

External Forces Transforming Thai Private Universities

Phithagorn Thanitbenjasith^a, Sornnate Areesophonpichet^b, Manit Boonprasert^c, ^{a,b,c}Higher Education Department, Faculty of Education, Chulalongkorn University, Thailand, Email: ^aphithagorn@gmail.com, ^bsornnate@gmail.com, ^cmanit_rsu@hotmail.com

This research analyzed the major changes and challenges facing Thai private universities at present and in the future. Constructivism was adopted, to make knowledge claims and employ a qualitative research methodology. Research data was collected and analyzed from related documents and findings, on the external forces affecting higher education. Data was also analyzed from in-depth interviews with 10 key informants, by purposively sampling experts in higher education management at the policy and institutional levels. The analysis showed that the major challenges of private higher education institutions, as caused by external forces, include adaptability and the ability to provide high-quality education that is responsive to the changing demands of job markets and society. A further major, transformational, challenge is the potential to increase management efficiency and effectiveness to carry out their missions, keep pace with changing circumstances, and sustain their long-term viability, by responding to present and future professional needs, to benefit the development of the country and society.

Key words: *Content analysis, External Forces, Thai Private Universities, Transforming.*

Introduction

Many changes from external factors have affected higher education management around the world. Technological advancement, an emergence of artificial intelligence (AI) and robot technology affects both traditional classroom management and outdoor educational practices (Klemencic & Fried, 2007; Popenici & Sharon, 2017; QS, 2018). Population structure is changing in many countries including Thailand. The number of newborn babies tends to decrease. This has an impact on the enrolment of new students in higher education institutions. Fewer students are entering the higher education system, whereas the number of elderly people is increasing, which finally leads to an ageing society (United Nation, 2006;

OCED, 2013). The behaviours and values of young generations, especially Generation Z who are entering higher education, no longer place importance on a degree or formal education in universities because they have numerous options to obtain knowledge and seek answers in life (Yadav & Rai, 2017; Dolot, 2018; Persada et al., 2019). Rapid social change also makes the “knowledge” that graduates obtain from universities quickly outdated and insufficient for current and future professional needs (Chen, 2010; Jiang et al., 2018). In addition, the expectations and needs of graduates and employers have changed. Employers not only look for graduates with theoretical knowledge and hard skills but also pay attention to graduates’ soft skills that are important for working in the future (Casner-Lotto, J., & Barrington, 2006; Carnevale, 2013; Lim et al., 2016).

Thai universities, private and public, are also facing a challenge of educational management amid the changes caused by external factors, and the changing educational landscape based on contextual situations. Thai universities have a responsibility to produce a skilled workforce, to support the 20-year national strategy and the Thailand 4.0 policy to make Thailand overcome the middle-income trap and achieve competitiveness at ASEAN and global levels (Khachinthorn, 2018).

All private higher education institutions in Thailand are established and governed under the Private Higher Education Institution Act. The overall missions of private and public universities are generally the same. The main difference is their source of operating and development funding; private universities must support themselves financially (Altbach & Levy, 2005). Naturally, their existence depends very much on the number of enrolled students. In principle, the strategic focus of private higher education degree programs is on producing professionals in different fields, in response to business and industry demands for trained manpower. These include the 10 target industries under the policy Thailand 4.0. All programs which institutions seek to offer must be approved by the University Council, and conform to the academic standards and practice stipulated by the Office of Higher Education Commission, Ministry of Higher Education, Science, Research and Innovation.

At present, there are 72 private higher education institutions in Thailand. Analysis of degree programs offered by private universities, under the International Standard Classification of Education (ISCED) definition, is as follows. About 53 percent are social sciences related, followed by natural science, engineering, education, medical and health science, law, applied arts, humanities religion and theology, agriculture and others. The proportion of the undergraduate to graduate programs is about 70:30. The medium of instruction and communication in regular classes is mostly Thai. International programs use English and Chinese. Some programs are bilingual. Many institutions have also been developing their own Centres of Excellence; for example, Economic and Business Forecasting Centres, Logistics Research and Development Institutes, Centres for International Trade Studies, etc.

This paper aimed to present the impacts of external forces or external change, on the operation of Thai private universities at present and in the future. The results of this study are helpful to Thai private universities for adapting to changes, modifying strategies, and adjusting the direction of management and operations, based on their missions, to reduce potential impacts and create new opportunities for achieving long-term survival and higher competitiveness, nationally and internationally.

Literature Review

The results of the study on the external forces affecting university management are classified into three groups; i.e. Technological Change, Social and Environmental Change and Economic Change.

Technological Change

The advancement and development of technology, nationally and globally, has contributed to the Industrial Revolution 4.0. Digital technology has been a driving mechanism in industrial and economic sectors, where consumer demand for information connects through the internet. Business and industrial organizations use artificial intelligence (AI), cloud technology, and the internet of things (IoT) to increase production efficiency, to meet the needs of consumers and end-users. Moreover, it is estimated that the number of robots around the world will increase to 4 million in 2050. This situation has an effect on higher education institutions' management, learning practices, administrative management, and production of graduates (Popenici & Sharon, 2017; QS, 2018), as well as affecting distance learning and massive open online courses (MOOC) (Gibb et al., 2012). Knowledge becomes available for free and accessible at all times via the internet (David & Dennis, 2011). The internet of things works with cloud and radio frequency identification (RFID) technologies. It can connect things to big data, changing the way universities operate and communicate with other organizations and individuals. The behaviour of young generations has also changed. They tend to access knowledge and information through computers, tablets, and smartphones, which leads to a reform of learning. Knowledge can currently be accessed through various channels by anyone regardless of gender, age, or education (Alandjani et al., 2018).

Social and Environmental Change

Population Structure

It is predicted that the world population will reach eight billion by 2025 and steadily increase to 8.32 billion in 2050, with Asia as the continent with the highest population. In terms of population structure, it is estimated that the number of young people will decrease to 20.87

percent of the total world population, while the number of elderly people will increase to 22.23 percent, which will eventually lead to population ageing (United Nation, 2006; OCED, 2013). Regarding the change in Thailand's population structure, the youth population will decline from 24.65 percent of the total population to 17.95 percent in 2020. Moreover, the number of young people at university entrant age (18-21 years old) is expected to decrease from 4.30 million to 3.77 million, which significantly indicates a future decrease in university enrolment (OHEC, 2008).

Globalization

Today's world is globalized and connected due to progress in communications, transportation, and technology. Globalization affects all parts of society. It can lead to advancement, interdependence, and international integration in the dimensions of culture and standardization. The education sector, which plays an important role in manpower development and knowledge creation, is also affected by globalization (Bakhtiari, 2011). Globalization helps facilitate knowledge-sharing and development, quickly and conveniently (Varghese, 2014). In terms of higher education management, universities in Thailand and overseas are adapting themselves to globalization. Educational services become commodities, which can be traded and are included in the free trade and service agreements of the World Trade Organization (WTO) and the Free Trade Area (FTA). These changes have an effect on the operational opportunities and challenges of all higher education institutions, including Thai private universities.

Energy and Environmental Resources

At present, natural and environmental resources are deteriorating. The natural environment is likely to be progressively destroyed due to the increasing human population. Many inventions and technologies have been developed and used by humans, which inevitably impact both the environment and human health (Sheridan et al., 2019). These impacts include climate crises, global warming, decreased natural resources, more severe natural disasters, and expanding environmental pollution. Environmental problems are directly and indirectly affecting humans and other living creatures in the world. Thailand is also facing environmental crises such as air pollution with dangerous levels of PM 2.5 in many provinces, changes in air pressure, and plastic pollution that kills both land and marine animals. These changes impact the educational management opportunities and challenges of Thai private universities (Hess & Collins, 2018).

Economic Change

Economic Directions and Trends

The economic progress resulting from the free movement of goods and services around the world leads to more intense competition in industry and business. Thailand's current economic direction and trends are related to various factors. They include the exports of goods affected by the trade war between the United States and China, the economic slowdown of trading partners, the recovery of the tourism sector and the increasing confidence of tourists after the implementation of various stimulus measures, the private investment in mega-projects, the relocation of multinational companies' investment due to a protracted trade war, the continuation of government investment in five double-track railway projects, the development of infrastructure of the Eastern Economic Corridor (EEC), and the Thailand 4.0 policy.

Thailand 4.0 is an economic model that aims to change Thailand's economic structure to be a "value-based economy", to overcome the middle-income trap (Puncreobutr, 2017; Jones & Pimdee, 2017). The Thailand 4.0 model focuses on five industrial groups: 1) food, agriculture, and bio-tech; 2) health, wellness, and bio-med; 3) smart devices, robotics, and mechatronics; 4) digital, Internet of Things, artificial intelligence, and embedded technology; and 5) creative, cultural, and high-value services. These five target industrial groups are part of "Thailand's 10 future industries," also known as the S-Curve and New S-Curve industries. While the national economy is developing and expanding, private universities have to produce graduates that meet the needs of the labour market and adapt to changes, to steadily and sustainably grow and survive in a new economic context.

Employment and Labour Market

New economic driving forces are based on the Thailand 4.0 economic development policy, and entry into the ASEAN Economic Community (AEC), helping to expand the free flow of professional and skilled labour, which can affect the demand for labour and the direction of the Thai labour market in the future (Thanalerdsopit et al., 2014). As the trend of technological development is on the rise, the government plans to use more robots, especially in the automotive, electronics, plastic, and medicinal industries. Therefore, robots have become one of the New S-Curve industries in Thailand. The use of robots is likely to increase both in Thailand and foreign countries, due to the rising pressure of labour shortages and higher labour costs. Countries with a skilled workforce can produce robots on their own and facilitate collaboration between robots and humans. An increase in the use of robots has a direct impact on the labour market because there are costs for developing technological skills and adjusting to new jobs, and there may be a risk of being unemployed if a workforce lacks sufficient skills (He & Liang, 2019). However, although the trend of using robots may lead to

high competition in the labour market, it helps to create jobs (Gerecke & Wagner, 2007), especially in the field of robotic control such as software engineering developers and data analysts. These jobs are found to be rapidly and steadily growing. Therefore, this is a challenge resulting from the change in employment trends that Thai private universities need to deal with in the future.

Law and Government Support

Thai higher education management is under the supervision of the Ministry of Higher Education, Science, Research and Innovation. It has three main duties: producing and developing human resources, creating and improving knowledge, and creating and developing innovation. Educational reform in Thailand, especially that of higher education, focuses on enhancing Thai higher education institutions. Specifically, reforms enhance their capacity to produce graduates and high-quality manpower, develop research, expand knowledge, and create innovation for national economic and social development. This drives Thailand towards becoming “a developed country with security, prosperity, and sustainability in accordance with the sufficiency economy philosophy”, according to the 20-year national strategy, the Thailand 4.0 policy (Buasuwan, 2018), and the goal of achieving current and future competitiveness in the global market.

The need for higher education reform in Thailand requires further analysis. In the past, both public and private universities faced various obstacles such as laws, rules, regulations, and practices that affected the development of higher education quality in terms of graduate production, higher education management, the creation of a learning and knowledge-based society, and inequality in educational management (Suwanwela, 2006; Lao, 2015). Therefore, it is a challenge for private universities to carry out educational management under the collaborative support of responsible agencies, to transform Thailand into a knowledge-based society in the twenty-first century.

Research Methodology

The present researcher adopted constructivism, to make knowledge claims (Creswell, 2009) and answer the research question “What are the impacts of external change factors on the operation of Thai private universities in the future?” As there are many truths in people’s minds (Guba, 1990), this study was conducted in a holistic manner (Lincoln & Guba, 1985). The qualitative method was applied to study the feelings, understandings, experiences, and opinions of the key informants (Cresswell, 2003; Patton, 2002). In addition, strategies of inquiry and phenomenology (Creswell 1998) were used in this study, to obtain in-depth and specific answers in line with the nature of qualitative research (Creswell & Clark, 2007).



The target population of this research was comprised of 1) experts overseeing higher education policies in Thailand, such as the current and former members of the Higher Education Commission and the Secretary-General of the Higher Education Commission; 2) representatives of the Association of Private Higher Education Institutions of Thailand (APHEIT); 3) presidents or vice-presidents of Thai private universities; and 4) representatives of Thai organizations in the industrial, business, tourism, and retail sectors. Purposive sampling was used to select 10 key informants based on the principle of phenomenological research (Kuzel, 1999; Morse, 2000, cited in B. Marshall et al., 2013). The research instruments were interview forms. The language accuracy and content validity of the research instruments were examined and confirmed by experts. The data were collected using in-depth interviews (Patton, 2002). In addition, documentary research gathered more information about the external forces and their impacts from related documents, books, texts, articles, and research in Thailand and foreign countries. Content analysis was used to analyze data. This ensured that the obtained results can be practically applied to real situations. The information gained from the in-depth interviews was systematically analyzed and categorized into groups, with the use of data reduction, display, and summary techniques (Miles & Huberman, 1984), to ascertain the accuracy and relevance of the data before drawing conclusions (Lincoln & Guba, 1985; Corbin & Strauss, 2008). In terms of academic rigor, the triangulation technique and content analysis were used to ensure and enhance the credibility of the research results and the data interpretation (Lincoln & Guba, 1985).

Research Results and Discussions

External Forces Challenges facing and their impacts on private universities:

Technological Transformation

The emergence of digital technology has changed the way universities carry out educational management. Private universities can use digital technology to increase the effectiveness of educational management in various ways, such as by developing massive open online courses (MOOC) or electronic learning. Importantly, private universities need to train teachers to have knowledge and instructional skills, to attract a number of students with diverse needs and backgrounds around the world. This is consistent with the studies of David & Dennis (2011) and Gibb et al., (2012). They suggested that low-cost higher education is accessible to a large number of students at the same time, and can strengthen the brand reputation of universities. Moreover, private universities can use advanced artificial intelligence technology to promote and support their educational management and services such as face analysis and face payment systems, in the registration and tuition payment processes. Private universities can also use artificial intelligence and big data technology to answer marketing needs, especially in terms of target group analysis and monitoring. In terms of learning

management, artificial intelligence technology can be used to analyze real-time data, analyze teaching and give advice to teachers, organize learning environment and content through various applications, virtual games, and personalized tools. However, as artificial intelligence technology is smart and highly effective, in the short term, private universities should train their staff to develop hard skills in computer literacy. Such skills include mathematical skills and relationships with artificial intelligence and computer coding skills, and soft skills such as personal effectiveness and interpersonal skills. In the long term, private universities should determine a personnel development plan, to facilitate advanced computer knowledge that encompasses algorithms and machine learning, and enhances critical thinking and complex problem solving skills which are soft skills. Furthermore, private universities need to change the direction of graduate production. They need to focus on developing knowledge and abilities to deal with upcoming changes, including digital technology, AI literacy, IoT, and databases in the foundation courses. Moreover, developing a new curriculum to produce digital technology personnel who are specialized in AI and robotics is necessary, to satisfy the labour market based on the national strategic plan and Thailand 4.0 policy.

Nowadays cloud technology is very popular. It becomes a trend because cloud users do not need to invest in purchasing, installing, planning, and maintaining computer systems. They will not waste money when there is a change in technology. They only need pay for storage. Therefore, private universities have the option of store their operating data in shared space, without having to invest in installing a new computer system when technology changes. This contributes to financial flexibility and reduced operating costs.

The efficiency of IoT technology benefit private universities, in terms of communication and administration. All administrators, faculty members, staffs, and departments can communicate with each other and receive information through a mobile application. If RFID technology is also installed, private universities will be able to manage safety more efficiently. RFID will enable private universities to increase security within the campus, monitor educational equipment and assets such as audio-visual media equipment, projectors, and projector screens, reduce equipment loss, and track lost items in a timely manner. In addition, IoT technology is helpful for classroom management. It can monitor students' attendance and participation in classroom activities via a scanner and automatic attendance checking system. The IoT and RFID can together manage and facilitate payment systems for both faculty members and students, such as cashless transaction systems and tuition payment systems. IoT technology can be used for instructional management, to develop a learning system by which students can access a wide range of knowledge through their computers, smartphones, and tablets. This is consistent with Alandjani et al. (2018), who stated that learning reforms can reduce limitations of time, place, and cost. However, the internet is considered an open communication system that provides information from both domestic and international sources. Therefore private universities need to develop students' and faculty



members' foreign language communication skills and technological knowledge, so that they can select, analyze, evaluate, and utilize the obtained information creatively. Private universities also need to encourage faculty members and staff to develop and adapt themselves, to effectively work in a new context.

Social and Environmental Movement

Ageing world

Thailand is facing a change in population structure with remarkable increases in its aged population and decreases in university-age population. Private universities should manage this issue, by thoroughly analyzing Thailand's population structure and then adjusting their policies and strategies to cope with a decrease in the number of students. It can do so by defining and expanding new markets or target groups, forecasting the number of students in each academic year, terminating a program with declining enrolment or without students, and developing new degree and non-degree programs in line with national and global developments. In addition, private universities should focus on seeking and creating cooperation with higher education institutions in foreign countries. It can thereby improve the quality and standards of education, and create international programs such as dual degree programs. At the same time, private universities should place importance on management. They can do so by emphasizing financial and budgeting systems, revenue-expense management, operating costs and expenses, and efficient management of existing manpower in terms of teaching hours, research works, new skill training, and co-working with external business organizations for self-improvement and further development of teaching and research. Private universities should address academic management. To respond to the trend of an increasingly aged population and the direction of twenty-first century workforce development that aims at creating important learning skills, private universities should focus on developing short-term and continuous programs for aged and non-aged groups, to ensure broad and fair access to higher education. This is consistent with Robotham (2011), who stated that universities should play a role in facilitating necessary life skills and lifelong learning abilities, in aged and non-aged populations. They can provide educational courses to develop intercultural understanding, teamwork skills, computer literacy, technological knowledge, and everyday communication skills at beginning and intermediate levels.

In terms of research management, private universities should concentrate on generating income. They can do so by managing and utilizing intellectual property, research works, and creative innovations including invention patents, product design patents, petty patents, copyrights, and trademarks through various methods such as business matching, IP valuation, negotiation, and licensing. In personnel management, there is a need to find other sources of income and new target groups. Therefore private universities should re-skill and up-skill both teachers and educational personnel, to ensure that they can effectively adapt to new duties



and professional contexts. In student management, Thailand is facing quantitative and qualitative labour shortages. However, it is important that it maintain labour productivity. Regardless of the decreasing number of laborers, high productivity from existing laborers will contribute to higher operational efficiency and effectiveness. Therefore it is necessary for private universities to continuously enhance students' skills, abilities, and competencies, in a concrete and practical way, to compensate for quantitative and qualitative labour shortages. This is in line with Mason et al. (2009), who stated that competency development will make new graduates entering the labour market become highly skilled workers and enable Thai workers to compete in the national and ASEAN labour markets.

Globalization Challenges and Opportunities

Globalization-based education connects the world for educational purposes, which finally results in a mingling of different languages and cultures, and free flows of goods and services. This is in line with Varghese (2014), who suggested that globalization can contribute to wider knowledge sharing and quicker knowledge development. If a university cannot create and develop high-quality curriculums, it will definitely lead to a decline in the number of enrolled students. Therefore Thai private universities should adjust their management strategies, and create new organizational cultures to achieve internationalization. This is consistent with E & Yildiz (2012), who indicated that a university must create uniqueness in terms of educational standard and curriculum quality, based on its potential and expertise.

As globalization affects social ways of life, private universities must provide higher education courses that aim to develop academic, professional, and learning skills necessary for the twenty-first century. Moreover, private universities should expand educational opportunities for working-age students, through lifelong learning courses and credit bank systems. This is similar to a study of the United Nations (2010). It stated that universities should provide students with educational courses that promote continuous learning, self-development, and professional improvement until they graduate and receive academic qualifications. Besides, universities should adjust their instructional practices and train teachers to have instructional management competence, as well as abilities to acquire knowledge from global sources and conduct international research. Private universities should take this opportunity to build collaboration with local and international business organizations, to develop research problems, conduct research studies, and create impactful innovations nationally and internationally, presenting cross-cultural learning and the challenges of global organizations. That is in addition to their carrying out research and development, in response to regional and international needs. In terms of student management, universities should focus on facilitating students' awareness and adaptability to

diverse cultures, their emotional quotients, and their intelligence quotients, until they are able to use their abilities to perform development activities in a useful and efficient way.

Energy and Environmental Altering

Higher education management is involved with organizational energy consumption and resource utilization activities. Therefore, in the aspect of academic management, private universities should develop foundation courses and learning practices that focus on cultivating environmental awareness and understanding of natural resource and environmental laws, and reflecting energy and environmental problems and impacts. This is consistent with Tilbury (2011), who stated that students or learners should understand actual environmental problems and impacts, and be aware of future environmental trends. In terms of research management, there is a high demand for energy and yet limited energy sources. Therefore it is a challenge for private universities to research, develop technologies, and find innovative ways to optimize the use of natural and environmental resources, and explore the feasibility of alternative energy sources, to meet future needs. As to academic services, private universities should facilitate an academic service network, building university, social, and community engagement among relevant parties and local agencies. This is in line with Hess & Collins (2018). They suggested this approach as a contribution to environmental preservation and reducing energy impacts and environmental problems, at societal and community levels. In student management, private universities should develop students' life skills, encourage them to adjust their daily behaviour, and make them aware of environmental values and the importance of current and future energy conservation.

Economic Transition

Economic shifts

Thailand's economy is directed by the 20-year national strategy and Thailand 4.0 policy. It focuses on the production and development of manpower for driving new economic structures. Thus, as to management, private universities should adjust their strategies to produce and develop graduates, based on their expertise and the needs of national development, to enhance the country's competitiveness and overcome the middle-income trap. This is consistent with Mason et al., (2009), who suggested that new graduates are employed because they can serve the needs of the labour market in a new economic context. As to research management, private universities should seek cooperation and build collaborative networks with other higher education institutions, public and private agencies, and local communities. They can thereby find ways to generate income from research works and innovations developed to meet the needs of Thailand's key economic industries. In this manner they can transfer various forms of knowledge and technologies such as licensing,



contract research, joint research, consulting, technical workshop, open laboratory, laboratory rental, and resource utilization.

Labour Market Movement and Skill Mismatch

The free movement of labour and professionals is contemporaneous with an increasing use of robots and automation in businesses and industries. Therefore, in management, private universities should collaborate with the Association of Private Higher Education Institutions of Thailand (APHEIT), to analyze and predict future manpower needs and future skills requirements. It can thereby comprehend actual situations in the labour market, reduce the duplication of higher educational programs, minimize unemployment problems resulting from skill mismatch, and producing desirable graduates that meet the needs of the labour market. More specifically, in research management, private universities should attend to a strong university-industry linkage, by encouraging faculty members and personnel specialized in science, technology, and innovation to work and collaborate with the private sector on research and innovation development. This could promote talent mobility, enhance research and development and innovation capacity, and create a new generation of researchers. This is consistent with Kongsoontornkijkul (2017), who suggested that linking educational and business organizations can increase private sector competitiveness, and result in a new manpower production system that focuses on professional careers and job creation, rather than degree achievement. Likewise in student management, future jobs are likely to be involved with modern technology, robots, and AI. Therefore it is important and necessary to develop adaptability and professional skills suitable for the 21st century. Apart from hard skills, private universities should also provide students with soft skills such as communication, teamwork, and creative thinking skills. This is consistent with Suarta (2017), who indicated that these skills are essential for life and required by future employers in the global labour market.

Law and Government Reformation

The current trend in higher education management seems to focus on operational and quality competition. Therefore to keep pace with the direction of higher education in Thailand, private universities need to adapt to changes, adjust their management strategies to be more agile, and operate as corporate universities. This is in line with Baporikar (2015), who stated that private universities should operate by focusing on their core competencies relevant to the country's strategic industries. Moreover, although national development requires new international knowledge on research and innovation, there is a lack of financial investment in educational information systems. In terms of academic management, private universities should develop new curriculums and courses to develop students' learning performance, according to the new higher education standard that concentrates on desirable characteristics,

abilities, knowledge, graduate skills and active citizenship. Similarly, Alexander (2010) suggested that the provision of various learning activities can flexibly serve the needs of students in the digital age, and enable students to apply obtained knowledge to real contexts. In research management, private universities should focus on creating research and innovation collaboration among public and private universities. They can thereby use abilities and competencies of their personnel, to carry out research and development for the public and private sectors, based on the diverse needs of different groups of people. Regarding personnel management, private universities should emphasize the research competencies of teachers, in accordance with Thailand's higher education reform policy, through the allocation of financial support for personnel development and academic-based research. Private universities should also develop the abilities of teachers, based on research potential development projects and budgets that are specifically provided for teachers. That is consistent with Raina & Khatri (2015), who stated that this approach helps build motivation and academic enthusiasm, create an integration of research into instructional practices and teaching profession, enhance research utilization in the long term, and promote the development of future innovations.

Conclusions and Recommendations

The changes in external factors at the national and global levels are complicated and uncertain. The industrial transformation caused by drastic economic and technological changes affects competition in the educational industry. More intense competition in higher education markets consequently has a direct impact on the overall development of higher education institutions, both at present and in the future. Thus, private universities need to adapt to changes and turn these challenges into opportunities for improving their educational quality.

In terms of technological transformation, private universities can use digital technology to increase the effectiveness of educational management. They can do so in various ways, such as MOOC or E-learning in collaboration with foreign universities or on their own. Importantly, private universities need to train teachers to have knowledge and instructional skills, to attract a number of students with diverse needs and backgrounds from around the world. As to globalization, private universities should take advantage of its challenges and opportunities to expand off-campus education programs to AEC countries and other countries in Asia, through proactive operations, educational partnerships with foreign universities, and exchanges of teachers and students. They should also collaborate with international agencies in recruiting students from overseas. In addition, as private universities' main income source comes from fees paid by students. When the number of enrolled students is declining as world population age structure changes, private universities should place importance on creating more income-generating channels, based on existing resources such as teachers,

researchers, and laboratories. They can do so by developing non-degree programs, short-term on-demand training, certificate courses, and re-skill and up-skill programs that are in line with social dynamics and providing research and development services to commercial organizations. Therefore, in the aspect of energy and environmental modification, private universities should determine proactive measures to promote the use of eco-friendly alternative energy, create green spaces within campus areas, and use natural light design to reduce electricity consumption in buildings. The determined proactive measures should be implemented seriously, to achieve the goals of Green University, which can contribute to a better position in the global university rankings. In terms of economic shifts, private universities should adjust their existing programs, or develop a new degree program to produce graduates to work in key economic areas, according to the decentralization of economic development policy such as the Eastern Economic Corridor. Moreover, private universities should create a short-term non-degree program that promotes investment in targeted businesses within special economic zones. This will generate income and enhance manpower development, based on the decentralization of economic development policy.

Labour market shifts and skill mismatch need to be addressed. Therefore private universities should create curriculums that can be used to develop students' learning performance and twenty-first century skills. They should also develop work-integrated education programs that allow students to experience working in private organizations, establish work-based learning systems, and ensure that new graduates are equipped with the professional skills needed for actual work. In addition, private universities should also provide short-term programs to up-skill and re-skill Thai workers, and curriculum development should focus on target segmentation, to develop learning programs that meet the needs of each target group. Moreover, in term of law and government reform, Thai private universities should present and highlight their focus or expertise, outstanding performance, and past achievements, in order to emphasize their role as an important mechanism in national development. In addition, private universities and the Association of Private Higher Education Institutions of Thailand (APHEIT) should work together to persuade responsible ministries and agencies to revise or cancel some regulations, to equalise private universities with public universities, and support service providers' investment in learning resources and online databases.

However, to successfully adapt to external changes, Thai private universities should consider repositioning or reinventing themselves. They can do so by adjusting their strategic direction and modifying some operations. These include downsizing their scope of operations to be in line with the demographic changes, creating and developing educational programs that are suitable for target groups, managing research and innovation projects for income generation, establishing effective management systems, and using strategic management tools to achieve viability and competitiveness. They can also proactively create internal dynamics to change organizational operations, including missions and strategies, leadership, and organizational



cultures. These changes will result in the operational transformation of private universities based on changing situations. In doing so, private universities will have appropriate and efficient strategies for becoming Thai private universities that can respond to the current and future needs of communities, societies, and countries in a continuous and sustainable way.



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