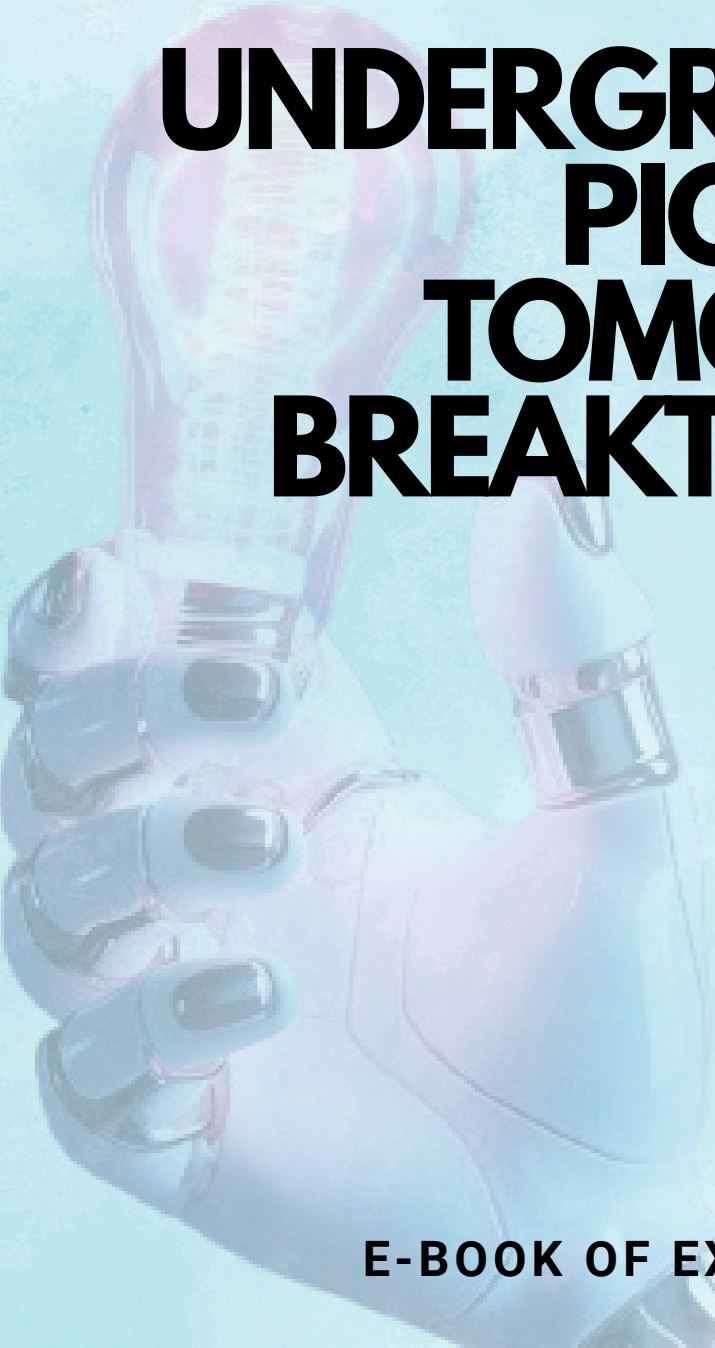




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**E-BOOK OF EXTENDED ABSTRACTS**

# THE IMPACT OF SOCIAL MEDIA USAGE ON ACADEMIC PERFORMANCE AMONG UITM SEREMBAN STUDENTS

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## ABSTRACT

Social media plays an important role in the daily lives of students in today's digitally connected world, impacting not only their social interactions but also their academic performance. This article is based on data gathered from students at the UiTM Negeri Sembilan Branch, Seremban Campus. A total of 375 UiTM Seremban students, selected through purposive sampling, responded to the questionnaire. Employing multiple linear regression analysis, it explores the impact of various aspects of social media usage on students' academic performance. The results revealed that excessive time spent on social media and multitasking behavior significantly affect students' academic performance. The use of WhatsApp for entertainment purposes also showed significant negative associations, whereas the use of Telegram had a significant positive impact. The results suggest the need to manage social media habits wisely. Meanwhile, educators are encouraged to develop guidelines and awareness programs to mitigate negative effects and promote academic success. Moreover, a practical application derived from the regression equation, called 'GPA Prediction Tool Based on Social Media,' was developed to enable UiTM Seremban students to estimate their academic performance in conjunction with their use of social media.

**Keywords:** *Regression Model, Social Media, Grade Point Average, University Students, Practical Tool*

## INTRODUCTION

Social media has revolutionized the way students communicate, collaborate, and access information. Kemp (2025) reported that individuals aged 16 to 24 are the most active users, placing students at risk of negative academic effects. Excessive use during this critical stage of development may lead to poor academic performance. Platforms such as WhatsApp, TikTok, Telegram, and YouTube are widely used by students for both academic and non-academic purposes. While these tools offer opportunities for knowledge sharing and group coordination, they may also contribute to distraction, procrastination, and cognitive overload. According to Junco (2012), students who use social media primarily for socializing or entertainment purposes tend to perform worse academically, while those who use it for academic purposes may experience improvements in their learning outcomes. The increasing dependency on social media calls for a deeper understanding of how its usage affects academic performance.

There is no doubt that social media has many benefits, but there is also evidence showing that social media harms academic performance as well (Henderson, 2024). Many students spend hours daily on social media, often multitasking while studying or attending classes. This behaviour reduces focus and productivity, affecting academic outcomes. This study was conducted to investigate the impact of usage duration, platform preference, usage purpose, and multitasking behavior on academic outcomes. The findings aim to guide students, educators, and institutions in fostering responsible digital habits that enhance academic achievement.

## OBJECTIVES

- i. to develop a regression model that examines the impact of social media on academic performance among UiTM Seremban students.
- ii. to investigate the impact of social media usage on academic performance among UiTM Seremban students.
- iii. to develop a practical tool that enables students at UiTM Seremban to estimate academic performance based on patterns of social media usage.

## DESCRIPTION OF THE PRODUCT

### *Population, Sample, Data Collection Method, and Sampling Method*

This study targets undergraduate students at Universiti Teknologi MARA (UiTM) Seremban Campus as the target population. Based on Slovin's formula, at least 375 samples should be included in this study (Ellen, 2022). Through the use of a purposive sampling method, 375 students from UiTM Seremban responded to the questionnaire. To ensure the clarity, relevance, and reliability of the research instrument, a pilot study was conducted with a small group of students before the actual administration of the questionnaire. The questionnaire, adapted from Swathi & Kumar (2023) and Alghamdi et al. (2020), was then finalized and distributed via Google Forms, with the link shared on WhatsApp. There are five questions related to the study, including Level of Multitasking Behavior, consisting of six items ranging from (1) never to (5) always.

### *Multiple Linear Regression Model*

This study employed a multiple linear regression model to identify the factors of social media usage that impact academic performance, which is Grade Point Average (GPA). This method examines how student grades respond to their social media usage time, considering platform types, usage objectives, and multitasking capabilities. The model of multiple linear regression was derived after all assumptions had been met. It was developed using significant unstandardized beta coefficients for each predictor. The significance level of  $\alpha$  at 0.05 was used to examine the statistical significance of the predictors.

### *Practical Excel-Based Tool*

The regression equation obtained from the analysis was also applied to the development of an Excel spreadsheet that will be used by students and stakeholders at UiTM Seremban in the future. This tool, 'GPA Prediction Tool Based on Social Media', is designed to provide students and stakeholders at UiTM Seremban with an estimation of academic performance based on their social media usage behaviors, thereby facilitating self-assessment and awareness of the potential impact of digital habits on academic performance.

## NOVELTY

This study contributes several new insights to the growing body of literature on social media and academic performance. It provides campus-specific evidence by focusing on students at the UiTM Negeri Sembilan, Seremban Campus, which may differ from national or international trends in social media usage. Next, the study examines the impact of social media platforms in different ways, exposing contrasting effects such as WhatsApp's negative impact on entertainment and Telegram's positive influence, rather than treating social media as a single entity. In addition, the integration of regression findings into a practical Excel-based tool represents a novel application that will enable students and stakeholders to predict academic performance outcomes based on their individual social media usage patterns. Through this practical tool, the study expands its applicability beyond theoretical insights to meet the needs of students and institutions in the real world.

## RESULTS

A final multiple linear regression model yielded significant results with a p-value less than 0.05, with an  $R^2$  value of 0.159, indicating that approximately 15.9% of the variation in GPA can be explained by social

media usage variables. The table below presents the parameter estimates for each predictor included in the regression model:

Table 1: Parameter Estimation Table

| Model                      | Parameter Estimate | Standard Error | t-statistic | p-value |
|----------------------------|--------------------|----------------|-------------|---------|
| Constant                   | 3.849              | 0.015          | 68.682      | <0.001  |
| Time spent on Social media | -0.026             | 0.005          | -5.443      | <0.001  |
| Multitasking Behaviour     | -0.053             | 0.016          | -3.385      | <0.001  |
| Purpose Entertainment      | -0.070             | 0.034          | -2.040      | 0.042   |
| Platform Telegram          | 0.249              | 0.104          | 2.399       | 0.017   |
| Platform WhatsApp          | -0.090             | 0.040          | -2.245      | 0.025   |

The final regression model includes only the variables that were found to have a significant influence on GPA. The analysis revealed that WhatsApp usage, social media usage for entertainment, time spent on social media, and multitasking behavior were all negatively associated with GPA, whereas Telegram usage was positively associated. Specifically, the findings indicate that students who spend more time on WhatsApp or use social media primarily for entertainment purposes tend to have lower academic performance. Likewise, students who spend more time overall on social media and those who frequently multitask while using these platforms also tend to achieve lower GPA scores. In contrast, Telegram usage was positively associated with GPA, suggesting that students who use Telegram more often may benefit academically, possibly due to its use for educational communication or academic group discussions. Overall, the model suggests that while certain forms of social media use can be detrimental to academic achievement, others, such as Telegram, may offer academic benefits. Below is the regression equation for this study.

$$\hat{Y} = 3.849 - 0.026X_1 - 0.053X_2 - 0.070X_3 + 0.249X_4 - 0.090X_5 \quad (1)$$

where:

$\hat{Y}$  = academic performance (GPA)

$X_1$  = time spent on social media

$X_2$  = multitasking behaviour

$X_3$  = purposes of social media (Entertainment)

$X_4$  = social media platforms (Telegram)

$X_5$  = social media platforms (WhatsApp)

The following figure illustrates a practical tool that UiTM Seremban students can use to estimate their GPA based on social media usage, presented in the form of an Excel spreadsheet.

The screenshot shows an Excel spreadsheet titled "GPA Prediction Tool Based on Social Media". It contains several sections for data entry and calculation:

- Name:** FAIDA
- Time Spent on Social Media:** 1 On average, how many hours per day do you spend on social media? (IN HOURS)
- Level of Multitasking Behaviour:** A table with 6 rows of statements and 5 columns of response options (STRONGLY DISAGREE, DISAGREE, NEUTRAL, AGREE, STRONGLY AGREE).
- Purpose of Social Media Usage:** A table with 3 rows of statements and 2 columns of response options (YES, NO).
- Calculated GPA:** 3.85 (highlighted in green)
- Other labels:** FAIDA, REGRESSION EQUATION FOR GPA, AVERAGE 0.00

Figure 1: GPA Prediction Tool Based on Social Media

## CONCLUSION

The study concludes that social media usage has a measurable impact on academic performance among students at UiTM Seremban. Time spent on social media and multitasking behaviour were associated with lower GPAs, while the use of Telegram positively influenced academic results. WhatsApp and entertainment-related usage had a detrimental effect on academic performance. These insights emphasise the importance of promoting digital literacy and responsible usage habits among students. Educational institutions should consider implementing awareness campaigns, digital detox initiatives, and incorporating digital well-being into academic counselling. Further research may explore longitudinal patterns of social media behaviour and its long-term effects on learning outcomes.

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