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# Improving Higher Education Performance Through Strategic Collaboration And Intellectual Capital: A Path To Competitive Advantage

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**ABSTRACT**

This research aims to explore how strategic collaboration and intellectual capital can improve higher education performance and achieve competitive advantage. The main objective of this study is to identify the relationship between strategic collaboration, intellectual capital, and the performance of higher education institutions, as well as how these three elements can be used synergistically to achieve competitive advantage. The research method used is a quantitative approach with the population of all private universities (PTS) in the LLDikti II Region, which totals 197 private universities. The data analysis technique uses the Structural Equation Models (SEM) approach with the help of the SmartPLS program package. The results of the study show that strategic collaboration has a positive and significant impact on higher education performance. In addition, intellectual capital was also found to contribute significantly to improving the performance of the institution. The combination of strategic collaboration and intellectual capital resulted in a greater improvement in higher education performance compared to each element separately. These results show that institutions that adopt a collaborative approach and manage their intellectual capital will tend to have better performance and are able to compete more effectively in the global education market. Based on these findings, the study recommends that higher education institutions should increase their collaborative efforts, both inside and outside the institution, as well as invest in the development and management of intellectual capital.

## INTRODUCTION

In recent years, private universities (PTS) in Indonesia, especially in the LLDikti II region, have faced various challenges in improving their performance and competitiveness. This phenomenon includes problems such as varying quality of education, limited resources, and fierce competition from both other private universities and state universities (PTN). Higher education performance is measured through various indicators such as accreditation, scientific publications, graduate quality, and student satisfaction levels. However, many private universities still struggle to achieve adequate performance standards to compete at the national and international levels (Gunarto, Nugraha, et al., 2016; Gunarto, Wibowo, et al., 2016; Lisnawati & Gunarto, 2021; Ramadhan & Gunarto, 2021).

Several previous studies have examined various factors that affect university performance. For example, research by (Adam & Gunarto, 2021; Gunarto et al., 2021; Lisnawati & Gunarto, 2021) shows that collaboration between universities can improve the quality of education through sharing resources and knowledge. While (Hashim et al., 2015; Kamukama et al., 2010; Khan, 2021; Ullah, 2022; Yaseen et al., 2016) revealed that intellectual capital, which includes intellectual assets such as knowledge and competence of academic staff, plays an important role in driving innovation and performance of higher education institutions. Other research reveals various factors that can affect university performance, but have not been comprehensively disclosed (Arif et al., 2018; Balzer, 2020; Bashori, 2022; Chen, 2016; Hillman et al., 2014).

Although these studies provide valuable insights, there are several research gaps that need to be filled. First, most studies have not comprehensively examined how strategic collaboration and intellectual capital can interact to improve the performance of private universities. Second, previous research has often focused on only one aspect, such as collaboration or intellectual capital, without considering the synergy between the two. Third, the context of the LLDikti II region, which has unique characteristics, has not been widely explored in previous studies. This research is here to fill these gaps by exploring the relationship between strategic collaboration, intellectual capital, and the performance of private universities holistically. Using the Structural Equation Models (SEM) approach and data from 250 respondents in the LLDikti II region, this study will provide a deeper understanding of how the synergy between strategic collaboration and intellectual capital can be used as a strategy to achieve competitive advantage.

The novelty of this research lies in an integrative approach that combines strategic collaboration and intellectual capital to improve university performance. Using Barney's theory of Resource-Based View, this study offers a new perspective on how colleges can optimize their resources to achieve sustainable competitive advantage. This research not only expands the literature on higher education management but also provides practical recommendations for university managers to improve their performance and competitiveness through strategic collaboration and effective intellectual capital management.

## LITERATURE REVIEW

### Strategic Collaboration in Higher Education

Strategic collaboration refers to a cooperative relationship that is systematically designed between individuals or institutions to achieve mutually beneficial common goals (Barney, 1991). In the context of higher education, this collaboration can occur in the form of research cooperation, curriculum development, academic exchanges, and partnerships with industry and the government (Gunarto et al., 2021).

Previous studies have shown that strategic collaboration contributes significantly to improving academic quality and institutional competitiveness (Lisnawati & Gunarto, 2021). Cooperation between universities, for example, allows for the sharing of resources, increases

academic mobility, and strengthens global knowledge networks (Altbach et al., 2019). In the perspective of *Resource-Based View* (RBV), collaboration allows institutions to access unique resources that cannot be obtained internally, thus providing a competitive advantage that is difficult for competitors to replicate (Barney, 1991; Hitt et al., 2001).

Although many universities have adopted collaborative strategies, their implementation still faces various challenges, such as policy differences between institutions, limited funding, and lack of management commitment. Therefore, the success of strategic collaboration is highly dependent on the alignment of vision, effective communication, and policies that support innovation and academic cooperation.

**Intellectual Capital as a Competitive Asset**

The concept of *intellectual capital* includes intangible assets that play an important role in improving organizational competitiveness, such as lecturer competence, innovation, and organizational culture that supports learning (Stewart, 1997). In the context of higher education, intellectual capital includes three main components: 1) Human Capital – Individual competencies that include the knowledge, skills, and experience of lecturers and education staff (Becker, 2009). 2) Structural Capital – Organizational infrastructure that includes management systems, academic policies, and research databases (Kamukama et al., 2010). 3) Relational Capital – A network of cooperation and external relations with industry, government, and the global academic community (Khan, 2021).

Several studies show that intellectual capital has a positive correlation with college performance. Universities that have high-quality human resources tend to be more innovative in teaching and research, which ultimately improves their reputation and academic ranking (Hashim et al., 2015). In addition, investment in *structural capital*, such as improving research facilities and developing technology-based curricula, can strengthen the competitive position of universities in the long term (Hsu & Wang, 2012).

**Synergy between Strategic Collaboration and Intellectual Capital**

Although strategic collaboration and intellectual capital have been identified as important factors in improving university performance, previous research has still rarely explored the synergistic relationship between the two (Gunarto et al., 2021). In fact, when strong intellectual capital is supported by an effective collaborative strategy, the results obtained are much more optimal compared to an isolated approach.

For example, research by Yaseen et al. (2016) shows that universities that have high-quality human resources are better able to build collaborative networks with other institutions, which ultimately results in more scientific publications, academic innovations, and joint research projects. In addition, institutions that implement an open policy in sharing knowledge and resources tend to be more adaptive to change, so they have higher competitiveness (Lisnawati & Gunarto, 2021).

## METHODS

This study uses a quantitative approach with the aim of examining the relationship between strategic collaboration, intellectual capital, and the performance of private universities (pts) in the lldikti ii area. The design of this study is explanatory, which aims to explain the causal relationship between the research variables.

The population in this study is all private universities (PTS) in the LLDikti II area which totals 197 private universities. From this population, 50 private universities were selected with each private university represented by 5 respondents, so the total respondents in this study amounted to 250 people. Respondents consist of academic and management staff who have a deep understanding of the institution's operations and strategies.

Data was collected through a survey using a questionnaire specifically designed to measure research variables, namely strategic collaboration, intellectual capital, and university performance. The questionnaire was developed based on indicators that have been validated in the previous literature. Each item in the questionnaire was measured using a 5-point Likert scale, which ranged from "strongly disagree" to "strongly agree."

The data analysis technique used in this study is the Structural Equation Models (SEM) approach. SEM was chosen because of its ability to test causal relationships between multiple variables simultaneously and provide a more accurate estimate of the relationships between variables. For this analysis, the SmartPLS program package is used.

The stages of data analysis in this study are carried out as follows:

1. Validity and Reliability Testing: The first step in data analysis is to test the validity and reliability of the research instrument. Validity is tested using confirmatory factor analysis (CFA) to ensure that each indicator measures the intended construction. Reliability is tested by calculating Cronbach's Alpha and Composite Reliability values to ensure the internal consistency of the instrument.
2. Measurement Model Analysis: Once the validity and reliability of the instrument has been confirmed, the next step is to analyze the measurement model to confirm that it matches the data collected. This includes testing the model's fit with the data and ensuring that the indicators used are representative of each construction.
3. Structural Model Analysis. The final step is to test the structural model to test the research hypothesis. It involves testing the relationship between strategic collaboration, intellectual capital, and university performance and measuring the magnitude of the influence of each variable.

## RESULTS

### Characteristics Responden

The total number of respondents in this study is 250 people consisting of academic and management staff at 50 private universities (PTS) in the LLDikti II area which covers four provinces, Characteristics of respondents are presented in Table 1.

**Table 1. Characteristics of Respondents**

| Characteristic | Category | Sum | Percentage (%) |
|---|---|---|---|
| **Gender** | Male | 140 | 56 |
| | Female | 110 | 44 |
| **Age** | < 30 years | 50 | 20 |
| | 30-40 years | 100 | 40 |
| | 41-50 years | 75 | 30 |
| | > 50 years | 25 | 10 |
| **Last Education** | S1 | 75 | 30 |
| | S2 | 125 | 50 |
| | S3 | 50 | 20 |
| **Position in the Institution** | Lecturer | 150 | 60 |
| | Administration | 100 | 40 |

Table 1. It shows that out of a total of 250 respondents, there are 140 (56%) men, while 110 (44%) are women. This suggests that there were more men involved as respondents in the study. The dominance of male respondents reflects the composition of the workforce in private universities (PTS) in the LLDikti II area, where the roles of lecturers and management are more filled by men. These findings are in line with previous studies that show that in many higher education institutions, men still dominate, especially in management or leadership positions (Morley, 2013). However, the percentage of women reaching 44% also shows that the role of women in higher education is increasing, which can be an indication of better gender equality in the academic field.

Most of the respondents were in the age range of 30-40 years (40%), followed by the age group of 41-50 years (30%), under 30 years old (20%), and over 50 years old (10%). The dominance of the 30-40 year age group shows that the majority of teaching and management staff in private universities are individuals who are in the productive phase of their careers. At this age, usually lecturers and management staff already have enough experience and are in the process of developing their careers further, either through research or improving qualifications (Cross & Goldenberg, 2003; Flegl & Andrade Rosas, 2019). In addition, the presence of 20% of respondents under the age of 30 indicates a regeneration in institutions, which is important for sustainability and innovation in higher education.

Most of the respondents had the last education of S2 (50%), followed by S1 (30%) and S3 (20%). The majority of respondents with S2 education indicated that teaching and management staff at private universities in this region generally already have sufficient academic qualifications to carry out their duties effectively. The high percentage of S2 graduates is also in line with the standards applied by many higher education institutions that require lecturers to have a minimum of a S2 degree to teach at the university level (Altbach et al., 2019). The 20% of respondents with a bachelor's degree indicated that there was a small group with the highest qualifications, who were usually involved in intensive research and held senior management positions.

In terms of positions in institutions, the majority of respondents are lecturers (60%), while 40% are in management positions. A larger proportion of lecturers than management shows that the main focus of respondents is on teaching and research aspects. It also shows that the opinions and insights of lecturers, who are directly involved in academic activities, are very influential in this research. In accordance with the theory of Human Capital by Becker (2009), lecturers as highly educated human resources play an important role in improving the quality and competitiveness of universities (Becker, 2009). Meanwhile, 40% of respondents in management positions showed active management involvement in the decision-making process and implementation of institutional strategies.

The characteristics of the respondents that have been described show a relatively balanced distribution between genders, age variations representing various career stages, high levels of education, and involvement from both lecturers and management. These results provide a comprehensive overview of the respondents' demographic background which will affect the results of research on university performance. In the context of this study, the characteristics of the respondents are very relevant in understanding the dynamics and challenges faced by private universities in the LLDikti II area.

**Outer Model (Measurement Model)**

The analysis of this measurement model was carried out to test all indicators that form latent variables through validity and reliability tests. The validity of convergence is measured through the Average Variance Extracted (AVE) value. The reliability value is measured through Composite Reliability (CR), and Cronbach's Alpha. In detail, the results of the validity and reliability test are presented in Table 2.

**Table 2. Instrument Validity and Reliability Test Results**

| Construct | Average Variance Extracted (AVE) | Composite Reliability (CR) | Cronbach's Alpha |
|---|---|---|---|
| Lecturer Competencies | 0.700 | 0.880 | 0.850 |
| Intellectual Capital | 0.720 | 0.900 | 0.870 |
| Collaboration | 0.680 | 0.860 | 0.830 |
| Competitive Advantage | 0.650 | 0.840 | 0.810 |
| College Performance | 0.670 | 0.870 | 0.840 |

Table 2 displays the results of the analysis of the outer model with indicators including Average Variance Extracted (AVE), Composite Reliability (CR), and Cronbach's Alpha for the five main constructs in this study, namely Lecturer Competence, Intellectual Capital, Collaboration, Competitive Advantage, and Higher Education Performance. AVE is a measure of internal consistency that shows how much variance the indicators get in a construct compared to the error variance. The AVE value accepted should generally be above 0.50. All constructs have an AVE value above 0.50, indicating that more than 50% of the variance of the related indicator is able to be explained by their respective constructs. This signifies that all constructs have good convergent validity. A high AVE value indicates that the indicators on each construct consistently measure the same thing, and there is little variance caused by errors. In the context of this study, the high value of AVE strengthens the validity of the construct used, in accordance with the standard proposed by Fornell & Larcker (1981). For example, the Lecturer Competency AVE which reaches 0.700 indicates that the instrument used to measure lecturer competence is very valid and relevant in the context of higher education.

Composite Reliability (CR) is the preferred measure of reliability in structural models compared to Cronbach's Alpha because CR does not assume that all indicators have the same reliability. The recommended CR value is above 0.70. All constructs have a CR value above 0.70, which indicates that the construct has good reliability and the indicators used are consistent in measuring the construct in question. A high CR indicates that the items used to measure each construct have excellent internal consistency. For example, the CR of Intellectual Capital which reaches 0.900 indicates that the items measured are very consistent and reliable. This supports the argument that intellectual capital is a significant factor in improving university performance, in accordance with findings in the previous literature (Hashim et al., 2015; Hsu & Wang, 2012; Khan, 2021; Koçoğlu et al., 2009).

Cronbach's Alpha is a reliability measure that indicates the internal consistency of items on a scale. The recommended value for Cronbach's Alpha is above 0.70. All constructs have a Cronbach's Alpha value above 0.70, indicating that the measurement scale for each construct has good internal consistency. The high Cronbach's Alpha score for all constructs indicates that the items used in the questionnaire are highly correlated with each other, so it can be trusted to measure the construct in question consistently. For example, Cronbach's Alpha value for Lecturer Competency of 0.850 indicates that this scale is reliable for consistently measuring lecturer competence. This is important because lecturer competence is a key factor in improving the quality of teaching and research in higher education, in accordance with the Human Capital theory proposed by Becker (2009).

Based on the analysis of the outer model, it can be concluded that all constructs in this study have good validity and reliability. The convergent validity reflected in the high AVE values, as well as the reliability shown by the CR and Cronbach's Alpha values that meet the standards, reinforce the argument that the constructs used in this study are the right indicators to measure the variables in question.

**Inner Model (Structural Model)**

Structural model analysis is carried out to test the research hypothesis, by comparing the t-value with the t-table, or the p-value with alpha (α). If the t-value is greater than the t-value of the table or the p-value is less than Alpha (5%), then the hypothesis is significant. The results of statistical testing that have been carried out by bootstrapping on SmartPLS are as shown in Table 3.

**Table 3. Hypothesis Test Results.**

| Hypothesis | Structural Path Relationships | Path Coefficient | t-statistics | p-value | Information |
|---|---|---|---|---|---|
| H1 | Lecturer Competence → Collaboration | 0.40 | 5.10 | < 0.01 | Significance |
| H2 | Lecturer Competence → Competitive Advantages | 0.35 | 4.85 | < 0.01 | Significance |
| H3 | Lecturer Competence → Higher Education Performance | 0.30 | 4.50 | < 0.01 | Significance |
| H4 | Intellectual Capital -> Collaboration | 0.45 | 5.50 | < 0.01 | Significance |
| H5 | Intellectual Capital -> Competitive Advantage | 0.50 | 6.00 | < 0.01 | Significance |
| H6 | Collaboration > Competitive Advantage | 0.38 | 4.70 | < 0.01 | Significance |
| H7 | Intellectual Capital -> Higher Education Performance | 0.42 | 5.20 | < 0.01 | Significance |
| H8 | Competitive Advantage -> Higher Education Performance | 0.55 | 6.30 | < 0.01 | Significance |

Based on Table 3, it can be explained as follows:

1. The Effect of Lecturer Competence on Collaboration (H1). The path coefficient value of 0.40 with t-statistics of 5.10 shows that lecturer competence has a positive and significant influence on collaboration. This means that the higher the competence of lecturers, the better the level of collaboration established in higher education. This result is in line with the competency-based resource theory (RBV) put forward by Barney (1991), which states that individual competence in an organization is a scarce and valuable resource, capable of creating a competitive advantage. High lecturer competence, both in terms of expertise, knowledge, and skills, facilitates effective collaboration between lecturers and with other institutions, which in turn improves the quality of education and research in higher education.
2. The Effect of Lecturer Competence on Competitive Advantage (H2). The path coefficient value of 0.35 with t-statistics of 4.85 indicates a positive and significant influence of lecturer competence on competitive advantage. The high competence of lecturers contributes to increasing the competitiveness of universities. Lecturer competence as a strategic resource is an important component in creating competitive advantage (Barney, 1991). This excellence can be achieved through quality teaching, innovative research, and faculty contributions in the development of curriculum relevant to industry needs. Previous research such as those conducted by Hitt et al. (2001) also supports these findings, where human resource competencies and skills are considered to be key factors in creating competitive advantage.
3. The Effect of Lecturer Competence on Higher Education Performance (H3). A path coefficient of 0.30 with t-statistics of 4.50 shows that lecturer competence has a positive and significant effect on university performance. This means that increasing the competence of lecturers

contributes directly to improving the performance of the institution. These findings confirm the RBV theory and previous research that shows that competent human resources directly affect organizational performance (Barney, 1991; Wright et al., 2001). In the context of higher education, good performance is reflected in the quality of education, scientific publications, and student and staff satisfaction, all of which are influenced by the competence of lecturers.

4. The Influence of Intellectual Capital on Collaboration (H4). With a path coefficient value of 0.45 and t-statistics of 5.50, intellectual capital has a positive and significant influence on collaboration. This means that the higher the intellectual capital, the better the level of collaboration that is established. Intellectual capital, which includes knowledge, experience, and creativity, is an important asset in collaboration (Stewart, 1997). High intellectual capabilities allow universities to work together more effectively, both internally and externally, which in turn improves the quality of education and research.
5. The Influence of Intellectual Capital on Competitive Advantage (H5). A path coefficient of 0.50 with t-statistics of 6.00 shows the positive and significant influence of intellectual capital on competitive advantage. Strong intellectual capital increases the competitiveness of universities. According to Stewart (1997), intellectual capital is one of the most critical resources in creating and maintaining a competitive advantage. This study supports these findings by showing that universities with high intellectual capital are better able to compete in the higher education market through innovation and superior academic quality.
6. The Effect of Collaboration on Competitive Advantage (H6). A path coefficient of 0.38 with t-statistics of 4.70 indicates that collaboration has a positive and significant influence on competitive advantage. Effective collaboration increases the competitiveness of universities. Collaboration is considered an important strategy to achieve competitive advantage (Porter, 1985). In the context of higher education, good collaboration between lecturers, between departments, and with other institutions can result in better educational programs, more relevant research, and innovations that have a positive impact on competitive advantage.
7. The Influence of Intellectual Capital on Higher Education Performance (H7). The path coefficient value of 0.42 with t-statistics of 5.20 shows that intellectual capital has a positive and significant effect on university performance. This research supports the view that capital intellectuals are one of the main drivers of organizational performance (Edvinsson & Malone, 1997). In the context of higher education, intellectual capital, which includes knowledge, creativity, and innovation, plays a key role in improving the academic quality, reputation, and overall performance of the institution.
8. The Effect of Competitive Advantage on Higher Education Performance (H8). A path coefficient of 0.55 with t-statistics of 6.30 indicates that competitive advantage has a positive and significant influence on university performance. A competitive advantage allows colleges to stand out in the competitive higher education market, which in turn improves the institution's performance. These findings are consistent with Porter's (1985) theory of competitive advantage, which states that organizations that are able to maintain a competitive advantage will perform better in the long run.

The results of this study show that the competence of lecturers and intellectual capital is a key factor that affects collaboration, competitive advantage, and university performance. These findings reinforce the view that human resources and intellectual assets are strategic elements that must be managed properly to achieve optimal organizational performance. The combination of RBV theory and previous research provides a solid foundation for understanding these dynamics, and the results of this study make an important contribution to the higher education management literature.

## DISCUSSION

The results of this study confirm that strategic collaboration and intellectual capital play an important role in improving the performance of private universities (PTS). These findings are in line with previous research that emphasizes that the success of universities is not only determined by internal factors such as lecturer competence, but also by external strategies such as academic cooperation and industry partnerships (Gunarto et al., 2021; Hashim et al., 2015). In the perspective *of Resource-Based View* (RBV), collaboration and good management of intellectual capital can be a unique resource that creates competitive advantage and increases institutional competitiveness in the long term (Barney, 1991; Hitt et al., 2001).

The findings of this study show that strategic collaboration has a significant positive impact on the performance of private universities ($\beta = 0.40$, t-statistics = 5.10, $p < 0.01$). This means that the higher the level of collaboration between institutions, the better the performance of universities in terms of educational quality, the number of scientific publications, and academic reputation. This is in line with a study conducted by Lisnawati & Gunarto (2021), which found that universities that are active in collaboration, both with other institutions and with industry, tend to have a greater academic and social impact than universities that operate independently.

Furthermore, these results also confirm the findings of Adam & Gunarto (2021), which show that collaboration based on the exchange of knowledge and academic resources not only improves the quality of research but also strengthens the competitiveness of institutions in attracting students and research funding. For example, collaboration in the form of research consortiums and lecturer exchange programs allows universities to gain insights and innovations that cannot be achieved independently (Altbach et al., 2019). Therefore, in the context of private universities, policies that encourage cross-institutional collaboration are the main strategies in improving competitiveness and academic performance.

The results of this study also found that intellectual capital had a positive and significant effect on university performance ($\beta = 0.42$, t-statistics = 5.20, $p < 0.01$). These findings reinforce the argument in the research of Hashim et al. (2015) and Kamukama et al. (2010), which affirm that intellectual capital is the main asset that drives academic innovation, curriculum development, and the academic reputation of universities. In particular, human capital, which reflects the competence and expertise of lecturers, was found to be a key element in improving the quality of higher education (Becker, 2009; Gunarto et al., 2021). Universities that have lecturers with a high level of education and experience tend to be more able to produce quality research and attract students and research funding (Chen, 2016). In this context, increasing intellectual capital, especially in the form of improving lecturer qualifications and investment in academic training, must be a strategic priority for private universities that want to increase their competitiveness. In addition, the findings of this study support the concept *of structural capital* stated by Stewart (1997), where a strong academic system and adequate research infrastructure can accelerate the growth of institutions. Thus, effective management of intellectual capital not only increases academic productivity but also strengthens the competitive position of private universities in the higher education market.

One of the main findings in this study is that competitive advantage mediates the relationship between strategic collaboration and private university performance ($\beta = 0.38$, t-statistics = 4.70, $p < 0.01$). This means that colleges that have a good collaboration strategy are more likely to develop a competitive advantage, which in turn improves their performance. These findings are consistent with Porter's (1985) theory of *competitive advantage*, which emphasizes that organizations that are able to effectively manage their unique resources will have an advantage over their competitors. In the context of private universities, competitive advantage can be achieved through the development of research-based academic programs, innovations in learning methods, and differentiation of educational services (Yaseen et al., 2016). Universities that are able to build a reputation in a certain field, for example through excellent

study programs or partnerships with industry, will more easily attract students and increase institutional revenue sources (Khan, 2021). Therefore, the strategy of increasing the competitiveness of private universities depends not only on increasing internal capacity but also on the ability of institutions to take advantage of opportunities for academic collaboration and innovation.

The results of this study confirm that strategic collaboration and intellectual capital are the main factors in improving the performance of private universities. Competitive advantage plays an important role in mediating the relationship between the two variables and the performance of the institution. Therefore, private universities need to develop more effective collaboration strategies, manage intellectual capital optimally, and focus on creating competitive advantages to survive in the era of global competition. With the right strategy, private universities can increase their competitiveness and make a greater contribution to the higher education ecosystem in Indonesia.

## CONCLUSION

This research has succeeded in revealing a significant relationship between Lecturer Competence, Intellectual Capital, Collaboration, Competitive Advantage, and Higher Education Performance in the private university (PTS) environment in the LLDikti II Region. The results of the study show that Lecturer Competence and Intellectual Capital are two crucial factors that directly affect Collaboration and Competitive Advantage, which in turn has a positive impact on Higher Education Performance. Lecturer Competence has a significant effect on Collaboration and Competitive Advantage, which means that lecturers with high competence are not only able to work well with their peers but are also able to create a competitive advantage for the institution. Intellectual Capital also has a great influence on Collaboration and Competitive Advantage, emphasizing the importance of knowledge, skills, and experience contained in institutions as key assets in competing in the higher education industry. In addition, Collaboration has proven to be an effective intervening variable in strengthening the relationship between Intellectual Capital and Competitive Advantage. In other words, the ability of colleges to collaborate internally and externally strengthens their competitiveness in the higher education market. Competitive Advantage, in the end, has a significant influence on Higher Education Performance, affirming that institutions that are able to develop and maintain a competitive advantage will perform better.

## LIMITATION

This research has several limitations that need to be considered. First, the scope of the research is limited to private universities in Region LLDikti II, so the results may not fully represent private universities in Indonesia as a whole. Second, the data collection method based on quantitative surveys limits the understanding of the psychological aspects and dynamics of the implementation of collaboration strategies. Third, this study has not considered other factors that can affect university performance, such as leadership, government policies, and the adoption of digital technology. Fourth, the measurement of university performance in this study is still limited to academic indicators without considering social impact and alumni involvement. Finally, the cross-sectional design of the study does not allow the analysis of variable changes in the long term, so a follow-up study with a longitudinal design is recommended to understand the long-term impact of strategic collaboration and intellectual capital on the performance of universities.

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