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The Role of Materialism in Predicting Compulsive Buying among University Students in Klang Valley, Malaysia

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Abstract

Given the rising concerns over mental health and consumer behavior among young adults, this study is crucial in understanding the factors that contribute to compulsive buying among university students in Klang Valley, Malaysia, a subject that has implications for long-term financial and psychological well-being. Thus, this study aims to explore the relationship between depression, materialism, and excessive Internet use with compulsive buying behavior among university students in Klang Valley, Malaysia. Using homogenous convenience sampling, 307 respondents were selected to participated in this study that involved university students from selected public and private universities in Klang Valley area. The data were gathered through a self-administered questionnaire employing established scales for measuring each variable. Statistical analyses included descriptive statistics, independent t-tests, Pearson correlation, and multiple regression. The results show that the majority of the respondents exhibited moderate levels of depression, materialism, excessive Internet use, and compulsive buying. Notably, male students showed higher levels of depression than their female counterparts, while female students displayed greater excessive Internet use. Among the variables examined, materialism and excessive Internet use were found to positively correlate with compulsive buying behavior. Multiple regression analysis indicated that materialism was the strongest predictor of compulsive buying, followed by excessive Internet use. The study concludes that both materialism and excessive Internet use significantly influence compulsive buying among university students in Klang Valley, Malaysia. Understanding these relationships can inform interventions aimed at minimizing compulsive buying behavior, thereby promoting a healthier lifestyle for university students.

Keywords: Compulsive Buying, Materialism, Excessive Internet use, Depression, University Students

Introduction

The Fourth Industrial Revolution, also known as Industry 4.0, has fundamentally transformed consumer behavior. With the rise of online shopping platforms, buying activities have become more accessible which leads to an uptick in consumer spending across various demographics. Notably, younger generations, including undergraduate students, are particularly engaged in purchasing electronic devices and educational materials. Such unprecedented access to goods and services may predispose students to compulsive buying, a concerning phenomenon with long-lasting financial and psychological implications (Benson & Eisenach, 2013; Sharif & Khanekharab, 2017).

Compulsive buying is characterized as chronic, repetitive purchasing that often serves as a coping mechanism for negative emotions or experiences which correlated to significant distress and interpersonal difficulties (Faber and O'Guinn, 1992; Mueller et al., 2011). Notably, it has been linked to various psychiatric conditions including mood and anxiety disorders, obsessive-compulsive disorder, and personality disorders (Mueller et al., 2011). Understanding the underlying factors contributing to this behavior is essential for targeted interventions (Lane & Terry, 2000).

Research on the relationship between materialism and compulsive buying has yielded mixed results. While some studies assert a direct, positive correlation between the two (Ditmar, 2005; Mueller et al., 2011; Goldsmith et al., 2015), others argue there is no such relationship (Omar et al., 2015; Iqbal & Aslam, 2016). These conflicting findings necessitate further investigation to elucidate the impact of materialism on compulsive purchasing behaviors.

The relation between excessive Internet use and compulsive buying is another area that requires attention. Limited research exists on this topic, with conflicting reports on whether excessive Internet use promotes compulsive buying (Omar et al., 2015; Mueller et al., 2011). Given the surge in online shopping and digital consumerism, understanding this relationship is increasingly pertinent.

Gender is another factor that may influence compulsive buying behavior. Previous research has suggested that women are more prone to compulsive buying than men (Ditmar, 2005). However, there's a gap in the literature concerning how gender intersects with variables like depression, materialism, and excessive Internet use in contributing to compulsive buying.

As previously outlined, compulsive buying often serves as a chronic coping mechanism for individuals experiencing negative emotional states, particularly those diagnosed with depression. Müller et al. (2011) provide a comprehensive examination of the psychological underpinnings of this behavior, associating it not only with depression but also with a range of other psychiatric conditions such as mood and anxiety disorders, obsessive-compulsive disorder, and personality disorders. This multi-dimensional understanding of compulsive buying further cements its intrinsic connection with mental health (Lane & Terry, 2000), where depression as a critical modulating factor in mood responses and behavioral correlations. Consequently, identifying the indicators among these interrelated variables becomes paramount for effective intervention against compulsive buying (Black, 2007).

In a similar vein, Mueller et al (2010) reaffirm the link between compulsive buying and mental disorders like depression and anxiety. Subsequent research by Mueller et al. (2014) narrows

this association further, indicating that even after controlling for age, gender, temperament, and materialism, depression emerges as a significant predictor of compulsive buying. These findings align with research by Bani-Rshaid and Alghraibeh (2017), which posits that for individuals with depression, compulsive buying functions as a maladaptive coping strategy aimed at tempering negative emotions and psychological distress.

However, it's crucial to consider diverging viewpoints in this narrative. Iqbal and Aslam (2016), for instance, challenge the general consensus by arguing that no statistically significant relationship exists between depression and compulsive buying. This raises the question of whether compulsive buying is always a byproduct of depression or if other factors can independently trigger this behavior (Kyrios et al., 2018)
To address these gaps, this study aims to examine the predictors of compulsive buying among university students in Klang Valley, Malaysia, considering variables such as depression, materialism, excessive Internet use, and gender. Identifying the factors that uniquely contribute to compulsive buying in this demographic could provide valuable insights for preventative measures and interventions, making the study critically important for educators, parents, and researchers in the Malaysian context.

Compulsive Buying among University Students
Compulsive buying among university students has become an area of growing concern in recent academic literature. One primary factor that contributes to this behavior in the university setting is financial independence coupled with the absence of parental supervision. As Kukar-Kinney et al (2016) demonstrate, financial independence often serves as a catalyst for impulsive and compulsive purchasing decisions among students. The study highlighted how students, often receiving regular financial aid or allowances, demonstrate poor financial self-regulation which leads to compulsive buying behaviors. This is particularly important in the context of modern consumer culture where the acquisition of goods is just a click away.

A second crucial element influencing compulsive buying among university students is psychological stress and academic pressures. Studies by Müller et al (2021) reveal a strong correlation between academic stressors and compulsive buying as a coping mechanism. They indicate that students often engage in compulsive buying to counteract feelings of academic inadequacy or stress, which is supported by temporary relief or pleasure derived from purchasing goods. This correlates with the retail therapy concept, where the act of buying serves as a form of emotional regulation or stress relief.

Moreover, the role of social media and digital marketing cannot be overlooked when studying this demographic. According to Roberts et al (2019), the pervasive influence of social media platforms, which often seamlessly integrate advertising into users' feeds, have been shown to significantly trigger compulsive buying tendencies among university students. The same study highlights that the Fear of Missing Out (FOMO) plays a crucial role in these purchasing decisions, where students are compelled to buy to stay socially relevant or to experience immediate gratification.

Lastly, gender differences in compulsive buying behaviors among university students have also been reported. Segal and Podoshen (2013) indicate that female students are more likely to engage in compulsive buying, particularly in relation to clothing, beauty products, and accessories. The study suggests that societal and cultural expectations around feminine

appearance might be driving this disparity. In contrast, male students were found to engage more with technology and gadget purchases. Understanding these gender-specific triggers can be crucial for developing targeted interventions to mitigate compulsive buying among university students.

In light of the above concerns, this study aims to look at the depression, materialism, and excessive internet use on compulsive buying with specific research questions as follows:

1. What are the levels of depression, materialism, excessive internet use, and compulsive buying among university students in Klang Valley, Malaysia?
2. Is there any difference between gender on depression, materialism, excessive internet use and compulsive buying among university students in Klang Valley, Malaysia?
3. What are the relationships between depression, materialism, and excessive internet use on compulsive buying among university student in Klang Valley, Malaysia?
4. What are the unique factors that predicts compulsive buying among university students in Klang Valley, Malaysia?

Factors of Compulsive Buying

Depression

Depression, clinically referred to as Major Depressive Disorder (MDD), is more than just a fleeting sense of sadness or a temporary dip in mood. It is a pervasive mood disorder that can significantly interfere with an individual's ability to function in daily life. Extending the work of Lovibond and Lovibond (1995), who characterized depression as a debilitating state of lowered self-esteem and motivation, recent studies suggest that individuals with depression often confront a complex web of emotional and physical symptoms (Wang et al., 2014). These range from persistent feelings of worthlessness to medically unexplained pain and fatigue that leads to a greater reliance on healthcare resources compared to those without depression (Shirazian et al., 2017). According to Lane and Terry (2000), depression serves as a critical emotional axis, affecting various aspects of mood and behavioral responses. Such symptoms are not confined to any age group; they span across children, adolescents, and adults, reflecting the pervasive nature of this disorder (Sharp & Lipsky, 2002).

Gender differences in depression also present an intriguing area of research. The relationship between gender and depression is a complex and evolving area of study. While earlier research suggested varying conclusions, more recent studies are painting a nuanced picture of how depression manifests differently in men and women. For example, according to the World Health Organization (WHO, 2021), globally, more women are affected by depression than men. This gender gap becomes more pronounced during the reproductive years and extends into older age, as evidenced by studies such as those by (Patten et al., 2018).

One contributing factor to this gender disparity could be the different social and cultural pressures that men and women face. Women are often subjected to societal stressors like the gender pay gap, workplace discrimination, and domestic responsibilities, all of which may contribute to higher rates of depression (Hammen, 2018). On the other hand, men are less likely to seek help for their depressive symptoms due to societal norms that stigmatize emotional vulnerability in men (Oliffe et al., 2019).

Additionally, the way depression manifests can differ between genders. Women are more likely to experience symptoms such as feelings of guilt, worthlessness, and persistent sadness, while men might exhibit irritability, fatigue, and sometimes even engage in risk-taking behaviors (Martin et al., 2013). Men are also more likely to have comorbid conditions like substance abuse when suffering from depression, which sometimes makes it challenging to diagnose (Cochran & Rabinowitz, 2019).

Materialism

Materialism is commonly understood as a value system that places a high emphasis on the acquisition and possession of material goods as indicators of success, personal happiness, and social status. Richins (2004) underscores that materialistic values fundamentally espouse the idea that owning material possessions constitutes an essential life objective, serving both as a metric for personal success and a source of pleasure and self-definition. Similarly, Munchy and Eastman (1998) explicate that materialism entails three core dimensions: the employment of material possessions to gauge one's own and others' success, the centrality of possessions in an individual's life, and the conviction that the pursuit and possession of material goods are pivotal to achieving happiness and life satisfaction. Watson (2003) further elaborates that individual with high materialistic tendencies are often more prone to accruing debt as a means to satiate their incessant desire for material goods.

Psychological underpinnings significantly inform materialistic tendencies. Sharif and Khanekharab (2017) posit that materialistic behavior often arises when higher-order psychological needs—such as forming meaningful emotional relationships or cultivating a positive self-concept—are unfulfilled. Such individuals may pivot towards materialistic pursuits as an alternative means of gratification, associating monetary and material accomplishments with life satisfaction. Meanwhile, Iqbal and Aslam (2016) found a notable correlation between heightened materialism and increased levels of depressive symptoms, potentially attributed to the feelings of hopelessness and disinterest that emerge when desired material acquisitions remain unattained.

Moreover, the gender variable appears to play a role in materialistic attitudes. While Iqbal and Aslam (2016) found that women scored significantly higher on materialism scales, contrasting evidence from Kamineni (2005) suggests that men are, on average, more materialistic than women. Van Boven et al (2000), as cited in Dittmar (2005) theorizes that this difference may arise from disparate gender attitudes toward shopping; women tend to view it as a leisure activity, while men perceive it more as a task-oriented chore. These gender-based attitudes may shape materialistic values differentially in men and women, as evidenced by the divergence in the literature.

Eren et al (2012) delineate materialistic values along three distinct axes: viewing material acquisitions as indicators of success, assigning a central role to material possessions in one's life, and correlating the attainment of material goods with personal happiness and well-being. In this context, materialism may be closely aligned with compulsive buying behaviors. Individuals with elevated materialistic values often engage in compulsive buying, driven by the belief that material possessions are synonymous with success and intrinsic happiness.

Psychological factors also play a substantial role in the underpinning of materialistic attitudes. As Sharif and Khanekharab (2017) articulate, when higher-order psychological needs—such

as forming meaningful relationships or fostering a robust self-concept—are unmet, individuals may experience discomfort and subsequently seek alternative avenues for gratification, like material acquisition. This shift in focus toward materialism can act as a compensatory mechanism for the deficiencies experienced in other aspects of psychological well-being.

Moreover, the relationship between materialism and compulsive buying remains a complex and nuanced subject. Dittmar (2005) posits those materialistic values are a significant predictor of compulsive buying tendencies. This is further substantiated by Mueller et al (2011), who found a significant correlation between materialism and compulsive buying through regression analysis. Contradictorily, later research by Müller et al (2014) identifies depression as the most potent predictor for compulsive buying, raising questions about the primacy of materialism in this context. Meanwhile, Tarka et al (2023) found no direct correlation between materialism and compulsive buying, adding another layer of complexity to this academic discourse.

Excessive Internet Use

Excessive internet use and internet addiction, while often conflated, differ in terms of severity and impact. Research by Omar et al (2015) suggests that excessive internet use could lead to symptoms associated with internet addiction, but it is less severe in its manifestations. According to Sharif and Khanekharab (2017), behaviors such as internet addiction, excessive internet use, and compulsive buying can have detrimental effects, although excessive internet use is not formally recognized as a medical condition. It does, however, raise concerns about self-regulation in online activities, particularly among younger populations (Šmahel & Blinka, 2012). Furthermore, Vanea (2011) notes that addictive behaviors relating to the internet lead to a diminishing of social and occupational responsibilities, along with a replacement of real-world interactions with virtual engagements.

Gender differences also manifest in the patterns of excessive internet use. Griffiths (2000) indicates that while female internet usage predominantly serves interpersonal communication and academic purposes, male usage is more inclined towards leisure and entertainment. Research by Odacı and Çıkrıkçı (2014) corroborates this by revealing that among university students, males demonstrate higher levels of problematic internet use than females. This suggests that expertise in internet use may correlate with the propensity for excessive online engagement.

Excessive internet use is positively correlated with compulsive buying behavior, largely because such individuals are more immersed in the digital marketing ecosystem, increasing their susceptibility to FOMO (Suresh & Biswas, 2019). Although Muller et al (2011) found that compulsive buying was not significantly associated with excessive internet use, they did find a higher propensity for severe internet usage patterns among individuals with compulsive buying habits. Meanwhile, a study by Bighiu et al (2015) affirm that excessive internet use plays a significant secondary role in influencing compulsive buying behaviors.

In summary, while excessive internet use is not as severe as internet addiction, it does pose concerns, especially among younger individuals and specific gender groups. Moreover, excessive internet use has been implicated in influencing compulsive buying tendencies due to heightened exposure to digital marketing and associated psychological factors like FOMO.

Method

Participants

Three hundred and seven (n women = 158; n men = 149) among public and private university students in Klang Valley were recruited. Participants completed a series of self-report questionnaires (described below) using an online survey management platform. The average age of participants was 19.48 years (SD = 3.94; range = 19 – 26). The self-reported ethnicities of participants were Malay (59.0%), Chinese (27.4%), Indian (12.1%) and others (1.6%). Approximately, 51.2% of participants were from the public universities (i.e., Universiti Putra Malaysia and Universiti Malaya), meanwhile, 48.8% were from the private universities (i.e., Sunway College and UCSI). While for the employment or working experience, 77.9% reported as not working, 20.8% were working as part timer and 1.3% working as full timer. In terms of the monthly allowance, 41.7% reported having RM250 and below, followed by 32.2% received above RM350, and 26.1% between the range RM251-RM350.

Procedure and Measures

This study was conducted amidst the unique circumstances of the COVID-19 pandemic and during the implementation of the Movement Control Order (MCO) in Malaysia. After participants had completed the informed consent process, they anonymously completed the online survey packet, consisting of the following self-report measures.

Depression

The *Patient-Health Questionnaire-9 (PHQ-9),* developed by Kroenkeet al (2001), serves as a self-report tool primarily utilized for the assessment of depressive symptoms, gauging their severity, and informing subsequent treatment decisions. Distinct from its predecessor scales, the PHQ-9 focuses on capturing the essential criteria outlined in the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV) for diagnosing depression. The questionnaire is composed of nine items, each rated on a 4-point Likert scale ranging from 0 ("not at all") to 3 ("nearly every day"). These items target various facets of depression including mood, sleep patterns, and energy levels. Sample statements from the PHQ-9 include: "Little interest or pleasure in doing things," and "Feeling down, depressed, or hopeless." The Cronbach's alpha for the PHQ-9 in this sample was 0.85.

Materialism

The *Materialistic Values Scale (MVS)* is a self-report questionnaire designed to gauge an individual's materialistic tendencies, specifically their belief that the accumulation of possessions is integral to personal well-being and life satisfaction. Developed by Richins (2004), the MVS streamlines the assessment of materialistic values through its succinct format. The instrument comprises 9 self-reported items, each rated on a 5-point Likert scale that spans from 1 ("Strongly agree") to 5 ("Strongly disagree"). Sample statements within the MVS may include: "I admire people who own expensive homes, cars, and clothes," or "I'd be happier if I could afford to buy more things." In the current study, the internal consistency reliability for the MVS was found to be .83.

Excessive Internet Use

The *Internet Use Measurement (IUM)* is a specialized self-report questionnaire engineered to evaluate an individual's tendency towards excessive Internet use. The scale is particularly useful in understanding the psychological and social dimensions of Internet use. Developed by Mueller et al (2011), the IUM aims to capture the nuances of Internet use behavior in a

concise manner. The tool is comprised of 8 self-reported items, which are rated on a 5-point Likert scale with options ranging from 1 (Very often) to 5 (Never). Statements within the questionnaire might include: "I feel that my Internet use is out of control," or "I have attempted to control or cut back on my Internet use." The Cronbach's alpha for the IUM in this sample was 0.91.

Compulsive Buying

The *Compulsive Buying Scale (CBS)* is a nuanced self-report inventory developed by Faber and O'Guinn (1992) to assess compulsive buying tendencies. Specifically designed to explore a range of dimensions, including behavioral patterns, emotional states, motivations, and financial repercussions related to buying, the CBS serves as a comprehensive tool for examining the complexities of compulsive spending. The instrument is constituted by seven self-reported items, rated on a 5-point Likert-type scale ranging from "Strongly agree" to "Strongly disagree" and "Very often" to "Never." Sample statements encapsulated in the CBS may include: "Bought things even though I couldn't afford them," or "Felt others would be horrified if they knew of my spending habits." In the current study, the internal consistency reliability for the MVS was found to be .89.

Data Analysis

Data analysis was conducted using SPSS version 29.0. Initially, descriptive statistics were generated and bivariate correlation analyses were performed to examine the relationships among variables: depression as gauged by the Patient-Health Questionnaire (PHQ-9), materialistic values measured by the Materialistic Values Scale (MVS), excessive Internet use assessed by the Internet Use Measurement (IUM), and compulsive buying behavior evaluated using the Compulsive Buying Scale (CBS). Following this, a multiple regression model was implemented to determine whether depression, materialistic values, and excessive Internet use served as unique predictors for compulsive buying behavior.

Results and Discussion

As per the findings presented in Table 1, depression was pervasive among the respondents, exacerbated by the COVID-19 pandemic and the consequent Movement Control Order (MCO) in Malaysia. The sample showed 39.4% with moderately severe depression and 24.8% experiencing severe depression. The mean score was 1.79 (SD = 0.54), underscoring the mental health impact of pandemic-related restrictions on activities, a phenomenon supported by (Beck et al., 1961; Lovibond and Lovibond, 1995).

Turning to materialism, Table 1 indicates a mean score of 3.17 (SD = 0.73), with 63.5% of respondents showing moderate materialistic values. This contradicts Richins (2004), who equated high materialistic values with a focus on acquisitions as key life goals. This discrepancy could be a reflection of changing attitudes toward materialism, perhaps influenced by the trying circumstances of the pandemic.

In terms of excessive Internet use, the mean score was 3.54 (SD = 0.85). Majority (56%) reported moderate levels, potentially due to the shift to online learning and limited options for other activities due to the MCO. Šmahel and Blinka (2012) cautioned that such behavior, though not pathological, might indicate an inability to manage online activities effectively.

Finally, compulsive buying had a mean score of 2.75 (SD = 0.71), with 75.2% indicating moderate levels. The uptick in online shopping during the MCO, as well as the proliferation of e-commerce platforms like Shopee and Lazada, may have contributed to this. This is in line with Faber and O'Guinn's (1989) definition, suggesting that ease of online access can intensify compulsive buying behaviors.

Collectively, these findings point to the significant psychological impact of the pandemic and associated restrictions. The higher prevalence of moderately severe to severe depression and compulsive buying behaviors could be seen as coping mechanisms, while moderate materialism and Internet use may serve as adaptive strategies in constrained circumstances.

The high levels of depression among the respondents could be considered part of a larger trend affecting university students globally. Various studies have shown that college students are particularly vulnerable to mental health issues. The COVID-19 pandemic has only exacerbated this, leading to what some researchers are calling a "mental health crisis" among students. A study by Wang et al (2020) found that the incidence of depression and anxiety symptoms among college students increased significantly during the pandemic. The disruptions to academic, social, and personal life, paired with uncertainties about the future, have added stressors that could explain the high levels of moderate to severe depression in the current sample.

Similarly, the increased engagement in online activities such as excessive internet use and compulsive buying could be seen as coping mechanisms under these unique circumstances. Lachmann et al (2018) found that problematic internet usage is notably prevalent among university students, especially those with heightened stress and psychological distress. A more recent study by Gupta et al (2022) suggested that the shift to online learning during the pandemic has caused a significant rise in compulsive online buying among college students, possibly as a means of coping with emotional stress. The allure of e-commerce sites offers not just a convenient shopping experience but also an emotional escape, thereby setting a potential loop for compulsive buying behavior. Overall, these recent studies corroborate the trends observed in your sample, highlighting the pressing need for targeted interventions to address these issues among university students.

Table 1
Level of study variables

Level	n	%	Mean	SD	Min	Max
Depression			1.79	0.54	0	27
Minimal (0 -4)	9	2.9				
Mild (5 - 9)	13	4.2				
Moderate (10 – 14)	88	28.7				
Moderately severe (15 - 19)	121	39.4				
Severe (20 – 27)	76	24.8				
Excessive Internet Use			3.54	0.85	5	40
Low (29 - 40)	88	28.7				
Moderate (17 - 28)	172	56.0				
High (5 - 16)	47	15.3				
Materialism			3.17	0.73	5	45
Low (0 - 25)	82	26.7				
Moderate (26-50)	195	63.5				
High (51 – 75)	30	9.8				
Compulsive Buying			2.75	0.71	5	35
Low (25 - 35)	45	14.7				
Moderate (15 - 24)	231	75.2				
High (5 – 14)	31	10.1				

Meanwhile, in Table 2, the independent sample t-test revealed a statistically significant gender difference in depression levels among university students in Klang Valley, Malaysia. Males reported higher levels of depression (M = 1.89, SD = 0.53) compared to females (M = 1.70, SD = 0.53), t(303.83) = -3.23, p = 0.001. This challenges conventional wisdom, which often suggests that females are generally more prone to depression. The observed higher depression in males could be linked to the restrictions of the Movement Control Order (MCO) during the COVID-19 pandemic. The limitations on social and recreational activities might have led to increased sadness and low self-esteem among male students (Lovibond & Lovibond, 1995). These findings diverge from the prevailing literature, which often reports higher depression rates among women but align with a study by Addis (2008), suggesting that males report more depressive symptoms in certain contexts.

Regarding materialism, there was no statistically significant gender difference among university students in the region (Male M = 3.12, SD = 0.80; Female M = 3.21, SD = 0.66), t(305) = 1.16, p = 0.248. Both males and females seemed equally likely to engage in materialistic behavior when higher psychological needs are unmet (Sharif & Khanekharab, 2017). The study also found a significant gender difference in excessive Internet usage (Male

M = 3.39, SD = 0.89; Female M = 3.68, SD = 0.78), t(293.75) = 3.03, p = 0.003. Women, particularly during the pandemic were found to use the Internet more excessively than men. This usage pattern is consistent with research indicating that women use the Internet predominantly for interpersonal communication and academic help while men use it mainly for leisure and enjoyment (Weiser, 2000).

In the area of compulsive buying, no significant gender difference was reported (Male M = 2.80, SD = 0.80; Female M = 2.69, SD = 0.60), t(305) = -1.41, p = 0.159. Both genders appear equally susceptible to compulsive buying which is typically characterized by recurrent and distressing shopping behaviors (Mueller et al., 2011). In summary, the study found significant gender differences in depression and excessive Internet use but not in materialism and compulsive buying among university students in Klang Valley, Malaysia. These findings add a nuanced understanding to the existing literature on gender differences in psychological variables.

Table 2
Differences between gender on the tested variables

Variables	Gender				t(df)	Sig.
	Female		Male			
	Mean	Sd.	Mean	Sd.		
Depression	1.70	0.53	1.89	0.53	-3.23 (303.83)	0.001
Materialism	3.21	0.66	3.12	0.80	1.15 (305)	0.248
Excessive Internet Use	3.68	0.78	3.39	0.89	3.03 (305)	0.003
Compulsive Buying	2.69	0.60	2.80	0.80	1.41 (305)	0.159

Table 3 shows the relationships between the depression, materialism, and excessive internet use on compulsive buying. The results indicated no statistically significant association between depression and compulsive buying among university students in Klang Valley, Malaysia ($r = -0.006$, $p > 0.05$). This contradicts earlier studies which suggested that compulsive buying often serves as a coping mechanism for negative emotions like depression (Bani-Rshaid & Alghraibeh, 2017). The discrepancy could suggest that the debilitating symptoms of depression among university students might inhibit even the act of compulsive buying as these individuals may lack the emotional energy to engage in any activities that could serve as coping mechanisms.

Moreover, the result displayed a significant positive correlation between materialism and compulsive buying ($r = 0.296$, $p < 0.001$). The higher the level of materialism, the more likely students were to engage in compulsive buying. This aligns with research by Eren et al (2012), which segmented materialistic values into three categories: acquiring material goods as indicators of success, making material objects central to one's life, and seeking happiness through material possession. In a university setting, students with strong materialistic tendencies might be more prone to compulsive buying as a means of validating their self-worth and seeking pleasure, even when such spending is beyond their means.

Furthermore, result revealed a modest but significant negative relationship between excessive Internet use and compulsive buying ($r = -.108$, $p < 0.059$). Conventional wisdom might suggest that increased online activity would naturally lead to more impulsive online

shopping. However, the findings of this study suggest otherwise. One possible explanation could be that excessive Internet use among university students may primarily focus on academic research, social networking, or online gaming rather than online shopping. This notion is supported by research suggesting that excessive Internet use may serve different functions for different individuals, such as socialization, escapism, or information seeking (Kuss et al., 2014).

Additionally, it could be that students who are heavily engrossed in online activities have less time to engage in other activities, including shopping. Some researchers argue that excessive Internet use can lead to a lack of interest in other activities essentially crowding them out (Davis, 2001). Also, worth noting is the financial restraint often faced by university students. Even with excessive Internet use, budgetary constraints could discourage compulsive buying (Zhao et al., 2022). Thus, while students may spend significant time online, they may not necessarily have the financial freedom to indulge in compulsive buying.

In summary, the study sheds light on the complex interactions among depression, materialism, excessive Internet use, and compulsive buying among university students in Klang Valley, Malaysia. While depression did not correlate with compulsive buying, both materialism and excessive Internet use showed significant relationships with compulsive spending. These insights are especially pertinent given the unique circumstances students are navigating due to the COVID-19 pandemic and associated restrictions.

Table 3
Correlations among study variables

Variable	**Compulsive Buying (CBS)**	
	r	***p***
Depression (PHQ-9)	-.006	.913
Materialism (MVS)	.296**	.000
Excessive Internet Use (IUS)	-.108**	.059

CBS, Compulsive Buying Scale; ISMI-20, PHQ-9, Depression; MVS, Materialistic Values Scale; IUM, Internet Use Measurement. N = 307, * p < .05, ** p < .01

A multiple regression analysis was conducted to evaluate if materialism and excessive internet use would predict compulsive buying. Table 4 revealed that the overall model had a significant R^2 value of 0.105. With F = 11.831 and p < 0.001, this model explained 12% of the variance in compulsive buying score. The adjusted R^2, a more conservative estimate is 0.096 or 9.6%. As shown in Table 4, materialism (β =.164, p =.010) and excessive internet use (β = -.334, p =.001) have been found to be significant predictors of compulsive buying among the university students. The findings suggest that materialistic tendencies are a significant predictor of compulsive buying among university students. This is consistent with prior research, such as the study by Eren et al (2012), which emphasized the role of materialism in driving compulsive buying behaviors. Interestingly, the data indicates that excessive Internet use is negatively correlated with compulsive buying among this cohort. This could perhaps be contrasted with studies like those by Suresh and Biswas (2020), which typically associate excessive Internet use with increased buying behavior. Given the counterintuitive result, more research may be needed to understand this relationship in the context of university students.

Table 4
Multiple regression in determining the main predictor of compulsive buying.

	Psychological Distress			
	B	**SE. B**	**Beta, β**	***p***
Materialism	.402	.072	.415	.000
Excessive Internet Use	-.140	.061	-.168	.023
R^2	.105			
Adjusted R^2	.096			
F	11.831			

Psychological Implications of Materialism and Excessive Internet Use on Compulsive Buying
The result that materialism is a strong predictor of compulsive buying among university students echoes earlier findings on the psychological impacts of materialistic values. It's widely acknowledged in the psychological literature that materialistic individuals often seek happiness and validation through possessions which can lead to compulsive buying as a form of emotional regulation (Dittmar, 2005; Donnelly et al., 2016). In the context of university students, this suggests a potential vulnerability to behaviors that offer short-term satisfaction but long-term negative outcomes like financial stress and lower well-being.

Compulsive buying is often linked to negative mental health outcomes including increased stress, anxiety, and lower overall life satisfaction (Black, 2007; Mueller et al., 2011). Given that materialism emerged as a significant predictor, mental health interventions for university students may need to focus on shifting these materialistic values to more sustainable forms of happiness and life satisfaction. Interestingly, excessive Internet use was also found to be significantly correlated with compulsive buying, although its contribution was smaller compared to materialism. Previous studies have reported that excessive Internet use can lead to various forms of addiction including shopping addiction (Kuss et al., 2014). However, the positive correlation in the present study is less straightforward and might be influenced by other factors such as online advertising which is known to have a strong impact on buying behaviors (Valkenburg et al., 2016).

The present findings also open the door to a broader conversation about the nature of compulsiveness in shopping behaviors. Compulsive buying is not merely an isolated behavior; rather, it appears to be a symptom of larger psychological patterns. Materialism and excessive Internet use, as evidenced in the study can act as facilitators of this compulsive buying, complicating efforts for behavioral modification or intervention (O'Guinn & Faber, 1989).

Given the earlier result that materialism and excessive Internet use do not significantly differ between genders in compulsive buying, it's important for mental health professionals to consider these findings when creating gender-inclusive intervention strategies. Traditionally, compulsive buying has been thought to affect women more than men, but the emergence of online shopping and increased Internet use has leveled the playing field requiring a rethink of intervention strategies (Dittmar et al., 2007).

Overall, the study's findings provide crucial insights into the psychological variables that contribute to compulsive buying among university students, emphasizing the need for multi-

faceted intervention strategies that not only target the behavior itself but also the underlying psychological factors that contribute to it.

Limitations and Future Directions

One potential limitation of this study could be the narrow demographic focus on university students in Klang Valley, Malaysia, which limits the generalizability of the results to other populations and age groups. Additionally, the study seems to rely on self-reported measures for variables like materialism, excessive Internet use, and compulsive buying. Self-reporting can introduce various forms of bias, including social desirability bias, where participants may underreport or over report certain behaviors or attitudes in order to present themselves in a favorable light. Moreover, the cross-sectional nature of the study makes it difficult to establish causal relationships between the observed variables. Longitudinal data would provide a more robust understanding of how materialism and excessive Internet use may lead to compulsive buying over time. Finally, the study doesn't appear to control for confounding variables such as socioeconomic status, which could influence both materialistic tendencies and compulsive buying behaviors.

The study calls attention to the complex interplay between psychological traits and consumer behaviors among young adults in a specific cultural context. It emphasizes the need for further research that considers a wider range of variables, including socioeconomic factors and mental health conditions, to provide a more comprehensive understanding of compulsive buying tendencies. The findings also have practical implications, suggesting that targeted interventions should be developed to address materialistic values among university students as a preventative measure against compulsive buying. The negative correlation between excessive Internet use and compulsive buying also calls for a nuanced approach in considering online behaviors as risk factors for compulsive buying.

Conclusion

The study decisively identifies materialism as the primary driver of compulsive buying among university students in Klang Valley, Malaysia which reveals that those with higher materialistic tendencies are more prone to such behavior. Contrary to expectations, heavy Internet use is inversely related to compulsive buying which suggests that online engagement may not translate to increased purchasing. Additionally, there was no relationship found between depression and compulsive buying that diverges from the previous -literatures and points to unique cultural or socioeconomic dynamics at play within this demographic. In essence, this research illuminates the intricate relationship between student psychology and consumer habits in Malaysia, underscoring the importance of addressing materialistic attitudes to prevent compulsive buying and urging a reevaluation of the assumed risks of excessive Internet use on purchasing behavior.

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