

# **Distracted in the Digital Age: Unveiling Cyberslacking Habits Among University Students**

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***Abstract:*** *The integration of digital devices into educational contexts has become pervasive in an era characterised by fast technological innovation. However, the integration of internet connectivity as a tool to enhance the educational experience presents challenges for both university learners as well as educators that go beyond the traditional boundaries of the classroom. One notable difficulty involves the inclination of students to shift their focus towards things unrelated to their academic pursuits, sometimes referred to as “cyberslacking.” Within the realm of education, this phenomenon pertains to the utilization of technology for non-academic endeavors. The objective of this study is to examine students’ cyberslacking continuous behavior in the context of online classrooms. The study sample comprised 387 undergraduate students who were assessed for their engagement in cyberslacking behaviours. PLS-SEM is employed for the analysis of data through the utilisation of an online survey methodology. The results of the study suggest that factors such as addiction, development, and rehabilitation have a crucial role in predicting ongoing cyberslacking behaviour. Furthermore, deviance was found to influence students’ cyberslacking intentions. The findings of this study lend considerably to our understanding of the pervasive cyberslacking behaviours of Malaysian university students. These findings not only cast light on the factors influencing the continuous*

*engagement in cyberslacking, but also offer valuable insights to the broader academic community, including researchers and educators who are interested in establishing effective policies and interventions to tackle the problem of Internet abuse in educational environments. The discussion encompasses the theoretical and practical consequences of the findings.*

**Keywords:** *cyberslacking; elearning; video conference; students, higher education*

## 1. INTRODUCTION

In today's highly wired world, the Internet and other digital technologies are embedded in nearly every aspect of daily life, fundamentally altering the ways in which people communicate, collaborate, access and use information. While this digital transformation has provided unparalleled convenience and connectivity, the omnipresence of the Internet has led to excessive non-productive behavior: cyberslacking. Cyberslacking, sometimes referred to as cyberloafing, pertains to the act of participating in computer-based activities unrelated to work, which may result in the misuse of the Internet and the manifestation of cyber deviant behavior (Rana et al., 2019).

The impact of the worldwide COVID-19 epidemic on the phenomenon of cyberslacking is unquestionable and enduring (do you need to quote here?). The occurrence triggered an unparalleled revolution in the realm of education, prompting a significant transition towards the utilisation of remote and online learning methods. The long-lasting consequences of the pandemic have generated a widespread need for the digitalization of educational instructional approaches, resulting in educators becoming immersed in the domain of online classrooms and real-time class sessions facilitated by videoconferencing platforms. Consequently, the conventional classroom setting was replaced with a novel kind of virtual education. In response to the situation, educators expeditiously embraced online platforms and videoconferencing technology as a means to ensure the uninterrupted progression of teaching and learning activities. However, this change ran into several issues, including the advent of cyberslacking in the setting of digital classrooms.

In the realm of education, the term “cyberslacking” applies to the utilisation of technology for reasons unrelated to academic pursuits. This phenomena occurs when students divert their attention from academic obligations and instead participate in non-academic online activities while actively engaging in formal educational sessions. The increasing accessibility of many digital distractions such as social media, email, online shopping, and other online activities has become increasingly prominent during synchronous online classes. For educators, the integration of academic and digital environments posed unfamiliar terrain in their efforts to address cyberslacking. The absence of a physical educator to oversee students’ behaviour during online sessions is anticipated to result in an increase in the occurrence of cyberslacking behaviours among students (Koay & Poon, 2023).

Scholarly articles discussed, the issues of cyberslacking have been widely discussed but there remains a substantial gap in understanding the intricate interplay between contextual variables and their impact on cyberslacking conduct. A wide range of research studies have been undertaken to examine the prevalence and ramifications of cyberslacking focusing on the influences that contribute to students’ engagement in non-academic online activities while attending classes. This phenomenon highlights the necessity for more comprehensive and culturally attuned investigations within this domain. Several research works have employed theoretical frameworks such as Social Cognitive Theory (SCT), Theory of Planned Behaviour (TPB) and Big Five Personality Traits to understand the psychological factors influencing cyberslacking (Simanjuntak et al., 2022; Sığircıkoğlu & Güğerçin; Koay & Poon, 2023 and Rana et al., 2019). However, more diverse and nuanced theoretical perspectives are needed to understand this phenomena. Integrating ideas from digital sociology, for example, or investigating the impact of motivational theories particular to online contexts, might give a fuller understanding of why students participate in cyberslacking. Simultaneously, cyberslacking happens in a wide range of educational contexts, from traditional classrooms to online courses and hybrid models. There is, however, a dearth of contextual knowledge of how various educational modalities impact the incidence and type of cyberslacking.

Likewise, studies have been undertaken to investigate the different factors that influence involvement in cyberslacking, recognizing its significance,

yet many look from the perspective of organizational employees (Baskaran et al., 2019; Koay et al., 2022; Tsai, 2023). Nonetheless, comprehensive information is still lacking on the incentives that drive students to continuously engage in cyberslacking conduct. According to Shetty et al. (2020), students who participate in online classrooms encounter heightened possibilities for diversions, such as engaging in shopping, gaming, and accessing online content unrelated to their academic responsibilities. The presence of these distractions can significantly impact students' academic performance by redirecting their focus away from the educational content and impeding their active involvement in the learning process (Metin-Orta & Demirtepe-Saygılı, 2023, Neuwirth et al., 2020). The distraction behavior also has been linked to poor academic performance and procrastination behaviours (Wu et al., 2021), and previous research has primarily focused on demographic variables, individual factors, and the use of information technologies in the classroom (Simanjuntak et al., 2019).

The objective of this study was to examine the prevalence of cyberslacking in a Malaysian university context, with a specific focus on the influence of multifaceted behaviors such as development, recovery, deviance, and addiction. The ensuing sections of the paper are organised in the following manner. The following section presents and reviews educational cyberslacking literature. Section 3 offers a thorough explanation of the methodological framework utilised in the present investigation. The results of structural equation modelling are presented after a discussion of the data collection method and validation of the proposed study model. The concluding section of this study examines the results in relation to existing scholarly works and discusses the potential implications for theory, practise, and the field of technology-enhanced learning. Ultimately, the potential areas for further study are carefully considered.

## **2. LITERATURE REVIEW**

### **2.1 Cyberslacking**

The phenomenon of cyberslacking within the educational sphere has garnered significant interest in recent times, owing to the rapid expansion of digital technology and the extensive integration of online learning platforms.

The growing dependence of educational institutions on technology for instructional purposes has given rise to a significant concern over students' involvement in non-academic online activities during class time.

A variety of factors contribute to the prevalence of cyberslacking in the online classroom. The ease of access to digital devices e.g. smartphones and laptop computers has made it easy to indulge in online diversions. Furthermore, the allure of social media and the desire to stay in touch can be powerful motivators for students to engage in cyberslacking. A study by Rana et al. (2019), students' inclination to engage in cyberslacking is contingent upon various factors, including their attitudes towards cyberslacking, the expectations set by their peers, their perceived level of control over the behaviour, the perceived risk of facing adverse consequences, and their desire to seek respite from the classroom environment. The same study also found that insufficient attention, course content, and being diverted by others were among identified indicators of attitudes towards cyberslacking. A study by Hanif, Abdul Hamid, Khurshid, and Butt (2022) unveiled the underlying aim for cyberslacking. Some of the findings from this study revealed that the intention to engage in cyberslacking is influenced by the individual's attitude and desire to escape from academic responsibilities. A study from the Indonesian context by Margaretha, Monalisa, Mariana, Junita & Iskandar (2022) revealed that there is a significant relationship between one's ability to effectively engage in media multitasking and the level of self-regulated learning, in relation to engaging in cyberslacking activities, yet the distraction does not impact the performance of the students. This implies that students who exhibit challenges in maintaining focus, demonstrate disinterest in the subject matter, or are susceptible to distractions from their peers are more inclined to possess a favourable disposition towards engaging in cyberslacking.

## **2.2 Cyberslacking Behaviour**

Doorn (2011) proposed a classification paradigm that defines cyberslacking behaviours into four distinct types: Development behaviour, Recover behaviour, Deviant behaviour, and Addiction behaviour. This categorization underscores the diverse motivations and intentions driving cyberloafing activities among students.

## **2.2.1 Development Behavior: Skill Enhancement**

Development behaviour can be defined as the practice of considering online browsing as a potential source of learning. According to Doorn (2011), development behaviour adds an intriguing dimension to the concept of cyberslacking. It implies that not all instances of cyberslacking are distractions or detrimental to academic or professional endeavours. In fact, development behaviour recognises that some students may participate in online activities during class time with the intention of gaining additional skills or knowledge. Although ostensibly tangential to the immediate academic context, these activities may represent students' efforts towards self-development and skill acquisition (Doorn, 2011). This category suggests that not all instances of cyberslacking are inherently harmful and might potentially have educational benefits by expanding students' range of skills. As Doorn (2011) highlighted that development behaviour reflects the intention to cyberslacking, Yaşar & Yurdugül (2013) however suggested that development behaviour was found to be insignificant, and therefore did not contribute to one of the reasons to cyberloafing activities. Contrary to this, Mumu et al. (2022) highlighted that there is an association between patterns of student internet usage with continuous intention to cyberslacking. Furthermore, development can also be attributed to the rate of creativity. As mentioned by Tsai (2023), cyberloafing by employees is a strong predictor of creativity and proactive behaviour. Consequently, the hypothesis was formulated as:

H1: Development behaviour has a positive relationship towards continuous behaviour in cyberslacking

## **2.2.2 Recover Behavior: Recuperation**

The concept of recovery behaviour pertains to students engaging in activities aimed towards recuperation while participating in educational endeavours, sometimes resorting to internet diversions. The phenomenon of cyberslacking indicates that students may employ short online intervals as a means of relaxation or stress alleviation, with the intention of replenishing their cognitive capacities (Doorn, 2011). Although appearing to be contradictory, this highlights the notion that students may perceive these online diversions as a method to enhance their overall concentration and welfare.

According to Doorn (2011), recovery behaviour basically considers the student's wellbeing. Cyberloafing can ease discomfort while improving learning and teaching. It can be thought of as a means of recovering from educational pursuits. Yaşar & Yurdugül (2013) proved that recovery behaviour was statistically negligible, and it is therefore acknowledged that recovery behaviour was not the cause of students' propensity for cyberloafing. Nevertheless, according to Krishna & Agrawal (2023), cyberloafing activities can be used as a coping mechanism to release tension and boredom. Thus, the following hypothesis was developed:

H2: Recovery behaviour has a positive relationship towards continuous behaviour in cyberslacking.

### **2.2.3 Deviant Behavior: Rule-Breaking**

Deviant behaviour refers to a range of actions that entail the intentional violation of established norms and regulations within a classroom setting, specifically focusing on cyberslacking behaviours. The aforementioned form of cyberslacking has a detrimental impact on the educational setting and serves as an indication of students' lack of respect for established educational conventions (Doorn, 2011). The investigation of deviant cyberslacking behaviours can provide valuable insights for educators in comprehending the underlying elements that contribute to such acts of noncompliance. This research can further assist in developing effective measures aimed at upholding discipline within the classroom setting. In a study by Yaşar and Yurdugül (2013), deviant conduct did not have a substantial impact on the continued engagement in cyberslacking. Furthermore, Sharma (2020) posited that the influence of consumerism on the neutralisation technique may be a contributing factor to the manifestation of deviant conduct in the context of continuous cyberslacking. Utku (2020) posits that employees may engage in deviant behaviour in the workplace as a strategy to address the difficulties they face.

Consequently, the formulation of the hypothesis follows:

H3: Deviant behaviour has a positive relationship towards continuous behaviour in cyberslacking.

## **2.2.4 Addiction Behavior: Compulsive Engagement**

Addiction behavior, which reflects a more compulsive and problematic dimension of cyberslacking. This category involves students who engage in online distractions compulsively, often to the detriment of their academic performance and overall well-being (Doorn, 2011). Addiction behavior underscores the need for interventions to address excessive online engagement, which can have severe consequences for students' educational outcomes and personal lives. This behaviour may be brought on by a habit of cyberloafing and may lead to problematic behaviour (Doorn 2011). Yaşar & Yurdugül (2013) highlighted that although the behaviour of addiction was statistically insignificant, it is established that addiction is one of the factors that contributes to a tendency for cyberloafing. It is undeniable that when addiction levels rise, correspondingly increases the propensity for engaging in cyberloafing activities. This finding was similar to studies conducted by Gökçearsan et al. (2018) and Gökçearsan, MumcuHaşlamam & Çevik (2016). Both studies agreed that smartphone addiction contributes to the cyberloafing activities. In addition, Beri & Gulati (2022) mentioned that students' cognitive resources are depleted by cyberloafing because of time loss and lack of focus, which could otherwise be employed for classroom instruction. Thus, the following was hypothesized:

H4: Addiction behaviour has a positive relationship towards continuous behaviour in cyberslacking.

## **3. RESEARCH DESIGN**

### **3.1 Procedure and Sampling**

The current investigation employed a quantitative research technique, employing a survey questionnaire to evaluate each variable. The process of data gathering encompassed the distribution of questionnaires to undergraduate students enrolled at a public institution in Malaysia. Using purposive sampling, to assure the pertinence of the replies to our study inquiry about cyberslacking in the context of online classes, two distinct criteria were employed for the inclusion of participants. Initially,

there was a requirement for the participants to be actively registered as undergraduate students at a university. The inclusion of these criteria was crucial in order to facilitate their capacity to engage with inquiries pertaining to the phenomenon of cyberslacking within the context of an online educational setting. Furthermore, each participant was required to have their own computer and access to the Internet throughout their courses. The inclusion of these criteria was enacted to ensure that all participants were operating within comparable technological circumstances, hence preserving consistency within the research setting.

From the 396 questionnaires collected from Malaysian undergraduate students, 387 responses were deemed suitable for inclusion in this study. Responses that exhibited straight-lining, outliers, or incompleteness were omitted from the analysis.

### **3.2 Measures**

The survey scales used in this investigation were developed from well-known and reliable research instruments that had previously been published in academic journals. The items' measurements were conducted using a Likert-type scale with five points, ranging from 1 (indicating 'Strongly Disagree') to 5 (indicating 'Strongly Agree'). The four constructs pertaining to cyberslacking behavior, including recovery, deviance, addiction, and development, were derived from the research conducted by (Yaşar & Yurdugül, 2013) and afterward applied to the context of Malaysia. Three items were used to measure each of the structures. The concept of cyberslacking continuous behavior was derived from the research conducted by Sharma (2020). Two academic professionals and fifteen students pre-tested the surveys. Additional changes were made to improve clarity based on their suggestions.

### **3.3 Ethical considerations**

The researchers took measures to ensure that the respondents were adequately informed of the context and objectives of this study. The participants were also guaranteed that the information they provided in the survey would remain confidential.

### **3.4 Common method variance**

The presence of Common Method Variance (CMV) is a possible issue in survey-based research, as it has the capacity to introduce bias and impact the dependability of the data that is gathered (Podsakoff et al., 2003). In order to uphold the credibility of the research, a thorough investigation of CMV was undertaken. Prior to conducting an evaluation of the measurement and structural models, a collinearity test was performed, adhering to the technique described by Kock (2015). The primary objective of this examination was to explore the potential impact of CMV on the findings of the investigation. The Variance Inflation Factor (VIF) was computed by the study team for each variable being examined. The Variance Inflation Factor (VIF) is a statistical measure used to quantify the degree of collinearity across variables, with the primary objective of identifying the potential presence of multicollinearity. The VIF values for all variables in the research were seen to be below 3.3, which is noteworthy. The significance of this conclusion cannot be overstated, as it suggests that there was no significant indication of multicollinearity or common method variance (CMV) affecting the data.

### **3.5 Sample Profiles**

The sample consisted of a mostly female population, with 77.5% of the respondents identified as female, while the remaining 22.5% were identified as male. The observed gender distribution is consistent with the prevailing pattern found at several higher education institutions in Malaysia, wherein female students frequently surpass their male counterparts in numbers. The participants were categorised into several age groups based on their age. A significant proportion (17.3%) of the sample consisted of individuals below the age of 21. The predominant demographic (78.0%) consisted of individuals within the age bracket of 21 to 23 years, aligning with the customary age range observed among undergraduate students. A minority proportion (4.7%) of the sample exhibited an age exceeding 23 years, suggesting that these individuals likely corresponded to elder students.

In relation to online proficiency, the data unveiled that a significant percentage of participants (55.6%) self-identified as possessing intermediate-level abilities. Furthermore, a significant proportion of participants, namely 33.1%, indicated possessing advanced abilities in the subject matter. Moreover, a notable percentage of individuals, namely 8.3%, self-identified as experts in the field. Conversely, a small fraction of respondents, specifically 3.1%, classified themselves as beginners. The results of this study indicate that a significant proportion of the participants exhibit online proficiency at an intermediate level or a higher level. The poll examined the daily internet usage patterns of the participants. A considerable proportion (67.7%) of respondents reported dedicating over six hours each day to internet usage. Furthermore, a significant proportion of respondents (19.1%) said that they used the internet for a duration of 5 to 6 hours on a daily basis. Similarly, a notable number (10.9%) reported using the internet for a period of 3 to 4 hours daily. In contrast, a minor fraction (2.3%) of participants stated that they spent less than 2 hours each day on the internet. The data highlights the significant portion of time that students dedicate to engaging in online activities on a daily basis. Within the realm of online education, a notable discovery was made indicating that an overwhelming majority of participants (79.8%) exhibited a preference for using smartphones for internet activities unrelated to educational pursuits. Laptops or computers constituted the second most prevalent preference, comprising 19.6% of the total replies, whilst tablets were utilised to a lesser extent (0.5%). This observation underscores the widespread use of mobile devices, specifically smartphones, as a means of internet access in the context of online educational sessions. The poll also sought information about the amount of time individuals spend engaging in non-educational internet activities on a daily basis. A notable proportion of participants (33.6%) said that they dedicated more than six hours each day to engaging in those activities. In addition, it was found that 27.9% of participants dedicated 3 to 4 hours, 23.0% allocated 5 to 6 hours, and 12.9% used 1 to 2 hours on a daily basis for non-academic online activities. Merely a minute proportion (2.1%) of respondents indicated using less than one hour.

Variables		Frequency (N)	Percentage (%)
Gender	Female	300	77.5
	Male	84	22.5
Age	Below 21 years old	67	17.3
	21-23 years old	302	78.0
	Above 23 years old	18	4.70
Internet Skills	Advance	128	33.1
	Expert	32	8.3
	Intermediate	215	55.6
	Novice	12	3.10
Daily Internet use (hours)	Less than 2 hours	9	2.30
	3 to 4 hours	42	10.9
	5 to 6 hours	74	19.1
	More than 6 hours	262	67.7
Hours spent daily on non-educational Internet use	Never	2	0.50
	Less than an hour	8	2.1
	1 to 2 hours	50	12.9
	3 to 4 hours	108	27.9
	5 to 6 hours	89	23.0
	More than 6 hours	130	33.6
The use of the Internet for non-educational purposes during online classes.	Laptop/Computer	76	19.6
	Smartphone	309	79.8
	Tablet	2	0.50

**Table 1.** Respondents’ demographics.

Table 2 provides insightful descriptive statistics concerning the cyberloafing activities of the respondents. Interestingly, students tend to focus on downloading files with a mean score of 3.80 and a 8 standard deviation of 1.00. In the second place, it is seen that individuals engage in the activity of visit academic discussion groups. The mean score for this activity is 3.84, with a slightly lower standard deviation of 0.95. Additionally, receiving and sending instant messages rank as the third most commonly observed cyberslacking activity among students, with a mean score of 3.78 and a standard deviation of 0.99. This discovery highlights the tendency of students to frequently shift their focus away from their academic responsibilities in order to stay updated with others.

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<b>Cyberslacking Activities</b>		
<b>During online classes, I engage in Cyberslacking in order to...</b>	<b>Mean</b>	<b>Std. Deviation</b>
Shop online	2.91	1.21
Visit holiday/ travel sites.	2.22	1.06
Visit interesting (picture, video, mottos, etc.) sites.	3.40	1.17
Collect information about notions unrelated to a lesson.	3.30	1.09
Search out biographic information of persons in search engines.	2.97	1.05
Pursue interesting subjects in search engines.	3.29	1.00
Visit websites about banking or finance.	2.95	1.05
Visit online shopping sites.	3.12	1.22
Visit auction sites (i.e. ebay.com, amazon.com)	2.27	1.11
Visit chat rooms.	3.58	1.08
Book accommodation for travel/holiday.	2.25	1.09
Visit sites about finding a job or career.	2.74	1.15
Play online games.	2.70	1.34
Develop my personal web page.	2.41	1.11
Check my emails.	3.59	1.03
Visit my academic discussion groups.	3.84	0.95
Visit virtual communities.	3.04	1.17
Download file.	3.86	1.00
Read blog pages.	2.78	1.17
Visit newsgroups and notice boards.	3.09	1.13
Receive and send instant messages.	3.78	0.99
Visit news sites.	3.07	1.12
Visit websites about sports.	2.57	1.16
To check the weather forecast	2.55	1.10
Visit social networks.	3.75	1.05

**Table 2.** Cyberslacking Activities

## 4. FINDINGS

SmartPLS was used to execute a Partial least squares structural equation modelling (PLS-SEM) to validate the research hypotheses. The selection of PLS-SEM was used as the research is exploratory, and the data are not normal.

### 4.1 Measurement model

The results obtained from the measurement model, as depicted in Table 2, exhibit robust indications of construct validity, internal consistency, and convergent validity. The item loadings, which indicate the associations between the observable variables (items) and their corresponding latent constructs, serve as a reliable basis for establishing construct validity (Hair et al., 2019). The loadings for all elements inside each construct exhibit a range of 0.742 to 0.921, above the widely acknowledged threshold of 0.7 (Hair et al., 2019). The observed loadings indicate that the items possess good construct validity since they successfully assess the desired constructs.

Furthermore, it is worth noting that the Composite Reliability (CR) values, which assess the internal consistency of the latent constructs, exhibit a significant level of magnitude (Hair et al., 2019). The coefficient values for construct reliability (CR) surpass the suggested threshold of 0.7, with a range of 0.830 to 0.927 (Hair et al., 2019), indicating the high level of dependability of the measurement model. High coefficient alpha values imply that the items within each construct exhibit strong internal consistency, therefore enhancing the reliability of the measurement of the constructs.

In addition, the Average Variance Extracted (AVE) values, as a means of evaluating convergent validity by quantifying the extent to which the constructs capture variance compared to measurement error (Hair et al., 2019), further corroborate the soundness of the measurement model. The AVE values exhibit a constant range of 0.619 to 0.810, above the suggested threshold of 0.5 as advised by Hair et al. (2019). These numbers suggest that a significant proportion of the variability in the items may be traced to the latent constructs, hence indicating strong convergent validity.

To summarise, the results of the measurement model analysis, which include the robust item loadings, high Composite Reliability (CR) values, and Average Variance Extracted (AVE) values were beyond the required threshold, jointly confirming the reliability and validity of the model (Hair

Construct	Items	Loadings	Composite reliability	Average variance extracted (AVE)
Addiction	Addiction_01	0.742	0.833	0.624
	Addiction_02	0.838		
	Addiction_03	0.789		
Development	Development_01	0.789	0.830	0.619
	Development_02	0.781		
	Development_03	0.791		
Deviant	Deviant_01	0.820	0.862	0.675
	Deviant_02	0.781		
	Deviant_03	0.862		
Recovery	Recovery_01	0.699	0.842	0.641
	Recovery_02	0.872		
	Recovery_03	0.821		
Continuous Behavior	ContinuousBehavior_01	0.866	0.927	0.810
	ContinuousBehavior_02	0.912		
	ContinuousBehavior_03	0.921		

**Table 2.** Measurement Model

et al., 2019). The obtained results instill confidence in the measurement model's capacity to effectively assess the underlying constructs, hence reaffirming appropriateness for further structural modelling and data analysis in the study.

The achievement of discriminant validity can be accomplished by satisfying the criteria outlined in both the Fornell and Larcker criterion and the Heterotrait-Monotrait ratio of correlations (HTMT) criterion. Table 3 displays the Fornell-Larcker criteria, which showcases the diagonal values (highlighted in bold) representing the square root of the Average Variance Extracted (AVE) values. The values shown in this context indicate the degree to which the constructs exhibit shared variation with themselves, which serves as an indicator of their dependability.

In order to evaluate the discriminant validity through the use of the heterotrait-monotrait ratio of correlations (HTMT), it is necessary to compare the correlations across constructs (represented by the off-diagonal values) with the average variance extracted (AVE) values (represented by the diagonal values). According to Henseler et al. (2015), when the HTMT ratio is smaller than 1, it suggests that the constructs exhibit greater dissimilarity from one another compared to their internal consistency, hence providing evidence for discriminant validity. The Heterotrait-Monotrait (HTMT) correlation ratio is an important criteria for assessing discriminant validity in a measurement model (Henseler et al., 2015). It determines if constructs are more strongly linked with their own items (monotrait) than with items from other constructs (heterotrait), validating whether the measurement model properly distinguishes between them. The HTMT ratios in the matrix appear to be fewer than one in this findings. For example, the HTMT ratio of "Addiction" to "Continuous Behaviour" is 0.495, which is less than one. Similarly, the HTMT ratios for other construct pairings are less than one, such as "Development" and "Deviant" (0.389) or "Development" and "Recovery" (0.587). These results clearly suggest that the measurement model efficiently distinguishes between latent components.

	Addiction	ContinousBehavior	Development	Deviant	Recovery
Addiction	0.790				
ContinousBehavior	0.389	0.900			
Development	0.583	0.328	0.787		
Deviant	0.448	0.233	0.277	0.822	
Recovery	0.467	0.298	0.417	0.480	0.801

Table 4. HTMT

	Addiction	ContinousBehavior	Development	Deviant	Recovery
Addiction					
ContinousBehavior	0.495				
Development	0.847	0.419			
Deviant	0.618	0.284	0.389		
Recovery	0.659	0.369	0.587	0.665	

Table 3. Fornell-Larcker criterion

Overall, both the Fornell-Larcker and the HTMT ratios give persuasive evidence of discriminant validity within the measurement model, with HTMT values less than 1. This shows that the constructs are unique from one another, bolstering the measurement model’s robustness and boosting confidence in the distinctiveness of the latent constructs.

## 4.2 Structural Model

The structural model analysis investigates the links between latent constructs within the study framework, offering information on their importance and strength. The results of the structural model study are summarised in this report, which include path coefficients, standard deviations, T statistics, P values, and confidence intervals. . Figure 1 displays the path coefficients together with their corresponding significance levels. The model accounted for approximately 17.1% of the variance in the intention of engaging in cyberslacking. The path coefficient depicted in the structural model illustrated in Figure 2 signifies the magnitude of the association between the independent factors and the dependent variables inside the research model.

Recovery had shown to be significantly positive, as indicated by a path coefficient of 0.058. The statistical importance of this link is evident, as indicated by a T statistics value of 1.963 (P = 0.025). The 95% confidence interval (CI) for this route is 0.020 to 0.214, indicating its statistical

significance. Therefore, the hypothesis H1 is supported. Furthermore, the association between “Deviant” and “Continuous Behaviour” is found to be non-significant, as shown by a path coefficient of 0.062. The statistical analysis results in a T statistics value of 0.524 (P = 0.300), indicating a lack of statistical significance. The 95% confidence interval (CI) for this route ranges from -0.077 to 0.129, providing more evidence that it is not statistically significant. hypothesis H2 is supported.

The “Development” and “Continuous Behaviour” has a statistically significant positive relationship, as indicated by a path coefficient of 0.064. The statistical significance of this association is established, as evidenced by a T statistics value of 1.985 (P = 0.024). The 95% confidence interval (CI) for this route ranges from 0.012 to 0.226, providing evidence of its statistical significance. Therefore, the hypothesis H3 is supported. The association between “Addiction” and “Continuous Behaviour” has a significant positive relationship, as indicated by a large path coefficient of 0.073. The statistical robustness of this association is supported by a T statistics value of 3.366 (p < 0.001). The 95% confidence interval (CI) for this route is estimated to be between 0.119 and 0.362, providing additional evidence of its statistical importance. Therefore, the hypothesis H4 is supported.

In conclusion, the notions of “addiction” and “development” have a notable positive impact on “continuous behaviour,” indicating that higher levels of these factors are associated with heightened involvement in continuous behaviours. In contrast, the variable “Deviant” does not exert a statistically significant influence on “Continuous Behaviour,” although the variable “Recovery” has a notable and positive association with it. The findings serve to enrich our comprehension of the intricate dynamics between these constructs and provide significant contributions to our ongoing study.

	Path	Standard deviation (STDEV)	T statistics	P values	CI LL 5%	CI UL 95%	Decision
H1	Recovery -> Continuous Behavior	0.114	0.058	1.963	0.025	0.020	0.214 Supported
H2	Deviant -> Continuous Behavior	0.032	0.062	0.524	0.300	-0.077	0.129 Not Supported
H3	Development -> Continuous Behavior	0.127	0.064	1.985	0.024	0.012	0.226 Supported
H4	Addiction -> Continuous Behavior	0.247	0.073	3.366	0.000	0.119	0.362 Supported

**Table 4.** Structural Model

## **5. DISCUSSION**

Addiction is a pathological state characterized by persistent engagement in a certain behavior or consumption of a substance, despite the presence of adverse consequences. Within the framework of continuous intention to engage in cyber slacking, the term denotes the compulsive and disproportionate use of online platforms, social media, or other digital engagements, even in instances where it disrupts daily obligations, professional endeavors, and interpersonal connections. According to a study conducted by Keiser et al. (2016), there is a proven correlation between internet addiction and the phenomenon known as cyberslacking. Another study by Yasar and Yudugul (2013) investigated the correlation between cyberloafing activities and cyberloafing behavior among Higher Education students in Turkey. The researchers discovered a noteworthy association between addictive behavior and the continuous intention to engage in cyberslacking.

The term “development” in this context pertains to the progressive cognitive, emotional, and psychological advancement experienced by an individual during his/her lifespan. The advancements in technology and digital platforms have prompted individuals to modify their behaviors and habits in response. The continuous intention of cyberslacking, characterized by excessive usage of social media or online entertainment, can have repercussions on an individual’s developmental trajectory, manifesting in compromised real-life interactions, impaired time management skills, and potential erosion of self-esteem. A prior investigation conducted on students enrolled in public institutions in Bangladesh revealed a positive correlation between student internet usage patterns and their continuous intention to engage in cyberslacking (Mumu et al. 2022). Additionally, it was observed that mental health issues, such as substance use disorders, stressful experiences, and depression, were also associated with an increase in cyberslacking intents among these students.

Deviant behavior refers to any form of conduct that deviates from established social norms or societal expectations. Although cyberslacking may not possess inherent deviance, excessive involvement in online activities at the expense of real-life obligations might be perceived as deviant within the context of society. This conduct has the potential to result in diminished

productivity, retreat from social interactions, and potentially even isolation, all of which vary from the established standards of a well-rounded and actively involved way of life. Utku (2020) posits that employees may exhibit deviant behaviors within the workplace as a means of mitigating the challenges they have encountered. Within this particular setting, it is plausible for employees to exert effort in mitigating the adverse effects of stress caused by technology, and they may perceive it as legitimate to engage in deviant behaviors, such as participating in non-work-related activities. Nevertheless, the findings of this study indicate that there is no statistically significant relationship between deviant behavior and the continuous intention to engage in cyber slacking.

In the present context, recovery pertains to the process of transitioning away from the indulgent and obsessive conduct associated with cyberslacking. Similar to the significance of recovery in drug addiction, the relevance of recovery extends to technology-related behaviors. Individuals who possess an awareness of the detrimental consequences associated with their cyberslacking behaviors can implement strategies to re-establish dominion over their temporal and cognitive resources. This may entail implementing restrictions on the duration of screen usage, requesting assistance from one's social network, or participating in alternate activities that do not involve digital devices. Recent research indicates that engaging in cyberloafing activities can serve as a recovery mechanism for alleviating feelings of boredom and tension (Krishna & Agrawal, 2023). Hence, there exists a positive correlation between recovery behavior and continuous intention to cyberslacking. The utilization of technology by students for noneducational objectives is positively correlated with an increased likelihood of engaging in cyberslacking activities, such as browsing the Internet, blogging, utilizing social networking platforms, and streaming online videos.

## **6. CONCLUSION**

In conclusion, the intricate interplay of individual behaviour, technological advancements, and personal development is evident in the complex relationship between addiction, development, deviant behaviour, and recovery in the context of continuous intent to indulge in cyberslacking. The prevalence of addiction in the domain of continuous cyberslacking

intention highlights the profound influence of digital platforms in captivating one's attention, providing instant gratification, and encouraging compulsive behaviours. This phenomenon can result in negative outcomes such as decreased task efficacy, disrupted interpersonal relationships, and a general decline in well-being.

Various developmental stages influence the persistent intent to indulge in cyberslacking. Older individuals must adapt to the ever-changing technological landscape, while adolescents are driven by the need to establish identity and connections. Such levels of involvement can hinder the development of social skills, cognitive growth, and the formulation of one's self-identity, impacting individuals throughout their entire lifespan. Continuous cyberslacking results in deviant behaviour, which violates established social norms and results in isolation, neglect of tangible responsibilities, and strained interpersonal connections. While online platforms can foster a sense of community among their users, they may inadvertently encourage aberrant behaviours that diminish the value of face-to-face interactions. Recovery from cyberslacking involves recognising the problem, establishing limits, seeking assistance, and encouraging alternative behaviours. This journey requires the same dedication and perseverance as addiction rehabilitation. Education, therapeutic interventions, and digital detoxification strategies are essential to attaining a more balanced digital usage.

The complex interplay between addiction, developmental processes, deviant behaviour, and recovery within the framework of continuous intention to engage in cyberslacking highlights the importance of raising awareness, promoting responsible technology use, and encouraging individual self-improvement. In order to cultivate a satisfying and complete existence in the digital age, it is essential to strike a balance between online and face-to-face interactions, to establish boundaries, and to adopt a mindful and introspective approach to technology.

To address the issue of cyberslacking in online education, effective strategies and interventions must be developed. (Neuwirth et al., 2020) Faculty and educators play a crucial role in regulating students' online activities and

fostering productive learning environments. It is essential to train and guide students in adapting to virtual classrooms and sustaining appropriate online learning behaviours (Neuwirth et al., 2020). (Neuwirth et al., 2020) Technological solutions, such as digital filters for virtual backgrounds or obscuring options, can aid students in minimising distractions and maintaining concentration during online classes. Understanding the causes of cyberslacking and its effects on students' academic performance is crucial for educators and policymakers who wish to effectively address this issue.

In summary, the widespread occurrence of cyberslacking within the context of online education poses significant obstacles that require wider comprehension and proactive action. Through a comprehensive understanding of the various elements that contribute to cyberslacking and the implementation of efficient measures, educational institutions may guarantee that students optimise their capacity for learning and successfully attain their academic objectives. In light of the importance of this matter, it is imperative for scholars to thoroughly investigate the phenomena of cyberslacking, elucidate its intrinsic reasons, and offer valuable insights to assist educators in cultivating online learning environments that are both engaging and conducive to productivity. This study has the potential to provide significant insights for scholars and educators who aim to tackle the problem of internet abuse in academic contexts. Ultimately, this research can contribute to the creation of a more targeted and efficient learning environment in the era of digital technology.

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