

AN EXAMINATION OF THE INFLUENCE OF SOCIAL MEDIA ENGAGEMENT ON THE STRESS LEVELS AND PERSONALITIES OF MANAGEMENT STUDENTS: A SUSTAINABLE DEVELOPMENT APPROACH WITH PARTICULAR EMPHASIS ON THE FUNCTION OF LOGISTICS MANAGEMENT

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Abstract

In the age of digital transformation, bringing technology into the classroom has made it easier to talk to each other, learn, and grow professionally. However, excessive use of social media has created problems for kids' mental health, personality development, and long-term healthy habits. This research investigates the influence of social media usage on the stress levels and personality characteristics of management students via the lens of the Five Factor Model, contextualizing the results within the overarching paradigm of sustainable development. Sustainable development in school stresses mental health, balanced use of technology, and being ready for work. The research underscores the significance of logistics management—a crucial element of sustainable economic systems—in cultivating responsible digital communication practices, effective time management, and informed decision-making among prospective managers. The study employs a correlational research methodology and chi-square analysis to uncover substantial relationships between social media usage and personality traits, including agreeableness, neuroticism, and openness to experience. The results provide valuable information for educators, institutions, and politicians who want to improve mental health, make ethical decisions about logistics, and create sustainable academic ecosystems.

Keywords: Big Five Personality Traits, Stress from Social Media, Sustainable Development, Logistics Management, Mental Health, and Digital Well-Being

INTRODUCTION

Digitalization has changed the way education works around the world. Social media is now the main way for people to talk to each other, connect, share knowledge, and grow professionally. For management students, social media is a way to work together on schoolwork, learn about the market, and improve their skills. But as we rely more on digital spaces, we also worry about how to use them in a way that is good for the environment, our mental health, and our personality development.

From the perspective of sustainable development, education is anticipated to cultivate persons who are mentally healthy, socially responsible, and professionally proficient. The UN Sustainable Development Goals (SDGs) say that we need to combine technological progress with mental toughness and moral behavior online. Goal 3 (Good Health and Well-being) and Goal 4 (Quality Education) are two of these goals. At the same time, the study of management education cannot be complete without looking at logistics management, which is a key part of sustainable economic systems. Logistics management focuses on being efficient, making plans, using resources wisely, and cutting down on unnecessary digital and operational waste. The digital communication habits of future managers, such as when and how they use social media, affect their capacity to make smart judgments in logistics, supply chain management, and other managerial professions. Consequently, this study examines the influence of extreme or improper social media usage on the stress levels and personality characteristics of management students, ultimately influencing their readiness for sustainable management and logistics tasks.

Personality and Sustainable Growth

Personality factors have a substantial impact on students' reactions to social media content, their management of academic duties, and their adoption of sustainable behavioral habits. The Five Factor Model provides a significant context for comprehending individual reactions to digital contexts.

- **Extraversion:** Highly extroverted people love interacting with others online, but too much of it might make them tired of being online, which makes it harder to manage their time in a sustainable way.
- **Agreeableness:** People who are agreeable typically feel stressed when they have to follow online social norms, which might hurt their mental health.
- **Conscientiousness:** This trait helps with discipline and being responsible online, yet social media can be a big distraction that affects both personal and academic sustainability.
- **Neuroticism:** People who are very neurotic are more likely to compare themselves to others online, feel stressed out by technology, and have mood swings.
- **Openness to Experience:** Although it encourages creative learning, unregulated information exposure can lead to cognitive overload, impairing sustainable decision-making ability.

So, personality qualities have a direct effect on how digital participation helps or hurts long-term personal growth.

Managing logistics and digital behavior that lasts

This research uniquely contributes by elucidating the function of logistics management in comprehending the sustainable utilization of social media.

Logistics management focuses on:

- Making the best use of time,
- Coordinating activities,
- Reducing waste, and
- Making plans for the future.

These rules apply to both real and digital behavior.

1. Managing time and digital logistics Too much time spent on social media can get in the way of personal "digital logistics" by taking up time that should be spent on schoolwork, internships, or supply chain simulations. Students who don't know how to manage their time well on digital devices may have trouble with future logistics operations, which require accuracy and discipline.
2. Information Flow and Sustainable Decision-Making Logistics needs information that is correct, up-to-date, and verified. Students often see false information or too much information on social media, which can hurt their analytical skills. These skills are very important for long-term planning in supply chain and logistics.
3. Stress and the logistics of human resources High stress levels impair cognitive function, diminishing efficiency in logistics-related decision-making contexts (inventory management, demand forecasting, route optimization, etc.). So, mental health is the most important part of long-term logistics education.
4. Communication that is moral and long-lasting Logistics managers need to talk to stakeholders in a clear and responsible way. Social media can change or mess up how people communicate, which can hurt their long-term professional reputation and ethical sustainability. So, teaching management students how to use social media responsibly is an important part of getting them ready for jobs in sustainable logistics and supply chain.

REVIEW OF LITERATURE

Previous research demonstrates that excessive social media utilization is associated with worse sleep quality, anxiety, and sadness (Iqbal et al., 2024). Emotional stress makes it harder to develop the long-term learning habits that are important for a successful management career. Davis and Sundvik (2023) say that stress caused by social media drains mental energy, which could affect strategic decision-making, which is an important skill for logistics and supply chain operations. Mindfulness applications have demonstrated efficacy in alleviating stress and fostering emotional resilience (LiSun, 2023). Mishra (2022) demonstrated a significant association between elevated social media usage and the neuroticism trait, underscoring its impact on psychological sustainability. Lampropoulos et al. (2022) identified extraversion and openness as significant predictors of social media participation habits. Buyukyilmaz and Aydogan (2017) associated heightened stress and diminished self-efficacy with excessive social media usage, prompting apprehensions regarding productivity and long-term well-being. These research together illustrate that social media behavior significantly influences educational sustainability, managerial preparedness, and, indirectly, logistics efficiency.

RESEARCH METHODOLOGY

Aim : This study intends to analyze the effect of social media engagements on the stress levels and personality of management students.

OBJECTIVES

- The present study seeks to achieve following objectives:
- To assess the perceived stress levels experienced by management students in relation to their social media use.
- To explore the associations between personality traits (as per the Big Five model) and social media use patterns and stress levels.
- To identify the potential effect of social media usage on big five personality traits viz: Extraversion, Agreeableness, Conscientiousness, Neuroticism and Openness to experience of management students.

Significance of the Study

This study has important ramifications for theoretical work as well as real-world applications that support management students' mental health and career advancement. The research findings can help build focused interventions, educational programs, and counselling services that are suited to the needs of management students in the digital age by clarifying the intricate interactions among social media use, personality factors, and stress levels. Furthermore, the knowledge gained from this research could add to the larger conversation on young people's self-regulation techniques, digital citizenship, and social media literacy in the context of higher education and beyond.

RESEARCH DESIGN

This study uses a correlational design to identify the relationship between social media usage, stress level and big five personality traits of management students belonging to Indore district of Madhya Pradesh, India.

Participants

In this study a sample of 66 participants 46 females and 20 males were selected using sample random sampling method. The respondents were asked to fill an online survey using google forms.

Data Collection & Analysis Method

- **Perceived Stress Scale** : The scale created by Cohen et al. (1983) was utilised to assess the level of stress reported by the pupils. The instrument employs a five-point Likert scale of 10 items, with responses ranging from "0 = Never" to "4 = Always." Elevated scores signify increased stress levels.
- **Social Networking Usage Scale** : The scale created by Gupta and Bashir (2018) was employed to assess the utilisation and rationale for using social networking sites as viewed by students. The instrument employs a five-point Likert scale of 19 items, with responses ranging from "0 = Never" to "4 = Always." Elevated scores signify increased utilisation of social media.
- **Mini-IPIP** : The Mini-IPIP, a 20-item abbreviated version of the 50-item International Personality Item Pool-Five-Factor Model assessment (Goldberg, 1999), was created to assess the five personality qualities of students. The scale is a five-point Likert type, with responses ranging from "1 = Strongly Disagree" to "5 = Strongly Agree." Elevated scores signify enhanced personality traits.
- **Analysis** : Since the sample selected was not normally distributed and limited in size Non-Parametric Chi-Square test was applied using SPSS Version 25 to test the association between the variables.

Hypothesis

The hypotheses tested under the study were:

- **H0**: There exists no significant influence of social networking on stress levels of management students.
- **H01**: There exists no significant influence of social networking on Extraversion personality trait of management students.
- **H02**: There exists no significant influence of social networking on Agreeableness personality trait of management students.
- **H03**: There exists no significant influence of social networking use on Conscientiousness personality trait of management students.
- **H04**: There exists no significant impact of social media use on Neuroticism personality trait of management students.
- **H05**: There exists no significant impact of social media use on Openness to Experience personality trait of management students.

FINDINGS & DISCUSSIONS

H0: There exists no significant influence of social networking on stress levels of management students.

Test Statistics							
	smm	stress	Extra	agreeable	cons	neuro	openn
Chi-Square	18.364 ^a	21.818 ^b	16.333 ^c	27.818 ^d	67.091 ^e	46.424 ^f	42.485 ^f
df	31	20	10	8	11	9	9
Asymp. Sig.	.965	.350	.090	.001	.000	.000	.000

Table: 01 Chi Square Test Statistics

From the above table it can be clearly inferred that p value for stress level among management are insignificant at 0.05 level of significance thus we fail to reject the null hypothesis. There exists no noteworthy result of online communication platform utilization on stress level of management scholars. The possible reasons for the same could be that online forums usage may help these students in relieving stress by providing easy way of communication but at the same time may increase stress when over used.

H01: There exists no significant influence of social networking on Extraversion personality trait of management students.

From the above table it can be clearly inferred that p value for extraversion personality trait among management students are insignificant at 0.05 level of significance thus we fail to reject the null hypothesis. There exists no

significant impact of social media use on extraversion trait of management pupils. The possible reasons for the same could be that extroverts like being social and communicate with others and social media platforms help in providing them with scope for the same thus use of social media may not have such a great impact on their overall personality.

H02: There exists no significant influence of social networking use on Agreeableness personality trait of management students.

From the table 1 it can be clearly inferred that p value for agreeableness personality trait among management students is noteworthy at 0.05 level of significance thus we reject the null hypothesis. That is there exists no significant impact of social media use on agreeableness trait of management students. The possible reasons for the same could be that social media use may not provide management students with real time team working experiences. Also due to its limitations online communication may not help in developing meaningful trustworthy and positive relationships as compared to face to face interactions thus creating a greater negative impact on the agreeableness level of management students.

H02: There exists no significant influence of social networking on Conscientiousness personality trait of management students.

From the table 1 it can be clearly inferred that p value for conscientiousness personality trait among management students are insignificant at 0.05 level of significance thus we fail to reject the null hypothesis. There exists no significant impact of social media use on conscientiousness trait of management students. The possible reasons for the same could be individuals with high conscientiousness level might get affected because of distractions in their self-discipline level due to addiction of various social media platforms causing a major impact on their overall personality and behavior.

H04: There exists no significant influence of social networking on Neuroticism personality trait of management students.

From the table 1 it can be clearly inferred that p value for Neuroticism personality trait among management students is significant at 0.05 level of significance thus we reject the null hypothesis. That is there exists no significant impact of social media use on Neuroticism personality trait of management students. The possible reasons for the same could be that over use of social media platforms can create a sense of loneliness and increase their level of negative emotions because of the same reason thus causing an increase in neurotic behavior.

H05: There exists no significant influence of social networking on Openness to Experience personality trait of management students.

From the table 1 it can be clearly inferred that p value for openness to experience among management students is significant at 0.05 level of significance thus we reject the null hypothesis. That is there exists a substantial impact of social media use on Openness to Experience personality trait of management students. The possible reasons for the same could be that people who love to explore may get an over dose of information and can explore various different interests with the help of social media but due to reliability and validity issues of these information it can cause a negative impact on their minds due to overload of information.

CONCLUSIONS

The study suggests that social media usage considerably influences essential personality qualities, including agreeableness, neuroticism, and openness to experience, hence impacting the sustainable growth of management students. Students who want to be managers or work in logistics in the future need to learn how to use technology responsibly, be emotionally strong, and process information in a way that has been proven to work.

Sustainable development in management education necessitates:

- encouraging equitable digital involvement,
- cultivating psychological resilience,
- merging digital literacy with logistics training, and
- supporting ethical and sustainable communication.

By combining logistics management skills with sustainability concepts, schools can help create professionals who are well-prepared, mentally healthy, and socially responsible and who can help make economic systems more sustainable.

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