THE EXISTENCE OF GOVERMENTAL AND ENVIRONMENTAL UNCERTAINTY ON COMPETITIVE ADVANTAGE OF PRIVATE UNIVERSITIES

ABSTRACT

Aims: This study aims to illustrate empirically the impact of governance and environmental uncertainty on the quality of B-accredited private universities and their long-term competitive advantage.
Study design:The method used in this study used descriptive and causal-explanatory methods to test the research hypothesis.
Place and Duration of Study**:** All private universities accredited by B in Indonesia.
Methodology:This Research used descriptive and causal-explanatory methods. Data for this research were collected using a questionnaire and supplemented with interviews involving various university leaders. A random sampling technique was utilized to select a sample of 136 B-accredited private universities in Indonesia. The data was analyzed using the Structural Equation Modeling (SEM) approach. The study's findings show that higher education governance has a significant influence on both the quality of higher education and long-term competitive advantage, both directly and indirectly.
Results: In contrast, environmental uncertainty has a major impact on higher education quality but has little effect on long-term competitive advantage. Higher education quality, on the other hand, has a strong beneficial influence on long-term competitive advantage. Furthermore, this research demonstrates that improved quality among B-accredited private institutions boosts their competitive advantage.
Conclusion:This research shows that improving quality among B-accredited private institutions will increase their competitive advantage. Therefore, the results of this investigation provide a valuable contribution in addressing the problem of substandard quality in private universities in Indonesia and expand existing research on environmental governance and communication in university environments.

Keywords: Higher education quality, sustainable competitive advantage, higher education governance, Private Universities, governance, environmental uncertainty.

1. INTRODUCTION

Indonesia, a nation with potential purchasing power, is compelled by globalization, defined by rapid technical advancements, to require the help of skilled Human Resources (HR). This quality resource support is realized through an expert and trained workforce [1]. Providing skilled and trained human resources is essential in achieving a sustainable competitive advantage known as competitive sustain advantage, sustainable advantage encourages organizations to have the right strategy to continue to adapt to environmental changes [2]. This strategy is crucial to apply to non-service businesses and organizations engaged in educa-tional services, such as universities. Changes in the organization's business environment that rap-idly result in increased competition for that strategy implemented in all operational activities of the organization must be adapted to the business environment that is in harmony with changes in economic globalization [3].

Globalization requires countries to enhance their economic competitiveness, and one strategy to achieve this is by improving the quality of higher education. To support this goal, the Indonesian government has set a Sustainable Development Goals (SDGs) agenda to be accomplished by 2030. This program encompasses 17 objectives, with goal 4 emphasizing the provision of quality education for all. To fulfill this objective, The Indonesian government has committed a 20% education expenditure in the 2020 State Budget, amounting to 505.8 trillion, which represents a 2.7% increase from the 2019 State Budget. Zhang & Guo (2014) emphasize the critical role of education spending allocation in enhancing higher education quality and cultivating a skilled workforce. Meyer & Maier (2012) assert that prioritizing higher education quality is essential as it contributes to the development of a high-quality workforce that can yield a sustainable competitive advantage. However, a study by Rosser (2018) suggests that the quality of higher education in Indonesia remains suboptimal, leading to graduates' inability to compete with their foreign counterparts. High-quality higher education is vital for Indonesia's aspiration to become one of the 12 developed countries by 2025 (as outlined in the Long Term Development Plan 2005-2025) and one of eight developing countries by 2045 while fostering a sustainable and inclusive economy [4].

According to the World Bank's 2018 report on Education For Global Development, a country's education quality reflects its success in the global economic competition. Indonesian universities have not adequately adapted to meet the labor market's demand for graduates with skills tailored to the needs of industries like the digital economy. This situation creates significant opportunities for skilled foreign workers who possess modern technology knowledge to enter Indonesia [5].

Research by Mollah & Zaman (2015) explained that governance influences quality improvement of education through indicators of high accountability, political stability, effective regulations and policies made towards internationalization. Other research by Bingab et al. (2018) stated that higher education governance to improve the quality of universities, funded only by students alone, will reduce the primary goal, namely improving the quality of human resources [7].

The low quality of private tertiary institutions is not only due to poor governance; other factors are due to problems with the quality of lecturers. Many non-state/private universities still need more quality teaching staff, which impacts the quality of graduates and the institution. Indonesia's doctors need to catch up compared to those in ASEAN countries. 2019 Higher Education Statistics data states that the number of Private College doctors is 14,283 (7.8% of 181,804), the number of lecturers who have Auditor Functional Position Associate Professor is 9,043 (4.97% of 181,804), and JFA Professor is 1,275 (0.7% of 181,084). This correlates with the number of lecturer outputs (international jour-nals/Scopus, IPR or patents) and the achievement of superior accreditation or A accreditation. Unsurprisingly, of the 3,129 private universities, only 39 are accredited A, even though accredita-tion is a reference for quality private universities [8].

Research by Mohammed et al. (2016), intellectual capital, as a proxy for quality human resources, has a significant impact on the quality of higher education institutions. To build excellent human resources, strong funding support is needed and the availability of adequate infrastructure, one of which is teaching technology that follows the latest technological developments. Furthermore, Ng (2015) research explains that quality education depends on quality lecturers at universities, good learning processes, a conducive environment and paying attention to environmental uncertain-ties [9].

Beketova (2016) elaborates on the necessity of confronting the challenge of attaining high-quality education through policies that adapt to a dynamic environment characterized by globalization, technological advancements, demographic shifts, the information revolution, distance learning, financial considerations, university competition, faculty quality, and service standards. The continuous transformations in both internal and external educational landscapes introduce height-ened levels of environmental uncertainty, exacerbated by intensified competition within the edu-cational

services sector. Oliver & Parrett (2018) further expound that this environmental uncertainty is primarily driven by rapid technological progress and innovations that result in global economic shifts. Consequently, changes in the technological, innovative, and global economic landscape mandate that higher education institutions strive for excellence [10].

Stewart et al. (2016) assert that established tertiary institutions inevitably grapple with the threat of volatility, uncertainty, complexity, and ambiguity (VUCA). Universities are particularly vulner-able to VUCA threats related to technology, economics, and political dynamics. Similarly, accord-ing to Nir & Sharma Kafle (2013), The political stability of a country has a significant influence on ed-ucational quality and acts as a solid indicator for measuring commercial sustainability in the edu-cation sector. Meanwhile, dealing with and preparing for the uncertainties provided by higher education competition, both at the national and worldwide levels, demands preserving a favorable image through various assessment mechanisms. Data based on Quacquarelli Symonds (QS) World University Rankings 2020, only 8 PTNs and 1 PTS have the world's 1000 most prominent rankings, namely: University of Indonesia (rank 296), ITB (rank 331), UGM (rank 320), Padjadja-ran University (rank 751- 800), IPB (rank 601-650), Universitas Airlangga (rank 651-700), Un-braw (80-1000), ITS (rank 801-1000) and Bina Nusantara University (rank 801-1000). This fact is concerning; of all private and public higher education institutions in Indonesia, only nine universities have received world recognition for their quality, and one of the indicators is the publication of Scopus. Although the publication of Scopus Indonesia in 2019 increased by 12,233, it is still relatively low, and the number of research collaborations with international universities is still tiny; this indicates a limited capacity in research so that, in general, the capacity of lecturers in tertiary institutions is still doubtful (World Bank, 2018). Strong funding support is urgently needed from the government and PT organizing institutions so that PTs can compete sustainably [11].

According to Barney (1991), an organization can achieve a sustainable competitive advantage with VRIN resources. VRIN is a Valuable, Rare, Non-imitable and non-sustainable resource. In higher education, human resources that are VRIN are reflected in the number of doctors and professors who have the competence and produce excellent outcomes (patents, intellectual property rights, Scopus and citations)—other resources such as technology, systems and other infrastructure that are a requirement for campus internationalization. Peteraf & Barney (2003) states that an organi-zation is said to have additional competitiveness if it has resources capable of creating economic value, while Wang & Campbell (2012) adds that in achieving international-scale higher education, it must be supported by human resources and adequate physical capacity to support research, learning, communication and leadership processes. The achievement of higher education on an international scale can increase long-term competitive advantage [12].

Based on the preceding descriptions of theoretical and empirical events, the essential question is whether higher education governance, intellectual capital, and environmental uncertainty impact the quality and competitive advantage of higher education institutions. Conceptually, the relationship between higher education governance (Bingab et al., 2018; Oliver & Parrett, 2018), intellectual capital (Meyer & Maier, 2012; Mohammed et al., 2016; Peteraf& Barney, 2003), and environmental uncertainty (Lin & Lee, 2014; Nir & Sharma Kafle, 2013; Stewart et al., 2016) on the quality of tertiary institutions which have an impact on competitive advantage has been proven. However, in the literature, this evidence is still partial. While empirical, simultaneous and holistic proof of all the variables that become the phenomenon of this research has never been done. As a result, this research is critical for filling a vacuum in the literature by providing a new model to solve research problems. The model provided in this study is anticipated to address issues about the influence of higher education quality on competitive advantage from the standpoints of higher education governance, intellectual capital, and environmental uncertainty [13].

2. METHODOLOGY

2.1 The Influence of Higher Education Governance on Higher Education Quality

Research into the influence of governance factors in higher education on the quality of tertiary institutions commonly reaches the consensus that these variables exert a favourable influence. A study by Garaika et al. (2018) discovered that effective university governance and organizational culture positively and significantly affect lecturer performance. However, this study did not find a substantial effect on the overall quality of higher education. To enhance university quality, it is highly recommended to improve lecturer performance, as this improvement can subsequently enhance university governance. In a separate investigation, Dao (2015) delved into the issues of governance change and its relationship on the quality of Vietnam's higher education institutions. The research findings demonstrated a direct relationship between inadequate governance and the subpar quality of tertiary institutions. Inadequate governance is evidenced by a need for more institutional cohesion, leading to a fragmented distribution of control and authority. In Vietnam, universities tend to operate as individual entities, resistant to consolidation or merging [14].

In their research, Nadler et al. (2019) asserted that university governance and organizational culture impact university quality. One hallmark of effective university governance is the presence of a faculty senate, historically granting faculty members access to shared authority and encouraging user participation. This practice has evolved into a formalized structure known as the faculty senate. Contrastingly, Sanchia & Zen (2015) argued that implementing good corporate governance practices (including evaluation, documentation systems, and observation) did not significantly influence organizational performance, as measured by economic value added (EVA). However, Mariani et al. (2017) found that good university governance has a significant and favorable impact on the quality of an organization's financial reports. Drawing from research by Daryaee et al. (2011); Garaika et al. (2018); Mariani et al. (2017); Sanchia & Zen (2015), researchers propose a hypothesis that governance in higher education positively impacts the quality of tertiary educa-tion [15].

In his research, Nadler et al. (2019) stated that university governance and organizational culture affect university quality. The presence of a faculty senate is a sign of strong governance at the university. Historically, colleges and universities have offered access to faculty members in order to share authority and enhance user engagement. This has manifested in recent decades through the creation and use of a formal body called the faculty senate. Sanchia & Zen (2015) state that there is no significant impact of implementing good corporate governance (evaluation, documen-tation systems, observation) on the quality of organizational performance as measured by eco-nomic value added (EVA). According to Mariani et al. (2017), good university governance has a favorable and significant impact on the quality of an organization's financial reports. Based on research by Daryaee et al. (2011); Garaika et al. (2018); Mariani et al. (2017); Sanchia & Zen (2015), researchers hypothesize that higher education governance has a positive impact on ter-tiary quality.

H1 : Higher Education Governance Positively Influences the Enhancement of Higher Education Quality.

2.2 The Effect of Environmental Uncertainty on the Quality of Higher Education

Research exploring the influence of variables related to environmental uncertainty on the quality of tertiary institutions often reaches a common consensus: these variables tend to exert a detri-mental influence. Morrison & Mecca (1988) suggest that educational policy must confront uncer-tainty effectively by making strategic decisions based on an examination and evaluation of the organizational environment and the forces that drive environmental changes. They advocate for proactive measures to anticipate uncertainties by utilizing the best available information. In her research, Beketova (2016) underscores the vital role of higher education in a country's development. As a result, it is critical to build a strong educational system capable of evaluating the impacts of both internal and external environmental elements. To meet the difficulties provided by global transitions, universities must be proficient at building new learning models, appropriate

excellent educational management systems, and creative university models that encourage open information interchange [16].

Leonidou et al. (2006) investigated the implications of lack of clarity on organizational quality, specifically the maintenance of connections between US industrial exporters and their overseas clients. According to data gathered from 151 firms, uncertainty has a significant and negative ef-fect in efforts to improve organizational performance quality. This is because it makes demands on flexibility, dedication, communication, cooperation, satisfaction, trust, and understanding, all of which can stymie a company's internationalization. Hwang & Norton (2010) discovered that market turbulence significantly negatively impacts the relative quality of firm performance within the retail industry. Companies must diligently monitor current and future market conditions in highly competitive and dynamic markets and adapt their business activities to remain competitive against more agile and responsive rivals [17].

Furthermore, Fountas et al. (2006) found that uncertainty surrounding accurate growth rates affects output growth rates across all countries. This uncertainty also has adverse implications for economic growth, as it introduces instability to inflation rates. In response to heightened uncer-tainty, central banks often find themselves with increased flexibility to address inflation by im-plementing measures to reduce it. Drawing insights from the collective research of (Beketova, 2016; Fountas et al., 2006; Hwang & Norton, 2010; Leonidou et al., 2006), researchers posit a hypothesis that environmental uncertainty has a detrimental impact on the quality of higher edu-cation.

H2 : Environmental Uncertainty Negatively Influences Higher Education Quality

2.3 The Effect of Higher Education Governance on Sustainable Competitive Advantage

The majority of research on the effect of higher education governance characteristics on sustaina-ble competitive advantage has shown that these two variables have a favorable influence. Mok (2010) discovered that by implementing governance changes, the Singapore Government boosted the competitiveness of its tertiary institutions. Governance improvements involve reorganizing the organization's strategic structure, as well as knowledge management and creativity centers.

Ljubojevic et al. (2013) argue that from a corporate governance perspective, an organization's competitive capabilities are closely related to its resources. The composition of the supervisory board and its responsibilities, balanced relationship with top management, and information ac-cess policies and procedures adopted in corporate governance are characteristics needed for or-ganizational learning to compete sustainably. His research also concluded that the composition of the supervisory board is too many or the average age of the members is too old, which can hamper the organizational learning process.

Bratianu & Pinzaru (2015) explained that university governance can be defined as universities' constitutional forms and processes in managing their affairs. The research shows that universities can improve their competitive abilities with flexibility in budgeting and decision-making autono-my. According to Yonezawa & Shimmi (2016), the government's efforts to improve governance at Japanese universities have contributed to their increased competitiveness. Based on research (Bratianu & Pinzaru, 2015a; Ljubojevic et al., 2013; Mok, 2010; Yonezawa & Shimmi, 2016), re-searchers hypothesize that higher education governance has a positive influence on long-term competitive advantage.

H3 : Higher Education Governance Positively Influences the Augmentation of Sustainable Com-petitive Advantage.

2.4. The Influence of Higher Education Quality on Sustainable Competitive Advantage

Research focusing on the correlation between the quality of tertiary institutions and sustainable or long-term competitive advantage predominantly yields the conclusion that these two factors share a positive relationship. De Silva & Chitraranjan (2018) elucidate that the quality of higher education is approximated by factors such as the quality of interactions between lecturers and students, institutional reputation, the maintenance of university rankings, and the establishment of positive external relationships, all of which contribute to the sustainable competitive advantage of higher education institutions (HEIs). Dimitrova & Dimitrova (2017) contend that the quality of tertiary institutions, characterized by competent faculty and staff who satisfy students and stake-holders, significantly influences the competitiveness of HEIs. This competitiveness is gauged by the employability and acceptance of graduates in the job market. Additionally, Aydın (2013) emphasizes the pivotal role of location as a critical factor in students' university selection process, thereby impacting the sustainable competitive advantage of HEIs. Consequently, university management should consider location strategically when making decisions [18].

Lakhal (2009) posits that effective quality enhancement has become a crucial element in gaining a competitive edge and enhancing organizational performance. His research revolves around developing conceptual frameworks that interlink quality, competitive advantage, and organizational performance. The findings underscore that enhancing quality can result in an increased competitive advantage and improved organizational performance. Drawing insights from studies by (Aydın, 2013; De Silva & Chitraranjan, 2018; Dimitrova & Dimitrova, 2017; Lakhal, 2009), re-searchers posit a hypothesis suggesting that the quality of higher education positively impacts the sustainable competitive advantage of tertiary institutions.

H4 : Environmental Uncertainty Negatively Influences Sustainable Competitive Advantage.

2.5 The Effect of Higher Education Governance on Sustainable Competitive Advantage Through Higher Education Quality

As per the findings of Garaika et al. (2018) their findings show a strong and favorable relationship between university governance and the application of university culture in terms of improving educator performance. Given that lecturer performance plays a pivotal role in elevating the quali-ty of universities, it is strongly recommended to prioritize improving lecturer performance to en-hance university governance. A similar conclusion is also evident in Dao (2015) study, which delves into the difficulties involved with governance change and the resultant impact on the quali-ty of Vietnam's higher education institutions. His research outcomes underscore the direct proportionality between inadequate governance and the diminished quality of tertiary institutions. This inadequacy in governance is evidenced by the need for more institutional cohesion, which results in fragmentation of control and authority. It is a common practice for universities in Vi-etnam to operate as individual entities, showing reluctance towards consolidation or mergers [19].

The influence of higher education quality has also been explored by other researchers, such as De Silva & Chitraranjan (2018). They elucidate that the quality of higher education is gauged by factors such as the quality of interactions between lecturers and students, institutional reputation, the maintenance of high university rankings, and the establishment of positive external relation-ships—all of which can impact the sustainable competitive advantage of universities. Dimitrova & Dimitrova (2017) posit that the quality of higher education, stemming from the competence and knowledge possessed by lecturers and staff, results in student and stakeholder satisfaction, thereby automatically boosting the competitiveness of higher education. This is evident in gradu-ates' success in being accepted into the job market. Furthermore, Aydın (2013) discovered that the quality of higher education, particularly concerning infrastructure, constitutes an integral as-pect of creating sustainable competitive advantage.

The competitive advantage of tertiary institutions is tied to their quality. Moreover, as previously discussed, this quality is significantly influenced by the institutions' management. Mok (2010) documented how through governance changes, the Singapore government aggressively increased the competitiveness of higher education institutions. These changes encompassed restructuring the organizational strategic framework, knowledge management, and the cultivation of creativity hubs. Drawing from insights provided by (Dao, 2015; De Silva & Chitraranjan, 2018; Dimitrova & Dimitrova, 2017; Garaika et al., 2018; Mok, 2010), researchers postulate a hypothesis suggesting that effective higher education governance positively impacts sustainable competitive advantage through the enhancement of educational quality.

H5 : Higher Education Quality Positively Influences Sustainable Competitive Advantage.

H6 : Higher Education Governance Positively Influences the Enhancement of Sustainable Competitive Advantage Through Higher Education Quality.

H7 : Environmental Uncertainty Positively Influences the Enhancement of Sustainable Compet-itive Advantage Through Higher Education Quality.

2.2 METHOD

Cooper & Schindler (2014) explain research objects as variables studied, researched or measured in research. The research objectives used are (1) Higher Education Governance, (2) Environmental Uncertainty, (3) Quality of Higher Education, and (4) Sustainable Competitive Advantage. The method used in this study uses descriptive and causal-explanatory methods to test the research hypothesis. The descriptive method identifies and characterises the variables used in a situation (Sekaran dan Bougie, 2016). Meanwhile, causal-explanatory research is designed to explain whether one or more variables can describe the cause or effect of one or more research variables.

The target population in this study are all private universities accredited by B in Indonesia, totalling 234 universities. The selection of the private university population B was based on the reason that the number of private universities in Indonesia is more significant than state universities; of the number of private universities with A accreditation, only 39 (1.24%) universities have reached. Apart from that, B universities are the population and observation sample in this research because B-accredited universities have the potential to improve their quality by achieving A accreditation.

The sample in this study was designed using simple random sampling, which provides an equal opportunity for each item or member of the population to be selected. The simple random sampling technique used in this research considers that universities with B accreditation are homogeneous with the same accreditation assessment standards as BAN-PT. According to Hair et al. (2016), if there are 5 (five) constructs in the model being analysed, and at least two indicators measure each construct, then A sample size of at least 100 - 300 observations is necessary. Thus, the minimum sample in this study is 100 private universities accredited B. The unit of analysis and observation in this research is the structural and other management levels at each private university in Indonesia. Meanwhile, the respondents in this research were: (1) Chancellor/Deputy Chancellor, (2) Director, (3) Dean, (4) Head of Study Program/Sekprodi and (5) Others (PJM and officials below, namely the quality group).

This study relied on both primary and secondary data sources. The major source of data in this study is a questionnaire with two questions given to participants, namely closed questions containing the respondent's identity data. Meanwhile, open questions are in the form of questionnaires, where the question indicators contain statements that use government regulations in 2020 and implemented in January 2020, so they can be used as open questions. Apart from questionnaires, online interviews also supported this research to obtain facts and factual information from respondents. At the same time, secondary data is collected via the internet and university websites to support phenomenon data and draw conclusions. The aim is that research

conclusions become better and can be more comprehensive. This design is called survey research because it uses a measurement process to collect information through structured interviews. The questions in the questionnaire are carefully selected, sequenced, and asked to the right respondents. The instrument used a questionnaire with interval scale data measurements measured using a rating scale approach, five scales. Apart from that, to support the research results, interviews were conducted parallel to when the questionnaire was distributed to strengthen the research findings [20].

In this research, the data analysis employed the Structural Equation Modeling (SEM) technique, utilizing primary data collected through a questionnaire. It was imperative to conduct a preliminary examination, considering the respondents' sincerity when responding to each questionnaire item, given its critical impact on the quality of the research findings. To assess the quality of the instrument, two essential tests were conducted: validity testing and reliability testing. Within this study, seven hypotheses were formulated. These hypotheses were evaluated using the t-test statistic, with the condition that the null hypothesis (Ho) would be rejected if the calculated t-value exceeded the critical value for a significance level of $\alpha = 0.05$. In addition to examining the direct effects of hypotheses 1 through 7, this study also explored indirect relationships concerning hypotheses 8, 9, and 10. This examination aimed to assess the significance of the indirect effects, effectively testing the mediation hypotheses. The Sobel test procedure, as outlined by Kline (2011: 164), was employed for this purpose. The Sobel test entails evaluating the strength of the indirect influence of the independent variable (X) on the dependent variable (Z) through an intermediary variable (Y). This indirect influence is computed by multiplying the path from X to Y (denoted as "a") by the path from Y to Z (denoted as "b"), resulting in the product ab. Therefore, the coefficient ab is calculated as (c - c'), where c represents the effect of X on Z when Y is not controlled, while c' denotes the coefficient representing the effect of X on Z when Y is controlled. The standard error of coefficients a and b is denoted as Sa and Sb, respectively, which determines the magnitude of the standard error for the indirect effect.

3. RESULTS AND DISCUSSION

The results of hypothesis testing reveal a significant and positive impact of higher education governance on the quality of tertiary institutions. This research substantiates that enhanced governance practices within universities lead to an improvement in their overall quality. Governance is encapsulated as conducting university activities in alignment with regulations. It is reinforced by a well-structured management framework, suitable policies, and strategies that align with the institution's vision and mission.

In practice, the governance adopted by higher education institutions draws inspiration from Article 5, paragraph (2) of the 1945 Constitution of the Republic of Indonesia, which mandates the government to establish a national education system to enhance the nation's intellectual capacity. Additionally, Law Number 12 of 2012 underscores the strategic role of higher education in nurturing the nation's intellect and promoting advancements in science and technology to bolster the nation's competitiveness. PP RI No. 4 of 2014 further emphasizes the need for universities to adhere to the Tridharma, encompassing education, research, and community service. Furthermore, Article 32 of PP No. 4 of 2014 addresses the autonomy of management for private universities, placing it under the purview of the Organizing Body or Foundation. This autonomy is outlined in a statute, which encompasses rules governing the execution of the Tridharma, the management system, internal quality assurance protocols, and funding. Article 33 of the same regulation delves into the accountability of higher education institutions concerning the pursuit of their vision and mission, quality assurance systems, and reporting.

University governance, as defined by Permendikbud No. 3 of 2020 regarding National Higher Education Standards, serves as the foundation for organizing education, research, and community

service. These National Higher Education Standards must be diligently adhered to in pursuit of higher education objectives, including granting permissions for the establishment of higher education institutions (HEIs), the execution of the Tridharma, and the development and implementation of an internal quality assurance system (SPMI) and accreditation criteria. Minister of Research, Technology, and Higher Education Regulation No. 62 of 2016 mandates that the organizers of private higher education institutions designate SPMI as controllers responsible for ensuring conformity with university education standards outlined in SN Dikti. Universities must institute an internal quality assurance system (SPMI), with the duties and responsibilities of SPMI is assigned to each faculty or study program and is monitored by quality control organizations. SPMI extends its reach into all university activities, encompassing academic and non-academic domains. Universities bear the duty and authority to execute the functions of SPMI, involving the PPEPP activity cycle (Determination, Implementation, Evaluation, Control, and Improvement) to uphold higher education standards while adhering to the criteria established by the university's vision.

Graduate competency standards, learning content standards, learning processes, learning assessment, lecturer and staff standards, learning facilities and infrastructure standards, learning management standards, and learning financing are among the national education standards that are implemented at universities. Implementation of learning standards is realized by implementing the OBE-based KKNI curriculum, which is the standard for determining graduate competency qualifications. OBE (Outcomes Based Education) ensures that graduates' learning outcomes follow the curriculum, structured lecture and assessment systems and ensure that the lecture process runs well. Lectures are equipped with RPS (Semester Learning Plan), qualifications and competencies of lecturers following the criteria (Masters/Doctorate teaching for D3/S1 level and Doctoral teaching for Postgraduate), the amount of lecturer workload is following SN Dikti, the presence of lecturers on time and if not If you are present, substitute lectures, UTS and UAS questions are carried out following the RPS and assessment of learning outcomes in a timely and transparent manner. Furthermore, all standards that have been implemented will be evaluated through quality audits both internally and externally (ISO). This evaluation ensures compliance with Higher Education standards by examining documents in total, and if there are findings that standards have not been achieved or there are deviations, the higher education institution must take control measures. The implementation of governance in the implementation of research standards and PPM is carried out based on strategic plans, and the output is in the form of publications. As a form of accountability and transparency, the output of university activities, both academic and non-academic, is reported to foundations and the government (Dikti). Even though university governance has been running well, there are still low scores, namely the lack of participation from students and the community or external parties.

The results of these findings can be explained using the theory of total quality management (Total Quality Management) by Hackman & Wageman (1995) that good governance through Excellence management is predicated on core quality assumptions such as quality human resources, organizational quality, and management. It is the same as Tjiptono (2003) that governance must be continuously improved by maximizing the competitiveness of products, services, people, processes and the environment. The findings in this study support and prove the results of research by Nadler et al. (2019), and Dao (2015) who describe how strong higher education governance would boost higher education quality. However, this study contradicts the findings of Sanchia & Zen (2015) which showed that governance has no substantial impact on the quality of organizational performance; this is believed because governance is ineffective.

The results of the hypothesis testing demonstrate a noteworthy impact of environmental unpredictability on the quality of higher education. Environmental unpredictability characterizes a situation where universities encounter challenges in gauging the direction of environmental shifts and the ensuing ramifications and formulating effective responses to address these alterations preemptively. Within this study, the notable impact of environmental uncertainty on quality becomes

apparent as heightened environmental uncertainty translates into universities grappling with the complexities of adapting to internal and external changes. Consequently, universities facing substantial environmental uncertainty may experience a decline in quality compared to those institutions adept at flexibly responding to environmental shifts, thereby incentivizing endeavours to enhance university quality. Environmental uncertainty stems from many sources, encompassing technological transformations, shifts in regulations and government policies frequently in flux, and heightened competition among universities. This necessitates that private universities possess the capacity to navigate and respond to these multifaceted challenges effectively.

Another environmental uncertainty is technological change, because technology is universal, it must be followed and universities must be able to adapt to ever-evolving technology. A clear example of university readiness in dealing with the current Covid pandemic, private universities must change their learning systems based on online or e-learning by preparing an integrated ICT system, of course, requiring a lot of funding. In addition to uncertainty caused by changes in technology, environmental uncertainty caused by competition and labor market demands, for this reason, private university B in particular is required to continuously improve its quality such as more sophisticated services, the availability of study programs according to specializations in an era of competition. globally and prepare graduates who are in line with job market demands. This study is consistent with Nir & Sharma Kafle (2013) who found that environmental uncertainty connected to political stability has an impact on the quality of tertiary institutions. Meanwhile Beketova (2016) in her research concluded that universities need to produce a quality learning process with a decent education system to anticipate the impact of changes in the internal and external environment by developing new learning models, developing quality education management systems, and establishing university models with open access to information. Olaore (2014) states that environmental uncertainty related to technological changes has a positive in-fluences on the quality of education. Information accessed from digital technology will actually encourage innovation, increase productivity and quality of life. ICT has the potential to increase teaching quality while also sparking innovation in learning and research. The results of this study also agree with Maley & Kramer (2014) that global unpredictability effects organizational performance, when managerial performance has value and cannot be copied, leading to the globalization of human resources.

The hypothesis test findings suggest that higher education governance has a considerable impact on sustainable competitive advantage. University governance that is based on rules and regulations (Permendikbud), appropriate management structures, organizational culture, strategies, and stakeholder collaboration will increase university competitiveness. The university's strategic plan, based on Law No. 12 of 2012 concerning Higher Education, believes that higher education is required to promote competitiveness in the face of globalization in all domains, which can produce graduates who master science and technology and have competitiveness in the global market. To guarantee quality education and have a competitive advantage, education governance must comply with Permendikbud No. 3 of 2020 concerning National Higher Education Standards. The achievement of SN Dikti must be fulfilled through the role of SPMI, which controls Tridharma activities by compiling policies, procedures and documents that are SPMI standards. SPMI carries out the PPEPP cycle, namely Determination, Implementation, Evaluation, Control and Improvement of standards made by the university. When the university standards set based on the strategy drawn up by university leaders are met and can even exceed SN Dikti, it will impact the university's sustainability. A university strategy not easily imitated by competitors is a competitive advantage that must be maintained.

This research's findings are consistent with the findings of another investigation by Mok (2010) that to increase the competitiveness of higher education institutions, governance reform is carried out. Governance reform is being implemented in order to boost the competitiveness of higher education institutions. The governance improvements included reorganizing the organization's strategic structure, knowledge management, and the creative center. The findings of this study support the

findings of Yonezawa & Shimmi (2016), which explains that improving governance at universities plays a role in increasing their competitive advantage. This is similar to the results of research by Bratianu and Pinzaru (2015) that flexibility in budgeting and decision-making autonomy can increase a university's competitive abilities. However, this study does not support Lombardi et al. (2002), who concluded that university governance does not affect competitive advantage, measured by the large amount of quality research and university funding.

The hypothesis test findings show that environmental unpredictability has little effect on sustainable competitive advantage. This can be explained by the fact that environmental uncertainty is a potential obstacle faced by universities as a result of internal as well as external changes. In general, private University B can face this environmental uncertainty by adjusting activities and minimizing uncontrollable risks. Facts on the ground reveal that political instability is defined by regulatory changes, and government policies that are given in nature must require universities to comply with and adapt to changes in these rules, even if this is difficult in practice.

There needs to be more than the government's education budget of only 80 trillion for all private universities to anticipate environmental changes such as online lectures (PJJ), e-learning, international classes, universities known to the public and many of their graduates being absorbed by industry. Meanwhile, the foundation and leadership's commitment to ensure that graduates are absorbed in the job market must follow the needs of the job market and industry, technological developments, and improve literacy skills among lecturers and students. Increasing innovation and a culture of collaboration with industry, government and other PTs must be continuously improved. The TQM theory can explain this finding that the method used by universities to maximize competitiveness requires continuous improvement of products, services, people, processes and the environment, and to maintain high-quality products and services require maintenance, system enhancements and ongoing mistake prevention at all levels and operations of the internal organization to satisfy demands that surpass user expectations (Gimenez-Espin et al., 2013; Tjiptono, 2003).

This study supports the results of Stewart et al. (2016) concluded that universities that can identify and anticipate potential volatility, uncertainty, complexity and ambiguity will influence their competitive advantage. Torres dan Schugurensky (2002) changes in the political system have driven universities to become more autonomous and expand their benefits, particularly in terms of efficiency, management, and giving more impact on society. According to Dreyer dan Grønhaug (2004) in order to preserve and strengthen their competitive position, businesses must capitalize on opportunities and mitigate numerous uncertainties and dangers in their competitive environment.

The results of the hypothesis test show that higher education institutions' quality substantially influences sustainable competitive advantage. University quality is defined as harmony between the results of activities and the goals to be achieved, that university activities achieve conformity and even exceed the standards set by the government (SN Dikti) and can produce graduates who have added value (competence and can compete), besides that quality universities will be in demand society and has an advantage if the university can provide products and services that interest prospective students. Excellence by offering digital-based, contemporary study programs according to job market needs, integrated and technology-based services, international accreditation, international classes and a reputation for graduates entering the industry.

University quality assessment through accreditation consists of 9 indicator standards that all universities must meet to obtain a reputation for superior accreditation (A), and other quality assessments carried out by the Ministry of Education and Culture are ranked through clustering with input, process, output and outcome assessment indicators. Universities that can achieve the highest scores in obtaining accreditation or clusters will undoubtedly improve quality and influence the university's excellence.

The results of this study are relevant in that university quality, which is continuously improved, will impact competitive advantage. Many B private universities still need to be accredited A; out of a total of 552 private universities in Indonesia, only 39 private universities are accredited A. Even though the governance implemented is following SN Dikti, governance is not the only thing that influences quality; there are still many other factors, such as the number of doctors, professors, number of publications and citations, number of graduates accepted for work, internationalization process (international accreditation and having international students and lecturers). Private B universities still need to fulfil these factors. At the same time, the competitive advantage reflected in the diversity of digital-based study programs offered, international class, good reputation, broad market share, and robust and sustainable funding from students and other funding sources still needs to be met. It can be fulfilled to maintain the excellence of the university. This study's findings are consistent with those of De Silva & Chitraranjan (2018), who found that the quality of higher education, as measured by reputation, university ranking, and maintaining good relations with external parties, has a significant impact on long-term competitive advantage. According to Dimitrova & Dimitrova (2017) he quality of higher education provides consumers with satisfaction and boosts competitiveness with competitors. Similar to the findings of Basheka (2009) that higher education quality impacts competitive advantage, a fall in education quality will lead higher education to lose competition.

The hypothesis test findings revealed that higher education governance has a strong beneficial influence on long-term competitive advantage via tertiary institution quality. This can be explained by the fact that the governance applied by the university concerning Permendikbud No. 3 of 2020 is the standard for implementing academic and non-academic activities carried out by universities, namely SN Dikti. SN Dikti is a reference for university leaders, and SPMI creates standards, policies, procedures and documents for implementing university activities. The National Higher Education Standard regulates the curriculum based on the IQF and standards governing the academic field (graduate competency standards, Student content standards, Learning process standards, Learning education assessment standards) and non-academic fields (Lecturer and Education Personnel standards, Learning facilities and infrastructure standards; management standards, and learning financing standards). The influential role of SPMI will ensure the implementation of the SN Dikti. With good governance following SN Dikti and even exceeding the standards, the university's quality will increase and impact its competitive advantage if it can have advantages that its competitors still need.

Realization of respondents' answers concluded that private university B has implemented governance based on SN Dikti and is supported by a good management structure; there is accountability and transparency. Even though governance has been going well, other factors can increase competitive advantage through quality. There are still other factors that prevent universities from increasing their excellence through quality; these factors are due to the lack of the number of doctorates, Scopus publications, citations and patents, not having internationally accredited study programs, international classes, international students and lecturers and having external funding sources.

This study's findings are consistent with the findings of De Silva & Chitraranjan (2018), who found that the quality of tertiary institutions mediates the relationship between higher education governance (lecturers and students, reputation, maintaining university rankings, and maintaining good relations with outsiders) and a competitive advantage sustainable. Meanwhile, Dimitrova & Dimitrova (2017) concluded that the quality of lecturers and personnel with competence and expertise, providing satisfaction to students and other users, boosts the tertiary institution's competitiveness. The findings of this study also support Mok (2010) and Aydın (2013), who explain that the competitive advantage of higher education exists due to the quality of higher education. Meanwhile, higher education quality is being improved through changing governance in order to strengthen higher education's competitiveness.

The findings of hypothesis testing suggest that environmental uncertainty has a major impact on long-term/sustainability competitive advantage via better education quality. University ambiguity stemming from both internal and external factors, such as changes in regulations, technology, competition and job market demands, must be faced by universities by making changes with the support of funding and commitment from leadership or foundations. Universities must minimize the potential for volatility, uncertainty, complexity and ambiguity that affect quality and impact competitive advantage. For example, changes in regulations and policies of the Ministry of Education and Culture, which aim to boost the quality of graduates, must be responded to by universities by making adjustments and changes to policies, such as making changes to the curriculum and increasing collaboration with external parties related to student needs (internships and taking courses outside the university). Meanwhile, technological changes must be adopted by providing adequate infrastructure. In terms of competition between universities and the demands of job market qualifications, it is not easy to do without leadership/foundation support, funding and sound resources. Universities must be of high quality and have competitive advantages to face the difficulties that will occur due to environmental uncertainty. Private University B has yet to be able to increase its competitive advantage through improving its quality.

This research supports the study of Stewart et al. (2016), who concluded that universities must be able to identify potential volatility, uncertainty, complexity and ambiguity that influence competitive advantage. The key challenges cited in the higher education industry are the unpredictability of the combination of technological, economic, and political trends that universities must confront in order to balance their aims with the necessity to preserve higher education quality in order to compete superiorly and sustainably. Other research results from De Silva & Chitraranjan (2018) and Dimitrova & Dimitrova (2017) concluded that the quality of higher education will provide satisfaction to students and users so that it will influence sustainable competitive advantage.

4. CONCLUSION, IMPLICATION, SUGGESTION, AND LIMITATIONS

Based on the research results presented in the previous chapter, there are several conclusions as follows:

1) Higher education governance positively affects the quality of higher education. Implementation of governance at private university B has referred to government regulations and implemented national standards of higher education regulations. Meanwhile, accountability and transparency are realized through regular reporting. Although university governance has been running well, in general, it has yet to be able to improve the quality of universities accredited B. Other factors affect university quality besides governance. These factors are the low quality of lecturers, the quality of research, patents and lecturer citations, the campus internationalization process has yet to be carried out, and the infrastructure needs to be improved, even though these factors are indicators of quality assessment in accreditation and clustering.

2) Environmental uncertainty has a significant adverse effect on the quality of higher education. Environmental uncertainty due to changes in regulations and policies, changes in technology, increasing competition between universities, and job market demands are not easy for private universities to deal with. B. Changes in regulations and policies are not easy to implement in practice. Changes in technology are constrained by funding to provide supporting facilities. Apart from that, other environmental uncertainties due to competition between universities and the job market demands make it difficult for private university B due to limited infrastructure, human resources and funding compared to established universities (large PTNs and PTS) and can deal with environmental uncertainties. This environmental uncertainty causes Private University B not to be able to improve its quality.

3) Higher education governance significantly positively affects sustainable competitive advantage. The implementation of university governance in organizing activities has been carried out following the National Higher Education Standards. However, governance has yet to be able to encourage an increase in competitive advantage. Governance is not the only factor that influences excellence; other factors, such as the campus internationalization process not being carried out (international accreditation, international classes to encourage international students and lecturers' interest), digital-based study programs and university reputation have not been achieved, this is the cause of not increasing competitive advantage.

4) Environmental uncertainty does not affect sustainable competitive advantage. Changes in government regulations and policies force universities to comply with and adjust to changes in these regulations, although, in practice, it takes work. Meanwhile, technological changes are universal worldwide; they must be followed and applied to campus activities. Of course, many funds are needed to prepare facilities, where the capabilities of private university B are different, especially in remote areas. Likewise, uncertainty due to competition and job market demands makes it very difficult to control risks from the external environment, which cannot be controlled by private university B. Competition from both PTN and large PTS makes it difficult for private university B to get students; this correlates with funding. Some of the environmental uncertainties private universities face can be controlled and followed, but some things are still difficult to control. This condition does not give the university a competitive advantage.

5) The quality of higher education has a positive effect on sustainable competitive advantage. The quality of private University B is still unable to increase its competitive advantage, even though its management has been carried out well based on standards set by the government; other factors determine quality. The realization is that private University B has not been able to improve its quality because the low quality of lecturers, research and publications, and citations constrains it. It has yet to conduct a campus internationalization process, so it has not increased its competitive advantage.

6) Higher education governance significantly positively affects sustainable competitive advantage through higher education quality. Even though the implementation of governance has been carried out well and refers to SN Dikti and is supported by the role of SPMI in ensuring standards are exceeded, it has yet to be able to influence competitive advantage through university quality indirectly. Governance is one of many factors that cause universities to be able to increase their competitive advantage through their quality. Another factor is that private university B still has a low number of doctorates, Scopus publications, citations and patents and does not yet have internationally accredited study programs, international classes, international students and lecturers, dormitories, and external funding sources, so that the competitive advantage is indirectly through the quality of the university has not been able to be improved.

7) Environmental uncertainty harms sustainable competitive advantage through the quality of higher education. Environmental uncertainty is increasing due to changes in policies and regulations, changes in technology, competition between universities, and job market demands, which universities have not been able to control due to the difficulties faced by private universities B in making adjustments due to environmental changes that occur. B private universities, especially those in remote areas with limited capacity and funding, need help to adjust due to policy changes and new regulations from the government, such as the independent campus policy. In contrast, technological changes are still constrained by funding for infrastructure provision, let alone being able to compete. With its competitors and large universities, meeting the job market's demands takes work.

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