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Proposing an integrated management model for the dual advancement of teaching and research in Vietnamese Higher Education

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Abstract--This study aims to develop an innovative management model to enhance teaching and research effectiveness at five universities in Vietnam. The research employs a mixed-methods approach, integrating quantitative surveys with qualitative interviews and focus groups to gather comprehensive data from faculty, administrative staff, and students. The results reveal that technology integration, data-driven decision-making, and collaborative management practices significantly improve institutional performance. Specifically, the use of Learning Management Systems enhances course management and student engagement, while data analytics facilitate strategic decision-making and optimize research outcomes. Collaborative practices foster valuable partnerships that enrich both educational and research experiences, although challenges such as a steep learning curve for new administrative systems and the need for additional training were identified. The findings suggest that continuous investment in technology, robust data analytics, and a collaborative culture are essential for overcoming these challenges and improving overall effectiveness. Embracing these innovative practices will enable higher education institutions to better adapt to evolving demands and significantly advance academic and societal contributions.

Keywords---Innovative Management, Teaching Effectiveness, Research Productivity, Data-Driven Decision Making in Vietnamese Education, Technology Integration.

1. Introduction

In recent years, higher education institutions in Vietnam have faced unprecedented challenges that necessitate innovative management solutions to sustain and enhance their core functions: teaching and research. As the global education landscape evolves, universities are increasingly pressured to improve educational outcomes, adapt to technological advancements, and maintain research excellence. This introduction provides an overview of the importance of developing an innovative management model tailored to these evolving needs in the Vietnamese context.

Higher education institutions are critical drivers of societal progress, knowledge creation, and economic development. However, many Vietnamese universities find that traditional management models are increasingly inadequate for addressing contemporary challenges. These challenges include fluctuating funding sources, evolving student expectations, and the rapid pace of technological change (Brown & Carasso, 2020). Consequently, there is a growing need for innovative management approaches that can effectively support teaching and research activities.

The role of management in higher education is multifaceted, encompassing strategic planning, resource allocation, and organizational leadership. Recent studies emphasize the importance of aligning management practices with institutional goals to enhance overall performance (Harvey, 2021). Effective management not only ensures the efficient use of resources but also fosters an environment conducive to academic excellence. For instance, innovative management practices can streamline administrative processes, improve faculty satisfaction, and enhance student learning experiences (Smith & Jones, 2022).

One significant area of concern is the effectiveness of teaching. The quality of education directly impacts student outcomes and institutional reputation. Traditional management approaches often fall short in addressing the diverse needs of both students and faculty. A study by Wang and Li (2019) highlights the limitations of conventional management models in promoting pedagogical innovation and supporting faculty development. As educational paradigms shift towards more student-centered and technology-enhanced learning, there is a pressing need for management strategies that can facilitate these transitions.

Similarly, research effectiveness is a critical factor in a university's success. Research activities not only contribute to academic knowledge but also enhance the institution's standing in the global academic community. However, many Vietnamese institutions struggle with managing research resources effectively and fostering a collaborative research environment (Miller, 2023). Innovative management models have the potential to address these issues by implementing structures that support interdisciplinary research, facilitate funding acquisition, and streamline administrative tasks (Brown & Carasso, 2020).

The primary objective of this study is to develop and propose an innovative management model designed to enhance both teaching and research effectiveness in Vietnamese higher education institutions. This model aims to integrate best

practices from various fields, including strategic management, organizational behavior, and educational technology. By addressing the limitations of traditional management approaches, the proposed model seeks to create a more agile and responsive management framework that aligns with the evolving needs of higher education institutions in Vietnam.

This study is significant for several reasons. Firstly, it provides a comprehensive approach to improving management practices in higher education, addressing both teaching and research aspects. Secondly, by focusing on innovative solutions, the study contributes to the ongoing discourse on enhancing educational quality and research productivity. Finally, the proposed model offers practical insights for university administrators and policymakers, facilitating informed decision-making and strategic planning.

Developing an innovative management model requires a thorough understanding of current challenges and trends in higher education. Recent research highlights several key areas where traditional management practices fall short. For instance, a study by Patel and Zhang (2022) identifies gaps in the alignment between institutional goals and management practices, particularly in the context of digital transformation. Addressing these gaps through innovative management approaches can help Vietnamese universities navigate the complexities of the modern educational landscape more effectively.

Developing an innovative management model for higher education institutions in Vietnam is both timely and necessary. By focusing on enhancing teaching and research effectiveness, this study aims to provide valuable insights and practical solutions for the field of higher education management. As universities continue to adapt to changing circumstances, innovative management practices will play a crucial role in ensuring their sustained success and impact.

2. Literature Review

2.1. Current Management Models in Higher Education

The management of higher education institutions has traditionally been characterized by a range of models, each with its own strengths and limitations. These models shape how universities operate, make decisions, and allocate resources. Understanding these models is essential for identifying areas where innovative management practices can be introduced to improve teaching and research effectiveness.

Bureaucratic Management Model

The bureaucratic management model is one of the oldest and most widely used structures in higher education. Rooted in the principles articulated by Max Weber, this model emphasizes a hierarchical organization with clear lines of authority, standardized procedures, and formal rules (Smith & Jones, 2022). In this model, decision-making is centralized, and roles and responsibilities are well-defined to ensure consistency and control.

While the bureaucratic model provides stability and order, it has been criticized for its rigidity and lack of responsiveness to change. In the rapidly evolving landscape of higher education, this model can hinder innovation and slow down decision-making processes (Harvey, 2021). Institutions adhering strictly to this model may struggle to adapt to new technologies and changing student expectations, leading to inefficiencies and reduced organizational agility.

Collegial Management Model

In contrast to the bureaucratic model, the collegial management model emphasizes shared governance and participatory decision-making. This model promotes a collaborative approach where faculty members, administrators, and other stakeholders are involved in key decisions affecting the institution (Patel & Zhang, 2022). The collegial model fosters a sense of community and inclusiveness, aligning with the values of academic freedom and shared responsibility.

Despite its advantages in promoting collaboration and faculty engagement, the collegial model can face challenges related to efficiency and conflict resolution. Decision-making processes may become prolonged due to the need to achieve consensus among diverse stakeholders (Wang & Li, 2019). Additionally, the model's focus on shared governance may lead to ambiguities in authority and accountability, potentially complicating the implementation of institutional strategies.

Entrepreneurial Management Model

The entrepreneurial management model is a more recent development in higher education, reflecting the growing emphasis on innovation, market responsiveness, and revenue generation. This model encourages institutions to adopt entrepreneurial practices, such as forming partnerships with industry, pursuing commercial ventures, and seeking alternative funding sources (Brown & Carasso, 2020). The goal is to enhance institutional sustainability and competitiveness in a challenging funding environment.

This model emphasizes flexibility, strategic risk-taking, and the ability to capitalize on new opportunities. While it can lead to significant advancements and financial benefits, it also raises concerns about the commercialization of education and potential conflicts between profit motives and academic integrity (Miller, 2023). Institutions adopting this model must carefully balance financial objectives with their core educational mission.

Technological Management Model

The technological management model focuses on integrating digital tools and technologies into institutional operations to improve efficiency and effectiveness. This model encompasses the use of Learning Management Systems (LMS), Research Management Systems (RMS), and other digital platforms to support teaching, research, and administration (Harvey, 2021). Technology is leveraged to

streamline processes, enhance communication, and facilitate data-driven decision-making.

While the technological model offers significant benefits in terms of efficiency and data management, it also presents challenges related to digital equity, data security, and the need for ongoing technological adaptation (Smith & Jones, 2022). Institutions must ensure that technological advancements align with their strategic goals and adequately support the needs of students and faculty.

Hybrid Models

In practice, many higher education institutions employ hybrid management models that combine elements from multiple traditional models. For example, an institution may integrate bureaucratic procedures for administrative efficiency with collegial practices to engage faculty in governance (Patel & Zhang, 2022). Hybrid models aim to leverage the strengths of various approaches while mitigating their limitations.

The adoption of hybrid models reflects a growing recognition that no single management approach is universally applicable. Institutions are increasingly seeking flexible and adaptive strategies that can address their unique challenges and opportunities (Wang & Li, 2019). Hybrid models offer a way to balance stability with innovation and responsiveness, aligning management practices with the diverse needs of modern higher education.

2.2. Innovative Management Practices

In the face of evolving challenges and opportunities in higher education, institutions are increasingly turning to innovative management practices to enhance their operations and effectiveness. These practices aim to address the limitations of traditional models by incorporating new strategies and technologies that promote agility, collaboration, and efficiency. This section explores several key innovative management practices that have gained traction in higher education.

Agile Management

Agile management, originally developed in the context of software development, has been adapted for use in higher education to address the need for flexibility and rapid response to change (Brown & Carasso, 2020). Agile management emphasizes iterative processes, cross-functional collaboration, and adaptive planning. By breaking down projects into smaller, manageable tasks and regularly reassessing progress, institutions can respond more quickly to emerging challenges and opportunities (Smith & Jones, 2022).

For instance, universities have applied agile principles to streamline administrative processes and enhance project management. Agile methodologies enable institutions to implement changes incrementally, gather feedback from stakeholders, and make continuous improvements. This approach not only

improves efficiency but also fosters a culture of innovation and responsiveness (Harvey, 2021).

Data-Driven Decision Making

The integration of data-driven decision-making is another significant innovation in higher education management. By leveraging big data and analytics, institutions can make more informed decisions about resource allocation, student performance, and institutional strategies (Miller, 2023). Data-driven practices involve collecting and analyzing large volumes of data to identify trends, predict outcomes, and guide strategic planning.

For example, learning analytics can be used to monitor student engagement and performance, enabling educators to tailor their teaching approaches to better meet individual student needs (Wang & Li, 2019). Similarly, predictive analytics can help institutions forecast enrollment trends, optimize course offerings, and improve retention rates. The use of data-driven decision-making enhances institutional effectiveness by providing actionable insights and supporting evidence-based practices (Patel & Zhang, 2022).

Technology Integration

Technology integration is a cornerstone of innovative management practices in higher education. The adoption of digital tools and platforms has transformed how institutions manage teaching, research, and administration. Key technologies include LMS, RMS, and Enterprise Resource Planning (ERP) systems (Harvey, 2021).

LMS platforms, such as Blackboard and Canvas, facilitate online learning and provide a centralized location for course materials, assignments, and communication (Smith & Jones, 2022). RMS platforms support research administration by managing grant applications, tracking research outputs, and fostering collaboration among researchers (Miller, 2023). ERP systems streamline administrative processes, including finance, human resources, and student services, improving overall operational efficiency.

The effective integration of technology not only enhances operational efficiency but also supports innovative teaching and research practices. For example, the use of virtual and augmented reality in education provides immersive learning experiences, while collaborative tools like Slack and Microsoft Teams facilitate remote teamwork and communication (Brown & Carasso, 2020).

Collaborative Management

Collaborative management practices focus on fostering partnerships and cooperation among various stakeholders, including faculty, staff, students, and external partners. This approach emphasizes the importance of building strong relationships and working together to achieve common goals (Patel & Zhang, 2022). Collaborative management practices can enhance innovation, problem-solving, and organizational effectiveness.

For instance, universities are increasingly forming partnerships with industry, government, and other academic institutions to advance research, develop new programs, and address societal challenges (Wang & Li, 2019). These collaborations can provide additional resources, expertise, and opportunities for students and faculty. Additionally, fostering a collaborative culture within the institution can lead to more effective decision-making and a stronger sense of community.

Sustainable Management Practices

Sustainability is an emerging focus in higher education management, reflecting a commitment to environmental, social, and economic responsibility. Sustainable management practices aim to reduce the environmental impact of institutional operations, promote social equity, and ensure long-term financial stability (Harvey, 2021).

Examples of sustainable practices include implementing green campus initiatives, such as energy-efficient buildings and waste reduction programs, and adopting socially responsible investment strategies (Smith & Jones, 2022). By incorporating sustainability into their management practices, institutions can enhance their reputation, attract environmentally conscious students and faculty, and contribute to broader societal goals.

2.3. Teaching and Research Effectiveness

Teaching and research effectiveness are fundamental to the mission and success of higher education institutions. Effective teaching involves not only delivering high-quality instruction but also engaging students and achieving desired educational outcomes. Factors contributing to teaching effectiveness include faculty qualifications, instructional strategies, and the learning environment. Faculty members with strong subject matter expertise and pedagogical skills are better equipped to facilitate effective learning experiences (Smith & Jones, 2022). Instructional strategies such as active learning, which involves interactive activities and problem-solving, have been demonstrated to improve student engagement and retention (Brown & Carasso, 2020). Additionally, the integration of technology, including LMS and digital tools, supports innovative teaching methods and enhances the overall learning experience (Miller, 2023).

Innovative management practices play a significant role in enhancing teaching effectiveness. Data-driven approaches, such as learning analytics, allow institutions to monitor and evaluate teaching practices and student performance. By analyzing data on student engagement and achievement, educators can adapt their strategies to better meet student needs (Wang & Li, 2019). Technology integration is another critical factor, as tools such as virtual classrooms, interactive simulations, and online resources provide diverse and immersive learning experiences. Furthermore, professional development programs focusing on innovative teaching techniques and technology use equip educators with the skills necessary to improve their instructional practices (Harvey, 2021).

Research effectiveness, similarly, is a key aspect of institutional success and is characterized by the ability to produce high-quality research outputs, contribute to knowledge advancement, and achieve research goals. Factors influencing research effectiveness include institutional support, funding availability, and collaboration opportunities. Institutional support encompasses resources such as research facilities, administrative assistance, and access to funding opportunities, which facilitate research activities and enhance productivity (Harvey, 2021). Funding availability is crucial as research often requires significant financial resources for equipment, personnel, and other expenses. Institutions that effectively manage and secure research funding are better positioned to conduct impactful research (Miller, 2023). Collaboration opportunities also play a vital role, as interdisciplinary and collaborative research initiatives can lead to innovative solutions, knowledge exchange, and increased research impact (Patel & Zhang, 2022). Partnerships with industry, other academic institutions, and government agencies provide additional resources and expertise.

Innovative management practices can further enhance research effectiveness by addressing challenges and leveraging new opportunities. For example, the implementation of RMS can streamline administrative tasks such as grant applications and research compliance, allowing researchers to concentrate on their work (Miller, 2023). Data-driven decision-making supports research effectiveness by offering insights into research trends, funding opportunities, and performance metrics. Predictive analytics can help institutions identify emerging research areas and allocate resources more strategically (Wang & Li, 2019). Encouraging a culture of collaboration and interdisciplinary research also supports research effectiveness. Institutions that promote partnerships and create platforms for researcher collaboration are more likely to produce high-impact research (Harvey, 2021). Establishing research centers and networks that facilitate these collaborations can further enhance research initiatives and effectiveness.

3. Methodology

3.1. Research Design

This study employs a mixed-methods research design to thoroughly investigate the impact of innovative management practices on teaching and research effectiveness in higher education institutions. The mixed-methods approach integrates both quantitative and qualitative research techniques, enabling a comprehensive examination of the research topic from multiple angles.

Quantitative Approach: A survey-based method is used to collect numerical data from faculty members, administrative staff, and students. This approach allows for the statistical analysis of responses to identify trends, correlations, and patterns related to the effectiveness of management practices.

Qualitative Approach: To complement the quantitative data, qualitative methods are employed. Semi-structured interviews with faculty and administrative staff, along with focus group discussions with students, provide in-depth insights into the participants' experiences and perceptions. These qualitative techniques help

to contextualize the quantitative findings and offer a richer understanding of the subject matter.

3.2. Data Collection

Data Collection Methods:

Surveys and Questionnaires: A structured survey is administered to gather quantitative data from a sample of 100 faculty members, 100 administrative staff, and 300 students across five universities in Vietnam, including Ho Chi Minh City University of Education; Hanoi University of Science and Technology; Ho Chi Minh City University of Technology; Thuongmai University; and Thai Nguyen University.

National Economics University. The survey includes questions designed to assess various dimensions of management practices and their impact on teaching and research. The electronic distribution of the survey ensures broad accessibility and facilitates the efficient collection of responses.

Interviews: Semi-structured interviews are conducted with selected faculty members and administrative staff. These interviews are designed to explore detailed views on innovative management practices. The semi-structured format allows for flexibility and depth, enabling interviewees to discuss their experiences comprehensively.

Focus Groups: Focus group discussions with students are conducted to gather qualitative feedback on their experiences with management practices. These discussions provide a collaborative setting for students to express their opinions and reflect on the effectiveness of management practices.

Sample Selection: The sampling involves stratified random sampling to ensure representation across different departments, roles, and student demographics within the selected universities. This approach enhances the generalizability and reliability of the findings.

3.3. Data Analysis

Quantitative Data Analysis:

Descriptive Statistics: The quantitative data from the surveys are first analyzed using descriptive statistics through SPSS (Statistical Package for the Social Sciences). Descriptive statistics such as mean, median, standard deviation, and frequency distributions are calculated to summarize the responses and identify key patterns.

Inferential Statistics: For a deeper analysis, inferential statistical techniques are applied using SPSS. Correlation analysis is conducted to examine the relationships between different variables related to management practices and their effects. Additionally, multiple regression analysis is performed to assess the impact of various management practices on teaching and research effectiveness.

These analyses help determine the strength and significance of the relationships and provide insights into how management practices influence outcomes.

Qualitative Data Analysis:

Thematic Analysis: Qualitative data from interviews and focus groups are analyzed using thematic analysis. Thematic analysis involves coding the data to identify recurring themes and patterns. This process is conducted manually or with the aid of qualitative data analysis software to extract and interpret key themes related to management practices.

Triangulation: To enhance the credibility of the findings, triangulation is employed by comparing and integrating results from both quantitative and qualitative analyses. This approach ensures that insights from the different data sources are cross-validated, providing a more comprehensive and reliable understanding of the impact of management practices.

Data Integration: The results from the quantitative analysis in SPSS are integrated with qualitative insights to present a holistic view of the study's findings. By synthesizing data from both methods, the research provides a nuanced interpretation of how innovative management practices affect teaching and research effectiveness, offering actionable recommendations for improvement.

4. Research results

4.1. Quantitative Findings

The survey data were analyzed using descriptive statistics to summarize responses from faculty members, administrative staff, and students. The results are presented in Table 1.

Table 1: Descriptive Statistics of Key Dimensions

Dimension	Mean	Standard Deviation
Teaching Effectiveness	4.2	0.68
Research Effectiveness	4	0.72
Administrative Support	4.1	0.74

Correlation analysis was conducted to examine the relationships between innovative management practices and teaching and research effectiveness. The results are summarized in Table 2.

Table 2: Correlation between Management Practices and Effectiveness

Management Practice	Correlation with Teaching Effectiveness (r)	Correlation with Research Effectiveness (r)
Technology Integration	0.68*	0.65*
Data-Driven Decision Making	0.66*	0.60*
Collaborative Management	0.62*	0.57*

Note: $p < 0.01$

Multiple regression analysis was performed to assess the impact of various management practices on teaching and research effectiveness. The results are shown in Table 3.

Table 3: Multiple Regression Analysis Results

Management Practice	Teaching Effectiveness (β)	Research Effectiveness (β)
Technology Integration	0.35*	0.40*
Data-Driven Decision Making	0.30*	0.33*
Collaborative Management	0.25**	0.28**

Note: $p < 0.01$, ** $p < 0.05$

4.2. Qualitative Findings

Thematic Analysis: Qualitative data from semi-structured interviews and focus groups were analyzed to identify key themes. The main themes are summarized in Table 4.

Table 4: Key Themes from Qualitative Data

Theme	Description	Example Quotes
Enhanced Teaching Practices	Technology integration and active learning strategies improve teaching effectiveness. Faculty and students highlighted the benefits of interactive tools and online resources.	"The use of LMS platforms has made course management much easier and more interactive." (Faculty Member) "Interactive simulations have made the learning experience more engaging." (Student)
Increased Research Collaboration	Collaborative management practices have facilitated interdisciplinary research, enhanced access to funding, and improved research output. Partnerships with industry and other institutions were noted as particularly beneficial.	"Our recent project benefited greatly from our partnership with a local tech firm." (Researcher) "Interdisciplinary research initiatives have opened up new avenues for funding and collaboration." (Faculty Member)
Administrative Efficiency	While innovative management practices have improved efficiency, challenges such as increased workload and the need for ongoing training were reported. Additional support and resources are needed.	"The new administrative systems have streamlined processes, but the transition has been challenging." (Administrative Staff) "There is a steep learning curve with the new technology; more training sessions would be helpful." (Faculty Member)

Survey results show a high mean score (4.20) for teaching effectiveness, supported by qualitative feedback highlighting the enhanced interactivity and engagement provided by technology.

Data-Driven Decision Making correlates positively with both teaching and research outcomes, as indicated by the survey (correlation of 0.66 with teaching and 0.60 with research). Qualitative data further support this, showing that analytics and data-driven insights are valuable for tailoring educational strategies and identifying research trends.

Collaborative Management is beneficial for both teaching and research, with survey results indicating positive impacts (correlation of 0.62 with teaching and 0.57 with research). Interviews reveal that collaborative efforts and partnerships have led to more effective and innovative practices in research and a more engaging learning environment.

5. Discussion

The results of this study, conducted across five universities in Vietnam, provide valuable insights into how innovative management practices impact teaching and research effectiveness in higher education institutions. This discussion integrates quantitative and qualitative findings to offer a comprehensive understanding of the effects of these practices.

Impact of Technology Integration

The survey results indicate a strong positive correlation between technology integration and both teaching ($r = 0.68$) and research effectiveness ($r = 0.65$). Regression analysis further confirms these relationships with significant beta coefficients ($\beta = 0.35$ for teaching and $\beta = 0.40$ for research). This suggests that incorporating digital tools and platforms is crucial for enhancing educational and research outcomes in the surveyed institutions.

Qualitative feedback from faculty and students across the five universities supports these findings. Participants noted that LMS and other digital tools have significantly improved course management and student engagement. For example, faculty members highlighted how LMS platforms have made course administration more interactive and efficient. Students reported that interactive simulations and online resources have made their learning experiences more engaging and effective. These insights underscore the importance of investing in and continuously updating technological resources to support teaching and research.

Role of Data-Driven Decision Making

Data-driven decision making was found to be positively correlated with both teaching ($r = 0.66$) and research effectiveness ($r = 0.60$). Multiple regression analysis also shows significant effects ($\beta = 0.30$ for teaching and $\beta = 0.33$ for research). This highlights the value of using data analytics to guide institutional strategies and improve outcomes.

Qualitative data reveal that data-driven insights are highly valued for tailoring educational strategies and identifying research trends. For example, learning analytics help educators adjust their teaching methods based on student

performance data, while predictive analytics assist in strategic planning for research initiatives. These findings illustrate that integrating data analytics into management practices can enhance institutional effectiveness by enabling more informed decision-making and targeted interventions.

Benefits of Collaborative Management

The study shows a positive correlation between collaborative management practices and teaching ($r = 0.62$) and research effectiveness ($r = 0.57$). Regression results indicate moderate impacts on both dimensions ($\beta = 0.25$ for teaching and $\beta = 0.28$ for research). This suggests that fostering collaboration within and beyond the universities is beneficial for enhancing both teaching and research.

Qualitative feedback from participants emphasizes the benefits of collaborative management practices, including improved research output and a more engaging learning environment. Faculty and researchers reported that partnerships with industry and other academic institutions have provided additional resources and expertise, leading to more innovative research and richer educational experiences. However, challenges such as increased workload and the need for additional training were also noted. To maximize the benefits of collaboration, universities should provide adequate support and resources to address these challenges.

Administrative Efficiency and Challenges

While innovative management practices have generally improved administrative efficiency, challenges persist. Survey data and qualitative feedback indicate that new administrative systems have streamlined processes but also introduced a steep learning curve. Participants noted increased workload and the need for further training as significant challenges.

To address these issues, universities should invest in comprehensive training programs and ongoing support for faculty and administrative staff. Ensuring that all stakeholders are well-prepared to navigate new systems and technologies is crucial for maintaining operational efficiency and fully realizing the benefits of innovative management practices.

Implications for Higher Education Management in Vietnam

The findings from this study have several implications for higher education management in Vietnam:

Investment in Technology: Universities should continue to invest in and upgrade technological resources. Providing faculty and students with effective digital tools is essential for enhancing both teaching and research.

Emphasis on Data Analytics: Developing robust data analytics capabilities can significantly improve institutional effectiveness. Universities should encourage the use of data-driven approaches to inform decision-making and optimize outcomes.

Promoting Collaboration: Encouraging collaborative management practices can lead to more effective research and improved teaching environments. Universities should seek out and foster partnerships with industry and other academic institutions.

Addressing Administrative Challenges: To overcome the challenges associated with administrative efficiency, universities need to provide adequate training and support. This will help staff and faculty adapt to new systems and ensure smooth transitions.

6. Conclusion

The study underscores the critical need for innovative management models to enhance teaching and research effectiveness in higher education institutions. Our research, involving five Vietnamese universities, highlights that traditional management approaches are increasingly inadequate in addressing the contemporary challenges faced by universities. Key findings reveal that technology integration, data-driven decision-making, and collaborative management practices are instrumental in improving institutional performance. The integration of digital tools, such as LMS, has been pivotal in enhancing both teaching and research outcomes by making course management more efficient and interactive. Data-driven decision-making further supports these improvements by enabling more informed and strategic decisions, optimizing resource allocation, and identifying emerging research trends. Collaborative management practices also play a significant role, fostering valuable partnerships and enriching both educational experiences and research initiatives. However, challenges such as the learning curve associated with new administrative systems and the need for additional training must be addressed. Universities should focus on continuous investment in technology, the development of robust data analytics capabilities, and the promotion of collaboration to sustain and enhance their effectiveness. Additionally, providing comprehensive support and training for faculty and staff will be crucial in overcoming administrative challenges and ensuring the successful implementation of innovative practices. In summary, embracing these innovative management models will enable higher education institutions to adapt to evolving demands, improve their overall effectiveness, and contribute significantly to academic and societal advancement.

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