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## DIGITAL MARKETING, SOCIAL MEDIA ADDICTION PATTERN AND COMPULSIVE BUYING BEHAVIOUR AMONG COLLEGE STUDENTS: A SOCIAL WORK PERSPECTIVE

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**Abstract :** Digital marketing has increasingly adopted personalised algorithms that target young users based on their online behaviour, emotional cues and consumption patterns, creating new forms of compulsive engagement ranging from excessive social media use to impulse buying. This study investigated digital marketing-induced addiction patterns among college students in Trichy district using a data-driven approach grounded in Social Work principles. A sample of 180 college students was selected through purposive and convenience sampling. Three validated tools were used: the Bergen Social Media Addiction Scale (BSMAS), the Compulsive Buying Scale (CBS) and the DASS-21 scale. Findings revealed that 78 percent of students exhibited moderate to high social media addiction and 72 percent showed moderate to high compulsive buying tendencies. A significant positive association was found between social media addiction and compulsive buying behaviour ( $\chi^2 = 32.14$ ,  $p < 0.001$ ) and digital addiction was significantly associated with elevated stress and anxiety ( $p < 0.001$ ). Regression analysis confirmed that social media addiction and advertisement exposure significantly predicted compulsive buying ( $R^2 = 0.38$ ,  $p < 0.001$ ) and that compulsive buying and stress were the strongest predictors of sustained digital addiction ( $R^2 = 0.44$ ,  $p < 0.001$ ). The findings underline the urgent need for digital literacy, counselling interventions and policy-level guidelines to safeguard college students from harmful digital influences and the paper concludes with evidence-based Social Work strategies to promote digital wellbeing among youth.

**IndexTerms** - Digital Marketing, Social Media Addiction, Compulsive Buying Behaviour, College Students, Mental Health, Digital Wellbeing, Social Work Perspective.

### I. INTRODUCTION

Digital technology has become an integral part of everyday life, especially for young people who are deeply immersed in online activities. With the rapid expansion of smartphones, high-speed internet and social media platforms, digital marketing has evolved into a powerful system capable of influencing user behaviour at unprecedented levels. Unlike traditional marketing, digital marketing uses algorithmic tools, behavioural data analytics and artificial intelligence to deliver personalised advertisements that align closely with users' interests, emotional states and social interactions.

College students represent one of the most active and vulnerable groups within this digital ecosystem. Their frequent use of social media, online shopping platforms and entertainment apps makes them unavoidable targets of persuasive design and targeted advertisements. Digital marketing strategies such as push notifications, influencer promotions, discount triggers and emotional persuasion techniques often create an

environment that encourages continuous browsing, compulsive buying and emotional dependency on digital platforms. Over time, these practices contribute to patterns of addictive digital behaviour. Research shows that such behavioural patterns are closely linked with psychosocial challenges, including sleep disturbances, reduced academic performance, social isolation and poor emotional regulation. Targeted advertisements further intensify these patterns by exploiting psychological vulnerabilities such as low self-esteem, fear of missing out (FOMO) and the human desire for instant gratification. In the context of Trichy district, where digital penetration among youth is growing rapidly, understanding these patterns becomes crucial. Despite increasing concerns among educators, parents and mental health professionals, academic studies focusing on the connection between digital marketing, addictive behaviours and mental health among college students remain limited. This study therefore explores the relationship between digital marketing exposure, social media addiction, compulsive buying behaviour and mental health outcomes among college students.

## II. REVIEW OF LITERATURE

### 2.1 International Perspectives

Andreassen et al. (2016) conceptualised social media addiction as a form of behavioural addiction characterised by salience, tolerance, mood modification, withdrawal, conflict and relapse; using the Bergen Social Media Addiction Scale (BSMAS), their study among young adults revealed that excessive engagement with social networking platforms leads to compulsive usage patterns and psychological dependency. Kuss and Griffiths (2017) further emphasised that algorithm-driven platforms are deliberately designed to maximise user engagement through reward-based mechanisms, thereby increasing the risk of addictive behaviour among youth. Montgomery and Chester (2018) explained how data-driven advertising systems track user behaviour and emotional responses to deliver personalised content, intensifying compulsive interaction with digital platforms. Smith et al. (2020), studying college students in the United States, found that exposure to targeted advertisements significantly increased impulse buying behaviour and prolonged screen time, while Verma and Yadav (2021) reported that influencer marketing and limited-time digital promotions created emotional urgency leading to unplanned purchases. Woods and Scott (2016) found a significant association between social media addiction and elevated anxiety and depression among adolescents and young adults and studies using DASS-21 have consistently reported higher stress and anxiety scores among individuals with high digital addiction levels (Lovibond and Lovibond, 1995; Lee et al., 2019).

### 2.2 Indian and Regional Perspectives

Bhandari and Bansal (2018) reported that Indian college students spend a substantial portion of their daily time on social media platforms, often influenced by promotional content and peer validation. Gupta and Sharma (2020) found that excessive exposure to digital advertisements and influencer-driven content significantly predicted impulsive buying behaviour among urban youth, with students showing higher social media addiction scores more likely to experience financial stress and emotional dissatisfaction after online purchases. Joseph et al. (2021) observed that college students with high levels of social media usage reported increased stress, sleep disturbances and academic pressure and Ramesh and Kannan (2022), using DASS-21, found a positive correlation between social media addiction and anxiety levels among South Indian college students. Region-specific evidence remains limited: Selvaraj and Meenakshi (2023) indicated rising screen dependency and stress among college students in Tamil Nadu due to constant exposure to promotional content, but most regional studies are descriptive and lack a comprehensive analysis linking digital marketing exposure, compulsive buying behaviour and psychological wellbeing from a Social Work perspective.

### 2.3 Research Gap

Although existing literature provides substantial evidence on social media addiction, compulsive buying behaviour and mental health concerns, limited empirical research integrates digital marketing exposure with behavioural addiction and psychological outcomes within a single analytical framework and comparative, localised studies focusing on semi-urban districts like Trichy remain scarce. The application of Social Work perspectives in addressing digital addiction and promoting digital wellbeing is similarly underexplored - a gap the present study addresses.

## Statement of the Problem

The rapid expansion of digital technologies and social media platforms has significantly transformed the consumption patterns and daily lives of young people. Digital marketing, powered by algorithms and data analytics, increasingly targets college students through personalised advertisements, influencer endorsements and emotionally appealing content, contributing to excessive social media use and compulsive buying behaviour. Continuous exposure to targeted digital content has been associated with loss of self-control, dependency on online platforms and impulsive purchasing decisions, often leading to increased stress, anxiety and emotional exhaustion. In the context of Trichy district, there is a lack of systematic, empirical research examining the relationship between digital marketing exposure, addictive digital behaviour and mental health outcomes among college students, limiting the ability of Social Work professionals, educators and policymakers to develop effective preventive and intervention strategies. The present study addresses this gap by examining digital marketing-induced addiction patterns among college students from a Social Work perspective.

## Scope and Significance of the Study

The present study focuses on digital marketing-induced addictive behaviour among college students in Trichy district, with specific attention to social media addiction, compulsive buying behaviour and associated mental health outcomes (stress, anxiety and depression), employing the Bergen Social Media Addiction Scale, Compulsive Buying Scale and DASS-21. The research is confined to undergraduate and postgraduate students and reflects the socio-cultural context of a semi-urban district. Its significance lies in integrating digital marketing exposure with behavioural addiction and psychological wellbeing within a single framework, providing empirical evidence to assist Social Work professionals, educators and mental health practitioners in designing preventive interventions such as digital literacy programmes, counselling services and awareness initiatives, while highlighting the need for ethical digital marketing practices and informed policy guidelines to safeguard youth.

## Objectives

1. To assess the level of social media addiction among college students in Trichy district.
2. To examine the influence of digital marketing and targeted advertisements on compulsive buying behaviour among students.
3. To analyse the association between digital marketing-induced behavioural patterns and mental health outcomes.
4. To propose Social Work-based digital wellbeing strategies to reduce addictive digital behaviour and promote responsible online engagement among youth.

## III. METHODS AND MATERIALS

### 3.1 Research Design

The present study adopted a quantitative research design with a descriptive and correlational approach to examine digital marketing-induced addiction patterns among college students, assessing the level of social media addiction, the influence of digital marketing on compulsive buying behaviour and the association of these behavioural patterns with mental health outcomes using standardised scales.

### 3.2 Universe and Sampling

The universe of the study comprised undergraduate and postgraduate students enrolled in arts and science colleges, professional colleges and autonomous institutions in Trichy district. A sample of 180 college students was selected using purposive and convenience sampling; purposive sampling ensured inclusion of active social-media users regularly exposed to online advertisements, while convenience sampling facilitated timely access to respondents. Due to the non-probability nature of sampling, findings are limited to the selected population and cannot be generalised to all college students.

### 3.3 Tools of Data Collection

Data were collected using three standardised and validated tools: the Bergen Social Media Addiction Scale (BSMAS) to assess addictive social media behaviour; the Compulsive Buying Scale (CBS) to measure impulsive and compulsive purchasing tendencies influenced by digital marketing; and the Depression Anxiety Stress Scale (DASS-21) to measure psychological distress across stress, anxiety and depression

domains. A brief socio-demographic schedule was also used to collect information on age, gender, course of study and digital usage patterns.

### 3.4 Data Collection Process and Ethical Considerations

Data collection was carried out after obtaining necessary permissions from college authorities, with voluntary informed consent obtained prior to administration. Data were collected through both offline questionnaires and online Google Forms depending on participant preference, checked for completeness and coded for statistical analysis. Participation was voluntary, anonymity was ensured by excluding personal identifiers and participants exhibiting signs of significant distress were provided information about available counselling and support services, consistent with ethical standards for Social Work research.

## IV. RESULTS AND DISCUSSION

### 4.1 Level of Social Media Addiction among College Students

The findings reveal a concerning level of social media addiction among college students. While about one-fifth of respondents (22%) fall under the low addiction category, nearly half (48%) demonstrate moderate addiction and almost one-third (30%) fall under the high addiction category - collectively, more than three-fourths (78%) of students experience moderate to high levels of social media addiction. From a Social Work perspective, this pattern suggests reduced self-regulation and vulnerability to psychosocial stressors such as peer comparison and FOMO, with the dominance of moderate addiction indicating a large segment of students at a transitional risk stage where preventive interventions could be particularly effective.

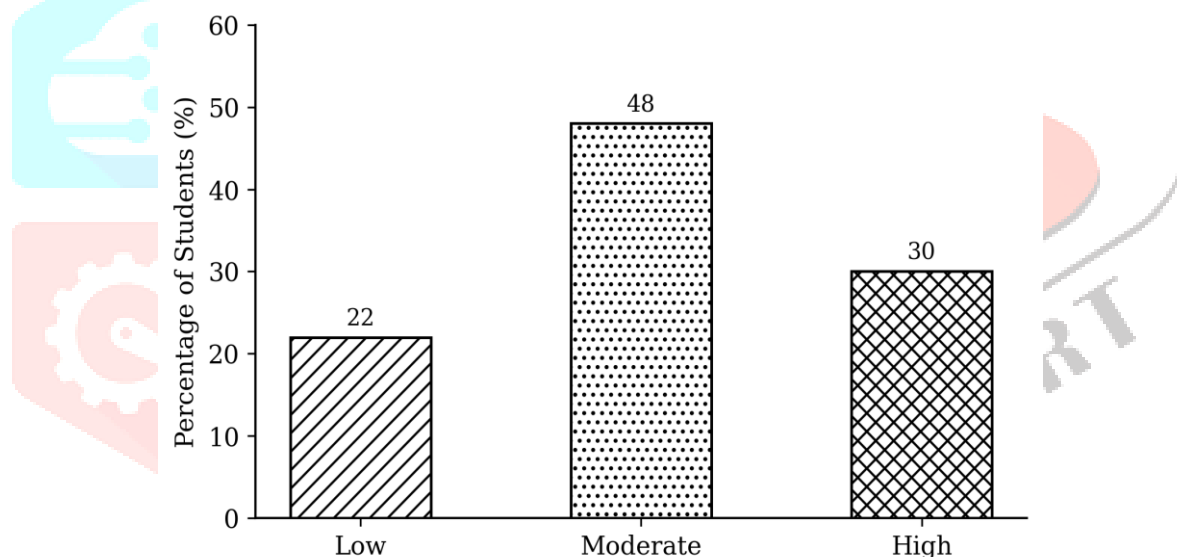


fig.1. level of social media addiction among college students (n = 180)

### 4.2 Compulsive Buying Behaviour Influenced by Digital Marketing

While 28% of respondents report low levels of compulsive buying behaviour, a significant proportion fall into the moderate (44%) and high (28%) categories - overall, nearly three-fourths (72%) of students exhibit moderate to high compulsive buying tendencies. These results suggest that exposure to targeted advertisements, influencer marketing, flash sales and personalised recommendations significantly shapes students' purchasing behaviour, with buying frequently used as a coping mechanism for stress, boredom or low mood.



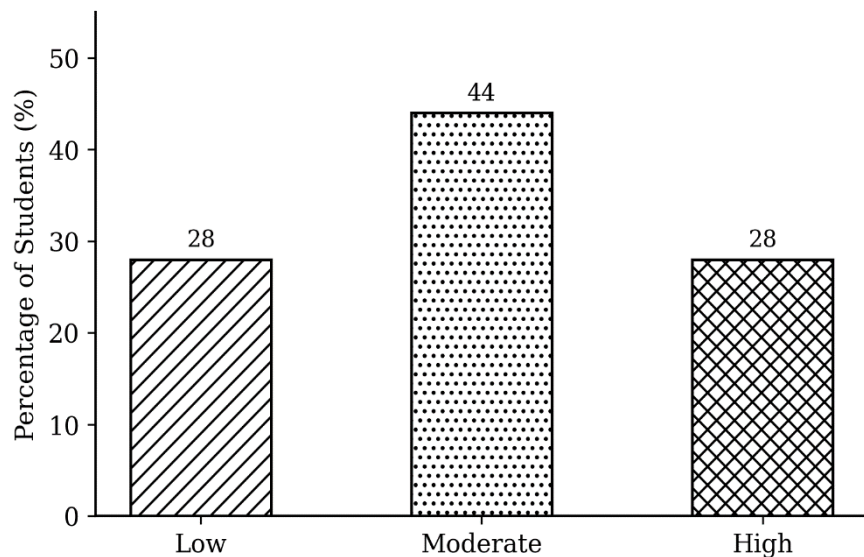


fig.2. level of compulsive buying behaviour among college students (n = 180)

#### 4.3 Mental Health Outcomes of College Students (DASS-21)

The assessment of mental health outcomes using DASS-21 reveals elevated psychological distress: the mean stress score (18) indicates comparatively higher stress levels, the mean anxiety score (16) reflects moderate anxiety and the mean depression score (14) suggests mild to moderate depressive symptoms, with stress emerging as the most prevalent concern. From a Social Work perspective, the predominance of stress suggests that students are struggling with daily coping demands rather than clinical psychopathology alone, underscoring the need for preventive mental health strategies and campus-based psychosocial support.

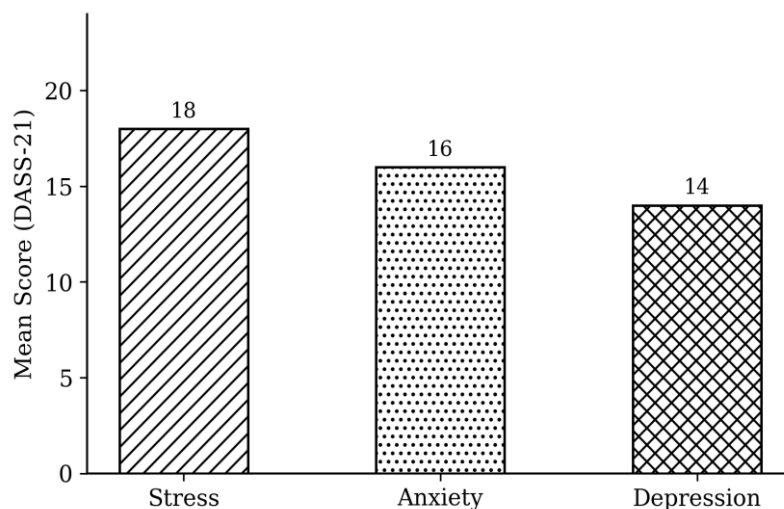


fig.3. mean dass-21 scores among college students (n = 180)

#### 4.4 Relationship between Digital Addiction, Compulsive Buying and Mental Health

The study establishes a clear relationship between social media addiction and compulsive buying behaviour: students with higher addiction levels are more likely to engage in impulsive and emotionally driven purchasing, as increased time on social media results in greater exposure to advertisements and promotional content. Students reporting moderate to high social media addiction also experience significantly higher stress and anxiety and compulsive buying is closely linked with emotional strain, suggesting that post-purchase guilt and financial worry contribute to psychological discomfort. From a Social Work standpoint, this reflects the interaction between individual vulnerability and structural forces such as algorithmic marketing, reinforcing that compulsive buying is a socially constructed behaviour shaped by digital environments rather than merely a personal weakness.

## 4.5 Hypothesis Testing

table 1. summary of hypothesis testing results

| Hypothesis                             | Statistical Test        | Result                                                           | Decision            |
|----------------------------------------|-------------------------|------------------------------------------------------------------|---------------------|
| H1: SMA-CBB association                | Chi-square              | $\chi^2 = 32.14, p < .001$                                       | Accepted            |
| H2: Digital addiction - mental health  | t-test                  | Stress: $t = 11.62, p < .001$ ;<br>Anxiety: $t = 9.43, p < .001$ | Accepted            |
| H3: Coping strategy preference         | Repeated-measures ANOVA | $F = 18.52, p < .001$                                            | Partially supported |
| H4: Ad exposure mediates SMA-CBB       | Multiple regression     | $R^2 = .38, F = 121.45, p < .001$                                | Accepted            |
| H5: CBB and distress sustain addiction | Multiple regression     | $R^2 = .44, F = 102.58, p < .001$                                | Accepted            |

Students with moderate to high digital addiction reported higher stress ( $M = 3.78, SD = 0.92$ ) and anxiety ( $M = 3.45, SD = 1.01$ ) than students with low digital addiction (stress:  $M = 2.61, SD = 0.88$ ; anxiety:  $M = 2.34, SD = 0.79$ ). Emotion-focused coping ( $M = 3.12$ ) was more prevalent than problem-focused coping ( $M = 2.67$ ), with avoidant coping ( $M = 3.25$ ) emerging as the dominant style. The mediation model confirmed that social media addiction ( $\beta = 0.41, p < .001$ ) and advertisement exposure ( $\beta = 0.29, p < .001$ ) significantly predicted compulsive buying, while compulsive buying ( $\beta = 0.36, p < .001$ ) and stress ( $\beta = 0.28, p < .001$ ) were the strongest predictors sustaining digital addiction.

## 4.6 Discussion

The findings align with international and Indian research on digital addiction and youth behaviour. Similar to Andreassen et al. (2016) and Montgomery and Chester (2018), the results confirm that algorithm-driven digital environments encourage compulsive engagement and behavioural dependency and the strong association between social media addiction and compulsive buying supports the argument that digital marketing strategies exploit emotional triggers and reward mechanisms. From a Social Work perspective, digital addiction should be understood as a psychosocial issue influenced by both individual vulnerability and structural forces such as corporate marketing practices; the elevated stress and anxiety observed reflect maladaptive coping strategies, where excessive digital engagement is used as an emotional escape that ultimately worsens mental health outcomes.

These findings are particularly relevant in Trichy district, where digital access among youth is rapidly increasing but structured digital literacy and mental health interventions remain limited. The study underscores the urgent need for campus-based counselling services, awareness programmes on responsible digital consumption and advocacy for ethical digital marketing practices, with Social Work interventions positioned to play a crucial role in promoting digital wellbeing among college students.

## V. RECOMMENDATIONS AND SOCIAL WORK IMPLICATIONS

- Students: strengthen digital literacy and self-monitoring of screen time; participate in impulse-control workshops; adopt mindfulness and stress-management techniques.
- Educators and institutions: conduct awareness programmes linking social media addiction, compulsive buying and mental health; provide counselling support; integrate responsible digital use and financial literacy into the curriculum.
- Parents: encourage open conversations about digital habits and spending; promote offline hobbies and social interaction; model balanced technology use.
- Policy makers and app developers: regulate targeted advertising aimed at young adults; encourage digital-wellness features such as usage reminders and screen-time limits; fund longitudinal research on digital addiction trends.
- Social Work practice: routinely assess students for signs of digital addiction and distress; provide individual and group counselling for impulse control and emotional regulation; conduct psychoeducation workshops on manipulative marketing tactics.

- Collaboration and advocacy: facilitate collaboration between students, parents and institutions; develop social work-led digital-detox and peer-support programmes; advocate for regulation of targeted digital advertising and contribute to action research evaluating intervention effectiveness.
- Future research: examine causal relationships using longitudinal designs; evaluate intervention programmes to reduce digital addiction and impulsive buying; explore cross-cultural differences in digital addiction patterns.

## VI. CONCLUSION

The present study investigated the relationships between social media addiction, compulsive buying behaviour and mental health outcomes among college students in Trichy district. The analysis confirmed that higher levels of social media addiction were significantly associated with increased compulsive buying tendencies, with students exhibiting moderate to high social media addiction reporting more frequent impulsive and unplanned purchases likely influenced by targeted advertisements and promotional content. Digital addiction was found to have a significant adverse impact on mental health, with higher digital engagement correlating with increased stress, anxiety and emotional strain and students under digital stress tending to rely on emotion-focused and avoidant coping strategies rather than problem-solving approaches. Exposure to advertising content was found to partially mediate the relationship between social media addiction and compulsive buying and the combined influence of compulsive buying and psychological distress helped sustain digital addiction. Overall, the findings underscore a positive and significant association between excessive digital behaviour and harmful psychological and behavioural outcomes, highlighting the need for targeted, Social Work-informed interventions - including digital literacy education, counselling services and policy advocacy for ethical digital marketing - to promote digital wellness and mental health among young adults.

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