Habitual Facebook use as a prognosticator for life satisfaction and psychological well-being: social safeness as a moderator

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Abstract

Purpose – This study aims to examine the impact of habitual Facebook use (HFU) on life satisfaction and psychological well-being. In addition, the study examined the impact of life satisfaction on psychological well-being. Moreover, the study investigates the impact of social safeness in moderating the relationship between HFU and life satisfaction.

Design/methodology/approach – The study employed a quantitative survey design, using a sample of 261 Generation Y students based in Mthatha, in the Eastern Cape Province of South Africa. Scales for data collection were operationalized from prior studies. The collected data were analyzed using structural equation modeling.

Findings – The study's results disclosed that HFU positively and significantly impacts life satisfaction and psychological well-being. In addition, life satisfaction positively and significantly impacted psychological well-being. Moreover, the results showed that social safeness had a positive and significant moderating effect on the nexus between HFU and life satisfaction.

Originality/value – This study contributes to understanding HFU as a precursor to life satisfaction and psychological well-being among Generation Y students. Also, evaluating the moderating effect of social safeness contributes to a more thorough understanding of the link between HFU and life satisfaction.

This publication in the *Arab Gulf Journal of Scientific Research* is based or built on earlier research by Maziriri (2020). Thus, the authors acknowledge that they used Maziriri's (2020) publication as the basis for their current investigation.

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Furthermore, this research aims to add to the body of knowledge in Africa's communication psychology and social media literature, a field that has received little academic attention in developing countries.

Keywords Habitual Facebook use, Life satisfaction, Psychological well-being, Social safeness
Paper type Research paper

Introduction

The explosion of Facebook habitual usage has caused individuals' social behaviors and social well-being to transform across various cultures, nations and geographical regions (Pang, 2018). Social networks sites (SNSs) such as Facebook, Twitter and MySpace have been having consistent extrapolating trends in terms of growth of subscribers over the last decade, over 50 million active visitors monthly (Dunne, Lawlor, & Rowley, 2010; Pang, 2018). This penetration and usage rate indicate how SNSs are integrated to our daily lives (Ye, Ho, & Zerbe, 2020). Research has shown that higher degree of habitual Facebook usage has been so high, particularly among the tech-savvy young generation (Tsai & Men, 2017). However, some reports indicate that the overuse of Facebook may negatively affect the social well-being of young people (Ye *et al.*, 2020). Social support from family and intimate friends has a bold connection with young peoples' psychological well-being via the SNSs such as habitual Facebook use (HFU) (Ye and Ho, 2020). Research has proven that 70% to 90% of Facebook users are university students (Lenhart, Purcell, Smith, & Zickuhr, 2010), who even reach a full day on it (Feng, Wong, Wong, & Hossain, 2019), showing their habitual usage (Ryan, Chester, Reece, & Xenos, 2014), as they engage with their friends, sharing pictures and videos, playing games as well as dates (Griffiths, 2021). HFU has its positive benefits to university students. For instance, some of these university students may take it as a sort of escapism (Brailovskaia, Teismann, & Margraf, 2018), especially those who are under academic severe stress (Bhuiyan, Griffiths, & Mamun, 2020); they use Facebook to create positive psychological well-being and soften their moods (Brailovskaia & Margraf, 2017). This yields the room for enjoyment, comfort, life satisfaction, social satisfaction and social support (Raza *et al.*, 2020).

It is critical to state that, despite the potential to shed light on HFU, there is currently a dearth of empirical data demonstrating links between HFU, life satisfaction and psychological well-being. As a result, additional academic reflections are deemed necessary. Most of the academic writing on the topic is based on data from foreign nations including the United States of America (USA), Finland, Pakistan and Bangladesh (among others). For instance, at the University of Buffalo in New York, USA, Vishwanath (2015) studied how HFU affected senior undergraduate communication students' susceptibility to being duped on social media. Dempsey, O'Brien, Tiamiyu, and Elhai (2019) investigated how the frequency of Facebook use influences problems with Facebook use among college students in the United States. Furthermore, Köse (2020) investigated the effect of content type on HFU among foreigners living in Finland. Furthermore, Raza *et al.* (2020) investigated the factors contributing to heavy Facebook usage among Pakistani university students. Furthermore, Hossain and Munam (2022) investigated the factors influencing Facebook addiction among Varendra University students in Rajshahi, Bangladesh, during the COVID-19 outbreak.

In South Africa, there is little evidence of studies that have determined the impact of HFU on tertiary students' life satisfaction and psychological well-being. As a result, little is known about the same from developing parts of the world, such as African countries, particularly South Africa. As a result, this gap merits empirical investigation in the case of a neglected context. Local South African scholars investigated the relationship between knowledge sharing, habit and obligation concerning Facebook usage among a sample of rural South African youth (Shava & Chinyamurindi, 2018a, b). Furthermore, Gwena, Chinyamurindi and Marange (2018) investigated the motivations influencing Facebook usage among international students at a rural South African campus. Furthermore, Duffett (2017) examined the impact of Facebook

commercial communications on the attitudes of Generation Z in South Africa. Furthermore, Mbatha and Manana (2012) conducted a study at the University of South Africa on communication science students' perceptions of using Facebook in their studies as a transformational and educational tool.

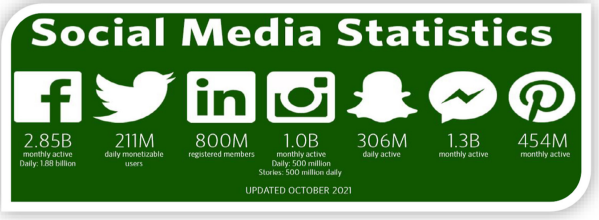
While these international and local studies are useful, they did not investigate the relationship between HFU, life satisfaction and psychological well-being in South Africa. As a result, this article contributes to closing the gap by utilizing a sample of tertiary students from a developing country context. It is also worth noting that very few (if any) researchers have used structural equation modeling (SEM) to investigate the links between HFU, life satisfaction and psychological well-being. The thorough review of relevant literature reveals a research gap that must be filled. Concerning the conceptual model proposed in this study, it should be noted that it is one of a kind, as there are gaps in studies that have tested the variables in the proposed model in relation to the South African context (to the best knowledge of the researchers). Furthermore, authors such as O'Rourke have established the moderating role of social safeness (2019). However, there is little research on the role of social safeness as a moderator between HFU and life satisfaction. As a result, this study will significantly contribute to closing this gap.

The rest of the article goes as follows. The article begins with a contextualization of the study. The study's theoretical foundation is then provided, followed by the development of a theoretical model and hypothesis. Following that, the research design and methodology are presented, followed by the results and discussions. The article's final sections discuss the implications, limitations and future research directions.

Contextualization of the study

The motivation and significance of choosing Facebook

Facebook is a virtual community that allows users to join various communities created on the network to meet social needs (Viljoen, Dube, & Murisi, 2016). According to Bevan-Dye and Akpojivi (2016), Facebook has grown exponentially. In South Africa, the site is most popular among young people aged 18 to 24, known as Generation Y (persons born between 1986 and 2005). In July 2019, Facebook reported nearly 1.58 billion daily active users and over 2 billion monthly active users (Statista, 2019). As a result, Facebook's popularity has skyrocketed, and it has become a global phenomenon (Foroughi, Iranmanesh, Nikbin, & Hyun, 2019). Facebook plays a crucial in the decision-making process of young consumers (Chininga, Rungani, Chiliya, & Chuchu, 2019). Furthermore, Chakraborty (2016) confirmed the positive effects of Facebook on individuals' social lives, such as forming new relationships, bonding, social capital and improving and maintaining real friendship networks. Furthermore, Houghton, Pressey and Istanbulluoglu (2019) discovered that Facebook use drives satisfaction with life based on connections with other users – akin to the need of belonging – suggesting that satisfaction comes after needs are met. Figure 1 depicts the statistics for social media.



Source(s): Statista (2021)

Figure 1.
Social media statistics

U.S. Census Bureau (2021) and Statista (2022) confirm that people spend 12.5 trillion hours online on a global scale online. Almost six social media platforms (Facebook, Twitter, YouTube, TikTok WhatsApp and Instagram) account for at least one billion active users monthly. Between the 12.5 trillion hours spent online and the one billion active social media users, Facebook has the highest number of users with at least more than two billion users, followed by Twitter with an audience of just above 200 million active users (Akgül and, Uymaz, 2022; Statista, 2021). This indicates that Facebook continuously remains one of the world's most actively used social media platforms. Given this large Facebook audience, it was important for this study to determine the impact of HFU on life satisfaction and psychological well-being. Although research reveals that university students visit different social media platforms to achieve different things, Raza, Qazi & Umer (2017) also argued that Facebook can be harnessed as a "Source of Social Capital Building Among University Students." Tamilmani *et al.* (2021) and Akgül and Uymaz (2022) further reveal that understanding the dynamics of Facebook usage is key since this helps to provide useful insights about university students' experiences using one of the global largest social media and how that also shapes their psychological well-being toward life satisfaction. On average, there are 7.6 billion people on the planet, with 2.5 billion using Facebook at least once per month (U.S. Census Bureau, 2021). Given these statistics, it is worthwhile to investigate how this platform's habitual use affects students' psychological well-being. Nearly one-third of the world's population is connected via this single social media platform.

The motivation and significance of choosing Generation Y students

According to Jariangprasert, Jaturapataraporn, Sivaraks and Luangphaiboonsri (2019), Generation Y is a technologically savvy and visually advanced generation, making it easy for them to adapt to the use of technology as they are born. Since this generation grew up in the digital era, technology has played an essential role in their lives (Van Deventer & Lues, 2019). As a result, it is not surprising that Generation Y spends a lot of time online, shopping, interacting with social networking sites, staying up-to-date on the latest news and trends and having fun (Van Deventer & Lues, 2019). Furthermore, Generation Y students are essential for social networking studies because Chu and Kim (2011, p. 58) claim that students are the most frequent users of social networking sites, with Facebook being the most popular online social networking site among higher education institutions (HEI) students (Cheung, Chiu, & Lee, 2011). Furthermore, according to Bevan-Dye and Akpojivi (2016), the Generation Y cohort uses Facebook as a platform to interact with friends and family, discover and connect with colleagues and express their views and opinions. The preceding argument provides evidence that studying Generation Y cohort is critical.

Contributions of the current work beyond the previous work

This study examined HFU as a prognosticator of life satisfaction and psychological well-being among Generation Y students in South Africa's Eastern Cape Province using Maziriri's work as a springboard, a completely different province from Gauteng province. South Africa's second-largest province is the Eastern Cape, which is the poorest province and has the highest expanded and official unemployment rate of any region in the nation. The researchers therefore expected to get informative results by conducting their research in a field that is little studied.

It is crucial to clarify that Maziriri's (2020) study lacked a theoretical foundation. To understand the conceptual model that was being tested by means of SEM, this study contributes to the body of literature by basing the study in a key model and theories. Jager's model of habitual behavior, social learning theory (SLT) and the theory of psychological well-being are specifically the foundations of the current investigation. By establishing the study's foundation in these theories, a hybrid strategy was created that made it easier to suggest explanations for the underlying causes or influences of observed phenomena.

Besides the linear relationships tested by Maziriri in (2020), this study included a moderating variable (social safeness) to offer a nuanced understanding of the relationship between HFU and life satisfaction. To the best knowledge of the researchers, there are deficiencies in studies that investigated the probable moderating influence of social safeness on the link between HFU and life satisfaction. Therefore, this study significantly adds to the body of knowledge by examining the moderating role of social safeness.

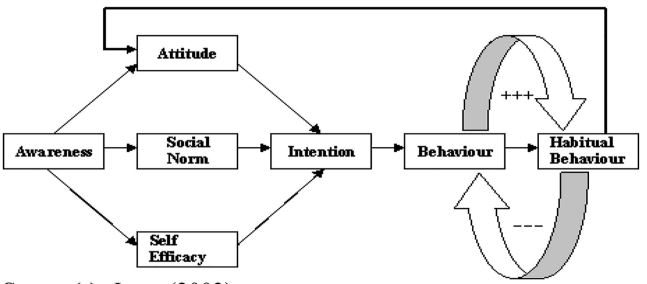
Theoretical premise

Diverse models and theories exist for seeking to predict and explain human behavior. This study adopted the Jager's habitual behavior model, social learning theory (SLT) and the theory of psychological well-being as the theoretical grounding for this research. These identified theories are discussed in the following sections.

Jager's habitual behavior model

Habits are behaviors requiring the least amount of cognitive effort (Jager, 2003). The greater the dominance of habits over cognitive efforts, the less effective the latter (Bamberg & Schmidt, 2003; Aarts & Dijksterhuis, 2000). According to Jager's framework, the ease, comfort and pleasure associated with a behavior may motivate people to repeat it with minimal thinking involvement (Aamir & Shahzad, 2019). Repetition may result in habitual or routine behavior (Aamir & Shahzad, 2019). According to Jager *et al.* (1992), the "pluses" (at the right in the model) balance out the "minuses" and turn the initially planned behavior into a habit. A "loop" and an automatism emerge through repetition: reasoned weighing occurs only when the loop is broken (Jager *et al.*, 1992). Habits are routine behaviors that are usually performed without much thought (Jager, 2003). Habits are less susceptible to change than reasoned behavior as they become more automated (Verplanken, Aarts, Van Knippenberg, & Moonen, 1998). Habits can have positive short-term effects on social safeness, life satisfaction and well-being (Baumeister, Bratslavsky, Muraven, & Tice, 1998).

Given that the theoretical model's predictor variable is referred to as HFU, Jager's model of habitual behavior is regarded as an appropriate framework for this study. The automatic consumption and use of the social media platform that expands when users access, communicate and use Facebook regularly due to the benefits of doing so is referred to as HFU (Vishwanath, 2014). This description corresponds to current thinking about habitual media use from the standpoint of media participation, in which habits are thought to be formed by repeated media consumption in stable settings (LaRose, 2010). Figure 2 depicts the Jager's habitual behavior model.



Source(s): Jager (2003)

Figure 2.
Jager's habitual behavior model

Social learning theory (SCT)

The SCT (Bandura, 1977) refers to learning in social media settings, emphasizing observation as an important aspect of learning that models learners' behavior accordingly. Social learning theory is a learning and social behavior theory that proposes that new behaviors can be learned by observing and imitating others. It asserts that learning is a cognitive process that occurs in a social context and can occur solely through observation or direct instruction, even without motor reproduction or direct reinforcement (Cilliers, 2021). Social learning theory combined behavioral and cognitive learning theories to provide a comprehensive model that could account for a wide range of real-world learning experiences.

The theory is based on the understanding that learning is a cognitive process in a social context rather than a purely behavioral process. Young people, for example, consciously try to project an image by posting updates on social networking sites to impress their peers. This activity employs a social learning foundational framework for each student to consider the motivations for and purposes of activities in the online social networking medium of Facebook. Most higher education institutions use Facebook to disseminate information (Ainin, Naqshbandi, Moghavvemi, & Jaafar, 2015). Higher education institutions have established a stage in which students gain knowledge and use the same social media platform to share that knowledge with their classmates. Students share assignments, tutorial questions and solutions, among other things. In the process, they assist one another in engaging with the course, benefiting from one another's contributions. This behavior is well supported by Bandura's social learning theory (SLT) (1979). According to the SLT, how people interact with their surroundings influences or determines their behavior. As a result, Facebook provides the youth with a high-interaction platform through which they can easily share their learning experiences and maintain relationships, as well as the opportunity to connect with others for social and academic purposes (DeAndrea, Ellison, LaRose, Steinfield, & Fiore, 2012). Although the youth benefit greatly from knowledge sharing, some have gone a step further and now feel obligated to visit the site, an act over which they believe they have little control.

The theory of psychological well-being

Academic research has always focused on student psychological well-being, and Ryff's six-factor model of psychological well-being has always provided an inclusive theoretical framework for investigating student psychological well-being (Diener, Oishi, & Lucas, 2003; Ryff, 2004). Professor Carol Ryff developed the "Theory of Psychological Well-Being," which was based on a synthesis of ideas from Maslow, Jung, Rogers, Allport, Erikson, Buhler, Neugarten and Johada (Christopher, 1999; Ryff, 1989). Taking this into account, Ryff developed one of the first systematic models of psychological well-being (Gao & McLellan, 2018). This model has remained one of the most empirically applied models used in modern times to provide an introspection into how well-being is multidimensional, and not just about happiness. Applying this theory to this study is critical because if psychological well-being is multidimensional, we argue that HFU is a critical component of the dimensions required to ensure a positive impact and significance on life satisfaction and the ultimate psychological well-being of university students. After all, Ryff and Keyes (1995) and Tehrani and Razali (2018) confirm that a good life is balanced and whole, engaging each of the different aspects of well-being that enable life satisfaction rather than being narrowly focused. Thus, the theory helps to provide a prevailing background through which to determine the impact of HFU on life satisfaction and psychological well-being among technologically savvy university students.

Theoretical model and hypotheses formulation

The study's research model was created (Figure 3). The theoretical model depicts the proposed interconnection of four constructs: HFU, life satisfaction, psychological well-being

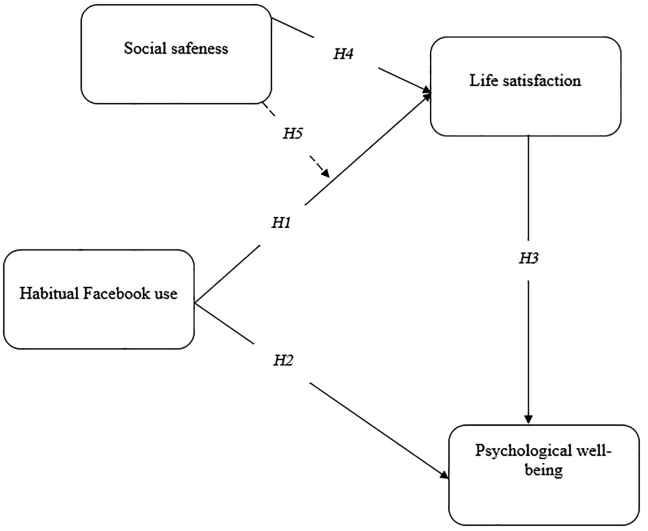


Figure 3.
Theoretical model

and social safeness. The relationships between the proposed constructs in the theoretical model are HFU, which induces life satisfaction and psychological well-being. Furthermore, the theoretical model suggests that life satisfaction leads to psychological well-being. Furthermore, the model shows that social safeness is a predictor of life satisfaction. Finally, the social safeness variable moderates the relationship between HFU and life satisfaction. The following sections will conduct a literature review on the study's main variables.

Moreover, the hypothesized connections between the study variables are discussed in the subsequent sections based on past studies and logically deriving from prior results.

Habitual Facebook use and life satisfaction

In the context of this study, it is critical to understand how HFU influences life satisfaction among Generation Y students. As a result, further research into the relationship between HFU and life satisfaction is required to bridge this gap. Using Facebook improves college students' overall life satisfaction, according to Ellison, Steinfield, and Lampe (2007). Social support via Facebook, according to Indian and Grieve (2014), predicts life satisfaction in adults with high levels of social anxiety. Similarly, Maziriri (2020), Ong and Lin (2015) and others discovered that HFU has a significant impact on life satisfaction. Based on the preceding argument, the first hypothesis can be stated as follows:

H1. Habitual Facebook use positively and significantly impacts life satisfaction of Generation Y students

Habitual Facebook use and psychological well-being

Farrington (2017) defines psychological well-being as "the perception of overcoming life's existential challenges," whereas Winefield, Gill, Taylor, and Pilkington (2012) define it as "a combination of positive affective experiences such as happiness and optimal functioning in individual and social life." An individual's psychological well-being is most likely influenced by their internal circumstances, as well as the resources and challenges they face (Farrington, 2017). The benefits of psychological well-being, according to Wright and Cropanzano (2000),

include improved cognitive functioning and health, as well as the happy functioning of society. Previous empirical research in various contexts has discovered a strong link between psychological well-being and perceived organizational support, career goal development and empowering leadership (Maziriri, Chuchu, & Madinga, 2019); experiencing love in everyday life (Oravecz, Dirsmith, Heshmati, Vandekerckhove, & Brick, 2020); and social capital among university students (Oravecz *et al.*, 2020; Abbas *et al.*, 2020). However, understanding how HFU affects the psychological well-being of Generation Y students in this study is critical. As a result, our study will bridge this gap by empirically testing the relationship between these two variables. According to the study's framework, Generation Y students experience positive psychological well-being when they are satisfied with their lives. In their study to evaluate the relationship between Facebook use and psychological well-being for baccalaureate nursing students at Benha University, Zaki, Sayed and Elattar (2018) discovered a statistically significant link between psychological well-being and Facebook usage. Maziriri (2020) discovered that habitual Facebook usage positively and significantly impacts psychological well-being. Based on the preceding arguments, the second hypothesis is as follows:

H2. Habitual Facebook use positively and significantly impacts the psychological well-being of Generation Y students.

Life satisfaction and psychological well-being

Life satisfaction, according to Çikrıkci (2016), is a cognitive appraisal of the gaps between what people aspire to achieve and the hedonic profits they have. Life satisfaction has been linked to a variety of positive outcomes. Life satisfaction is also associated with increased academic self-efficacy, perceived progress toward goals and lower academic stress (O'Sullivan, 2011). According to Buetell (2006), goal-directed activity is one of the psychological, genetic and social-cognitive factors that contribute to life pleasure. Lucas-Carrasco and Salvador-Carulla (2012) link life satisfaction to self-efficacy, Bastug and Duman (2010) link it to result expectations and environmental support and Koohsar and Bonab (2011) link it to intellectual skills (2011). Physical health, money, mental health, social interactions and a general sense of accomplishment can all contribute to life satisfaction (Ye, Yu, & Li, 2012). Self-esteem (Rode, 2004), personality traits (Zhang & Howell, 2011), work and family roles (Zhao, Qu, & Ghiselli, 2011) and job satisfaction (Zhao *et al.*, 2011) have all been linked to life satisfaction (Mafini & Dlodlo, 2014). This study found a link between life satisfaction and psychological well-being. Rathore, Kumar, and Gautam (2015) agreed, studying the impact of life satisfaction on the psychological well-being of physicians at SMS Medical College and Jaipur Dental College in India and discovering that life satisfaction was one of the most important predictors of physicians' psychological well-being. Furthermore, Leung, Cheung, and Liu (2011) examined the relationship between life satisfaction and well-being and discovered that life satisfaction is related to well-being. Nonetheless, based on the empirical considerations mentioned above, this study hypothesizes that:

H3. Life satisfaction positively and significantly impacts the psychological well-being of Generation Y students.

Social safeness and life satisfaction

Social safeness has an impact on life satisfaction. Social safeness, for example, has been shown to be positively related to a mental health-related indicator such as life satisfaction (Satici, Uysal, Yilmaz, & Deniz, 2015). Akin and Akin (2015) also investigated the role of social safeness in the relationship between Facebook use and life satisfaction. The researchers discovered that social safeness was a positive predictor of life satisfaction (Akin & Akin, 2015).

A strong sense of social safeness protects against depression, anxiety and stress by increasing self-compassion (Alavi, 2021). As a result, the following hypothesis can be formed:

H4. Social safeness positively and significantly impacts life satisfaction of Generation Y students.

Social safeness as a moderator

In addition to the stated relationships indicated in the conceptual model, direct and indirect connections between the variables under consideration are possible. As a result, social safeness is included in Figure 1 as a moderating variable. The hypothesis statements provided critical links between the research variables (H1, H2, H3 and H4). This phenomenon may be better understood if we have a better understanding of these complex relationships. Social safeness has been linked to life satisfaction and is defined as people's judgments of their social environment as warm, safe and calming (Gilbert *et al.*, 2009). Increased perceptions of social safeness may be associated with an increased sense of life happiness (Kelly, Zuroff, Leybman, & Gilbert, 2012).

Because social safeness is associated with happy feelings and healthy connections, it can be regarded as a critical factor in the relationship between HFU and life satisfaction. There are flaws in studies that investigated the possible moderating influence of social safeness on the link between HFU and life satisfaction. Furthermore, no accurate empirical estimates of how social safeness may influence life satisfaction in ways other than linear relationships have been published. As a result, the research question follows:

(1) Does social safeness moderate the relationship between HFU and life satisfaction?

We hope that by addressing this study issue, we can contribute to a better theoretical understanding of the relationship between HFU and life satisfaction, as well as empirical insights into whether social safeness has a moderate impact on this relationship. As a result of the preceding elucidations, the following three hypotheses are presented:

H5. Social safeness positively and significantly moderates the link between HFU and life satisfaction

Methodological aspects

This study's research philosophy was positivism. The quantitative research method was used for this study. The design was appropriate for gathering data on Facebook usage habits, life satisfaction, psychological well-being and social safeness. In addition, the technique allows for the investigation of causal relationships between the research constructs.

Sample and data collection

This study was carried out among Generation Y students at Walter Sisulu University (WSU) in Mthatha, Eastern Cape Province, South Africa. This study used Generation Y students as a sample because they are the most technologically savvy generation, and university students are early adopters of new technology (Hwang, 2017). At the time of data collection, students in the sample had to be active, registered students. This criterion's primary identifier was the student card, which contained each student's name and year of enrollment. The university's database, which included a list of registered students, was used as a sampling frame. This study used a simple random sampling technique because each population element had an equal chance of being selected as part of the sample (Weideman, 2014). For example, in the list of students registered in the institute's database, each name had an equal chance of being chosen. The questionnaires stated that respondents' identities would be kept private and that

the study was purely educational. The sample size was calculated using the Raosoft sample size calculator (Raosoft Inc., 2004). The calculation considered the total student population enrollment of approximately 24 120, a 5% margin of error, 90% interval of confidence and the recommended 50% distribution. It returned a minimum sample size of 208 respondents. Of the 379 questionnaires distributed, 261 questionnaires returned were useable, resulting in a response rate of 68.8%.

Measurement instrument

Four constructs of the proposed research model were adapted from existing literature and refined for this study's specific topic. The beliefs of the respondents were recorded using a five-point Likert-type scale ranging from strongly agree (5) to strongly disagree (5). (1) Appendix contains the items used to measure each construct.

Respondent profile

Table 1 shows the participants' ages, genders, years of study and allowances. The distribution was dominated by those between the ages of 18 and 24, followed by those between the ages of 25 and 29, those between the ages of 30-35 and those over the age of 36. (4.6%). Males were more prevalent (48.3%) than females (44.1%), though the minority of respondents who preferred not to state their gender represented (7.7%) the smallest percentage of the study's total number. Of the total number of students in the study, first-year students made up the largest percentage (33.7%), followed by second-year students (29.9%), third-year students (22.2%) and postgraduate students (14.2%). Most of the respondent's allowance was between R100 and R1000 (47.1%), followed by those with R1000 and R2000 (30.7%), R2000 and R3000 (9.6%), R3000 and R4000 (5.0%), R4000 and R5000 (3.4%) and, lastly, R5000 (4.2%) of the total sample.

Correlation analysis

The researchers conducted a correlation analysis with the Statistical Package for Social Science (SPSS) version 26 to assess the strength of relationships, that is, the variables.

Table 2 summarizes the results of the correlation analyses. The Pearson correlation (r) indicates the strength and direction of the correlation (negative or positive), whereas the p-value indicates the likelihood that the given R-value is seen by chance. The (r) value 1 indicates a perfect positive correlation, the (r) value − 1 indicates a perfect negative correlation, the (r) value 0.5 indicates a moderate positive correlation, the (r) value − 0.5 indicates a moderate negative correlation and the (r) value 0 indicates no correlation. Table 2 displays bivariate Pearson correlation coefficients for the study variables. The results of correlation analysis, as presented in Table 4, reveal that moderate to strong positive relationships exist among the research variables. For instance, social safeness was found to be strongly associated with life satisfaction ($r = 0.853$).

Structural equation modeling

PLS SEM was preferred over covariance-based SEM because of its improved statistical power in parameter estimates and maximization of understood variance (Tajvidi, Richard, Wang, & Hajli, 2018). PLS SEM and CB SEM are less compatible than competitive relatives (Sarstedt, Ringle, Hair, & Joseph, 2014; Rigdon, 2014). Nonetheless, PLS SEM was originally known for outperforming CB SEM in terms of prediction (Hair, Hult, Ringle, & Sarstedt, 2017), even though the approximate gaps between the two techniques are quite different. PLS-SEM is like multiple regression analysis in that it is suitable for estimating relationships between one or more independent and dependent variables at the same time. This feature makes

Characteristics	Frequency	Percentage
Age		
18–24 years	193	73.9
25–29 years	34	13.0
30–35 years	22	8.4
Above 36 years	12	4.6
Total	*261*	*100*
Gender		
Male	126	48.3
Female	115	44.1
Prefer not to say	20	7.7
Total	*261*	*100.0*
Year of study		
1 year	88	33.7
2 years	78	29.9
3 years	58	22.2
Postgraduate	37	14.2
Total	*261*	*100.0*
Allowance		
R100–R1000	123	47.1
R1000–R2000	80	30.7
R2000–R3000	25	9.6
R3000–R4000	13	5.0
R4000–R5000	9	3.4
Above R5000	11	4.2
Total	*261*	*100.0*

Table 1.
Distribution of the respondents according to demographic variables

Variables	1	2	3	4
1. Habitual Facebook use	1.000			
2. Life satisfaction	0.810*	1.000		
3. Psychological well-being	0.672*	0.590*	1.000	
4. Social Safeness	0.761*	0.853*	0.562*	1.000

Note(s): *Correlation is significant at $p < 0.05$ (2-tailed)
**Correlation is significant at $p < 0.01$ (2-tailed)

Table 2.
Correlation matrix of primary study variables

PLS-SEM particularly useful for exploration research (Henseler, 2017). Path coefficients, multilinear regression and CFA (confirmatory factor analysis), a second-generation multivariate research technique, are all included in PLS-SEM. Using structural template analysis, this describes the variability in the dependent variable (Hair *et al.*, 2017; Hair, Hult, Ringle, & Sarstedt, 2016). PLS-SEM (partial least squares structural equation modeling) is useful for complex models that involve moderate small samples and are less susceptible to ordinary multivariate data (Hair *et al.*, 2017). The reflective measurement model was used in this research study, in which measurements represent latent variables and the direction of the connection is from the construct or latent variable to the measure (Diamantopoulos & Winklhofer, 2001). This study used a product indicator method (PIM) with PLS-SEM to assess the moderating role of social safeness (Chin, 2010). Because the suggested moderating construct was continuous, PIM was used (Rigdon, Schumacker, & Wothke, 2017).

Furthermore, the statistical analysis in this study includes measures such as (1) measurement model – testing of reliability analysis and validity analysis; and (2) structural model analysis – examining the path coefficients between observed coefficients.

Reliability analysis

Table 3 specifies the different measures that were used to assess the reliability and validity of the constructs for the study.

Measurement model assessment

To evaluate the measurement model and test the main effects, Smart PLS 3.2.9 was used. The measurement model's construct validity was evaluated by examining the construct measures' convergent and discriminant validity, as established by Hair, Risher, Sarstedt, and Ringle (2019). The standard convergent validity criteria were used, which include (1) all standardized loadings (in PLS, outer loadings) that statistically exceeded the recommended value of 0.5 for each relevant research construct (Aldalaigan & Buttle, 2002; Anderson & Gerbing, 1988), the average variance extracted (AVE) of each construct is 0.5 or higher and the composite reliability (CR) value is 0.7 or higher.

It is important to note that LS4, SS1, SS9 and SS11 items were removed because their item loadings were less than 0.500; as a result, less than half of the variance was explained, and the thresholds of equivalent or higher than 0.500 were not met. The heterotrait-monotrait ratio (HTMT) of correlations was used to assess discriminant validity (Henseler, Ringle, & Sarstedt, 2015). A ratio of less than 0.85 between the two factors indicates discriminant validity (Henseler *et al.*, 2015). The results of the discriminant validity analysis are shown in Table 4.

In terms of discriminant validity, all the correlation coefficients of this study fell below 0.70, thereby confirming the theoretical uniqueness of each variable in this research (Field, 2013). In addition, discriminant validity was evaluated using the HTMT criterion (Table 4), despite recommendations from previous studies (Henseler, Hubona, & Ray, 2016; Verkijika & De Wet, 2018; Maziriri, Rukuni, & Chuchu, 2021), indicating that HTMT is more suitable to evaluate discriminant validity than Fornell-Larcker's commonly used criteria. When taking a more conservative position, discriminant validity is reached when the HTMT value is below 0.9 or 0.85 (Verkijika & De Wet, 2018; Neneh, 2019; Maziriri *et al.*, 2021). According to Table 4, the highest obtained HTMT value is 0.724, which is less than the conservative value of 0.85. As a result, all the constructs satisfy the discriminant validity criteria.

In terms of discriminant validity, all the correlation coefficients in this study fell below 0.70, confirming the theoretical uniqueness of each variable in this study (Field, 2013). Furthermore, despite previous research indicating that HTMT is more appropriate for evaluating discriminant validity than Fornell- Larcker's commonly used criteria (Henseler, Hubona, & Ray, 2016; Verkijika & De Wet, 2018; Maziriri *et al.*, 2021), discriminant validity was evaluated using the HTMT criterion (Table 4). Discriminant validity is achieved when the HTMT value is less than 0.9 or 0.85 when using a more conservative approach (Verkijika, & De Wet, 2018; Neneh, 2019; Maziriri *et al.*, 2021).

Structural model assessment

To test the relationship between endogenous and exogenous variables, the inner model structural model (Figure 2) was evaluated. The path coefficients were calculated using a non-parametric, boot-strapping routine with 261 cases and 5000 samples for the non-return model (two-tailed; 0.05 significance level; no sign changes) (Chin & Dibbern, 2010). (Two-tailed; 0.05 significance level; no sign changes). The model's fitness was evaluated using the

Research constructs	Item codes	Mean value	Scale mean	SD	Scale SD	Cronbach's test Item total	Cronbach's test α	CR	AVE	Factor loadings	VIF (outer) values
HFU	–	–	4.695	–	1.337	–	0.801	0.870	0.630	–	–
	HFU1	4.728		1.324		0.665				0.716	1.937
	HFU2	4.630		1.237		0.612				0.910	1.948
	HFU3	4.719		1.153		0.687				0.576	1.956
	HFU4	3.963		1.357		0.701				0.916	1.987
LS	–	–	4.105	–	1.185	–	0.793	0.790	0.560	–	–
	LS1	4.613		1.094		0.588				0.744	2.258
	LS2	4.251		1.398		0.621				0.743	2.161
	LS3	4.369		1.232		0.634				0.764	1.988
PWB	–	–	4.456	–	1.472	–	0.857	0.890	0.610	–	–
	PWB1	4.582		1.213		0.716				0.809	1.943
	PWB2	4.748		1.235		0.755				0.795	1.892
	PWB3	4.630		1.227		0.752				0.785	1.794
	PWB4	4.56		1.317		0.582				0.745	1.782
	PWB5	4.826		1.333		0.521				0.781	1.778
SS	–	–	4.351	–	1.321	–	0.887	0.900	0.530	–	–
	SS2	3.443		–		–				0.710	1.567
	SS3	3.624		1.262		0.723				0.768	1.633
	SS4	3.733		1.169		0.734				0.771	1.672
	SS5	3.832		1.189		0.785				0.745	1.983
	SS6	4.213		1.169		0.776				0.691	1.524
	SS7	4.344		1.399		0.757				0.713	1.570
	SS8	4.446		1.237		0.769				0.715	1.745
	SS11	4.467		1.165		0.737				0.720	1.926

Note(s): HFU = habitual Facebook usage; LS = life satisfaction; PWB = psychological well-being; SS = social safeness

Table 3.
Scale accuracy analysis

standardized root mean square residual (SRMR), with a good model having an SRMR value of 0.08 (Henseler *et al.*, 2016). Figure 2 shows structural model had an SRMR of 0.057, indicating an adequate level of model fitness. The R^2 values for the model's two endogenous variables (life satisfaction and psychological well-being) were 0.531 and 0.840, respectively, suggesting sufficient predictive accuracy of the structural model (Figure 2).

Assessment of the goodness of fit (GoF)

Overall, the R^2 values in Figure 2 for need for life satisfaction and psychological well-being indicate that the research model explains 53.1% and 84.0% of the variance in the endogenous variables, respectively. Tenenhaus, Vinzi, Chatelin, and Lauro (2005) provided the following formulae for calculating the global GoF statistic for the research model:

$$\begin{aligned}\text{Goodness of fit} &= \sqrt[2]{(\text{average of all AVEs values} * \text{average of all } R^2)} \\ &= \sqrt[2]{0.583*0.686} \\ &= 0.63\end{aligned}$$

where AVE represents the average of all AVE values for the research variables, while R^2 represents the average of all R^2 values in the full path model. The calculated global GoF is 0.63, which exceeds the threshold of GoF > 0.36 suggested by Wetzels, Odekerken-Schroder, and Van Oppen (2009). As a result, it is possible to conclude that the research model has a good overall fit.

Multicollinearity assessment of the outer model

A full collinearity assessment approach is used to detect CMB in PLS-SEM (Kock, 2015). variance inflation factor (VIF) values should be less than the 3.3 limit (Hair, Ringle, & Sarstedt, 2011; Kock, 2015). This suggests that the model is free of CMB. Any value greater than 3.3 indicates that CMB has an impact on the model. As a result, instead of reporting the collinearity issues in this work, the VIF values were computed using standard procedures in business research. VIF (outer) values for HFU (1.937 to 1.937), life satisfaction (1.988 to 2.258), Psychological well-being (1.778 1.943) and social safeness are reported in the SMART PLS 3 output (1.524 to 1.926).

Path model

The PLS estimation path coefficient values and the item loadings for the research construct are shown in Figure 4.

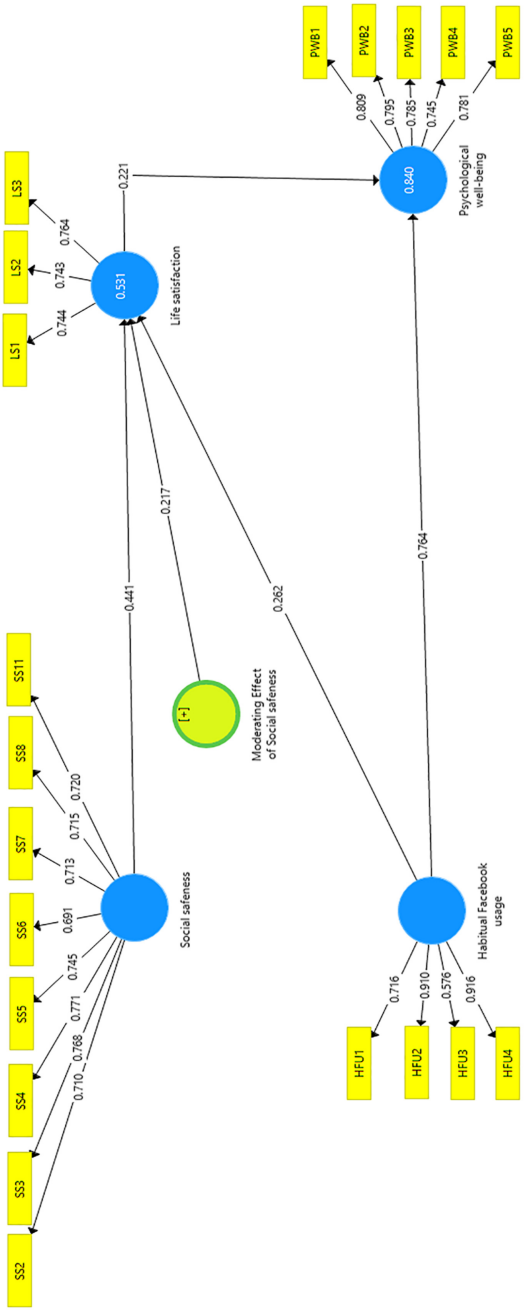
Hypotheses testing results

Following the evaluation and conclusion of the hypothesized measurement and structural model, the next step was to evaluate the cause-and-effect relationships among latent

Variables	HFU	LS	PWB	SS
HFU	1.000	–	–	–
LS	0.461	1.000	–	–
PWB	0.563	0.724	1.000	–
SS	0.537	0.713	0.487	1.000

Note(s): HTMT = heterotrait-monotrait-ratio, HFU = habitual Facebook use; LS = life satisfaction; PWB = psychological well-being; SS = social safeness

Table 4. Discriminant validity (HTMT)



Source(s): Calculated from survey results

Figure 4.
Structural model

variables using path analysis (Nusair & Hua, 2010). Furthermore, Nusair and Hua (2010) observe that SEM states that specific latent variables influence other specific latent variables with the model directly or indirectly, resulting in estimation results that depict how these latent variables are associated. Table 5 depicts the estimation results obtained through hypothesis testing for this study. The table displays the proposed hypotheses, path coefficients, *t*-statistics and whether or not a hypothesis is supported or rejected. According to Beneke and Blampied (2012), *t*-values indicate whether a significant relationship exists between model variables and path coefficients, demonstrating the model's strength. According to the literature, $t > 1.96$ indicates relationship significance, and higher path coefficients indicate strong relationships among latent variables (Chin, 1998; Chinomona, Lin, Wang, & Cheng, 2010). According to Table 5, H1 (= 0.262; = 2.333), H2 (= 0.764; = 17.280), H3 (= 0.221; = 3.709), H4 (= 0.441; = 9.431) and H5 (= 0.217; = 2.937) are significantly supported because the *t*-statistics are greater than 1.96.

Discussion of results

This study aimed to examine and validate the impact of HFU on life satisfaction and psychological well-being and to determine the impact of social safeness in moderating the relationship between HFU and life satisfaction. The statistical analysis also exposed that HFU positively and significantly impacts life satisfaction. This result suggests that HFU is instrumental in determining the life satisfaction of Generation Y students. These findings mirror the work of Valenzuela, Park, and Kee (2009) who found a positive association between intensity of Facebook use and students' life satisfaction.

The purpose of this study was to investigate and validate the impact of HFU on life satisfaction and psychological well-being, as well as to determine the role of social safeness in moderating the relationship between HFU and life satisfaction. According to the statistical analysis, HFU has a positive and significant impact on life satisfaction. This finding suggests that HFU plays an important role in determining the life satisfaction of Generation Y students. These findings are consistent with the findings of Valenzuela *et al.* (2009), who discovered a positive relationship between the intensity of Facebook use and students' life satisfaction. In addition, the statistical analysis revealed that social safeness moderates or strengthens the relationship between HFU and life satisfaction. This finding is consistent with findings from other international studies (Shah, Amjed, & Jaboob, 2020; Seyoum, Chinta, & Mujtaba, 2021) that have determined the moderating effect of the social safeness variable in various contexts. There is a lack of research on the moderating effect of social safeness on the relationship between HFU and life satisfaction. By broadening our understanding of social safeness as a factor that can stimulate HFU among the Generation Y cohort, this study adds new understanding or theoretical knowledge.

It is imperative to compare and contrast the results of the current study with the results of Maziriri's (2020) study. According to Maziriri's (2020) research, personal traits such

Hypothesis	Proposed hypothesis relationship	Beta coefficients (β)	*t*-statistics	*p*-values	Decision
H1	HFU → LS	0.262	2.333	0.020	Supported
H2	HFU → PWB	0.764	17.280	0.000	Supported
H3	LS → PWB	0.221	3.709	0.000	Supported
H4	SS → LS	0.441	9.431	0.000	Supported
H5	HFU*SS → LS	0.217	2.937	0.000	Supported

Note(s): Arrows signify the relationships between each construct to indicate the proposed hypothesis
Source(s): Calculated from survey results

Table 5.
Results of structural equation model analysis

neuroticism ($\beta = 0.451$; $t = 3.137$), extraversion ($\beta = 0.129$; $t = 1.973$), openness ($\beta = 0.331$; $t = 5.984$) and agreeableness ($\beta = 0.156$; $t = 1.994$) showed positive and significant effects on habitual Facebook usage. Additionally, Maziriri's (2020) research revealed that there was an insignificant relationship between conscientiousness and HFU ($\beta = 0.056$; $t = 0.803$). The current study discovered a strong and positive moderating relationship between HFU and life satisfaction ($\beta = 0.217$; $t = 2.937$). A favorable and substantial predictor of life satisfaction was also shown to be social safeness ($\beta = 0.441$; $t = 9.431$). The findings of the current study also showed that HFU positively and significantly influences psychological well-being ($\beta = 0.764$; $t = 17.280$) and life satisfaction ($\beta = 0.262$; $t = 2.333$). Also, life satisfaction positively and significantly impacted psychological well-being ($\beta = 0.221$; $t = 3.709$).

It is critical to understand how the moderating variable (social safeness) interacts with the relationship between HFU and life satisfaction. For example, if Generation Y students feel a sense of warmth, connectedness and belonging in current social relationships (social safeness), they will have a positive attitude toward life and be happy about their lives (life satisfaction). The interaction plot in Figure 5 provides a clearer picture of this relationship. The slope for the relationship between habitual Facebook usage and life satisfaction moderated by social safeness revealed that the relationship became stronger when social safeness was high (Figure 5). More specifically, as shown in Figure 5, when social safeness is high, the impact of HFU on life satisfaction is stronger. Life satisfaction increases with increased habitual Facebook usage, as shown in Figure 5. Individuals with a high level of social safeness experience a greater increase than those with a low level of social safeness.

Theoretical contributions

According to the current research findings, HFU has the greatest impact on life satisfaction, as indicated by a path coefficient value of 0.226. As a result, for academics working in the field of social media usage, this finding improves their understanding of the relationship between HFU and life satisfaction, and it adds to the existing literature on these two variables. Academics and practitioners can develop better strategies to support Generation Y students via social media or physical contact based on habitual Facebook usage and improved theoretical understanding of the various effects on psychological well-being. Theoretically, the current study develops a research model by assessing HFU as a prognosticator for life satisfaction and psychological well-being and social safeness as a moderator. The results demonstrate crucial causal nexus between life satisfaction and psychological well-being, which is necessary for supporting the ideology that computer-mediated communication via SNSs is an alternative way of improving social safeness.

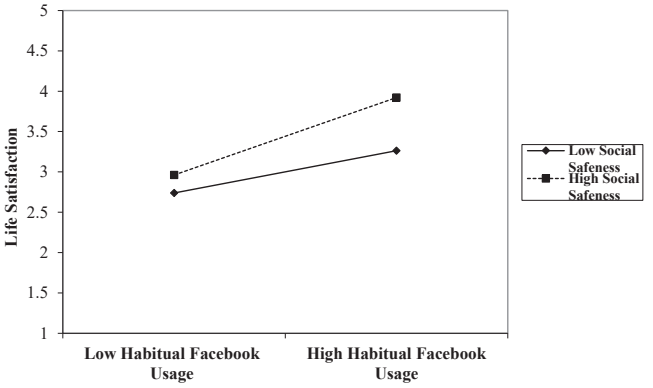


Figure 5.
Moderation effect

Practical implications

On the practitioner side, the findings of this study demonstrated the significant impact of life satisfaction on the psychological well-being of Generation Y students. As a result, this study contends that campus psychologists and campus counseling psychology interns who are responsible for providing psychological assistance to students can benefit from the implications of these findings by comprehensively understanding that Facebook use increases student satisfaction and, as a result, improves their psychological well-being. Furthermore, the current study's findings revealed that HFU has an impact on life satisfaction, as evidenced by a path coefficient value of 0.262, implying that campus or university leadership should provide Facebook access to encourage socialization among Generation Y students, as this ultimately improves their life satisfaction.

Policy implications with respect to Facebook users

There is the need for promotion of self-regulated behavior when habitually using social media platforms such as Facebook, paving room for reading, writing and attention to completion of academic tasks. Habitual use of Facebook can lead to the establishment of sustained connections, where the students can build networks with friends and relatives across the globe. It enhances the development in the proper usage of language from diverse countries, making students more multilingual in communicating with foreign counterparts. At any given time, university students can share assignments and examinations revisions, enhancing skills in a certain study area. Furthermore, students can get news update at any time since sharing can be done in real time exactly when the release is made. Connection becomes very easy, and access will be for free (via official mobile apps and website), although live streaming can be very expensive, due to high data costs in the African continent. In addition, students will be able to expose their hidden talents (posting micro vlogs dancing or singing) through habitual use of Facebook. Normally, creativity is enhanced, and innovation can be nurtured through the habitual use of Facebook. The students can explore job opportunities using this social media network platform, as companies normally post job adverts to potential candidates around the world. This depends on the processes involved at each stage of the student's habit development. The major aim for such a policy institutionalization will be to reduce the effects of bad habits, since they are hard to change due to cognitive information on the pervasive results which hardly affect the automatized Facebook behavioral scripts.

Limitations and directions for future research

The study's cross-sectional design is one of its limitations. As a result, future studies could use a longitudinal research design. This method will aid in investigating HFU behavior over time rather than in a single snapshot. Time-sensitive solutions can thus be implemented over a period. The findings, however, cannot be applied to Facebook users in other countries. New studies should include respondents from other countries and, ideally, cross-national studies comparing the HFU of different country samples. Another limitation is that the findings are not generalizable to non-student samples because the sample was made up of students. To generalize the results of the future study, non-students must be considered. It is also critical to validate the model with other generational cohorts, such as Generation X, which is less likely to be as technologically savvy as Generation Y. Furthermore, if a qualitative methodology had been used in this investigation, the quantitative nature of the examination could have produced more illuminating and extravagant information. Future studies may, as needed, investigate indistinguishable points from the current examination using a blended process technique (qualitative and quantitative) to improve the breadth of the examination results. Nonetheless, the limitations identified provide a starting point for future studies in the same

area of interest, as they provide general guidelines and suggestions for the proposed effects of HFU. Understanding the limitations mentioned above allows future studies to address or scrutinize the issues to broaden knowledge and improve understanding of this emerging yet exciting area of research.

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(The Appendix follows overleaf)

Appendix
Measurement scales

Habitual Facebook usage (Shava & Chinyamurindi, 2018a, b)

HFU1- I do not think I can limit myself on how I utilize Facebook.

HFU2- I am addicted to Facebook.

HFU3- I must use Facebook

HFU4- Using Facebook has become natural to me.

Life Satisfaction (Valenzuela *et al.*, 2009)

LS1-In most ways my life is close to my ideal

LS2-The conditions of my life are excellent

LS3- I am satisfied with my life

LS4- So far, I have gotten the important things I want in life

LS5-If I could live my time over, I would change almost nothing

Psychological well-being (Zeng, Guo, Lu, Han, Chen, & Ling, 2014)

PWB1- I have been cheerful and in good spirits

PWB2- I have been calm and relaxed

PWB3-I have been active and vigorous

PWB4-When I wake up, I feel fleshed and rested

PWB5- My daily life is filled with things that interest me

Social safeness (Akin & Akin, 2015).

SS1-I feel a sense of belonging

SS2-I feel secure and wanted

SS3-I feel accepted by people

SS4-I feel a sense of warmth in my relationships with people

SS5-I have a sense of being cared about in the world

SS6-I feel understood by people

SS7-I feel connected to others

SS8-I find it easy to feel calmed by people close to me

SS9-I feel easily soothed by those around me

SS10-I feel part of something greater than myself

SS11-I feel content within my relationships

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