, as well as a sense of protection against any misuse of the information.

1.6.6 Boredom

Boredom is defined as an emotional state marked by feelings of inactivity, apathy, and a lack of encouragement or involvement. It frequently occurs when a person has nothing to do or is engaged in an uninteresting task and feels restless or unfulfilled (Westgate & Steidle, 2020). Boredom, although being an unpleasant sensation, acts as an important indicator. It, like other emotions, transmits vital information about our environment as well as our psychological condition (Whelan et al., 2020). Boredom is the tendency of an individual to experience the emotion when their present environment does not provide appropriate emotional stimulation. According to Noury et al. (2022), people often seek alternate experiences to alleviate boredom, even if these experiences have detrimental effects for their behaviour.

Many individuals turn to social media when they have spare time or are searching for a distraction, but if the information they discover fails to pique their attention, they may rapidly feel bored and disconnect (Noury et al., 2022). This might create a negative loop in which individuals continue to scroll or browse through social media feeds in the hopes of finding something intriguing but eventually feeling unfulfilled and detached (Murphy et al., 2022). Referring to the above discussion and available definitions, this study conceptualises boredom as a state of mind characterised by disinterest, lack of attention, and a sense of being unengaged.

1.6.7 Social Media Fatigue

Social media fatigue is a condition of weariness or lack of interest that people may feel when using social media platforms. It is frequently characterised by tiredness, a lack of excitement, and a lack of involvement with social media stuff (Bright et al., 2022). The concept of social media fatigue is based on the premise that excessive and continuous usage of social media might have a detrimental impact on a person's mental and emotional health. This situation sometimes causes withdrawal from social media use (Li et al., 2022). This argument is supported by Logan et al. (2018) in a study where they defined of a user to withdraw from social media involvement when they feel overburdened with information.

According to Fontes-Perryman and Spina (2022), those who spend a lot of time on social media may have greater levels of anxiety, sadness, and stress. These unpleasant feelings cause a sensation of estrangement. Other variables, such as overstimulation and continual bombardment of information that social media may deliver, may also impact the development of social media fatigue. This might result in a sensation of overload and an inability to adequately digest or assimilate new knowledge (Bright et al., 2022). The previous discussion led this study to conceptualise social media fatigue as a collection of negative emotional responses to social media activities such as tiredness, exhaustion, annoyance, or disinterest in contact.

1.6.8 Passive Social Media Use

Passive social media use is a sort of social media behaviour in which people receive or see social media content without actively engaging or participating in it (Escobar-Viera et al., 2018). This might involve scanning through social media feeds,

reading posts or articles, watching videos, or seeing photographs without commenting, sharing, or otherwise participating in the content. Excessive passive social media use has been linked to sentiments of social comparison, anxiety, and despair, according to research (Thorisdottir et al., 2019). This is due to people becoming fixated with comparing themselves to others online, which can lead to poor self-evaluation and a sense of inadequacy (Valkenburg, 2022). Engaging in social media passively may also result in feelings of loneliness and social isolation, since people may feel disconnected from their social networks while being exposed to social media information. While extending discussion on passive social media use Valkenburg et al. (2022) referred it as an act of monitoring other users' online activities without participating in direct interactions with them. Thereby, this study also conceptualises passive social media use as an act of consuming social media content without actively participating in social media activities.

1.6.9 Positive Feeling

The overall balance of positive and negative emotions experienced by an individual over a specific length of time is referred to as affect balance. In affect balance, beneficial feelings are emotions such as pleasure and happiness that contribute to a general sense of well-being and positive affect balance (Diener et al., 2010). Positive feelings are an important component of mental health and well-being because they help people cope with stress, create resilience, and maintain healthy social interactions (Yildirim, 2019). Interventions targeted at fostering positive feelings and enhancing affect balance frequently focus on raising positive emotions, such as spending time with loved ones, participating in hobbies, and practicing

mindfulness (Matud et al., 2022). The past literature convinced to conceptualise positive feelings as a combination of positive emotions.

1.6.10 Negative Feeling

In affect balance, adverse feelings are emotions such as sorrow and fear that contribute to an overall sense of negative affect balance. Negative emotions are a normal part of the human experience, and they serve an important role in assisting individuals in identifying and responding to difficulties in their surroundings. Individuals with a more negative affect balance have poorer mental health outcomes, such as higher rates of depression, anxiety, and stress. It has also reportedly contributed to lower levels of life satisfaction and well-being overall. Therefore, this study conceptualises negative feelings as a combination of negative emotions.

1.6.11 Life Satisfaction

A person's overall feeling of happiness and contentment with their existence is referred to as life satisfaction. It includes many areas of a person's life, including their relationships, work, wellness, personal growth, and sense of purpose (Murukesu et al., 2021). Life satisfaction can often be viewed as a subjective measurement since it is based on an individual's personal assessment of their life. It is not always tied to objective measures of success or satisfaction, such as income, prestige, or accomplishments. Rather, it reflects a person's perception of their life and the level to which they feel content and happy (Yildirim, 2019).

According to Abdelguiom and Iahad (2021) life satisfaction is a cognitive evaluation of one's life that includes a lower incidence of negative feelings and a higher frequency of positive feelings. As a cognitive appraisal of an individual's life, life