The Impact of Using Social Media in Learning on the Academic Performance of Yemeni University Students

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Abstract:

Currently, social media is very popular among students and has a great impact on academic performance. However, there remains a significant scarcity of research focused on the impact of social media on the academic performance of the students in Yemen universities. Therefore, the aim of this study is to address this issue by investigating the impact of social media on the academic performance of students in Yemeni universities. A descriptive analytical method was used. This study developed a model using the Technology Acceptance Model (TAM) and constructivist theory. The model included six independent variables representing interactions for learning, participation in learning, perceived interest, ease of use, time spent, IT infrastructure, and one dependent variable, academic performance. IT infrastructure is included in the study model and is an important variable, but it has been overlooked in previous studies. This study applied a quantitative method and analysis through surveying 382 university students selected from the University of Science and Technology and Sana›a University. The data were analyzed via regression analysis. The results of the study reveal a statistically significant positive impact of using social media on students' academic performance. The results show there are a positive relationship between all independent variables in the model namely, interaction for education, participation for education, perceived usefulness, ease of use, time spent, and IT infrastructure and the dependent variable which is academic performance. Based on the findings, the study introduced recommendations for the respective stakeholders in Yemeni universities to leverage social media to foster academic performance of the students through increasing interaction for education, expanding participation of students in education, highlighting perceived benefits of social media for students, ensuring ease of use, managing time spent on social media, and enhancing IT Infrastructure.

Keywords: Social media impact, Student performance, Technology acceptance model, TAM.

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تأثير استخدام وسائل التواصل الاجتماعي في التعليم على الأداء الأكاديمي لطلاب الجامعات اليمنية

الملخص:

في الوقت الحاضر، تحظى وسائل التواصل الاجتماعي بشعبية كبيرة بين الطلاب ولها تأثير كبير على الأداء الأكاديمي. ومع ذلك، لا يزال هناك ندرة كبيرة في الأبحاث التي تركز على تأثير وسائل التواصل الاجتماعي على الأداء الأكاديمي للطلاب في الجامعات اليمنية. لذلك، فإن الهدف من هذه الدراسة هو معالجة هذه القضية من خلال التحقيق في تأثير وسائل التواصل الاجتماعي على الأداء الأكاديمي للطلاب في الجامعات اليمنية. تم استخدام المنهج التحليلي الوصفي. طورت هذه الدراسة نموذجًا باستخدام نموذج قبول التكنولوجيا (TAM) ونظرية البنائية. تضمن النموذج ست متغيرات مستقلة تمثل التفاعلات من أجل التعلم والمشاركة في التعلم والاهتمام المتصور وسهولة الاستخدام والوقت المستغرق والبنية التحتية لتكنولوجيا المعلومات ومتغير تابع واحد وهو الأداء الأكاديمي. تم تضمين البنية التحتية لتكنولوجيا المعلومات في نموذج الدراسة وهي متغير مهم، ولكن تم تجاهلها في الدراسات السابقة. طبقت هذه الدراسة أسلوبًا كميًا وتحليليًا من خلال مسح 382 طالبًا جامعيًا تم اختيارهم من جامعة العلوم والتكنولوجيا وجامعة صنعاء. تم تحليل البيانات من خلال تحليل الانحدار. تكشف نتائج الدراسة عن وجود تأثير إيجابي ذي دلالة إحصائية لاستخدام وسائل التواصل الاجتماعي على الأداء الأكاديمي للطلاب. تظهر النتائج وجود علاقة إيجابية بين جميع المتغيرات المستقلة في النموذج وهي التفاعل من أجل التعليم، والمشاركة من أجل التعليم، والفائدة المتصورة، وسهولة الاستخدام، والوقت المستغرق، والبنية الأساسية لتكنولوجيا المعلومات والمتغير التابع وهو الأداء الأكاديمي. بناءً على النتائج، قدمت الدراسة توصيات لأصحاب المصلحة المعنيين في الجامعات اليمنية للاستفادة من وسائل التواصل الاجتماعي لتعزيز الأداء الأكاديمي للطلاب من خلال زيادة التفاعل من أجل التعليم، وتوسيع مشاركة الطلاب في التعليم، وتسليط الضوء على الفوائد المتصورة لوسائل التواصل الاجتماعي للطلاب، وضمان سهولة الاستخدام، وإدارة الوقت المستغرق على وسائل التواصل الاجتماعي، وتعزيز البنية الأساسية لتكنولوجيا المعلومات.

الكلمات المفتاحية: تأثير وسائل التواصل الاجتماعي، أداء الطلاب، نموذج قبول التكنولوجيا (TAM).

1. Introduction

The use of social media platforms has rapidly expanded over the past decade. It currently has nearly 2 billion users. Especially for web platforms and mobile applications that enable groups and individuals to register accounts and communicate with others, Facebook, Twitter, WhatsApp, Instagram, YouTube, and Pinterest are popular social networks, making them among the most important internet applications. As a result, social media has profoundly impacted many aspects of life [1]. It is clear that individuals use platforms to communicate with friends and coworkers, whereas companies and other organizations quickly sell their products and services and engage with customers via platforms [2]. For educational institutions, academic achievement refers to how students deal with their studies as well as completing other tasks assigned to them by their teachers. The academic performance of students is a central aspect and a key goal of education. It can be defined as the knowledge acquired by students, typically assessed through grades assigned by teachers, and the educational objectives set by both students and teachers to be achieved within a specific timeframe. [3]. Social media has received increasing attention across various fields, including economics, marketing, health, education, and other areas, and has altered not only how people communicate with one another but also how pupils learn. Therefore, the majority of social media users are youths who are enrolled in higher education. Conversely, higher education institutions use social media to communicate with students and alumni and disseminate educational material [4]. Social media can easily be incorporated into educational settings because most students tend to open profiles on a variety of social media platforms. Therefore, the effects of these platforms on teaching and learning deserve study and are therefore the focus of this study. Several studies that have examined the impact of social media on academic performance have revealed a variety of results, including positive effects and negative effects. While the impact of social media use on university students'academic performance has not been fully explored from all its aspects - despite the impact of social media on individuals- there are only a few studies that specifically examine its impact as a tool to enhance learning performance and improve the quality of education in Yemen. However, few studies have explored the use of social media as a tool for effective learning performance through ways to improve the quality of learning in Yemen. Attention has focused only on developed countries. This is one of

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the main drivers of this study, which aims to close the gap by researching the variables affecting students'educational performance in Yemeni higher education institutions, as the study focuses on students'use of social media to learn, engage and interact with stakeholders in the Yemeni context. This study explores the impact of social media on academic performance in Yemen.

2. Significance of the Study

This study holds significance due to its dual focus on theoretical and scientific contributions.

- **Theoretical Significance:** The study is valuable for lecturers, students, and families in Yemeni higher education by highlighting the benefits and drawbacks of social media on academic performance. It aids university professors in understanding and addressing the impact of social media on students, helping improve awareness and usage. Additionally, it informs parents about the potential risks of excessive or inappropriate social media use by youth.
- **Scientific Significance:** The research educates graduate students on the adverse effects of non-academic social media use on academic performance and serves as a foundation for future studies exploring additional variables or contexts. Furthermore, it provides educational institutions with critical insights into the factors that negatively affect student performance, offering practical recommendations to mitigate excessive and improper use of social media and technology.

By addressing these dimensions, the study raises awareness of social media›s role in education and offers actionable solutions for academics, students, and institutions.

3. Literature Review

The body of literature on the impact of social media on students'academic performance in higher education has expanded significantly, providing valuable insights for current research. This review summarizes several key studies in the field:

Rfeqallah et al. [5] investigated the impact of social networking sites on academic performance at Taiz University. The study explored how interaction in education, cooperation with colleagues, and participation in learning affected student outcomes. Using quantitative methods and a sample of 357 students, data were collected through a survey. The findings confirmed that social networking sites had a significant effect on academic performance through these variables. Dhiman [6] examined the influence of social media

usage on the academic performance of students at Kurukshetra University, India. The study employed quantitative methods with a sample of 120 students. The results indicated that most students spent between 30 minutes and three hours daily on social networking platforms using mobile phones, which had both social and academic effects. The study suggested that teachers encourage students to use their phones for academic purposes, such as accessing study materials, rather than for excessive social interactions. Lin et al. [7] studied the relationship between academic performance and smartphone usage, focusing on different types of mobile applications. With a sample of 9,256 students, the research revealed that using mobile learning and news applications positively impacted academic performance, whereas playing mobile games had a negative effect. In a related study, A.M. Al-Rahmi et al. [8] analyzed students'behavioral intentions and actual social media usage in higher education. The research, which involved 1,200 students, examined variables such as peer interaction, participation, and cooperation. The results indicated that social media positively influenced students'academic satisfaction and performance, especially when used for educational purposes.

Ashraf et al. [9] explored the use of social media for open learning to bridge the literacy divide among students in Chinese higher education. The study, involving 233 international medical students, applied the technological acceptance model (TAM) and social constructivism theory to assess the impact of peer interaction, perceived usefulness, and perceived ease of use on open learning. The results demonstrated a significant positive effect on student participation and academic achievement through collaboration, discussion, and idea sharing. Alenazy, Al-Rahmi, and Khan [10] used a model based on perceived enjoyment, ease of use, and collaborative authorship to assess the impact of social media on collaborative learning. The study included 1,118 Malaysian students and revealed a positive relationship between social media usage and collaborative authoring in higher education. The findings highlight the potential of social media to promote active participation and collaboration among students, providing useful insights for both educators and policymakers.

Finally, W.M. Al-Rahmi et al. [11] investigated the effect of social media communication on the academic performance of Malaysian students. The study involved 723 students and used quantitative methods, employing constructivist theory and the TAM. The results indicated that students' perceptions

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of the usefulness and ease of use of social media significantly influence their collaborative learning experiences and academic success. Collaborative peer engagement was found to be beneficial for producing high-quality group outcomes in academic settings.

In summary, the reviewed literature consistently shows that while social media can enhance academic performance through peer interaction, collaboration, and information sharing, its misuse, particularly for nonacademic activities, can have detrimental effects. These studies highlight the importance of promoting social media use for educational purposes in higher education.

The research gap lies in the limited focus of previous studies on the impact of social media on students'academic performance, particularly in the context of Arab countries like Yemen. Most studies have concentrated on developed and stable nations and often targeted either public or private universities, whereas the current study aims to encompass both types of institutions in Sana'a. Previous research predominantly relied on Technology Acceptance Model (TAM) variables, which are insufficient for fully understanding specific educational contexts. To address this, the present study integrates constructivist theory with TAM, emphasizing critical aspects such as collaboration, participation, and interaction in education, which were overlooked in prior studies. Additionally, earlier studies used limited sample sizes and excluded significant variables like information technology infrastructure, a critical factor in Yemen›s context. This study fills these gaps by including IT infrastructure as a variable, expanding the sample to cover more universities, and providing a comprehensive analysis of how social media affects academic performance, particularly in Yemen.

4. Research Model and Hypotheses

The study model includes six independent variables—interaction for education, participation in education, perceived usefulness, ease of use, time spent, and IT infrastructure—along with one dependent variable, academic performance. These variables were chosen on the basis of previous studies, with the new addition of the IT infrastructure. The model is grounded in technology acceptance theory and constructivist theory. Academic performance is defined as the knowledge students acquire, measured through grades and other outcomes. It is a central element of the education system and an important focus for researchers, institutions, and policymakers [12][13]. This variable is influenced by academic achievement,

GPA, and competency acquisition, which are measured through a student survey. Interaction for education involves intentional communication between students and teachers, fostering engagement and improving academic performance. Previous studies have shown a strong positive relationship between interaction and academic success [11], [2]. The first hypothesis is therefore formulated as follows:

Hypothesis 1 suggests that there is a positive relationship between interaction for education and academic performance.

Participation in education refers to students' active involvement in learning activities. Social constructivism supports the idea that participation enhances collaborative learning, which positively affects academic outcomes [11]. The second hypothesis is therefore formulated as follows:

Hypothesis 2 posits that participation positively influences academic performance.

Perceived usefulness is the belief that using a particular system, such as social media, enhances academic performance. Studies confirm that perceived usefulness positively impacts academic outcomes [14], [15]. Therefore, the third hypothesis is formulated as follows:

Hypothesis 3 states that there is a positive relationship between perceived usefulness and academic performance.

Ease of use relates to how easily students can use a particular technology. Research indicates that ease of use improves academic performance, as it reduces the effort required to engage with educational technology [8], [16]. Thus, the fourth hypothesis is formulated as follows:

Hypothesis 4 suggests a positive relationship between ease of use and academic performance.

Time Spent refers to the amount of time students spend on social media, which can negatively affect their academic performance if it is used primarily for nonacademic purposes [17], [18]. Accordingly, the fifth hypothesis is formulated as follows:

Hypothesis 5 posits that time spent on social media has a negative relationship with academic performance.

IT infrastructure covers the technological resources available in educational institutions, such as internet access. A lack of sufficient IT infrastructure

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can hinder students'academic performance due to difficulties in accessing educational materials online [19]. Accordingly, the sixth hypothesis is formulated as follows:

Hypothesis 6 proposes a positive relationship between IT infrastructure and academic performance.

Figure 1 illustrates the research model with all the hypotheses.

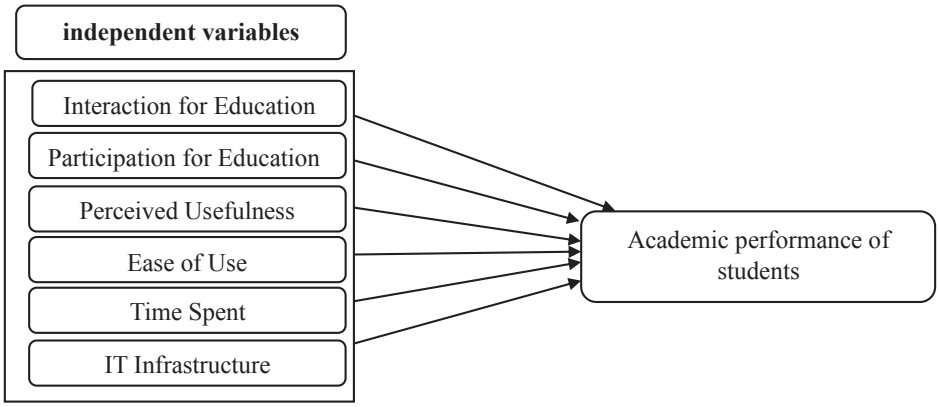

Figure 1: Research Model and Hypotheses

5. Methodology

Two main research methods were considered: quantitative and qualitative. This study utilized a quantitative approach to analyze and present data in numerical form [20]. The survey method was selected as the research strategy. This approach allows the collection of large amounts of data from a broad population and is particularly suitable for descriptive and exploratory research. Surveys enable researchers to gather quantitative data efficiently and affordably, which can be easily compared with other studies. In this study, a self-administered questionnaire was used to collect data [21], [22]. The research population consists of students from Yemeni universities in Sana'a, approved by the Ministry of Higher Education. The study focused on Sana'a University (the largest public university) and the University of Science and Technology (the largest private university). The combined student population from these universities for the 2022 academic year was 66,933. The sample consisted of 382 cases.

Data were collected through a questionnaire to evaluate the research model. The questionnaire›s content was thoroughly reviewed by academic experts

in the field of information systems to ensure its relevance and effectiveness. These experts examined the language, phrasing, structure, and overall layout. On the basis of their feedback, modifications—including additions, deletions, and revisions—were made to finalize the 33-item questionnaire.

After final approval, the questionnaire was translated into Arabic by two specialists, as the target population primarily speaks Arabic. An online version of the survey was created via Google Docs and was pretested in January 2023 with a random sample of 30 students. This pretest ensured that the questions were clear and comprehensible. The finalized questionnaire was then distributed to students at Sana›a University and the University of Science and Technology via social media platforms such as Facebook, WhatsApp, Instagram, and Telegram. The researcher sought assistance from students and university staff in distributing the survey.

Within two weeks, 325 responses were collected online, resulting in an 85% response rate. The use of mandatory responses for each question ensured that all the data collected were valid for analysis. To increase the response rate further, the researcher also distributed the questionnaire in person on the Sana›a University campus, collecting an additional 59 valid responses out of 100 distributed questionnaires. As a result, the overall response rate increased to 100%. In total, 382 valid questionnaires were collected across both rounds of data collection.

6. Data Analysis and Results

The data were analyzed by Statistical Package for the Social Sciences (SPSS) using different types of analyses such as demographic analysis, reliability analysis, descriptive analysis, correlation analysis, and finally regression analysis was used for hypotheses testing. The results of analysis are presented in the following sub sections.

6.1 Demographic Analysis

The respondents' demographic profiles include gender, academic level, university name, specialization, and years spent in using social media. Tables 1-5 show the results of demographic analysis.

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Table 1: Participants' Distribution by Gender

Gender	Frequency	Percent
Male	203	53.1%
Female	179	46.9%
Total	**382**	**100.0%**

Table 2: Participants' Distribution by Academic Level

Academic level	Frequency	Percent
First	42	11.0%
Second	56	14.7%
Third	92	24.1%
Fourth	155	40.6%
Fifth	15	3.9%
Sixth	22	5.8%
Total	**382**	**100%**

Table 3: Participants' Distribution by University Name

University Name	Frequency	Percent
Sana'a University	334	87.4%
University of Science and Technology	48	12.6%
Total	**382**	**100%**

Table 4: Participants' Distribution by Specialization

Specialization	Frequency	Percent
Engineering and computer colleges	81	21.2%
Administrative and humanitarian colleges	86	22.5%
Medical and pharmacy colleges	124	32.5%
Others	91	23.8%
Total	**382**	**100%**

Table 5: Participants' Distribution by Years Spent Using Social Media

Years spent using social media	Frequency	Percent
Year or less	4	1.0%
2-3 years	27	7.1%
3-4 years	71	18.6%
Over than 5 years	280	73.3%
Total	**382**	**100%**

6.2 Reliability Analysis

The reliability of the study variables, including both dependent and independent variables, was assessed via Cronbach›s alpha coefficient (α), a widely recognized measure of internal consistency. The results, as shown in Table 6, reveal a Cronbach›s alpha value of 0.891 for data scale stability. This high value indicates excellent internal consistency, suggesting that the questionnaire items are highly correlated and effectively measure the intended constructs.

Table 6: Reliability Analysis

Number of Items	Variable	Alpha	½Alpha
5	Academic Performance	72.1%	84.9%
5	Interaction for Education	75.6%	86.9%
5	Participation for Education	72.2%	85.0%
4	Perceived Usefulness	83.6%	91.4%
4	Ease of use	77.0%	87.7%
5	Time Spent	79.1%	88.9%
5	Information technology infrastructure	88.9%	94.3%
33	**All items**	**89.1%**	**94.4%**

6.3 Descriptive Analysis

The summarized results of the descriptive analysis indicate various relationships between independent variables and academic performance:

- **Academic Performance:** The overall average score is 4.07, with 81.4% of respondents agreeing, suggesting a strong positive relationship between academic performance and the independent variables.
- **Interaction for Education:** An average score of 3.95, with 79.0% agreement, indicates a positive relationship between social media interaction and academic performance.

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- **Participation for Education:** With an average score of 4.25 and 85.0% strong agreement, there is a strong positive relationship between participation via social media and academic performance.
- **Perceived Usefulness:** The average score of 4.23, with 84.6% strong agreement, suggests a positive relationship between the perceived usefulness of social media and academic performance.
- **Ease of Use:** An average score of 4.06, with 81.2% agreement, reflects a positive relationship between the ease of using social media and academic performance.
- **Time Spent:** The average score of 2.86, with 57.2% neutral responses, indicates a preliminary negative relationship between the time spent on social media and academic performance.
- **IT Infrastructure:** With an average score of 2.49 and 49.8% disagreement, these results suggest an underdeveloped IT infrastructure, which could negatively impact academic performance.

Overall, most variables show a positive relationship with academic performance, except for time spent on social media and IT infrastructure, which seem to have a negative or neutral impact.

6.4 Correlation Analysis

The correlation analysis aimed to explore the relationships between various independent variables and the dependent variable, academic performance. The analysis utilized the correlation coefficient (R value) to determine the strength and significance of these relationships, as detailed in Table 7.

Table 7: Correlation Analysis

Correlations	Academic Performance	Interaction for Education	Participation for Education	Perceived Usefulness	Ease of Use	Time Spent	IT Infrastructure
Academic Performance	1						
Interaction for Education	.396**	1					
Participation for Education	.409**	.661**	1				
Perceived Usefulness	.414**	.455**	.583**	1			
Ease of Use	.253**	.268**	.465**	.434**	1		
Time Spent	.383**	.266**	.258**	.376**	.297**	1	
IT Infrastructure	.219**	.228**	.164**	.159**	.138**	.364**	1

All the correlations are statistically significant at the 0.01 level (2-tailed), indicating a strong likelihood that these relationships are not due to chance. Additionally, the analysis reveals that there are no significant correlations among the independent variables themselves. Overall, these results provide preliminary evidence that the independent variables are positively associated with academic performance.

6.5 Hypothesis Testing

A regression analysis was conducted to examine the relationships between several independent variables and academic performance, thereby testing the study›s hypotheses. The results of this analysis are summarized below:

H1: Interaction between education and academic performance

The analysis revealed a significant positive relationship between the interaction effect on education and academic performance ($R = 0.396$, $R^2 = 0.157$, $B = 0.322$, $p < 0.01$). The interaction for education accounted for 15.7% of the variance in academic performance, supporting the hypothesis that educational interactions improve academic outcomes. This finding is consistent with prior studies suggesting that peer and expert interactions facilitate learning and task completion [2], [9].

H2: Participation in education and academic performance

A significant positive association was found between participation in education and academic performance ($R = 0.409$, $R^2 = 0.167$, $B = 0.398$, $p < 0.01$). Participation explained 16.7% of the variance in academic performance, supporting the hypothesis that engaging in educational discussions on social media enhances academic success [11], [23].

H3: Perceived usefulness and academic performance

The results revealed a significant positive relationship between perceived usefulness and academic performance ($R = 0.414$, $R^2 = 0.171$, $B = 0.331$, $p < 0.01$), accounting for 17.1% of the variation. This finding supports the hypothesis that students perceive social media as a valuable tool that helps them complete tasks more efficiently and enriches their learning experience [14], [24].

H4: Ease of use and academic performance

There was a significant but weaker positive relationship between ease of use and academic performance ($R = 0.253$, $R^2 = 0.064$, $B = 0.210$, $p < 0.01$),

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explaining 6.4% of the variance. While ease of use is relevant, its impact on academic performance is smaller than that of other factors [8], [9].

H5: Time spent and academic performance

A significant positive relationship was found between time spent and academic performance ($R = 0.383$, $R^2 = 0.147$, $B = 0.248$, $p < 0.01$), explaining 14.7% of the variation. In contrast to expectations, time spent on social media may improve academic performance, potentially indicating academic-related usage. However, excessive nonacademic use can negatively impact performance [17], [18].

H6: Information technology infrastructure and academic performance

The analysis revealed a significant positive relationship between information technology infrastructure and academic performance ($R = 0.219$, $R^2 = 0.048$, $B = 0.124$, $p < 0.01$), explaining 4.8% of the variance. The availability of technology infrastructure supports academic performance by facilitating access to information and research [18].

In conclusion, all the hypotheses were accepted, indicating that factors such as educational interaction, participation, perceived usefulness, and ease of use positively influence academic performance, whereas time spent on social media can have both positive and negative effects depending on its usage context. The study underscores the importance of the strategic use of social media in educational settings to optimize academic outcomes. Table 8 summarizes the results of hypothesis testing.

Table 8: Summary of for Hypotheses Testing Result

Hypothesis	Statement	Result
H1	There is a positive relationship between interaction for education and academic performance.	Accepted
H2	There is a positive relationship between perceived usefulness and academic performance	Accepted
H3	Participation positively influences academic performance	Accepted
H4	There is a positive relationship between ease of use and academic performance	Accepted
H5	Time spent on social media has a negative relationship with academic performance	Accepted
H6	There is a positive relationship between IT infrastructure and academic performance	Accepted

7. Discussion

This study investigates several key variables that influence academic performance, with a focus on the impact of social media. The interaction for education is highlighted as a crucial factor, showing a positive correlation with academic performance across multiple studies (e.g., [11], [9]). The current research aligns with these findings, indicating that student interaction with peers and experts online facilitates learning, assignment completion, and the creation of a positive educational atmosphere. Participation in education is also identified as a significant contributor to academic success. The study confirmed that participation through social media, including group discussions and project completion, enhances academic performance [11], [9]. Another important factor is perceived usefulness, which reflects students'belief that using social media in education leads to faster task completion and academic enrichment. This variable has a strong positive effect on academic outcomes [14]. Ease of use also plays a pivotal role, as students find user-friendly social media applications beneficial for overcoming technical challenges and completing academic tasks easily, contributing positively to performance [8]. Conversely, time spent on social media for nonacademic purposes has a negative effect on academic performance, as extended usage often leads to socializing rather than focusing on studies [18]. Finally, the study introduces IT infrastructure as a new variable, demonstrating that access to reliable technological resources, such as Wi-Fi and secure networks, is essential for leveraging the benefits of social media in education and enhancing academic performance.

8. Recommendations

The study›s recommendations focus on enhancing academic performance through thoughtful integration of social media in higher education. Key recommendations include:

- Increase Interaction for Education: Encourage platforms for student-stakeholder interaction (e.g., academic forums, university pages) to make students more active learners.
- Expand Participation in Education: Universities should promote engagement by using platforms like TikTok, Facebook, Instagram, and YouTube for academic discussions and knowledge sharing.
- Highlight Perceived Benefits: Raise student awareness about social media›s positive academic benefits, promoting its use for academic tasks.

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- Ensure Ease of Use: Train new users to navigate social media easily and create guides to reduce usage barriers.
- Manage Time Spent: Educate students on the impact of excessive social media use, including potential academic, psychological, and health drawbacks, through workshops or awareness sessions.
- Enhance IT Infrastructure: Universities should improve access to hardware, software, and high-speed internet to support social media usage effectively for academic purposes.

By implementing these recommendations, higher education institutions can leverage social media to foster academic engagement, participation, and productivity.

9. Conclusion

The information technology revolution has transformed every aspect of life, particularly how we communicate, and social media has significantly altered the way individuals consume and produce content such as information, news, and opinions. Most notably, social media has reshaped the way in which students interact and communicate with one another. Its widespread use, especially among university students, presents opportunities for understanding the role that social media plays in academic performance by investigating the specific variables that influence this relationship. The primary objective of this study was to examine the impact of social media on the academic performance of Yemeni students in higher education institutions. This study aimed to identify the social media variables that affect academic performance and to provide recommendations for stakeholders in higher education. To accomplish these goals, the study proposed a model grounded in the TAM and constructivist theory. This model included six independent variables—interaction for education, participation in education, perceived usefulness, ease of use, time spent, and IT infrastructure—alongside one dependent variable, academic performance. The inclusion of IT infrastructure as a variable is particularly notable, as it has been largely overlooked in previous studies. The proposed model was tested through multiple linear regression analysis and other statistical methods. The results indicated that the key social media variables influencing academic performance are interaction for education, participation in education, perceived usefulness, ease of use, time spent, and IT infrastructure. On the basis of these findings, a series of recommendations for stakeholders in higher education were developed. The outcomes of this study contribute to a deeper understanding of the relationship

between social media and academic performance, offering valuable insights for students, researchers, and decision-makers in higher education.

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