

The effect of social media use on organizational performance and innovation in private higher education

Deding Ishak^{a*}

^aSTAI Aljawami, Bandung, Indonesia

CHRONICLE

Article history:

Received: August 1, 2023

Received in revised format: October 20, 2023

Accepted: November 10, 2023

Available online: November 10, 2023

Keywords:

Social Media

Organizational Performance

Innovation Performance

Education

ABSTRACT

Higher education is currently facing a myriad of complex and diverse challenges. Increasing global competition, rapid developments in educational technology, and mounting pressures related to cost management and financing are factors that can significantly impact the higher education landscape. The aim of this research is to analyze the extent to which social media use can enhance organizational performance, ultimately influencing the organization's ability to foster innovation. This study employs a quantitative approach, collecting data through a questionnaire distributed to 205 respondents, consisting of faculty members working in private universities in Bandung, Indonesia. The questionnaire is designed using a 7-point Likert scale and distributed through an online survey platform. The research findings indicate that social media use has a positive and significant relationship with organizational performance and innovation performance in higher education. These findings are reinforced by the mediating role of organizational performance, explaining a significant portion of the positive influence of social media on innovation performance. The implications of these findings provide a foundation for universities to optimize the use of social media as a strategic tool in achieving performance goals and fostering innovation in the higher education environment.

© 2024 by the authors; licensee Growing Science, Canada.

1. Introduction

Higher education institutions are currently facing a myriad of complex and diverse challenges. Increasing global competition, rapid developments in educational technology, and mounting pressures related to cost management and financing are factors that can significantly impact the higher education landscape (Sciarelli et al., 2020). In order to remain relevant and competitive on an international scale, universities must respond to the increasingly complex demands of stakeholders, including students, faculty, government bodies, and the general public (Bovill, 2020; Khan & Bohari, 2021). According to Al Shraah et al. (2022), one way to address these challenges is through the use of social media. Social media, as a dominating digital communication tool, can be an effective means for universities to navigate these modern dynamics. Kumari et al. (2019) state that social media use provides a platform for higher education institutions to interact directly with various stakeholders and respond to evolving needs. By harnessing the power of social media, universities can expand the reach of information, enhance institutional image, and build and maintain positive engagement with the academic community and the broader public (Mohamed Hashim et al., 2021; Turnbull et al., 2021).

Beyond being a communication tool, social media can also serve as a platform for universities to promote various aspects of campus life, academic programs, and the achievements of students and faculty. This creates transparency and accessibility that can strengthen stakeholder engagement and enhance the institution's appeal (Ali et al., 2020; Stollefson et al., 2020).

* Corresponding author.

E-mail address: dishak.aljawami@gmail.com (D. Ishak)

ISSN 2561-8156 (Online) - ISSN 2561-8148 (Print)

© 2024 by the authors; licensee Growing Science, Canada.

doi: 10.5267/j.ijdns.2023.11.012

Moreover, social media provides space for collaboration, discussion, and the exchange of ideas among members of the academic community and even with the outside world. By implementing thoughtful social media strategies, universities can create an open, responsive, and innovative environment (Chan, 2023). Institutional innovation is crucial for higher education institutions, as it can facilitate program revisions, enhance university problem-solving capabilities, and advance applied research (Phan et al., 2019). The use of social media not only serves as a tool to address challenges but also to leverage opportunities in improving the quality of education and supporting the progress of higher education institutions in this modern era (Nuseir & Aljumah, 2020; Bayuo et al., 2020).

Enhanced engagement through social media can create a more collaborative organizational environment. By leveraging features such as discussion forums, groups, and live streaming, universities can facilitate the exchange of ideas and knowledge among members of the academic community (Langrafe et al., 2020). This can lead to improved internal communication, cross-disciplinary collaboration, and a stronger sense of engagement among staff and faculty. Universities that are active and effective on social media can also enhance the institution's image (Bygstad et al., 2022). By sharing student and faculty achievements, campus events, and research activities, institutions can build a positive reputation. A strong reputation can enhance the appeal of the university to prospective students and increase support from donors or potential partners. Furthermore, interactions occurring through social media can provide valuable insights for the evaluation and improvement of internal processes (Crawford et al., 2020; Núñez-Canal et al., 2022). Universities can use data from social media to measure engagement levels, identify trends, and assess the effectiveness of marketing campaigns or specific academic programs. This information can assist institutions in making better-informed decisions. Thus, this research aims to analyze the extent to which social media use can enhance organizational performance, ultimately influencing the organization's ability to foster innovation.

2. Literature Review and Hypotheses

The use of social media in the context of quality management can have a positive impact on higher education and other organizations. In this digital era, social media serves as an effective means to enhance communication, collaboration, and feedback (Tess, 2013). The use of social media strengthens communication among various stakeholders in higher education, including students, faculty, administrative staff, and alumni. Dynamic interactions through social media platforms allow universities to expand their communication reach, convey information about programs, events, and achievements, and provide direct responses to student inquiries or feedback (Keller et al., 2020; Wong & Chapman, 2023). This creates a transparent and open environment that can enhance positive perceptions of the university, support student recruitment, and strengthen relationships with external stakeholders (Manca & Grion, 2017; Tsou et al., 2021). Relucio & Palaoag (2018) state that social media platforms provide a valuable avenue for collecting and analyzing data and feedback meticulously. This contribution is considered significant in quality improvement efforts, illustrating how social media can be an effective tool for informing policies and best practices. Social media also supports transparency, accountability, and the dissemination of best practices, which are key elements in quality management in education (Ramírez & Tejada, 2019). The ability to share information seamlessly through social media platforms enables educational institutions to stay connected with stakeholders, students, and the general public, creating an open and accountable environment.

Furthermore, social media serves as a vast educational resource, facilitating connections with experts and innovators across various fields (Greenhow & Lewin, 2019). This dynamic interaction creates a more innovative educational environment, where ideas can easily flourish, promoting improved innovative performance. Thus, the use of social media in higher education acts as a catalyst for enhancing performance and fostering innovation in the educational environment (Vandeyar, 2020). Moreover, social media also creates opportunities for students to engage in scholarly discussions, share their thoughts, and expand their professional networks. All of these contribute to increased creativity and innovation in the academic environment (Ramzan et al., 2023). The continuous generation and sharing of information through these platforms can provide valuable insights for the evaluation and improvement of educational, administrative, and research processes. Universities that wisely leverage social media can create a dynamic culture of innovation, enhance the student experience, and advance the institution's reputation in the global higher education community (Sidik & Syafar, 2020; Ansari & Khan, 2020).

The interconnection between organizational performance and innovation performance becomes a dynamic interplay that mutually influences and reinforces each other. Organizational performance, encompassing goal achievement, operational efficiency, and responsiveness to stakeholders, forms the basis for an organization's ability to drive innovation (Asiedu et al., 2020; Kaputa et al., 2022). When an organization achieves high performance, both operationally and in strategic goal attainment, it creates a solid foundation to support innovative activities. Optimal organizational performance often reflects effective management, a well-structured organizational design, and a corporate culture that supports creativity (Bucea-Manea-Țoniș et al., 2020). Organizations capable of achieving and sustaining high performance have the ability to allocate resources wisely, facilitate effective collaboration, and provide incentives for innovation. Additionally, strong performance can enhance the reputation and image of the organization in the eyes of stakeholders, creating trust and support crucial for innovation efforts (Kumari, 2019; Ali, 2020; Turnbull et al., 2021). Good organizational performance provides a robust foundation for creating an environment supportive of innovation, where risks are valued, learning is appreciated, and experimentation is seen as a step towards improvement. The hypotheses in this study are formulated as follows:

Hypothesis 1: *Social media use has a positive effect on organizational performance.*

Hypothesis 2: *Social media use has a positive effect on innovation performance.*

Hypothesis 3: *Organizational performance has a positive effect on innovation performance.*

Hypothesis 4: *Organizational performance mediates the influence of social media use on innovation performance.*

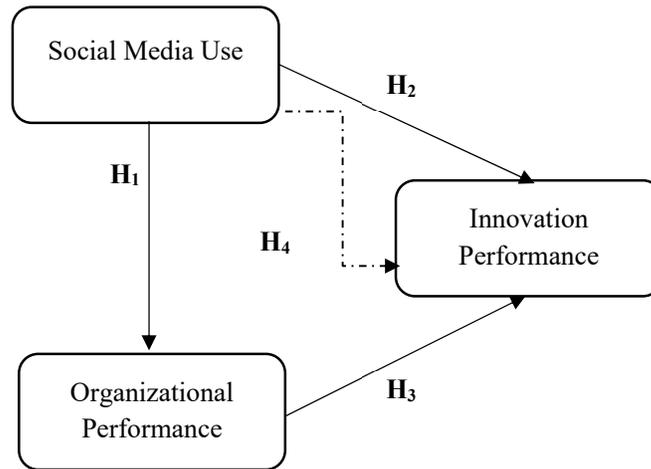


Fig. 1. Conceptual Framework

3. Research Methods

The research methodology employed in this study is a quantitative research method. The model for this research was adopted from Matalaka and Zoubi (2023). A questionnaire was created with a Likert scale ranging from 1 to 7 points to collect data, which was subsequently analyzed further. A total of 280 questionnaires were distributed to faculty members working in private universities in Bandung, Indonesia from August to September 2023 who were the research respondents. The questionnaires were distributed through an online survey platform. Out of the total number of questionnaires distributed to respondents, 221 were returned, indicating a response rate of 78%. However, there were 14 incomplete questionnaires that could not be processed further. Finally, a total of 205 samples were used in this study. Respondent characteristics in this study include gender, with 132 male respondents and 73 female respondents. In terms of age, respondents were divided into three categories: 25-35 years with 36 respondents; 36-46 years with 105 respondents; and 47 years and above with 64 respondents. Regarding work experience, 33 respondents had less than 2 years of experience, 74 respondents had 2-5 years of experience, and 98 respondents had 6 years or more of experience. In this study, there are four main variables used, including , social media use, organizational performance, and innovation performance. This study utilized SmartPLS 3 software to analyze the relationships between these variables.

4. Result and Discussion

In this study, the evaluation of the measurement model for the indicators measuring latent variables was conducted with reference to the reliability of each indicator. This is reflected in the values obtained for Cronbach's α and Composite Reliability (CR). With Cronbach's α and Composite Reliability (CR) values exceeding 0.7, these results provide strong support for the consistency of the indicators in measuring latent variables. Furthermore, an assessment of validity was also performed to measure the extent to which the indicators are reliable in measuring latent variables. With an average variance extracted (AVE) value for all constructs exceeding 0.50, this indicates that the indicators can be considered reliable and valid in measuring the intended constructs. These results strengthen the confidence that the measurement model used in this study has an adequate level of reliability and validity. Furthermore, to further strengthen these results, a discriminant validity test was conducted. The purpose of this test is to ensure that the measurement of variables aligns with what exists in reality. The results of this test can be seen from the construct values of each variable, which should be greater than the measurements of other variables. Discriminant validity testing helps ensure that each measured variable truly reflects the intended concept and is not mixed or confounded with other variables. Results indicating that the construct values of each variable are greater than the measurements of other variables provide confidence that the measurements used in this study have the ability to distinguish between different constructs effectively. In other words, discriminant validity testing helps ensure that each variable is accurately and relevantly measured in the context of this research.

Table 1
Reliability and construct validity

Variable	Indicator	Cronbach's Alpha (α)	CR	AVE
Social Media Use	SME1	0.781	0.813	0.842
	SME2	0.845	0.894	0.779
	SME3	0.835	0.902	0.683
	SME4	0.854	0.855	0.771
Organizational Performance	PERF1	0.878	0.871	0.712
	PERF2	0.745	0.789	0.853
	PERF3	0.809	0.870	0.790
	PERF4	0.799	0.878	0.704
Innovation Performance	INV1	0.821	0.880	0.822
	INV3	0.818	0.831	0.782
	INV3	0.842	0.847	0.723
	INV4	0.788	0.866	0.718

Table 2
Discriminant Validity

Variable	SME	SQMP	QUA	INN
SME	0.706			
PERF	0.291	0.398	0.823	
INV	0.427	0.401	0.415	0.807

Note: SQMP = ; SME = Social Media Use; PERF = Organizational Performance; INN = Innovation Performance

From Table 2 above, it can be seen that the discriminant validity values of each variable's indicators accurately reflect their respective latent variables. The results of the discriminant validity test are positive because they demonstrate that the measurements used in this study are effective in ensuring that each variable reflects a distinct concept and is not confounded with other variables. Therefore, these results provide confidence that this research employed valid and reliable measurement tools for its variables.

Table 3
Hypothesis Testing

	Hypothesis	p-value	Information
H ₁	Social Media Use - Organizational Performance	0.000	Significant
H ₂	Social Media Use - Innovation Performance	0.002	Significant
H ₃	Organizational Performance - Innovation Performance	0.000	Significant
H ₄	Social Media Use - Organizational Performance - Innovation Performance	0.001	Significant

This research has yielded significant findings regarding the relationship between social media use, organizational performance, and innovation performance in the context of higher education. The first hypothesis indicates a significant relationship between social media use and organizational performance, with a p-value of 0.002 (<0.05). This result suggests that social media use has a significant positive impact on organizational performance. The second hypothesis also shows significant results, affirming the crucial relationship between social media use and innovation performance, with a p-value of 0.002 (<0.05). This indicates that higher education institutions that are more active and effective in using social media tend to achieve higher levels of innovative performance. Meanwhile, the third hypothesis indicates a significant relationship between organizational performance and innovation performance. The magnitude of this influence can be seen from the p-value of 0.000, illustrating that organizational performance plays a substantial role in supporting the level of innovative performance in the higher education environment. Significant results are also evident in the fourth hypothesis, where it was found that organizational performance can mediate the relationship between social media use and innovation performance. With a p-value of 0.001, this result confirms that social media use not only directly influences innovation performance but also through the mediation of organizational performance. The findings of this research align with the studies by Tess (2013) and Kumari et al. (2019), highlighting that social media use can have a positive impact on higher education and organizations in general. Social media is identified as an effective tool for enhancing communication, collaboration, and feedback within the higher education environment. This research also supports Vandeyar's (2020) findings, emphasizing that dynamic interactions through social media create a more innovative educational environment, allowing ideas to flourish easily and encouraging improved innovative performance in higher education institutions. Thus, social media use can be considered a crucial catalyst in enhancing performance and innovation in the higher education environment.

5. Conclusion

The findings of this research conclude that social media use has a significant positive impact on organizational performance, strengthening communication, collaboration, and feedback among stakeholders in higher education. Furthermore, the research findings state that there is a crucial relationship between social media use and innovation performance. Higher education institutions that actively use social media tend to achieve higher levels of innovative performance, creating an environment that supports the exchange of ideas and innovation development. This study also affirms a significant relationship between

organizational performance and innovation performance. Good organizational performance is believed to play a vital role in supporting the level of innovative performance in the higher education environment. Moreover, the research found that organizational performance can mediate the relationship between social media use and innovation performance. This indicates that not only does social media use directly influence innovation, but it also does so through the improvement of organizational performance as an intermediary.

These findings support the idea that social media plays a significant role in shaping organizational performance and driving innovation in higher education institutions. The results of this research have implications that social media use is an effective strategy for enhancing interaction, collaboration, and organizational effectiveness in achieving its innovative goals. By understanding these dynamics, universities can optimize social media use as a crucial tool in achieving superior performance and stimulating innovation in the future. Furthermore, the interconnection between organizational performance and innovation performance underscores the synergy between these two dimensions, emphasizing that improvement in one can have a positive influence on the other. This study focused on state universities in Indonesia, which may limit the generalizability of these findings to different educational environments. Additionally, this research primarily relied on quantitative data from questionnaires. Future research could complement this with qualitative data, interviews, or case studies to provide a more comprehensive understanding of the subject. Therefore, further research could investigate the specific impact and interconnection between soft management practices and social media platforms, helping institutions understand when to emphasize each.

References

- Al Shraah, A., Abu-Rumman, A., Al Madi, F., Alhammad, F. A. F., & AlJboor, A. A. (2022). The impact of quality management practices on knowledge management processes: a study of a social security corporation in Jordan. *The TQM Journal*, 34(4), 605-626.
- Ali, W. (2020). Online and remote learning in higher education institutes: A necessity in light of COVID-19 pandemic. *Higher education studies*, 10(3), 16-25.
- Ansari, J. A. N., & Khan, N. A. (2020). Exploring the role of social media in collaborative learning the new domain of learning. *Smart Learning Environments*, 7(1), 1-16.
- Asiedu, M. A., Anyigba, H., Ofori, K. S., Ampong, G. O. A., & Addae, J. A. (2020). Factors influencing innovation performance in higher education institutions. *The Learning Organization*, 27(4), 365-378.
- Bayuo, B. B., Chaminade, C., & Göransson, B. (2020). Unpacking the role of universities in the emergence, development and impact of social innovations—A systematic review of the literature. *Technological Forecasting and Social Change*, 155, 120030.
- Bovill, C. (2020). Co-creation in learning and teaching: The case for a whole-class approach in higher education. *Higher education*, 79(6), 1023-1037.
- Bucea-Manea-Țoniș, R., Bucea-Manea-Țoniș, R., Simion, V. E., Ilic, D., Braicu, C., & Manea, N. (2020). Sustainability in higher education: The relationship between work-life balance and XR e-learning facilities. *Sustainability*, 12(14), 5872.
- Bygstad, B., Øvrelid, E., Ludvigsen, S., & Dæhlen, M. (2022). From dual digitalization to digital learning space: Exploring the digital transformation of higher education. *Computers & Education*, 182, 104463.
- Chan, C. K. Y. (2023). A comprehensive AI policy education framework for university teaching and learning. *International Journal of Educational Technology in Higher Education*, 20(1), 38.
- Crawford, J., Butler-Henderson, K., Rudolph, J., Malkawi, B., Glowatz, M., Burton, R., ... & Lam, S. (2020). COVID-19: 20 countries' higher education intra-period digital pedagogy responses. *Journal of Applied Learning & Teaching*, 3(1), 1-20.
- Greenhow, C., & Lewin, C. (2019). Social media and education: Reconceptualizing the boundaries of formal and informal learning. In *social media and education* (pp. 6-30). Routledge.
- Kaputa, V., Loučanová, E., & Tejerina-Gaite, F. A. (2022). Digital transformation in higher education institutions as a driver of social oriented innovations. *Social innovation in higher education*, 61, 81-85.
- Keller, D. S., Grossman, R. C., & Winter, D. C. (2020). Choosing the new normal for surgical education using alternative platforms. *Surgery (Oxford)*, 38(10), 617-622.
- Khan, M. A., & Bohari, A. M. (2021). Influence of Soft Total Quality Management Practices and University Performance. *Review of International Geographical Education Online*, 11(7).
- Kumari, R., Kwon, K. S., Lee, B. H., & Choi, K. (2019). Co-creation for social innovation in the ecosystem context: The role of higher educational institutions. *Sustainability*, 12(1), 307.
- Langrafe, T. D. F., Barakat, S. R., Stocker, F., & Boaventura, J. M. G. (2020). A stakeholder theory approach to creating value in higher education institutions. *The Bottom Line*, 33(4), 297-313.
- Manca, S., & Grion, V. (2017). Engaging students in school participatory practice through Facebook: The story of a failure. *British Journal of Educational Technology*, 48(5), 1153-1163.
- Matalka, M., & Zoubi, M. (2023). The influence of soft and hard quality management practices on quality improvement and performance in UAE higher education. *International Journal of Data and Network Science*, 7(3), 1311-1320.
- Mohamed Hashim, M. A., Tlemsani, I., & Matthews, R. (2021). Higher education strategy in digital transformation. *Education and Information Technologies*, 1-25.

- Núñez-Canal, M., de Obesso, M. D. L. M., & Pérez-Rivero, C. A. (2022). New challenges in higher education: A study of the digital competence of educators in Covid times. *Technological Forecasting and Social Change*, 174, 121270.
- Nuseir, M. T., & Aljumah, A. (2020). The role of digital marketing in business performance with the moderating effect of environment factors among SMEs of UAE. *International Journal of Innovation, Creativity and Change*, 11(3), 310-324.
- Phan, A. C., Nguyen, H. T., Nguyen, H. A., & Matsui, Y. (2019). Effect of total quality management practices and JIT production practices on flexibility performance: Empirical evidence from international manufacturing plants. *Sustainability*, 11(11), 3093.
- Ramírez, Y., & Tejada, Á. (2019). Digital transparency and public accountability in Spanish universities in online media. *Journal of Intellectual Capital*, 20(5), 701-732.
- Ramzan, M., Javaid, Z. K., & Fatima, M. (2023). Empowering ESL Students: Harnessing the Potential of Social Media to Enhance Academic Motivation in Higher Education. *Global Digital & Print Media Review*, VI, 224-237.
- Relucio, F. S., & Palaoag, T. D. (2018). Sentiment analysis on educational posts from social media. In *Proceedings of the 9th international conference on E-education, E-business, E-management and E-learning* (pp. 99-102).
- Sciarelli, M., Gheith, M. H., & Tani, M. (2020). The relationship between quality management practices, organizational innovation, and technical innovation in higher education. *Quality Assurance in Education*, 28(3), 137-150.
- Sidik, D., & Syafar, F. (2020). Exploring the factors influencing student's intention to use mobile learning in Indonesia higher education. *Education and Information Technologies*, 25(6), 4781-4796.
- Stellefson, M., Paige, S. R., Chaney, B. H., & Chaney, J. D. (2020). Evolving role of social media in health promotion: updated responsibilities for health education specialists. *International journal of environmental research and public health*, 17(4), 1153.
- Tess, P. A. (2013). The role of social media in higher education classes (real and virtual)—A literature review. *Computers in human behavior*, 29(5), A60-A68.
- Tsou, Y. H., Huang, Y. F., Liu, S. C., & Do, M. H. (2021). The effects of total quality management and corporate social responsibility on firm performance: A future research agenda. *The Journal of Asian Finance, Economics and Business*, 8(4), 277-287.
- Turnbull, D., Chugh, R., & Luck, J. (2021). Transitioning to E-Learning during the COVID-19 pandemic: How have Higher Education Institutions responded to the challenge?. *Education and Information Technologies*, 26(5), 6401-6419.
- Vandeyar, T. (2020). The academic turn: Social media in higher education. *Education and Information Technologies*, 25(6), 5617-5635.
- Wong, W. H., & Chapman, E. (2023). Student satisfaction and interaction in higher education. *Higher Education*, 85(5), 957-978.



© 2024 by the authors; licensee Growing Science, Canada. This is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC-BY) license (<http://creativecommons.org/licenses/by/4.0/>).