From Pots to Phones: A Study of Nomophobia Among Catering Students

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Abstract

In recent times, the passage of time has led to rapid technological development worldwide. Various gadgets, such as smartphones, tablets, and laptops, have emerged in tandem with the swift pace of technological advancement. Nomophobia is the fear and anxiety experienced by an individual in the absence of a cellphone or smartphone. This clearly indicates that gadgets fulfill various needs and hold significance in society. However, the issue of gadget addiction, better known as Nomophobia, also persists in conjunction with the rapidly growing technology among students. Therefore, the main objective of this study is to identify the factors causing Nomophobia and to assess the level of Nomophobia among students pursuing a Bachelor of Vocational Education (Catering) at UTHM. The methodology of this study involves a quantitative approach, using a survey method with a questionnaire distributed to respondents through the Google Forms platform. The results revealed that the mean value for all factors causing Nomophobia level is high. Additionally, the mean value for the level of Nomophobia among Catering students also indicates a high level of interpretation. Thus, this study suggests a need for enhancing future research to raise awareness among students about the adverse effects of Nomophobia. Additionally, this research hopes to serve as a guide for future researchers conducting studies in different areas.

1. Introduction

In line with the development of the times, digital technology is also growing rapidly, especially in the use of smartphones. According to data from Statista, there were 6.92 billion smartphone users globally as of 2022, which is approximately 86.41 percent of the global population. In Malaysia, statistics showed that in 2016, 76.9 percent of Malaysians were using the Internet and 89.4 percent of them accessed Internet service via smartphone with 96.3 percent and 89.3 percent using it for communication and social networking respectively (Communications, 2017). Smartphones are so popular among users because of the convenience to daily life, including communicating with families at any place and time, paying online, listening to music, taking photographs, watching movies, playing games, editing documents, getting medical services, and much more (Sun et al., 2022). However, high dependency on smartphones contributes to certain side effects such as Nomophobia.

Nomophobia or better known as Nomophobia (No-Mobile phone- PHOBIA) in English is the fear and anxiety experienced by an individual when there is no mobile phone or smartphone. According to Farooqui, Pore and Gothankar (2018) individuals with Nomophobia problems will experience anxiety and improvement in the rate of thickening, heart rate, breathing as well as trembling, and changes in emotional behavior. Among the changes in emotional behaviour are panic, fear, dependency, depression, rejection, low self-esteem and loneliness. Then, Nomophobia also causes various negative effects such as non-effective communication and social relations among teenagers and young people during puberty (Bordbar, 2023). There is an abundance of research focused on the impact of Nomophobia. However, little data exists on the latent symptom structure of Nomophobia, and results are inconsistent. Other factors associated with Nomophobia include excessive smartphone use, low self-esteem, fear of missing out, smartphone addiction, neuroticism, consciousness, openness, anxiety, stress, life satisfaction, and well-being. To date, most research on Nomophobia has supported a four-factor structure involving the inability to access information, inability to communicate, losing connectedness, and giving up convenience, initially proposed by Yildirim and Correia (2015).

According to Jelleli et.al (2023), the Nomophobia Questionnaire (NMP-Q) has been developed and validated in different contexts, such as the Tunisian context based on Western Arabic dialects, and the German context (Coenen & Görlich, 2022). The NMP-Q assesses dimensions of Nomophobia, including not being able to communicate, losing connectedness, not being able to access information, and giving up convenience. The prevalence of Nomophobia is high among medical students, highlighting the need for intervention. For this research, a study by Mohd Bohari (2016), was adopted. Among the main factors mentioned by Mohd Bohari (2016) are the stable family economy, lack of control from parents, age-lapse factors, peer influence factors and fast Internet facilities.

Nomophobia is widely experienced by teenagers either at the higher education level or at the secondary school level (Durak, 2018). This situation can be felt when the individual involved is unable to communicate, disconnected, unable to access information, and unable to enjoy the facilities provided by today's smartphones (Yildirim & Correia 2015). Student's passion for using uncontrollable smartphones further invites the risk of Nomophobia. An increase in the behavior of Nomophobia can negatively affect academic achievement, motivation in the learning process, and relationships with family and peers (Durak, 2018). Due to the existing sophistication, smartphones are now considered a problem when used excessively and irresponsibly, better known as Nomophobia (Fauziah, 2017). These problems are becoming more and more worrying in the education sector, especially among students at the current higher education institution. Harist Islami, Derisma and Desta Yolanda (2022), found that university students generally perceive Nomophobia intervention and religious practices positively in helping to overcome Nomophobia. Additionally, research conducted among students with special needs in Bukit Tinggi, Indonesia showed that they experienced a moderate level of Nomophobia (Pamungkas, 2022). Liu et. al (2022) also found a significant but low positive correlation between Nomophobia and self-esteem levels among students in Malaysia, Mainland China, and Taiwan.

Moreover, smartphone addiction also affects mental health among university students (Mushtaq & Akhouri, 2016). The study showed there is a link between smartphone addiction and anxiety and depression. Several local studies have examined problems related to excessive smartphone usage such as Pang et. al (2023) which stated that the majority of private university students in Malaysia agree that they spend most of their time on their smartphones which can cause mental health problems. A study conducted by Yin et. al (2019) examined smartphone gadget addiction among university students. The study found that there is a strong significant relationship between smartphone usage and Nomophobia. The positive value of the Pearson correlation indicates that the higher the smartphone usage, the higher the Nomophobia, significantly. Yildirim (2018) noted the high use of smartphones mainly for inappropriate purposes such as browsing the Internet to watch useless videos, browsing immoral websites, and using smartphones to play online. Excessive use of smartphones also interferes with physical activity and cardiorespiratory fitness (Lepp, 2013). Most students also cannot stop using mobile phones permanently (Gonzalez & Carbera, 2017). The situation becomes more serious when the excessive use of smartphones is also associated with Nomophobia.

In Malaysia, Saleh et al. (2020) found that 85.6 percent of undergraduates had moderate to severe levels of Nomophobia, whereas Samsudin et al. (2021) found that 51 percent of undergraduates had Nomophobia. Nomophobia, the fear of being without a mobile phone, has been studied among university students in Malaysia, and the findings suggested that Nomophobia is present among university students and students with special needs in Malaysia (Pang et. al, 2022). A previous study by Salleh et. al (2020) from UiTM Selangor Puncak Alam campus also found that the majority of the students from faculty of health and sciences have a moderate level of Nomophobia. Then, a study among medical colleges in Malaysia found that higher prevalence of Nomophobia among medical students thereby indicating their excessive mobile phone dependence is an issue of concern and could impact the mental and physical health of students (Samsudin et. al, 2021). Hence, there is a gap in the prevalence of Nomophobia toward other students.

As for this study, it will involve students from the Bachelor of Vocational Education Catering program. This program aims to provide future talent for the Food and Beverage industry which is one of the booming industries

in Malaysia it is reported that the industry has seen an increase in the demand for workers, with the number of employees rising from 891,616 in 2015 to 958,803 in 2017 (Norizan et al., 2022). Nevertheless, one situation indicates that this sector has relied heavily on the migrant worker, especially in the café segments (Yee & Yuen, 2014), and as time goes by the demand for workers in this industry is still facing challenges that include a limited number of skilled workers (Husin et al., 2021). In this study, all the respondents are considered to be the future talent for this industry with the majority of respondents in their final year of study. Though their readiness to be employed in the

The F&B industry is not within the scope of the study; it is still crucial to identify their attitude in terms of technology dependencies which may affect their quality of work. However, it cannot be denied that for service industries such as the F & B industry, it is crucial for workers to have good knowledge and skills in technologies as traditional serving is demanding technological intervention such as e-canteen (Hasanuddin et al., 2020), digital menu design (Md Sahak et al., 2022) and so forth. This influence of technology has led to a high level of technology dependency among catering students (Winanti & Ahadi, 2022). Therefore, the objective of this study is to examine in more depth the factors that cause Nomophobia and identify the level of Nomophobia among Technical and Vocational Education (Catering) bachelor's degree students in Universiti Tun Hussein Onn Malaysia.

2. Methodology

This study employs quantitative research and uses a descriptive survey method to answer the research questions. Quantitative data gathering survey utilizing a Google Form questionnaire to collect data and information for the sample collected. The survey method means the selection of many respondents from a randomly selected population and using a sample for data collection. The population of this study involved 198 Bachelor of Vocational Education Catering students. This group was selected in this study due the thriving industry in Malaysia's current economic sector and its significant contribution towards the country's Gross Domestic Product. Thus, it is crucial to investigate the future talent for this industry. The sample size for this study was determined using the table of Krejie and Morgan (1970), which included a total of 132 individuals.

In this study, the questionnaire was adopted and adapted from Mohd Bohari (2016) consisting of three-part questionnaires, designated A, B, and C. Part A is the demographic data of the respondents. Parts B and C consist of 5-point Likert scale were employed to determine the factors of the occurrence of Nomophobia among UTHM Bachelor of Vocational Education (Catering) students and Part C was designed to identify the level of Nomophobia among UTHM Bachelor of Vocational Education (Catering) students. For the reliability test, the value of Cronbach Alpha should be more than 0.65 as mentioned by Wei and Abdullah (2017). A pilot study was done on 30 students from the Catering program and the value of Cronbach Alpha for items in Part B ranged from 0.703 to 0.902 and items in Part C were 0.877 which is more than 0.65.

To ensure the objectives of the study are achieved, the instrument used is a questionnaire so that the data is obtained according to the aspects desired by the researcher. Questionnaire forms were also chosen because the data obtained was more consistent than other methods. Respondents are required to answer all questions based on the Likert Scale that has been set. To facilitate the researcher's analysis of the data, the Statistical Package for the Social Science (SPSS) version 25 was used.

3. Results and Discussion

Present the results of the study findings obtained through a questionnaire instrument conducted on the targeted group of respondents. The findings of this study were analyzed with a descriptive description to see the frequency, percentage, and mean for each part of the instrument to achieve results on the objectives of the study outlined. The findings of this study are also presented simply and clearly and displayed in the form of tables and graphs to facilitate more effective understanding and description.

3.1 Demographic Information

Based on the analysis, male students showed a total of 26 students which is (19.7%) while the female students who answered this questionnaire were 106 people which is (80.3%). Most of the respondents were aged 20 to 24 years old, which is 87%. Only 17 people from the total respondents were aged 25 to 29 years old. All of these students came from four cohorts from Cohort 14 to Cohort 18. The majority of the respondent were from Cohort 14 with 34 people (25.8 %), followed by Cohort 16 with 33 people (25%), Cohort 18 with 21 people (15.9 %), Cohort 17 with 24 people (18.2 %) and the least is respondent from Cohort 15 with 20 people (15.2 %). Table 1 shows the analysis of demographic information for each item.

Table 1 *Demographic data*

No	Item	Frequency	Percentage
1	Gender		
	Male	26	19.7%
	Female	106	80.3%
2	Age		
	20 - 24 years	115	87%
	25 - 29 years	17	13%
3	Cohort		
	Cohort 14	34 people	25.8 %
	Cohort 15	20 people	15.1 %
	Cohort 16	33 people	25.0 %
	Cohort 17	24 people	18.2 %
	Cohort 18	21 people	15.9 %
	Total	**132**	**100%**

3.2 Level of Nomophobia Factors Among Culinary Students

Based on the analysis for the first factor, stable family economic factors, the item with the highest mean score is item B1 (M=4.73;SD=0.580). This item focused on the family's stable economic factors that caused students to have their own gadgets. The lowest mean score goes to item B2 (M=4.46;SD=0.585) that focused on parent's excess income that caused them not to mind buying unnecessary items including sophisticated gadgets. Overall, this factor shows a high mean score in becoming the nomophobia factor among culinary students (M=4.56;SD=0.326). Table 2 shows the analysis of mean score for each item of factor stable family economic factor.

Table 2 *Analysis of factors that cause nomophobia (stable family economic factors)*

No	Item	Mean	Standard deviation	Interpretation
B1	I found that the family's stable economic factors caused me to have each of my own gadgets.	4.73	.580	High
B2	I found that my parents' excess income has caused them to not mind buying non-necessary items for their children such as sophisticated gadgets	4.46	.585	High
B3	I found that my parents did not care about the price of the electronic goods that I bought.	4.45	.658	High
B4	I found that my parents had given me so much spending money that I used it to buy fancy gadgets.	4.47	.659	High
B5	I found that the number of my family members is not too many, so my parents are able to give me luxury.	4.50	.636	High
	Mean Min	**4.56**	**.326**	**High**

Analysis for the second factor, lack of parental control, indicates that item B4 has the highest mean score among all the items (M=4.58; SD=0.495). This item focuses on parents who did not forbid students to go anywhere meaning that students are free to go anywhere without restriction. Meanwhile, item B5 shows the lowest mean score (M=4.54; SD=0.558) among the items. This item stated that parents never monitor the use of personal gadgets that the student owns. Overall, this factor shows a high mean score as well (M=4.53; SD=0.315). Table 3 shows the analysis for each item in the factor of lack of parental control.

Table 3 *Analysis of factors that cause nomophobia (lack of parental control)*

No	Item	Mean	Standard deviation	Interpretation
B1	I found that my parents did not care about my daily activities.	4.55	.529	High
B2	I noticed that my parents spend more time at work than at home.	4.55	.529	High
B3	I noticed that my parents never asked about my problems.	4.56	.542	High
B4	I found my parents didn't forbid me to go anywhere.	4.58	.495	High
B5	I found that my parents never monitor the use of personal gadgets that I own.	4.54	.558	High
	Mean Min	**4.53**	**.315**	**High**

Based on analysis for the third factor, the highest mean goes to item B3 with a mean of 4.63 (SD=0.485). This item focuses on the preference to spend time with gadgets because it has various sophisticated applications. The lowest mean score for this factor is item B2 (M=4.58; SD=0.568) which focuses on curiosity about the advantages of a gadget that leads to addiction. Overall, this factor has a high mean score of 4.59 (SD=0.302). Table 4 shows the mean score for each item for factor passage of time.

Table 4 *Analysis of factors that cause nomophobia (passage of time)*

No	Item	Mean	Standard deviation	Interpretation
B1	I like to keep up with the latest developments in owning gadgets.	4.59	.579	High
B2	I found that curiosity about the advantages of a gadget led me to become addicted to owning that gadget.	4.58	.568	High
B3	I find that I prefer to spend time with gadgets because they have various sophisticated applications.	4.63	.485	High
B4	I find that I have been using gadgets excessively because I am too obsessed with the sophistication of gadgets these days.	4.58	.553	High
B5	I found myself willing to spend the money I had to get the gadgets I wanted.	4.61	.521	High
	Mean Min	**4.59**	**.302**	**High**

Based on the analysis, the highest mean score for an item under the factor of peer influence is item B4 (M=4.67; SD=0.473). This item is mentioned to compete with friends to have more sophisticated gadgets. Meanwhile, item B5 has the lowest mean score among all the items (M=4.51; SD=0.648) that focus on using social media to upload to social sites with peers to have fun. Overall, this factor shows a high mean score upon analysis (M=4.59; SD=0.276). Table 5 shows the mean score for all items in the factor of peer influence.

Table 5 *Analysis of factors that cause nomophobia (peer influence)*

No	Item	Mean	Standard deviation	Interpretation
B1	I find that I spend more time with my peers than with my family.	4.65	.478	High
B2	I find that I will be more influenced by the things that their friends have and want to have them too.	4.59	.494	High
B3	I found that I would get excited when I heard about the sophistication of the gadgets that my friends had.	4.58	.525	High
B4	I would compete with my friends to have more sophisticated gadgets.	4.67	.473	High
B5	I will use social media such as Tik Tok, Live Facebook, Instagram to upload to social sites with my peers to get fun.	4.51	.648	High
	Mean Min	**4.59**	**.276**	**High**

For the final factor, the item that shows the highest mean score is item B3 (M=4.60; SD=0.492) which focuses on using the fast internet facility to browse desired websites more easily. Then, item B5 shows the lowest mean score (M=4.50; SD=0.704) and focuses on spending more money to keep the internet network accessible fast. Overall, the factor of easy and fast internet convenience shows a high mean score as a Nomophobia factor among catering students (M=4.56;SD=0.326). Table 6 shows the mean score for each item in the factor of easy and fast internet convenience.

Table 6 *Analysis of factors that cause nomophobia (easy and fast internet convenience)*

No	Item	Mean	Standard deviation	Interpretation
B1	I find it easier for me to access the Internet wherever I am.	4.59	.509	High
B2	I would be more comfortable playing with gadgets if I was in an area with high-speed Internet.	4.59	.592	High
B3	I will use this fast Internet facility to browse the desired websites more easily.	4.60	.492	High
B4	It will be easier for me to use the Internet network because the service is cheap to be owned by all groups.	4.53	.572	High
B5	I spend more money to keep my Internet network accessible fast.	4.50	.704	High
	Mean Min	**4.56**	**.326**	**High**

Overall, all the factors studied in this study show high mean scores. The highest mean score goes to the passage of time, peer influence (M=4.59; SD=0.276), and passage of time (M=4.59; SD=0.302), followed by easy and fast internet convenience (M=4.56; SD=0.326) and stable family economic (M=4.56; SD=0.326) and lastly lack of parental control (M=4.53; SD=0.315).

4. Discussion

Nomophobia is a psychological state in which people get anxious or fearful of being disconnected from their mobile phones (Jelleli et al., 2023). According to the definition, this form of phobia only affects those who are extremely hooked to their mobile phones, particularly students, as 21st-century education relies upon technology. Thus, the purpose of this study was to objectively determine the extent of Nomophobia among students based on a variety of factors. There are four factors focused on, in this study namely stable family economic, lack of parental control, passage of time, peer influence, and easy and fast internet convenience.

According to the analysis, all the indicators have a high value for Nomophobia among students, indicating that kids are prone to Nomophobia and require intervention (Oknita et al., 2023). Demographically, the respondents in this survey are bachelor's degree students aged 20 to 23 years old, and they all own a cell phone. They are also the generation that is immersed in and dependent on technology in their daily lives. As Indira et al. (2023) noted, the Z generation of students, who are considered digital natives, use smartphones excessively, which contributes to nomophobia. Studies on nomophobia have found that a high percentage of pupils use mobile phones. This includes research by Popović et al. (2022), which found that more than 60% of polled students admitted to being addicted to their mobile phones. As a result, it is reasonable to assume that the responder suffered from Nomophobia to varying degrees. A study by Saleem et al. (2022) found that students exhibited varying levels of Nomophobia, with 51.5% having moderate Nomophobia (NMP) and the remainder having severe nomophobia. Similarly, Wahyuni (2022) found that more than half of medical students have mild Nomophobia, with 5-20% having severe Nomophobia.

Moreover, peer influence is the most crucial component in generating nomophobia among students, out of the four factors assessed. To achieve peer acceptance, children often compete over who has the most advanced technology. People seek to follow current trends in order to fit in with the group and are so influenced by their peers. The tendency to follow classmates may indicate low self-esteem in students, and persons with low self-esteem are more likely to be Nomophobic (Vagka et al., 2023). Nonetheless, past research found inconsistent results when it comes to peers as causes of nomophobia, with Oknita et al. (2023) reporting that ignoring discussion partners and opting for isolation has become the factor instead. It has also been observed that nomophobia is positively related to the fear of missing out (FOMO), which has been linked to negative interactions with social networking sites (SNSs) (Basarmak et al., 2020). Overall, peer interactions have a significant impact on nomophobia levels in young people, and interventions aiming at improving social and metacognitive skills may help lower nomophobic behavior (Moreno-Leon et al., 2018).

Furthermore, the passage of time is also one of the most important factors. This factor has the same level as the previous factor, but with a more scattered relation to the mean. Given how engaging and intriguing digital content is available, it is easier to become addicted to using the internet. Bartwal & Nath (2020) study found that 40.4% of respondents utilize social media to pass the time. Students were also shown to suffer from Nomophobia as a result of their fascination with social media (Copaja-Corzo et al., 2022), which was caused by excessive mobile phone use. Thus, one could claim that the availability of social media exacerbates the anxiety. Nowadays, teenagers communicate more through social media than in person. The internet platform had become cost-effective and without constraints.

With no limitations and a low cost, the internet platform has become their primary social platform of choice for engagement. This causes addiction among them, which leads to Nomophobia. The younger generation has likewise evolved into a visual generation that is fiercely dedicated to the visual approach. According to reports, Malaysia's Generation Z are visual learners who prefer active learning activities that are technologically inclined (Othman et al., 2021). Furthermore, the material available on the internet is vast and borderless, making it even more intriguing to explore while wasting time doing nothing else. Thus, over time, surfing the internet became a constant way to spend time, leading to mobile phone addiction. Several experts have identified mobile phone addiction as one of the causes of Nomophobia. Excessive smartphones use owing to Nomophobia can develop into addiction, which can induce social anxiety, short-term memory loss, and an inability to learn readily (Sulistiyani et al., 2022).

Lack of parental control is the lowest Nomophobia factor identified in this study. This is expected given that the pupils are young adults who do not require parental approval. They are free to use their mobile phones without interference from their parents or other adults. Nonetheless, the level remains high based on the results. According to Abdulelah's research, students who live outside the family home have a higher level of nomophobia than those who live with their family. However, this survey also demonstrates a high level of easy and rapid online convenience. The availability of the internet, particularly in metropolitan areas, has made using it more convenient and fun. Interestingly, Copaja-Corzo et al. (2022) revealed that having a mobile internet data plan was one of the factors contributing to Nomophobia among students. Even though the students are young adults, they must maintain self-control when using the internet to avoid becoming addicted. There are also cost constraints while utilizing the data plan, resulting in another high level of Nomophobia elements in this study, which is the stability of family economics. This economic stability mostly influenced the availability of data plans for students

to use the Internet. Research has indicated that a country's socioeconomic position and demographic features can influence the development of Nomophobia (Moreno-Leon et al., 2018). This result implies that economic considerations, such as the availability and price of mobile internet services, can influence the onset and severity of nomophobia.

Despite all this, the dependency on technology should not be treated as a threat to the students. With correct thinking skills such as Computational Thinking skills, students' digital technology skills can be enhanced, particularly in menu design and cost planning which in return, reduce their technology dependencies **(**Chen et al., 2021). Further research is required to understand the effect, impact, and intervention of Nomophobia among students as this field is relatively new and is not fully explored yet (Kartik V. et al., 2022; Sunny Martina et al., 2024). This opens up a vast opportunity for any intervention that is plausible in reducing Nomophobia among students which is still lacking at the moment (Rehman & Singh, 2022). Meanwhile, most of the studies on Nomophobia were conducted with medical students. This study presents a novel perspective on nomophobia among catering students. Because the food and beverage industry is so large around the world, it is critical to ensure the performance of its future workers, especially in an age where the internet has become the primary mode of operation for any business. It is beneficial to acquire knowledge and abilities in new technology, but being hooked on it may have detrimental consequences, as previously described.

5. Conclusion

In summary, the purpose of this study was to gather information for a more thorough investigation into the phenomenon of nomophobia among UTHM Bachelor of Vocational Education (Catering) students. This study demonstrates that the mean score is at an elevated level. As a result, this study has provided information based on the objective: of determining the level of Nomophobia among Bachelor of Technical and Vocational Education students (Catering) UTHM. Finally, the researcher hopes that all parties, particularly students, would utilize this study as a guide to avoid encountering the problem of Nomophobia. Furthermore, the researcher hopes that future researchers might use this study as a reference source, allowing them to develop more fascinating and distinctive research findings**.**

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Conflict of Interest

The authors declare that there is no conflict of interest regarding the publication of the paper.

Author Contribution

The authors confirm their contribution to the paper as follows: **study conception and design:** *Siti Hajar Zakariah, Nor Hidayah Hamdan;* **data collection:** *Nur Danisyah Rosdi;* **analysis and interpretation of results:** *Nor Hidayah Hamdan, Siti Hajar Zakariah, Nur Danisyah Rosdi;* **draft manuscript preparation:** *Siti Hajar Zakariah, Nor Hidayah Hamdan. All authors reviewed the results and approved the final version of the manuscript.*

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