

REFORMING UNIVERSITY TEACHING MANAGEMENT IN VIETNAM IN THE ERA OF INTERNATIONAL INTEGRATION AND THE FOURTH INDUSTRIAL

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Abstract: To achieve the goal of human resource development in line with globalization trends, Vietnam has identified strengthening international integration. Today's students not only need specialized knowledge but also must possess soft skills such as communication, teamwork, creativity, and problem-solving abilities. On the other hand, modern technology has changed the teaching and learning methods in universities. Therefore, universities need to adjust their curricula to meet these requirements, as well as enhance international cooperation, student exchange, and integrate technology into teaching. Thus, reforming teaching management contributes to improving the quality of education, developing high-quality human resources, and increasing the competitiveness of Vietnamese universities on the international stage. Through teaching management reforms, universities can better prepare students, helping them adapt to the demands of the global labor market and international education standards. The method of theoretical analysis and synthesis is used to study, analyze, and evaluate relevant documents to better understand the nature of the research issue. Based on this, the theoretical system of the topic is formed, and data is analyzed and processed to assess the current situation, limitations, and challenges in the reform of teaching management in Vietnamese universities, such as digital transformation management, curricula and teaching methods, autonomy, improving the quality of lecturers, quality of graduates, infrastructure for teaching, and international cooperation. From there, solutions are proposed to contribute to reforming teaching management, improving training quality, and increasing international integration, helping students and universities in Vietnam to develop strongly and compete internationally

Keywords: teaching management, international integration, teaching, quality of teaching, university governance

Introduction

In the context of increasingly deep international integration, Vietnam's higher education also faces competitive pressure and the need to meet international quality accreditation standards. This requires innovation not only in the curriculum but also in the management of teaching to ensure that students are equipped with the necessary knowledge and skills to meet the demands of employers. The context of educational reform in Vietnam has created a solid foundation but also presents challenges, requiring urgent reforms in teaching management to promote quality and training effectiveness. Additionally, the Fourth Industrial Revolution, with the rapid development of information technology and digital transformation, has profoundly impacted all sectors, including higher education. Online learning, artificial intelligence, and big data are changing the way of teaching and learning, setting higher demands for teaching management. Universities need to integrate technology into every aspect of teaching management, from planning, implementation, to evaluating outcomes. This not only helps improve the quality of training but also fosters creativity and competitiveness among students as they enter the labor market. Teaching management plays a key role in ensuring and enhancing the quality

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of education at universities, as it connects elements such as curricula, teachers, students, and educational resources. An effective teaching management system not only helps organize teaching and learning activities well but also creates conditions to fully tap into the potential of both teachers and students.

In recent years, many studies both domestic and international have focused on clarifying the role and trends of reforming university teaching management in the context of globalization and the Fourth Industrial Revolution. According to Schwab (2016), the Fourth Industrial Revolution is creating profound changes in all areas of social life, requiring higher education to adapt quickly through the innovation of content, teaching methods, and management mechanisms. Fielden (2008) emphasized the role of the autonomous university model in improving management efficiency and training quality, especially when universities are given the power to make decisions about academic affairs, finance, and human resources. In addition, Knight (2004) argued that the internationalization of higher education is a strategic factor that contributes to enhancing the reputation, competitiveness, and quality of education at educational institutions. From a teaching methodology perspective, Salmi (2009) also pointed out that universities need to transition from traditional models to flexible learning environments, student-centered, with strong support from technology. In Vietnam, many researchers such as Nguyen, T. B (2018); Tran, Đ. C. (2020) and Pham H. C (2021) have addressed the need to reform teaching management in universities towards enhancing autonomy, aligning with output standards and international integration. However, studies also show that the reform process in Vietnam still faces many challenges such as overlapping management mechanisms, a lack of resources, and the gap between policy and practical implementation (Nguyen V. T, 2019) [8]. An overview of the studies shows that reforming university teaching management is an inevitable trend and a pressing requirement to enhance the quality of education, meeting the demands of development in the era of deep international integration and the strong impact of the Fourth Industrial Revolution.

Although Vietnam's higher education has made efforts to innovate in recent years, the teaching management system at many universities still faces numerous shortcomings. Teaching management at some universities is not yet capable and lacks readiness for reform. Many programs are still heavily theoretical and academic, not regularly adjusted to keep pace with the rapid changes in the labor market and technology. Traditional teaching methods still dominate, making learning passive and less engaging. The competence of lecturers remains a major concern as many lecturers do not have research topics, have not published papers in domestic and international academic journals, and have limited foreign language skills. To meet the demands of Education 4.0, many Vietnamese higher education institutions still lack modern laboratories, as well as limited equipment and intelligent management systems. These limitations affect the quality and effectiveness of training and pose barriers to improving teaching quality, reducing the competitiveness of Vietnam's higher education in the context of international integration. Therefore, researching the reform of teaching management in Vietnamese universities contributes to providing solutions to improve training quality, better meet the demands of socio-economic development in the new era.

Materials and methods

The article primarily uses qualitative research methods, combined with secondary document analysis to clarify the current situation, directions, and solutions for reforming teaching management in higher education institutions in Vietnam. Analysis - Synthesis of documents: The article collects, selects, and systematizes legal documents related to higher education (such as the 2012 Higher Education Law, amendments in 2018, Resolution 29-NQ/TW...), as well as domestic and international studies on university governance models, teaching management, technology application, and digital transformation in education. Document synthesis helps build the theoretical foundation and clarify the current situation in Vietnam. Analysis - Comparison: Based on the theoretical and practical data collected, the article analyzes international models, trends, and experiences in teaching management reform, then compares them with the context of Vietnam to highlight the gaps, opportunities, and challenges. Logical deduction method: Based on the analysis results, the article uses scientific reasoning to identify directions and propose a system of specific reform solutions. The proposals are made based on key pillars: policy - technology - workforce - curriculum - accreditation, ensuring a systematic and feasible approach.

Research content

Theory base

The definition of teaching management in university

University teaching management is an important part of university governance, encompassing all organized activities aimed at planning, organizing, operating, monitoring, and adjusting the teaching and learning process in higher education institutions. According to Nguyen, T.L.H (2020), university teaching management is not limited to coordinating class schedules, assigning lecturers, but also includes developing curricula, building faculty capacity, applying technology in teaching, and evaluating learning outcomes. This activity plays a key role in ensuring training quality, meeting the requirements of the labor market and societal development.

The Fourth Industrial Revolution (Industry 4.0) and its effects on higher education

The Fourth Industrial Revolution (Industry 4.0), based on digital technology, artificial intelligence, big data, machine learning, IoT, and others, is bringing profound changes to all areas of life, including education. According to Schwab (2016), Industry 4.0 not only affects the content of knowledge that needs to be provided to learners but also changes the way knowledge is conveyed and received. In higher education, traditional teaching models are gradually being replaced or supplemented by more flexible learning forms such as e-learning, blended learning, and digital universities. The application of new technologies in teaching and management not only helps save time and costs but also creates opportunities for personalized learning, allowing learners to develop their competencies comprehensively. However, this also sets new demands on the teaching staff and administrators to adapt, innovate teaching methods, and enhance technological competencies.

International integration and the needs to innovate teaching management among universities

International integration in higher education is the process through which countries and educational institutions participate in the global education network through activities such as student exchange, credit recognition, training and research cooperation, and adherence to international standards. According to Knight (2004), higher education integration is an essential factor that helps universities improve quality, enhance prestige, and position themselves in the context of globalization. In the context of integration, higher education institutions in Vietnam not only need to ensure domestic training quality but also meet international standards on governance, curriculum, faculty competencies, and teaching methods. This requires a flexible, effective, transparent teaching management mechanism that can quickly adapt to external changes.

Modern teaching management models

Around the world, many modern teaching management models have been developed and applied to improve training quality. The autonomous university model is considered one of the prominent trends, in which educational institutions have the authority to decide on curricula, recruitment, finance, and academic activities (Fielden, 2008). At the same time, the application of information technology in training management through systems such as Learning Management Systems (LMS), online quality accreditation systems, or artificial intelligence in personalized learning are solutions that bring significant effectiveness in modern teaching management. Flexibly applying these models in the specific conditions of Vietnam will contribute to building a dynamic higher education system, adapting to the era of international integration and digital transformation.

The current situation of innovating teaching management among universities in Viet Nam

In the context of globalization and the rapid development of technology, Vietnam's higher education system is facing urgent demands for innovation and quality improvement. Teaching management is not only about organizing and operating teaching activities effectively but also adapting and reforming to meet the needs of society and the labor market. Innovation in higher education teaching management is a strategic task that requires a focus on key factors such as university autonomy, innovation in teaching methods, curriculum reform, improving the quality of the teaching staff, and the application of digital technology. These factors not only determine the direction for higher education but also serve as a foundation for sustainable development and international integration. In Vietnam, in recent years, the government has implemented many policies aimed at reforming higher education, especially increasing the autonomy of educational institutions. However, the practical implementation of teaching management still faces many limitations and has not kept pace with the speed of societal development and the demands of the Fourth Industrial Revolution.

The achievements of higher education teaching management reform in Vietnam

Completing the institution for the development of higher education: According to Prof. Dr. Le Anh Vinh, Director of the Vietnam Institute of Educational Sciences, in 2018 and 2019, the amended Law on Higher Education (2018) and the Law on Education (2019), drafted by the Ministry of Education

and Training, were passed by the National Assembly and gradually implemented, creating a legal framework for the activities of higher education reform. The work of building strategies and planning for the higher education system is being focused on for early issuance. Vietnam has gradually enhanced the autonomy of universities. By the end of 2017, 23 public universities had been approved by the Prime Minister for pilot autonomy, committing to self-financing for regular and investment expenses, full responsibility for training, scientific research, organization, staffing, finance, scholarship policies, tuition fees for policy beneficiaries, investment, and procurement. Later, the government allowed these 23 universities to extend the pilot period after 2014-2017, until a new government decree regulating the autonomy mechanism for public higher education institutions was issued. As of August 2022, there were 154/170 public higher education institutions nationwide that had established and operated university councils (90.6% of the total). The establishment of university councils at universities under ministries, sectors, and localities reached a rate of 91.18%. Fifteen public higher education institutions under ministries, sectors, and localities were in the process of building and presenting for approval the recognition of university councils.

Breakthroughs in university rankings: In the period 2011-2024, Vietnamese education has achieved some important milestones, contributing to the improvement of the Human Development Index of the Vietnamese people, increasing from 0.617 in 2012 (ranked 127/186 countries) to 0.74 in 2019 (ranked 117/189 countries) (belonging to the group of countries with high human development), and the human capital index ranked 48/157 countries, increasing from 0.64 in 2012 to 0.69 in 2020 (belonging to the highest ranking group of lower-middle-income countries). The legal framework for industry management and the reform of higher education institution management has been gradually perfected. The team of teachers and educational managers basically meets the requirements for quantity, quality, and structural synchronization and has been standardized. From having no universities in Vietnam ranked internationally, since 2019, several Vietnamese universities have continuously appeared in international rankings of quality universities. Notable examples include Hanoi National University, Ho Chi Minh City National University, Hanoi University of Science and Technology, Ton Duc Thang University, and Duy Tan University. Most recently, on October 12, 2022, the Times Higher Education ranking organization announced the results of the 2023 World University Rankings (THE WUR 2023). THE WUR ranking evaluates universities worldwide based on research on the core missions of a university, using measurement indicators to provide comprehensive and fair comparisons. Vietnam has six higher education institutions featured in this ranking. Specifically, Duy Tan University and Ton Duc Thang University are in the 401-500 group; Hanoi National University is in the 1001-1200 group; Hanoi University of Science and Technology, Hue University, and Ho Chi Minh City National University are in the 1501.

Breakthrough in international journal publications: Regarding the quality of the teaching staff according to international standards, previously, the recognition of professorships and doctoral degrees did not require international publications, but from 2018, the new regulations require candidates to have international publications in prestigious journals such as ISI or Scopus. In the period from 2009 to 2015, the number of international publications in higher education institutions was not many. The proportion of faculty members with professor and associate professor titles has also steadily increased from 2010 to the present, with professors increasing from 0.4% to 0.9%, and associate professors from 2.8% to

6.5%. Among the many factors determining the quality and relevance of higher education, teachers are one of the most important factors. The results of research and international publications in Vietnam's higher education system in recent years show a stable upward trend, with higher education institutions always playing a leading role in the country's scientific publications. According to the National Agency for Science and Technology Information (2021), the total R&D expenditure of the national budget accounted for 0.42% of GDP, with the state budget contributing 30.9%. The higher education sector accounts for one-third of the total number of full-time research staff (FTE) nationwide and three-fourths of the research staff with PhDs. Regarding the number of articles published in Scopus journals in the 3 years from January 2022 to July 2024, the 67 higher education institutions with the most publications accounted for 83.5% of the national total. However, the R&D expenditure allocated to higher education only accounted for 6.75% of the total national R&D budget, approximately 2.434 trillion VND or 97.3 million VND per FTE (compared to 476 million VND per FTE for the entire system).

Digital transformation in education and training: In educational management, the entire sector has implemented digitization, building a shared database from the central level to 63 departments of education and training, 710 education and training offices, and about 53,000 educational institutions. Currently, data for about 53,000 schools, 1.4 million teachers, and 23 million students have been digitized and identified. This database has recently supported the recruitment and statistical reporting work across the sector; it has helped management levels implement effective policies, contributing to solving the issues of teacher surpluses and shortages at schools based on each locality and subject. In the general education sector, about 82% of schools use school management software, electronic grade books, and electronic student records, and most higher education institutions use school management software. The electronic administrative management system connects 63 departments of education and training and over 300 universities and colleges nationwide with the Ministry of Education and Training, operating smoothly, stably, and effectively.

Quality assurance of higher education institutions: The amended and supplemented Law on Higher Education was passed by the 14th National Assembly of the Socialist Republic of Vietnam on November 19, 2018, and came into effect on July 1, 2019. Clause 5, Article 33 of the Law stipulates: "If a training program does not conduct evaluation and quality accreditation during the training process, or if the accreditation does not meet the standards, the recruitment process must be halted." Based on this, Decree 99/2019/ND-CP guiding the amended Law on Higher Education, issued on December 30, 2019, requires higher education institutions (including universities, colleges, and academies) to publicly announce the results of program accreditation on their websites. In practice, higher education institutions in Vietnam have already recognized the importance and initiated program accreditation activities even before the law and decree were issued. This is not only considered a mandatory legal requirement but also one of the strategic objectives for higher education institutions to assert their position in the community; especially, in response to the growing demands of learners, parents, businesses, management agencies, and stakeholders in the context of regional and global integration. According to the list of training programs evaluated/accredited for meeting quality standards published by the Quality Management Department – Ministry of Education and Training, as of December 1, 2024, there were a total of 1,467 programs from 194 training units and higher education institutions (colleges and universities) accredited according to national standards.

Existing issues in teaching management among Vietnamese universities

The management thinking in higher education institutions today has not kept up with the educational reforms. Although there have been policy reforms, the reality shows that many universities still maintain administrative and subsidized management thinking. The planning of teaching, assigning lecturers, and evaluating teaching quality are still largely carried out using traditional methods, lacking flexibility and creativity. Many universities still maintain a centralized, rigid management style, without truly empowering faculties and departments.

At the same time, the quality of the management team is not uniform, significantly affecting the reform process. Some management staff have not been trained in higher education management, leading to limited capabilities in administration and strategic planning. According to a survey by the Ministry of Education and Training (2022), 47% of the management staff in universities have not received specialized training in educational management. The lack of knowledge in technology, innovation, and digital transformation has also made it difficult for many staff to implement new management models.

Moreover, the technological infrastructure and digitization capabilities among universities are still significantly uneven, which is a major barrier to modernizing teaching management. While large universities in major cities have implemented advanced learning management systems, many universities in local areas or private institutions still lack equipment, have unstable networks, and fragmented software systems.

Teaching methods also lack significant innovation. Although there have been many efforts to encourage lecturers to innovate their teaching methods, most lecturers still teach in a traditional manner, mainly using one-way lectures, with little use of technology and lacking interaction and personalization. This causes students to remain passive in acquiring knowledge, lacking critical thinking skills, teamwork abilities, and problem-solving skills.

In addition, the connection between teaching and labor market needs is still weak. Training programs in many universities are still theoretical-heavy and not updated with practical job realities. The collaboration between schools and businesses in designing programs, organizing business internships, and professional practice is still weak. As a result, graduates lack the necessary practical skills and struggle to meet job requirements.

Finally, the quality assurance and evaluation of teaching are still formalistic. The evaluation of lecturers and teaching effectiveness is not carried out objectively, lacking sufficient and transparent data. Many universities still only use qualitative student surveys, lacking in-depth analytical tools to improve and enhance teaching quality.

Orientation of reforming university teaching management in Vietnam in the new context

In the context of deep international integration and the strong development of the fourth industrial revolution, the teaching management activities at higher education institutions in Vietnam need to be reformed towards modernization, flexibility, efficiency, and alignment with international standards.

First, it is necessary to orient teaching management according to the philosophy of "student-centered learning," in which all teaching and training activities must aim at developing the holistic competencies of students, creating conditions for learners to be proactive, creative, and actively participate in the process of planning, feedback, and improving the quality of education. In addition, the reform needs to be linked with the expansion of university autonomy, allowing universities to be flexible in designing programs, organizing training activities, recruiting and developing faculty, while also establishing clear and transparent accountability mechanisms.

One of the key orientations is to promote the application of information technology and digital transformation in management and teaching. Higher education institutions need to build modern Learning Management Systems (LMS), implement online learning, blended learning, and gradually transition to a digital university model. Personalizing the learning process through technology, using artificial intelligence in assessments, and providing learning advice will help improve the quality and effectiveness of teaching management. At the same time, the reform process must also focus on adopting international standards, by referencing regional competency frameworks such as AUN-QA, CDIO, or the National Qualification Framework, ensuring that learning outcomes are compatible with the global labor market.

Additionally, the reform orientation should emphasize linking education with practical application and the labor market, through strengthening school-business collaboration, designing programs with an applied focus, organizing business internships, and inviting experts to participate in teaching. Finally, attention should be given to building a culture of innovation in teaching, promoting self-learning, critical thinking, and entrepreneurship among students. Thus, reforming teaching management in the current context is not only an urgent requirement but also an inevitable path for the sustainable development of Vietnamese higher education, deep integration, and effectively responding to the demands of the digital age.

Proposed solutions for reforming the management of university teaching in Vietnam

To successfully implement the orientation of reforming university teaching management in the context of international integration and the Fourth Industrial Revolution, it is necessary to deploy a synchronized set of solutions across key areas: policies, technology, workforce, curriculum, and quality accreditation. The specific solutions are as follows:

First, the legal framework for higher education management needs to be improved, especially regulations related to academic autonomy, financial autonomy, organizational structure, and recruitment. The state should develop clearer mechanisms for decentralization and delegation of authority to universities, while also establishing a system for quality control, monitoring, and transparent accountability. Additionally, there should be special policies to support universities in remote and disadvantaged areas during the digital transformation and management reform process. Developing a flexible financial mechanism that encourages public-private partnerships in the development of higher education is also crucial to motivate management innovation and enhance teaching effectiveness.

Second, enhancing the application of information technology is a core solution in the reform of teaching management. Universities need to invest in building and improving a digital ecosystem to support training management, including a Learning Management System (LMS), academic management system, assessment system, question banks, digital libraries, and tools for online teaching. At the same time, data security solutions must be implemented, systems need to be integrated, and big data should be used to analyze learning behaviors, thus supporting decision-making in management. Training digital skills for management staff and lecturers must also be emphasized to ensure adaptability to the digital transformation requirements in higher education.

Third, teaching management reforms cannot succeed without a team of competent, dedicated, and adaptable lecturers and administrative staff in the modern educational environment. A long-term strategy for workforce development must be built, which includes retraining, regular professional development on pedagogical skills, the use of technology, active teaching methods, and academic management capabilities. Universities should adopt transparent and open recruitment mechanisms, linked to real competency assessments, and encourage highly qualified lecturers with practical experience to participate in teaching. Additionally, appropriate policies on remuneration and incentives for scientific research and innovative teaching practices should be implemented.

Fourth, the curriculum should be designed in an open, interdisciplinary, and flexible manner to meet the demands of the labor market in the context of integration and digital transformation. Integrating soft skills, digital skills, critical thinking, and entrepreneurial spirit into the curriculum is essential for students to adapt to rapidly changing work environments. Moreover, universities must radically innovate teaching methods, shifting from traditional teaching to active learning, student-centered approaches, project-based learning, problem-based learning, and blended learning. The use of interactive learning tools, real-world simulations, and flexible evaluation systems will help enhance teaching effectiveness and classroom management.

Finally, ensuring quality and accreditation should become a central tool in the reform of teaching management. Universities need to develop effective internal evaluation systems, develop criteria for assessing lecturers and training programs based on learning outcomes and the satisfaction of students and employers. Connecting learning evaluation data with the management system will provide universities with complete and accurate information to improve teaching activities. Additionally, quality accreditation should be emphasized at both the program and institutional levels, encouraging universities to participate in international accreditation (AUN-QA, ABET, FIBAA, etc.) to enhance their reputation and standardize training activities according to international norms.

Conclusion

The reform of university teaching management in Vietnam during the period of international integration and the Fourth Industrial Revolution shows that the reform and innovation of university teaching management is an urgent requirement to improve the quality of education, meet the needs of socio-economic development, and international integration. In the current context, when Vietnam is accelerating the process of global integration and facing the challenges of the Fourth Industrial

Revolution, universities need to implement strong reforms in teaching and management to not only improve the quality of training but also meet the demands of the international labor market. One of the important elements of the reform is the application of information technology and modern teaching methods into the teaching and learning process. Digital technology, especially online learning, distance learning, and automated learning technologies, needs to be integrated into teaching methods to enhance training effectiveness, promote creativity, and foster students' self-learning abilities. The reform of teaching management should also focus on transforming teaching methods from traditional models to active learning models, exploiting students' abilities in research, analysis, and problem-solving. At the same time, for the reform to succeed, enhancing the capacity of educational management staff and teachers is an indispensable factor. Teaching staff need to be fully equipped with knowledge and skills in technology, new teaching methods, and modern management skills to meet the teaching requirements in the digital age. In addition, universities also need to focus on building a flexible and creative learning environment, encouraging students to fully develop their abilities through scientific research activities, practical exercises, and real-world projects. Moreover, the reform of teaching management in Vietnamese universities must be closely linked to the development of the economy and labor market. To achieve this, universities need to closely collaborate with businesses and international organizations to develop training programs that meet real-world needs, provide students with opportunities for internships, work, and career development after graduation. Finally, the reform of university teaching management is not only about changing the content and methods of teaching but also about improving infrastructure comprehensively, enhancing the quality of teaching staff and management, and developing systems for evaluating teaching effectiveness to ensure that these reforms can bring about substantial results that meet the needs of learners, society, and the national economy in the era of integration and the Fourth Industrial Revolution.

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