



Research Article

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Innovation in Higher Education Management and Leadership

Siriphong Sauphayana

Associate Professor, Police Lieutenant Colonel,
Department of Educational Administration, Faculty of Education,
Ramkhamhaeng University, 2086 Soi Ramkhamhaeng 24 Yaek 18,
Hua Mak, Bang Kapi District,
Bangkok 10240, Thailand

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Abstract

Innovation in higher education management and leadership has experienced a continuous increase in demand, worldwide. The emergence of global events, such as the COVID-19 pandemic, has accelerated the adoption and implementation of this innovation. Furthermore, technological advancement can be attributed to changes in educational management and leadership. The use of business models, theories, and methods such as the Education Management Information System (EMIS) has improved the collection, analysis, interpretation, storage, and retrieval of data to increase how they make well-informed decisions. Therefore, the strategies employed in higher education management and leadership have undergone many changes and updates. However, further research is required to ensure that best practices, evidence, and data-driven methods are used to improve staff/follower satisfaction and high performance of students and teachers in higher education institutions. This study explores the impact of innovation on management and leadership in higher education institutions. Findings from several countries show a strong positive correlation between increase in innovation and better educational management and leadership. Additionally, openness to change and happiness of stakeholders in higher education institutions increases when leaders and educational management are trained through conferences and benchmarking activities. Hence, using emerging technology and openness to change through education, awareness creation, and training, the level of innovation in universities and other higher education institutions increases, which in turn promotes performance and productivity.

Keywords: *educational management, educational leadership, students, technology, higher education, COVID-19*

1. Introduction

Education cannot be isolated from educators' competence and commitment because it is safeguarded by specialized fields, such as management and leadership. Consequently, innovation in leadership and management in higher education is a critical component in fulfilling a high-quality educational goal that promotes socio-cultural, economic, and democratic values and principles needed in contemporary society (Al-Husseini & Elbeltagi, 2016). Management constitutes a crucial aspect required for the running of professional systems. This is regarded as one of the most critical factors in determining whether a nation is wealthy or impoverished. It determines an organization's survival,

success, or failure. When we imagine corporations, we consider management, which is why it is regarded as the essential heart of every undertaking.

Innovation in educational management in institutions of higher learning has become increasingly popular worldwide. The innovation and improvement of current methods, structure, approach, or process management, unique to the most significant level of development, contributes to the achievement of organizational objectives. It is characterized by innovation in leadership and management. Compared to other innovations, innovations in leadership have the unique capacity to implement radical and long-term changes regarding organizational effectiveness. Innovation in management entails possessing and honing managerial skills and the desire to accept responsibility for the execution of changes that spur advancement and performance.

In the context of higher education, innovation is defined as a planned activity aimed at introducing novelty into a setting. It improves students' preparedness through engagement and interactivity. Leaders in higher education institutions (HEIs) must design their entire activity around the educational goals to instill in students, a sense of political and social democracy, provide access to knowledge, and a pedagogy that promotes personality development. Curriculum reorganization may be considered an innovative process because it is required in the modern education system, owing to commercialization of the information offered. The decline of government engagement in the current education system impedes innovation. This stresses the implementation of self-management and self-financing principles by diverse HEIs and a desire for productivity as a fundamental requirement of survival in a competitive educational environment. Simultaneously, innovative leadership and management increase the degree of direct and assumed involvement of academic partners in shaping/promoting acceptable social models, including individuals with ethical, intellectual, and cultural integrity. Fulfilling cooperation may aid the development of innovative leadership and management. Over decades, teamwork and engagement in various educational programs have not been acknowledged at the global level of national educational systems. Students/undergraduates are paid based on individual activities, making them insufficiently appealing to people. In these circumstances, neither corporate drive nor employee performance is high, preventing an innovative school environment.

Higher education institutions face new challenges because of the changing environment, global competition among colleges and universities, and the need to respond to changes in the worldwide market. Therefore, educational leaders and managers must execute innovations that will help them maintain and improve their effectiveness. Innovative leadership in HEIs mainly focuses on implementing changes in universities and colleges. It is also one of the characteristics of effective leadership. Therefore, it is critical to determine what an innovative leader's responsibilities are in higher education and assess the level of innovative leadership in diverse HEIs worldwide.

Innovative leadership and management are crucial to any organization, including higher learning institutions, as it enables staff and students to be more creative and productive. In the modern global market, the growth and development of an organization depends on how innovative the managers and leaders are (Alonderiene & Majauskaite, 2016). The nature of organizations and consumer needs are changing, and organizations focus on innovation to stay afloat. However, traditional leadership practices that promote innovation among employees cannot fit the current business environment. HEIs are chancing tactics and embracing innovations through organizational leaders' guidance. As a result of the diverse technological developments and evolving procedures and processes, innovative leadership is the optional route toward competitiveness and success of tertiary institutions of education.

Leaders are responsible for enhancing the magnitude of innovation in organizations. The extent of an organization's invention depends on the practical strategies of the leader, their skills, and mindset. Innovative leadership entails variables that enable leaders to achieve organizational success. It is worth noting that visionary leaders are open in their communication and offer inspiration through action. Innovative leaders in higher education have a positive impact on innovation as it increases the urge to acquire new information and become creative.

Innovative leaders and managers make significant differences in the way institutions become innovative by encouraging creative and dynamic cultures. When this culture is adhered to, innovation is enhanced. Generally, innovative leadership and management are essential for creating a flow of ideas. These leaders focus on removing barriers to innovation. Notably, leadership flourishes in an environment that allows individuals to try and learn new things. Prioritizing innovation becomes easy when sufficient resources are available. Innovative leaders empower staff and students to also be innovative by providing them with resources. Moreover, innovative managers and leaders encourage an environment of collaboration between teaching staff and students and among students themselves.

Generally, innovative leadership and management enhance strategies that emphasize innovation. Focus on innovation is crucial in driving the quantitative values important for the growth of HEIs. Such strategies enhance organizational transformation since the entire school community develops a change mindset. Innovative leaders often align novel initiatives with the goals of the organization and its strategic positions. Furthermore, these leaders comprehend and gain insights into the talent of individual employees.

The fundamental role and purpose of educational leadership and management is to create and maintain environments that enhance and promote effective and efficient learning and teaching within the educational system. These objectives are attained only through innovative leadership and management. Innovative leaders make efforts to accomplish these objectives through keen and practical application of management principles and organize available resources to achieve educational goals. Innovation in leadership and management often respond to global and local changes. This is due to technological developments that have a direct impact on teaching and learning through curriculum changes caused by technological, cultural, and economic changes. Therefore, this review aims to explore the impact of innovation on management and leadership in higher education institutions.

2. Differences Between Educational Leadership and Management

The concept of leadership intersects with management, which is of significant interest in most developed countries in the modern world. This is also reflected in contemporary global discourse, as evidenced by various studies. Despite these changes, management continues to be the dominant phrase in discussions concerning higher education organizations. One of the most evident contrasts between leadership and management was demonstrated by Algahtani (2014). The researcher views leadership in terms of change and transition, while management is viewed as a preventative measure. Algahtani (2014) also reiterates that both organizational dimensions are extremely important. Being a leader implies the ability to influence others' actions to achieve specific and desirable outcomes. Leaders are individuals who influence others' goals, motivations, and activities. They frequently instigate transitions to achieve existing and new objectives. The act of leading others requires creativity, energy, and skills. Alternatively, management revolves around keeping current organizational operations working smoothly and successfully. While effective management often applies leadership qualities, the overarching goal is to maintain the status quo. Both managing and leading are equally essential, because changing situations necessitate different solutions. Algahtani (2014) associates leadership with ideals or missions. Conversely, the researcher believes that management is concerned with implementing technical concerns. For tertiary institutions of learning, efficient operations depend on equal consideration of both leadership and management. Leading and managing are two different things, yet they are both crucial. The contemporary organization's task necessitates the manager's objective perspective and the vision and dedication that intelligent leadership provides. Most heads of institutions are rarely conscious of whether they are leading or managing their day-to-day jobs. They simply carry out their duties on behalf of educational institutions and their students. The type of activity should reflect the school's setting and, in particular, its current needs. Higher learning institutions require a stronger emphasis on

fundamental management and a visionary approach to make the organization effective. This may entail assuring learners' and instructors' accurate and frequent attendance, enhancing discipline, and providing appropriate resources to support learning. Once the schools are up and running, innovative managers can focus on defining a vision and laying out clear goals and policies, knowing that systems are in place to ensure that they are carried out.

3. The Need for Innovation in Education Management and Leadership in Higher Education

Research in the business sector has shown that innovation in management and leadership can be replicated in the education sector, especially in higher education. Therefore, there has been an increased need to promote innovation in education management and leadership in higher institutions through the introduction of new models, theories, and training. Developing countries are a good example highlighting the importance of developing and implementing innovation in education management and leadership. It helps meet immediate and long-term needs of HEIs using current resources and infrastructure in universities and colleges.

Since the commencement of the 21st century, a lot of significance has been attached to educational leadership. This is due to the prevalent opinion that innovative leadership significantly impacts organizational performance through students' academic performance. Many countries, including the United States, appreciate good leaders and managers in schools to deliver the best learning process for their children. As the global economy proliferates, more countries have realized that their people are the most important assets they have, and that competition is increasingly dependent on creating a highly qualified labor market. This creates the need for well-trained and dedicated tutors who require the support of competent administrators and senior managers. As a discipline, educational management and leadership is a vast field that comprises plurality and multiple viewpoints, and consequently lacks consensus among its stakeholders. For instance, one contentious matter is whether educational leadership is distinct as a field or merely a subset of a bigger one.

The opinions expressed in various studies are evident and constant, having been held for over two decades. While education itself can benefit from different environments, educational leadership centers around the purpose and objectivities of education. These objectives provide a much-needed feeling of direction for college administration. There is a risk of "managerialism," defined as "a stress on processes at the expense of educational purpose and values (Bush 1999, p. 240)," unless this link between purpose and management is apparent and close. Moreover, establishing a consensus on educational goals is central to the concept of educational leadership.

In educational organizations, the academic managers set the plans in collaboration with senior stakeholders, and in some instances, the organization governing council (SGB). However, the external environment, particularly government expectations, typically articulated through legislation or official policy announcements, significantly impact higher education goals. Advanced institutions hold the burden of interpreting contextual directives at the expense of establishing goals based on their student-needs assessments. The fundamental issue here is how competent school administrators can change public policy and develop alternative solutions based on organizational values and purpose.

Innovation in leadership promotes collaboration among stakeholders, both externally and internally. Within the institution, cooperation and teamwork bring departments together for opportunities to learn from each other. Outside the institution, this collaboration enhances partnerships with other organizations and businesses. These initiatives could introduce scholarship opportunities, job placement programs, or continuous conversations with policymakers concerning issues affecting the community, such as housing. Universities and colleges are among the largest employers in society. Therefore, innovative leadership will increase and improve employment opportunities.

Innovative leaders and managers in any industry acknowledge the importance of offering

development opportunities, especially for mid-tier professionals, who have the potential and urge to adopt their own leadership roles. This is pivotal to organizations, as it helps strengthen their candidates for various leadership positions. Innovative leaders emphasize training and mentoring programs, enabling them to empower faculty and academic staff to establish leadership skills. This phenomenon is important because it allows existing leaders to support those interested in becoming future leaders.

Moreover, innovative leaders also recognize the necessity of maintaining a sense of unity in their universities and colleges. They strive to pool their resources to collaborate cohesively and consistently. As we are in the middle of a radical shift among professors, presidents, and other academic professionals, it is essential to preserve continuity. These leaders feel that a healthy institution can maintain itself during periods of leadership change. This ability is often dependent on the higher learning institution's ability to respond to new events promptly and intelligently. Establishing clear lines of communication that promote a shared sense of direction, scientific proof, strategic thinking coordinated with the university's strategic aims, and practical implementation are all part of this effort. Maintaining a level of personnel stability, finding strength, and backing through collaboration with institutional stakeholders are critical elements for establishing an innovative campus. Managers and leaders can achieve this by prioritizing innovative leadership, working, and participating in shared governance organizations' management boards.

Senior administrators, junior managers, and employees are responsible for running their institutions, raising red flags about concerns or possible problems in their areas, and providing on-the-ground knowledge. Innovative executives recognize the importance of cultivating a "deep bench" of talented and creative leaders across their institutions. Administrators rely on executive staff to help them transform their vision into reality and fill in the gaps. Various leaders in universities and colleges emphasize the importance of training and equipping the next generation of leaders to maintain momentum and keep moving forward. In addition, there is a need for regularly convened programs to discuss effective strategies and long-term planning that will promote innovation.

The need to improve performance has led to an increase in the need for innovation in education management and leadership. Leadership impacts education to a great extent and is responsible for students and the overall society. Therefore, the development, change, and performance of teachers and students in HEIs are heavily reliant on the type of leadership style and education management employed.

The satisfaction of staff and students in HEIs also depends on the quality of leadership and education management. Consequently, it is crucial that HEIs inculcate innovative methods that help increase students' happiness and satisfaction (Maheshwari, 2021). For instance, the implementation of teams and multidisciplinary cooperation in HEIs improve the way students and teachers communicate and interact. This further improves the quality of work and productivity of HEIs.

4. Innovation in Education Management and Leadership in the Wake of COVID-19

COVID-19 pandemic has led to increased changes in education management and leadership styles. The pandemic changed how education management and leadership were conducted globally in HEIs. Moreover, there is a high demand for solution-based education management and leadership styles. As a result, many HEIs have turned to increased innovation.

Online teacher professional development is a form of innovation that was used during the COVID-19 pandemic. Online training aims to increase the competencies and skills of teachers. In addition, the confidence and communication skills of teachers were developed through the online teacher professional development sessions (Prestridge, 2016). Due to the increased accessibility of teachers in remote areas, the method is teacher-oriented and time-effective, as the training can be performed in any location.

In a study conducted on various education leaders globally, Ellis et al. (2020) discovered that the coronavirus pandemic accelerated the adoption of innovative leadership in HEIs. The restrictions

imposed by the virus meant that leaders had to introduce solution-based alternatives to mitigate the effects of COVID-19. One of the interventions included increasing innovation among leaders by implementing changes in addressing and stabilizing situations in times of crisis. Subsequently, innovative leaders provided solutions to their followers in times of need by producing new measures designed to create a better future for their staff and team members. Hence, using pragmatic methods and approaches achieved in extraordinary ways, innovative leaders proved to be the most competitive in addressing the pandemic.

5. Previous Studies on Innovation in Educational Management and Leadership in HEIs in Three Countries

In a study conducted among universities across Thailand, Supapawawisit et al. (2018) identified organizational culture as the main factor affecting the value of innovation. Supapawawisit et al. (2018) also discovered that universities that allowed their employees to take risks and be open to taking risks had higher rates of innovation. Reducing the fear of failure increased innovation in leadership and education management in the universities studied.

Research has also shown that adoption of technologies increased the levels of innovation in universities. Moreover, due to the increase in the number of individuals and sharing of ideas through information system technologies, leaders and education managers experienced an increase in leadership and management knowledge. Therefore, innovations in leadership and management were vastly reliant on technology to have a global perspective and information on the best methods of leadership by other HEIs.

In Norway, education leaders' benchmarking activities improve innovation in education management and leadership. In a study by Aas et al. (2019), principal benchmarking activities increased leadership and education management innovations. The benchmarking project was instituted to improve the leadership skills of university leaders by changing their perspectives. Moreover, the process allowed them to experience idea sharing, engagement, and collaboration in leadership programs. As a result, training and new perspectives increased the university leaders' innovation and openness to new strategies that promoted leadership and education management innovations.

Transformational leadership, unlike instructional leadership, increases education management and leadership innovation. In a study of 149 school leaders, using principal component analysis, Aas and Brandmo (2016) discovered that the innovative skills of education leaders who employed transformational leadership had higher levels of innovation than those who used instructional leadership (Jovanovica & Ciric, 2016). Moreover, the results of the study showed that school leaders who employed transformational leadership had more teamwork, cooperation, support structures, and better management. Therefore, since transformational leadership can be replicated in other HEIs, it is important for school leaders to consider using it in place of conventional instructional leadership styles to promote innovation and increase the performance of teachers and students.

In contrast, universities in India face high competition from other HEIs. Therefore, universities must integrate innovation in leadership and education management, for them to rise to the challenge and compete favorably. One way of doing so is to change their practices, such as university leadership and education management, through research. Organizational restructuring and quality delivery of leadership are examples of methods that can be used to improve the competitiveness and competency of HEIs (Ponnuswamy & Manohar, 2014). Therefore, research performance with organizational culture can be attributed to an increase in the innovation of HEIs in education management and leadership styles.

6. Transformational Leadership and Innovation in Higher Education

Transformational leadership can be described as a form of leadership in which the leader inspires, corporates, encourages, and motivates followers to improve their innovative skills. Employing

transformational leadership encourages teams, employees, and followers to increase innovation and goal-oriented approaches in universities' education (Al-Husseini & Elbeltagi, 2016). Moreover, followers and employees exceed their performance. Transformational leadership is attributed to imparting knowledge and innovation management.

The higher education sector has been facing increased pressure to adopt and cultivate innovative leadership cultures. Moreover, due to dynamic shifts and changes in leadership and management in other areas, such as business and government, the education sector has also faced a rise in demand for innovative and transformational leadership (Boberg & Bourgeois, 2016). Although transformational leadership is an effective indicator for determining the level of innovation, there has been limited research on the correlation between transformational knowledge and knowledge sharing (Al-Husseini et al., 2019). Therefore, adoption of technologies, innovative thinking, and ideas has been a high priority in institutions of higher education. In addition, with the shift towards technology and modernization brought by an increase in globalization, many individuals and institutions have turned to HEIs to gain essential innovative skills that help propel them in other areas of life.

Similarly, many HEIs have realized that innovative leadership plays a crucial role. Therefore, many interventions, such as transformational leadership styles, have been introduced through training exercises provided to university teachers and students (Litz & Scott, 2017). The training aims to improve thought and decision-making processes, which in turn improve leadership and management. The advantage of employing a transformational leadership style in higher education is that it considers the emotional and cultural needs of followers. As a result, HEIs experience increased cultural diversity, acceptance, and integration of different practices, as well as teacher-student happiness and satisfaction. Thus, students and teachers in HEIs perform better and experience higher productivity when innovative and transformational leadership is used.

Although many theories of leadership have diverse variables that contribute to innovation, a study by Owusu-Agyeman (2019) found that transformational leadership theory elaborates the joint operation through behavioral, affective, and contingency implications to provide administrative staff at HEIs with a conducive environment where they can create new working processes and ideas. Involvement, commitment, communication protocols, communication usage, decisions, and relationships are all significant variables in establishing participatory processes in HEIs. However, when HEI leaders do not support attributes such as involvement, decision-making, flow of information, and utilization, it may have a negative impact on employees' desire to be innovative. Transformational leadership theory explains innovation's social and cognitive components, but the value creation addition factor is vague. In the cognitive and affective model of involvement, transformational leadership factors such as intellectual stimulation, idealized influence, individualized concern, and intellectual stimulation were observed. According to Owusu-Agyeman (2019), staff activities, such as their participation in administrative strategy formulation, their beliefs about major strategies to resolve task-related concerns, and their duties in top working practices explicitly within their power, may inspire them intrinsically and make them innovative. Additional factors including interplay among coworkers and clusters, downward communication flow, substantive use of employee qualities, improved staff interactions for continuing to increase working processes, skills and knowledge utilization, and usage of communications technology, are cumulatively important for promoting innovative ideas among management staff in HEIs. Owusu-Agyeman (2019) found that administrators at HEIs consider engagement, enthusiasm, flow of information, and communication usage to be key elements in enhancing creativity. Organizations of HEIs need to embed aspects such as participation, enthusiasm, flow of information, and communication usage into the regular instructional process to raise awareness among head of departments to foster innovation among management staff through a participatory process. Furthermore, fresh ideas arise because of regular communication between leaders, information transmission, and utilization, guaranteeing its clients (students and society) maximum benefits.

The findings of Owusu-Agyeman's (2019) study add to the growing body of evidence that

characteristics including engagement, motivation, flow of information, and utilization play a significant role in establishing the relationship between transformative leadership influence, involvement, and creativity among HEI administrative personnel. Relationships and decision-making have also been identified as important aspects of HEI management staff's ability to moderately improve creativity. For example, expectancy and contingency had a minor impact on creativity. While anticipation stems from the cognitive perspective of the participatory method, it does not always promote creativity, particularly if no formalized procedures for staff development are in place. Conversely, contingency elements may temporarily address problems. Nevertheless, it does not provide a long-term strategy for staff development that consistently generates new processes.

In summary, Owusu-Agyeman (2019) brought two major lessons. First, leaders need to promote participation, inspiration, flow of information, communication usage, and judgment to enhance innovation among management staff in HEIs. Second, an effective internal participatory process underpinned by factors such as organizational management decisions, level of control, corporate culture, excellently defined organizational structure, and social interactions could boost HEIs' personnel innovation. As a result, it is critical for HEI leaders to evaluate how every staff member may be included in strategy formulation and execution processes, so that they can freely contribute their innovative ideas critical to the organization's smooth operation and growth.

7. Education Management Information Systems in Higher Education

Education management information systems (EMIS) are described as a data-driven model that can be used in data collection and analysis to provide information used to make well-thought-out decisions, support planning, management, and monitoring in education systems in HEIs. Therefore, an innovative system that integrates technology, people, processes, and procedures allows education leaders to make management decisions. In addition, EMIS increases the timely processing of data, relevance, reliability, and comprehensiveness of information, which in turn supports the effective completion of tasks in higher education.

The EMIS is a good innovation tool that strives to improve education management in HEIs. Moreover, the system allows for the automation of education management to increase the leadership and assessment of educators and students simultaneously (Martins et al., 2019). Therefore, EMIS is strategically important in areas with challenges involving physical monitoring. For example, EMIS can be used to strengthen education monitoring in developing countries to ensure high accountability, transparency, and innovation among students and teachers. In a study of 250 academic leaders, Martins et al. (2019) discovered that knowledge sharing, and innovation are positively correlated in universities. Hence, when transformational leadership is combined with knowledge sharing, the levels of innovation increase in education management and leadership in universities and HEIs.

7.1 Barriers to the implementation of Education Management Information Systems in Higher Education Institutions

The implementation of EMIS in higher education often faces setbacks and challenges. The high cost required to set up and maintain EMIS is one of the setbacks facing EMIS implementation in higher education (Van, 2015). Similarly, the quality of inputs in EMIS determines the quality of output, as it heavily depends on the computer process. Consequently, budgeting for innovation and leadership in HEIs is faced with financial constraints, making it difficult to start or maintain the EMIS. Hence, most EMIS set in place to improve innovation and leadership in higher education often fail or operate ineffectively. Skilled personnel and training requirements regarding how to use EMIS pose challenges to its implementation. To effectively implement EMIS in HEIs, leaders must be empowered to interact with the system while collecting, analyzing, and interpreting information to conduct effective decision-making (Cash, 2015). Owing to the need for training, it is time-consuming and requires additional finances. Therefore, leaders in HEIs face challenges in implementing EMIS.

8. Innovation as Part of the Organizational Culture of Higher Education Institutions

Organizational culture and climate have a crucial impact on innovation in education management and leadership. Universities are the heart of research and innovation; therefore, they are supposed to display high innovation capacities and capabilities in leadership. According to a research done by Li et al. (2019), organizational culture is a major determinant of the level of innovation in the education management and leadership of a university. Moreover, organizational cultures open to learning and development of new skills reflected increased innovation in leadership and education management. Li et al. (2009) discovered that organizational culture and transactional leadership had a strong, positive correlation with increased innovation in HEIs. Hence, organizational culture and climate are among the most effective indicators of innovation in leadership and education management.

Integrating business model frameworks into education management and the leadership of HEIs improves innovation. Similarly, it helps to find solutions to setbacks for change and innovation (Jakovljevic, 2018). Business model changes can either be disruptive or sustainable, bringing large changes or small sustainable changes over time. Hence, depending on the immediate and long-term objectives of the leadership and education management of HEIs, they will choose between the two options.

9. Conclusion

In conclusion, innovation in education management and leadership is highly reliant on transformational leadership, knowledge, and research in HEIs. Additionally, the rate of adoption and use of technologies, such as education management information systems, improve the innovation in HEIs. Moreover, the culture and structural organization of HEIs determine the quality of innovation. Therefore, it is of high priority for HEIs to ensure that they improve their organizational culture to compete with other organizations that employ progressive cultures open to teamwork, cooperation, and multidisciplinary actions.

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