

## An Innovative University Governance Strategy for Improving Competitiveness in the Higher Education Industry

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### Abstract

*The aim of this research was to provide a scientific explanation of human capital management as a strategic asset for universities, serving as a primary means to enhance their competitive advantage. The population consisted of all universities in East Java, comprising 47 State Universities (SU) and 330 Private Universities (PU). A sample of 113 universities was selected using stratified random sampling. Data were collected through the distribution of questionnaires and analyzed using Structural Equation Modeling-Partial Least Squares (SEM-PLS) with SmartPLS software. Consequently, the results showed that both human capital and effective university governance directly influenced competitive advantage. Additionally, the positive impact of human capital on competitive advantage was strengthened by good university governance. Theoretically, these results contributed to enriching scientific knowledge in the field of strategic management, specifically in the subtopic of strategies for achieving competitive advantage.*

**Keywords:** Human Capital, Good University Governance, Competitive Advantage, Competitive Strategic.

### 1. INTRODUCTION

University is classified as an education institution for the nation's youth and non-profit enterprises in the service sector. This definition is in line with other service establishments, engaged in constant business competition in the higher education services field (Siti et al., 2021). It is crucial to understand the strategies used by service companies to improve performance in this context (Ali Shahaab et al., 2022). According to O'shannasy (2008), companies with sustainable competitive advantage are those that can thrive in fierce competition. Sigolos Christos (2015) supports this viewpoint, emphasizing the successful attainment of competitive advantage by leveraging superior capabilities to guide companies in their strategic competitiveness.

Theoretical and practical research indicates that corporations can gain a competitive edge by effectively utilizing strategic assets, whether they are tangible or intangible (Chun Douglas, 2016). In this context, the ability to recognize strategic assets is crucial for companies when formulating decisions to succeed in competition (David & David, 2016). Applying this concept to university raises the question, what assets can be considered strategic? The characteristics of a university, functioning as a knowledge-based organization to develop knowledge through research activities (Sizer J., 2001; Siti et al.,

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2021), provide a rationale for designating knowledge-based assets as strategic for university. Optimizing the role of knowledge-based strategic assets in enhancing competitiveness of university requires organizational governance that provides opportunities for leaders to implement knowledge management concepts (Siti & Mutiara, 2022).

According to Maryam Jameelah Hasyim, et., al (2015), intellectual capital is the most popular knowledge-based asset with human capital being its main element (Bontis, 2013). Consequently, this research positions human capital as strategic asset crucial in determining the level of competitive advantage for universities. De Haan (2015) argued that companies with knowledgeable human resources capable of leveraging knowledge for business advancement inherently possess a fundamental source of competitive advantage. Flexibility, speed, innovation, and integration require human resources filled with creativity, and creativity can arise from human resources through excellence in knowledge (Shattock, M. 2013; Alpbaz et al., 2016).

Optimizing the role of human capital to enhance competitive advantage includes a management effort focused on gathering empirical evidence regarding the potential contribution of knowledge-based assets to the value-creation process (Mehralian et al., 2012). However, implementing this seemingly realistic managerial process proves challenging (Cavicchi et al., 2017) due to the complexity of knowledge, necessitating effective governance in its use in university (Saiti, Abbott, & Middlewood, 2018). University leaders need to consider several aspects when managing human capital as strategic asset. Firstly, leaders must possess sufficient skills to bridge the gap between knowledge and its operational functions in the organization. Secondly, the professionalism of the workforce is often unstable. Thirdly, the high volume of knowledge heterogeneity makes it challenging for exploitation by all members of the organization.

Monica Kennedy (2009) stated that to improve competitive advantage through the knowledge management process, an organization needs a strong governance system and leaders who can effectively oversee the system. The adoption of governance innovations as practiced by business companies is also essential for universities (Siti et al., 2021). In this context, leaders should collaborate across various functions in the organization to achieve goals (Xiaohua Li et al., 2023), with the form of innovations varying significantly depending on organizational diversity and industry type (Haewon Kim et al., 2023). An innovative and targeted governance system will ensure reporting quality, greater financial accountability, corruption control, and improved education quality (Khalis Zaman, 2016). Under such conditions, university can more easily formulate strategic to enhance their competitiveness in the higher education industry.

Based on the background presented, human capital arises as a central concern for university striving to enhance their competitiveness. The role of organizational governance in cultivating competitive advantage includes financial and physical assets with intellectual capital considerations (Keenan & Aggestam, 2001). This is because effective governance and strategic success center on the appropriate manipulation of knowledge. The failure of management to implement good governance can have dire consequences for the organization's sustainability (Blackman, Deborah, and Monica Kennedy, 2009). Organizational governance includes fundamental managerial functions, including the decision-making process as an inherent part of other managerial functions. This perspective is described in the conceptual framework shown in Figure 1.

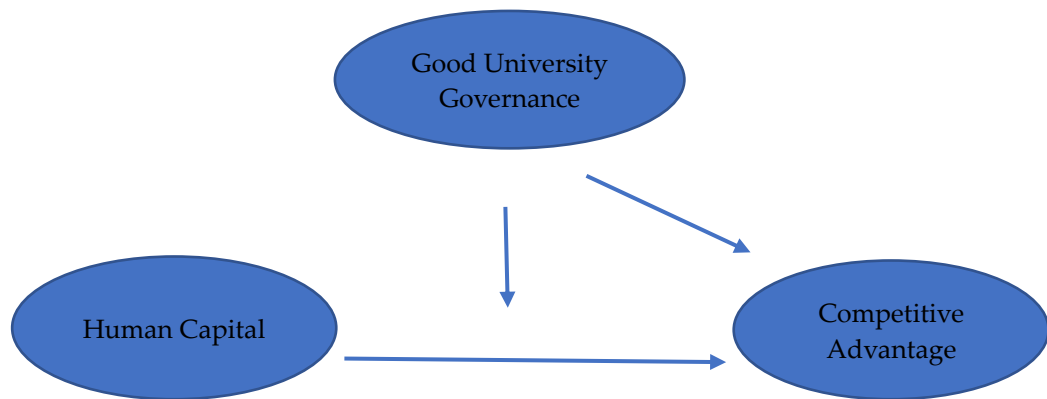


Figure 1: Conceptual Framework

Figure 1 shows that competitiveness of university can be influenced by the added value of human resources, as elucidated in human capital variable. This impact is believed to be more significant when university have effective organizational governance. Therefore, the hypotheses developed in this research are as follows:

- a. Human capital positively influences competitive advantage.
- b. Effective university governance influences competitive advantage.
- c. Effective university governance amplifies the impact of human capital on competitive advantage.

## 2. METHOD

In this research, an explanatory method was used to analyze the relationships between variables and clarify effects through hypothesis testing as shown in Table 1.

Table 1: Research Variables

Variable Type	Variable Names & Operational Definitions	Indicator
Independent	Human Capital The knowledge possessed by human resources has added value to university	1. Education qualifications
		2. Functional position
		3. Learning innovation
		4. Scientific publications
		5. Community service
		6. Service quality
Moderating	Good University Governance A series of structured processes used to direct an organization's efforts to increase business value and continuity	1. Management
		2. Participation
		3. Accountability
		4. Autonomy
		5. Transparency
Dependent	Competitive Advantage Companies strategic in obtaining, managing, and using strategic assets	1. Valuable
		2. Rare
		3. Irreplaceable
		4. Difficult to imitate

The research population included all universities in East Java, comprising 47 State Universities (SU) and 330 Private Universities (PU). The sample was selected using a stratified random sampling method at 30%, following the pattern below.

Table 2: Research Sample

No.	University Status	Population	Sample 30%
1.	SU	47	14
2.	PU	330	99
	Total		113

Data were collected through the distribution of questionnaires to 113 university leaders, and the results were presented in Tables 3 to 5. The general explanations for the tables were as follows. TD (Totally Disagreed), DA (Disagreed), N (Neutral), A (Agreed), SA (Strongly Agreed).

Table 3: Description of Human Capital Variable

No.	Statement	TD	DA	N	A	SA	Average
1	The more lecturers with doctoral qualifications, the better the image of the institution.	5	7	10	50	41	4.02
2	The functional position of lecturers is directly related to their ability to perform the tridarma duties.	2	5	20	40	46	4.09
3	Innovation is necessary to enhance students' understanding of the learning materials.	5	7	10	56	35	3.96
4	The ability of lecturers to publish scientific works affects the community's assessment of the institution's quality.	2	4	7	45	55	4.30
5	Community service is performed by lecturers following community problems, not the lecturers' needs.	6	7	12	41	47	4.03
6	Academic services are provided by professional education staff	8	12	18	35	40	3.77
	Variable score.						4.03

Source: Processed questionnaire responses

Note: Average score =  $(TD \times 1) + (DA \times 2) + (N \times 3) + (A \times 4) + (SA \times 5) / 113$

Variable score = total average score / 6

Table 3 showed that human capital was a significant determinant of university competitiveness, earning an average score of 4.03 points. The assessment of the value added to human resources often called human capital relied on various factors. These included the educational qualifications of lecturers together with their roles (ranging from Expert Assistant to Professor), innovative teaching methods coupled with publication of scientific works in reputable journals, building strong ties with the community, and delivering satisfactory services to stakeholders, especially students. Among these indicators, the ability of lecturers to publish scientific works became the primary factor, scoring an average of 4.30 points. The more these works were read by the community, the greater the added value possessed by the respective lecturers.

Table 4: Description of Good University Governance Variable

No.	Statement	TD	DA	N	A	SA	Average
1	The leaders provide equal opportunities for all workers to perform well.	7	7	13	45	41	3.94
2	The leaders provide opportunities for workers to collectively advance the organization.	5	10	10	53	35	3.91
3	Financial accountability mechanisms are systematically performed following proper accounting principles.	6	6	7	41	53	4.14
4	Each member understands their responsibilities according to the organizational structure.	2	5	12	41	53	4.22
5	Work instructions and performance evaluations are conducted transparently.	8	10	18	30	47	3.87
	Variable score.						4.02

Source: Processed questionnaire responses

Note: Average score =  $(TD \times 1) + (DA \times 2) + (N \times 3) + (A \times 4) + (SA \times 5) / 113$

Variable score = total average score / 5

Table 4 showed that the role of effective university governance in determining competitiveness was well-regarded by respondents, receiving a score of 4.02 points. University require specific actions from their leaders, such as ensuring equal opportunities for all workers to excel and contribute to the organization based on their competencies. In terms of performance reporting, leaders were supposed to evaluate workers' work and provide guidance for optimal results once workers comprehended their tasks and functions. About financial matters, leaders were to guide workers in generating transparent financial reports in line with proper accounting principles. Among all indicators, the ability of workers to fulfill their tasks by their duties and authorities held the highest score of 4.22 points. This phenomenon showed that when all members understood their tasks and functions and could be accountable for their performance in the organizational structure, a robust governance system was established.

Table 5: Description of Competitive Advantage

No.	Statement	TD	DA	N	A	SA	Average
1	University manage the individual ability of lecturers/other workers as organizational assets protected by the law.	3	6	6	40	58	4.27
2	University should possess human resources with specialized competencies not possessed by competitors.	2	4	12	45	50	4.21
3	Lecturers/other workers can produce unique works that are challenging to replace with others.	6	9	12	39	47	3.99
4	The works owned by lecturers/other workers are not easily imitated by potential competitors.	5	10	22	35	41	3.86

Source: Processed questionnaire responses

Note: Average score =  $(TDx1)+(DAx2)+(Nx3)+(Ax4)+(SAx5)/113$

Variable score = total average score / 4

Table 5 showed that the concept of competitive advantage was well-received by respondents, earning a score of 4.08 points. This variable was assessed based on university's capability to safeguard the Intellectual Property Rights of lecturers and other organizational assets, the unique competencies of workers not found in other university, and the ability of workers to produce distinctive works that are difficult for other university to imitate. Among all indicators, university's proficiency in managing the abilities of workers as organizational assets protected by the law became the primary factor influencing the level of competitive advantage. Legal protection served as motivation for workers to excel, leading to the higher level of competitive advantage for university.

### 3. RESULTS AND DISCUSSION

#### 3.1 RESULTS

To test all developed hypotheses, this research analyzed data using the path analysis method through SmartPLS, following the procedure outlined below.

##### 1) Measurement Model Evaluation (Outer Model)

This model was used to assess the instrument's effectiveness in measuring variables based on their indicators and the results of the test are shown in Figure 2.

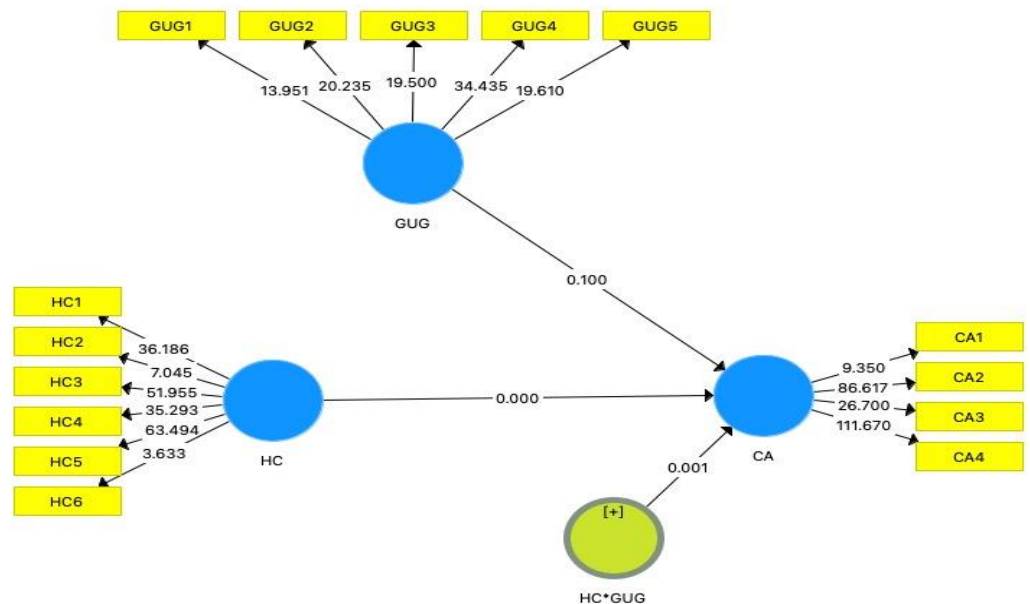


Figure 2: Path Analysis Model

Figure 2 showed that all statements in the questionnaire had successfully passed the convergent validity test with a loading factor greater than 0.7, thus they were not excluded from the model. According to the figure, there were 6, 5, and 4 items for human

capital, good university governance, and competitive advantage, respectively. The number of valid statements met the required number of indicators for each variable.

## 2) Hypothesis Test (Inner Model)

To prove the hypotheses,

Table 6: Significance Values of Structural Model

	Original Sample (O) / Path Coefficient	T Statistics ( O/ STDEV )	P Values	Information
HC -> CA	0.992	44.539	0.000	Significant
GUG-> CA	0.035	1.284	0.100	Insignificant
Moderating Effect_HC*GUG -> CA	0.035	3.263	0.001	Significant

Description:

HC (Human Capital); CA (Competitive Advantage); GUG (Good University Governance)

Table 6 showed the coefficient of determination for the functional relationships between variables. This helped comprehend the extent of one variable's impact on shaping another variable and addressed the research hypotheses.

a. Human capital directly influenced competitive advantage with a coefficient of 0.992, significant at 0.000 points. Therefore, the first hypothesis, stating that human capital affects competitive advantage, was accepted.

b. Good university governance did not directly impact competitive advantage, as showed by a coefficient of 0.035, which was significant at 0.100 points. Therefore, the second hypothesis, positing that good university governance affects competitive advantage, was rejected.

c. Good university governance added 0.035 points to the connection between human capital and competitive advantage, signifying significance at 0.001 points. Consequently, the third hypothesis, proposing that good university governance amplified the impact of human capital on competitive advantage, was accepted.

## 3.2 DISCUSSION

### 3.2.1 Human Capital Had an Effect on Competitive Advantage

This research confirmed that human capital directly influenced competitive advantage. This result was in line with Reed, Lubatkin, & Srinivasan (2006), asserting that human capital became the sole source of competitive advantage and added value for an organization. This uniqueness arose from its difficulty to imitate and replace, distinguishing it from physical capital—a generic resource that was easily replicable, substitutable, and available in the open market. In the aspect of strategic resources capable of creating added value Al-Musali and Ismail (2014) stated that only intellectual capital—mainly made up of human capital should be considered. However, other resources readily imitated by competitors, human capital retained its strategic status for the organization.

Various indicators of human capital, such as the education qualifications of lecturers, their academic positions, innovation in learning, publication of scientific works, community service, and service quality, were proven to elevate competitiveness of the organization. Lecturers holding doctoral qualifications and a minimum position of lector had enhanced opportunities to engage in diverse research grant programs and initiatives aimed at

enhancing lecturer competence and university performance. Consequently, the more lecturers with such opportunities and the ability to compete, the greater the enhancement in competitiveness achievable. Similarly, in the area of learning, innovations by lecturers in creating teaching materials and methods possessed the potential to boost university competitiveness.

Enhancing competitiveness could be accomplished by improving service quality for students. This included streamlining academic administrative processes, offering polite and friendly services, providing wise assistance in issue resolution, and more. Implementing these high-quality services formed the basis for developing humanistic organizational culture for students and other stakeholders. This had the potential to bolster community trust, thereby establishing a positive image for university. When coupled with distinctive and unique attributes, competitiveness could be effectively realized.

### 3.2.2 Good University Governance Did Not Have an Effect on Competitive Advantage

This research showed that effective university governance did not directly impact competitive advantage. Good university governance (GUG) drew inspiration from the companies governance (GCG) concept in managerial leadership. Different from GCG, which achieved prominence in academic discussions following the Enron and WorldCom collapses in the early 2000s, GUG did not trace its roots to university failures. If Barkemeyer et al. (2015) defined corporate governance as a structured set of processes used to direct an organization's efforts to enhance business value and continuity, then GUG is the application of the GCG concept to universities. Both concepts strove to support processes, ensuring efficient coordination and monitoring of managerial activities. This research established that implementing the business organizational governance concept in university governance was a challenging task.

Business companies used companies governance measurement indicators that were also used as GUG indicators. These included 1) management and directors, 2) participation, 3) accountability, 4) autonomy, and 5) transparency (Quyen, 2014). The competence of leaders in realizing the vision and mission was captured by the management and directors indicator. Participation elucidated the role of stakeholders in the decision-making process. Accountability measured university's fulfillment of responsibilities to stakeholders. Autonomy delineated the limits of management authority in decision-making. Transparency measured the extent to which university made its activities visible, understood, and accountable to stakeholders.

Clarifying the GUG concept in questionnaire statements—such as providing equal opportunities for all workers to excel, collaborating to advance the organization, being financially accountable in a transparent manner, and understanding the organizational structure—did not influence the enhancement of competitiveness. Effectively carrying out governance processes demanded a sufficient supply of resources, but it is important to observe that these resources were not indicators of governance. This was the reason why university governance did not directly contribute to increasing competitiveness.

### 3.2.3 Good University Governance Enhanced the Effect of Human Capital on Competitive Advantage

The analysis results of the relationships between variables led to the conclusion that GUG could amplify the impact of human capital on increasing competitiveness. In the higher education industry, governance was defined as the constitution and processes through which universities regulated their affairs (Shattock, 2013). Governance was related to the decision-making process on various matters, particularly concerning organizational structure, performance evaluation, autonomy level, and member accountability. To be more specific, governance represented a decision-making process where leaders allocated available resources to advance the organization. This required implementing policies and



procedures for decision-making and control in managing the organization (Carnegie & Tuck, 2010).

The rejection of the hypothesis about the direct impact of GUG on competitive advantage did not suggest that it lacked significance in enhancing competitiveness. GUG included essential managerial functions, including decision-making processes that were integral to all other managerial activities. Human capital held by university could be optimized to achieve competitiveness when managed exceptionally well by their leaders. Leaders needed to be fair and capable of setting a strong example for all organizational members, elucidating the duties and authorities of each member based on their respective roles, particularly for lecturers and education staff. Clear instruction was provided, ensuring equitable distribution of opportunities for creative work among all members. Effective governance was believed to cultivate an organizational culture supportive of goal achievement, eventually promoting competitiveness.

#### 4. CONCLUSIONS & IMPLICATIONS

In conclusion, the research established that 1) human capital directly impacted competitive advantage, 2) good university governance did not have a direct effect on competitive advantage, and 3) good university governance increased the impact of human capital on competitive advantage. These results held both theoretical and practical significance. Information on human capital management, recognizing it as an organizational asset that added value as a source of competitiveness, proved beneficial for leaders. This understanding enabled the leaders to fulfill their leadership responsibilities more effectively by strategically managing human capital in university. The indicators gauging human capital and good university governance contributed valuable material to the field of management science, particularly in the context of Strategic Management course,

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