Contents lists available at GrowingScience

# Uncertain Supply Chain Management

homepage: www.GrowingScience.com/uscm

Determinants of sustainable performance: The mediating role of strategic agility and the moderating role of leadership

Eri Marlapaa\*, Subur Karyatunb, Tine Yuliantinia, Loeky Rono Pradopoa and Endri Endria

<sup>a</sup>Universitas Mercu Buana, Jakarta, Indonesia

<sup>b</sup>Universitas Nasional, Jakarta Indonesia

#### ABSTRACT

Article history:
Received April 5, 2024
Received in revised format April 27, 2024
Accepted June 9 2024
Available online
June 9 2024

Keywords:
Competitive Advantage
Digital Transformation
Resource Excellence
Strategy Agility
Higher Education Performance

In facing increasingly stiff competition in higher education services, it is imperative to institute precise management of higher education organizations to maintain their ideal aspects. Beyond merely implementing marketing concepts, every individual within the organization must be capable of envisioning the institution's vision and mission, bolstered by formulating appropriate tactical strategies to foster competitive advantage for the University. This research aims to ascertain the influence of the relationship between competitive advantage, digital transformation, and resource advantages on Sustainable Performance College through strategy agility as a mediating variable and leadership as a moderating variable. The research methodology employs path analysis using Partial Least Square (Smart-PLS) software version 3.0 with a population of 66 private universities in the LLDikti III region, namely private universities. A sample of 198 respondents is selected using the saturated sample method. The research findings demonstrate that Competitive Advantage positively and significantly affects Strategic Agility, Digital Transformation positively and substantially impacts Strategic Agility, Resource Advantage positively influences Strategic Agility, Competitive Advantage positively influences Sustainable Performance College, Digital Transformation positively and significantly affects Sustainable Performance College, Resource Advantage positively impacts Sustainable Performance College, and Strategic Agility positively and significantly influences Sustainable Performance College.

© 2024 by the authors; licensee Growing Science, Canada.

# 1. Introduction

The challenges higher education institutions face in adapting to the changing global business environment have triggered increased competition among providers of higher education services, leading each institution to strive to offer quality higher education services. According to Law Number 12 of 2012, higher education, as part of the national education system, plays a strategic role in enlightening the nation and advancing science and technology while considering and applying humanistic values as well as the acculturation and empowerment of the Indonesian nation sustainably. In facing the competition in higher education services, there is a need for proper higher education management that fails to forsake its ideal foundations. Beyond just implementing marketing concepts, every individual in the University must be capable of envisioning the institution's vision and mission, supported by the formulation of appropriate tactical strategies to create sustainable competitive advantages for the University.

The Ministry of Research and Technology assesses higher education performance based on the Output-Outcome Base. Based on the Output-Outcome Base assessment, which applies an approach emphasizing the sustainability of learning processes innovatively, interactively, and effectively. Output-Outcome Base influences the entire education process, from curriculum design, formulation of objectives and learning outcomes, educational strategies, design of learning methods, assessment procedures, and academic environments. The addition of new indicators is an effort to enable universities to actively respond to current developments, especially the fourth industrial revolution and workforce needs.

\* Corresponding author E-mail address eri.marlapa@mercubuana.ac.id (E. Marlapa)

ISSN 2291-6830 (Online) - ISSN 2291-6822 (Print) © 2024 by the authors; licensee Growing Science, Canada. doi: 10.5267/j.uscm.2024.6.006

Performance is about executing tasks and the results achieved from those tasks (Endri et al., 2020). Sustainable Higher Education Performance can be enhanced by creating conditions for joint attention (Marlapa et al., 2024). They assist employees in growing and remaining enthusiastic about their work and end universities' sustainable performance. To improve performance, a university can focus on resource advantage strategies and competitive advantages (Ricardianto et al., 2023). Resource advantage theory is built on the shortcomings of focusing on higher education strategies to pursue higher education excellence. Traditionally, universities tend to focus on industry competition. The ability to create these three conditions will result in profits and sustainable performance improvements for universities (Akbar et al., 2024). Resource advantage theory emphasizes the importance of (a) market segments, (b) heterogeneous higher education resources, (c) comparative advantages/disadvantages in terms of resources, and (d) market position advantages/disadvantages

#### 2. Literature Review

# 2.1 Sustainable Performance

In examining the construct of Sustainable Performance in higher education institutions, we define Sustainable Performance of higher education by examining the construct of effectiveness closely related to it. Then, we delve into the dimensions of the construction of the performance of higher education institutions in detail. These dimensions arise from stakeholders interacting with and within an organization, the heterogeneity of higher education resources, the environment and strategic choices, and variations in performance over time (Fumasoli & Huisman, 2013). While Sustainable Higher Education Performance dominates the strategic management literature, it is yet to gain traction in economics, finance, and accounting (Mandagie et al., 2024). Performance is one type of effectiveness indicator with advantages and disadvantages. Therefore, it is necessary to distinguish between the Sustainable Performance of higher education institutions and the broader construct of the effectiveness of higher education institutions (Venkatraman & Ramanujam, 1986). The effectiveness of higher education institutions is a broader construct that captures the sustainable performance of universities, but it is grounded in the organizational theory that serves alternative performance objectives (Shriberg, 2002).

### 2.2 Strategic Agility

Strategic Agility presents a multifaceted concept that can be applied across various business domains. Strategic Agility can be defined as the organization's ability to swiftly provide and respond to threats and opportunities from the environment (Queiroz et al., 2017). Battistella et al. (2017) stated that strategic agility is the concept's impact on company performance. Strategic Agility is a relatively new management concept that has emerged as a developing management paradigm in specialized literature over the past few years. Strategic Agility reflects the senior management's capacity to adapt, be flexible, creative, and anticipate unexpected shocks within and outside the business environment in which the organization operates. Management also responds proactively, quickly, and effectively so that threats can become opportunities (Al Shehab, 2020). Strategic Agility is the ability to produce the right products in the right place at the right time at the right price and for the right customers (Chonko & Jones, 2005). Also, strategic agility has been defined as the organization's ability to renew itself and remain flexible without sacrificing efficiency (Junni et al., 2015).

#### 2.3 Competitive Advantage

The definition of competitive advantage itself has two different yet related meanings. The first emphasis is on the superiority or excellence in terms of resources and expertise possessed by the higher education institution. Institutions with competencies in marketing, manufacturing, and innovation can leverage them as sources to achieve a competitive advantage. Competitive advantage is one of many opportunities sought by generations to leverage their choices in the industry (Gitonga et al., 2016). Technically, competitive advantage is a generation's uniqueness compared to its competitors, assessed based on its superior performance, which can be measured financially, non-financially, or both. Competitive advantage is essential for achieving where strategic decisions and corporate efforts are developed and optimally aligned (Thompson & Strickland, 2003). The desire to achieve a competitive advantage makes organizations realize the importance of developing strategies in their actions so that they can be formulated and implemented.

#### 2.4 Digital Transformation

Digital transformation uses technology to radically improve a company's performance or reach (Schwertner, 2017). A more holistic definition is that digital transformation can be understood as digital technology changes that alter or affect all aspects of human life (Nurhayati et al., 2023). Lankshear and Knobel (2008) define digital transformation as "when digital use has been developed, enabling innovation and creativity and stimulating significant change either in professional or knowledge domains." This explanation seems more relevant than others because it genuinely explores comprehensive innovation motivations and their consequences when undergoing digital transformation. Digital transformation produces many changes and gradual improvements, such as increasing the automation of business processes with digital technology. Digital transformation is a far more fundamental change in a world where everything relies on digital. In other words, it is a complete and comprehensive shift towards everything digital.

# 2.5 Resource Advantage

Resource-based theory (RBT) is a theory that describes how universities can enhance their competitive advantage by developing resources that can guide the University to sustain itself in the long run. The critical approach of the resource-based theory is to understand the relationship between resources, capabilities, competitive advantage, and profitability, particularly the ability to understand the mechanisms by which competitive advantage is sustained over time. Such models require exploiting the effects of the unique characteristics of higher education institutions. Barney (1991) states that from the Resource-Based Theory perspective, company resources encompass all assets, capabilities, organizational processes, university attributes, information, knowledge, and others controlled by the University that enable the University to understand and apply strategies to enhance the efficiency and effectiveness of higher education. Fahy (2000) states that to understand sustainable resource advantage, a theoretical model needs to be built starting from the assumption that higher education resources are heterogeneous and immobile.

#### 2.6 Leadership

Understanding the concept of leadership is inseparable from studying the behavior, characteristics, and styles of individuals entrusted with the responsibility to lead. Although its application varies from person to person, its essence remains the same, depending on where the organization resides. Nevertheless, any form of organization certainly requires someone to lead it. Leadership is the ability or intelligence of a person to motivate several people to work together in carrying out activities directed towards a common goal. Leadership is defined as the ability that a leader must possess to carry out leadership so that subordinates can move according to what is desired in achieving the goals that have been set beforehand (Saluy et al., 2022). The leader is the catalyst responsible for everything that happens in an organization. Leadership is one of the most observed yet least understood phenomena on earth. From this statement, leadership is something that has been studied extensively but is something that needs to be explained (Hapsari et al., 2021).

# 2.7 Hypotheses

Based on the theory and framework, several hypotheses can be proposed as tentative answers to the problems being faced, namely:

H<sub>1</sub>: Competitive Advantage Positively Affects Strategic Agility.

H<sub>2</sub>: Positive effect of Digital Transformation on Strategic Agility.

H<sub>3</sub>: Resource Advantage Positively Affects Strategic Agility.

H4: Competitive Advantage Positively Affects Sustainable Performance College.

Hs: Positive effect of Digital Transformation on Sustainable Performance of Higher Education.

H<sub>6</sub>: Resource Advantage positively affects Sustainable Performance College.

H<sub>7</sub>: Positive effect of strategic Agility on Sustainable Performance College.

Hs: Leadership moderates the relationship between Competitive Agility towards Sustainable Performance.

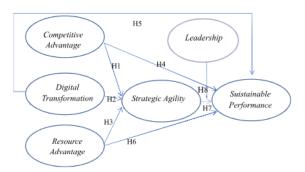


Fig. 1. Research Conceptual Framework

#### 3. Research Methodology

The research process begins with identifying issues in the location that will be used as the research facility or site, formulating the identified issues, gathering theoretical bases that strengthen the foundation in variables, preparing data collection methods, and determining the statistical testing techniques to be used. This research was conducted at Universities in the LLDIKTI III region, and the research period lasted from January 2020 to December 2022.

The study involves investigating variables consisting of independent, dependent, and mediating variables. Independent variables in this study include competitive advantage, digital transformation, and resource advantage. Independent variables

are a set of phenomena with various elements or factors that determine or can influence. The dependent variable in this study is sustainable performance. Dependent variables are a set of phenomena with various elements or factors determined or influenced by other variables. Meanwhile, the mediating variable in this study is the strategic agility variable. Mediating variables are theoretically assumed to affect the relationship between independent and dependent variables and turn them into indirect relationships that cannot be observed and measured. The measurement scale used is an interval scale, often called a Likert scale, which contains five levels of answer preferences. By giving scores from 1 to 5 with the following ratings: Strongly Disagree, Disagree, Doubts (Neither Agree nor Disagree), Agree, Strongly Agree.

### 4. Results and Discussion

# 4.1 Respondent Data

The sample unit taken comprises structural officials or university leaders who are permanent lecturers at universities in the LLDIKTI III region. A total of 198 questionnaires were given to respondents to be filled out on the spot, but some respondents wanted to take them home by providing their phone numbers.

Descriptive Responses of Respondents (N = 198)

| Item                    | Code  | Questions   | Mean  | Standard Deviation |
|-------------------------|-------|---|-------|--------------------|
| Competitive Advantage   | CA2   | The University where I work has a service operator                        | 4.217 | 0.926              |
| Digital Transformation  | DT10  | The University I work at uses the system to analyze and process data      | 4.005 | 0.801              |
| Resource Advantage      | RA10  | The University I work at has the ability to provide timely service        | 4.293 | RA10               |
| Strategic Agility       | SA1   | The University where I work can anticipate opportunities will come.       | 4.076 | 0.828              |
| Sustainable Performance | SP14  | The turnover ratio at the University where I work has decreased for three | 4.167 | 0.833              |
|                         | 51 14 | years.  | 4.107 | 0.833              |

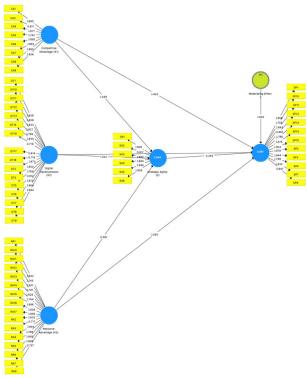


Fig. 2. Modified PLS Algorithm Procedure Test Results

## 4.2 Average Variance Extracted (AVE)

**Table 2** Average Variance Extracted (AVE)

| Variable                    | Average Variance Extracted (AVE) |
|-----------------------------|----------------------------------|
| Competitive Advantage (X1)  | 0.739                            |
| Digital Transformation (X2) | 0.706                            |
| Resource Advantage (X3)     | 0.670                            |
| Strategic Agility (Z)       | 0.804                            |
| Sustainable Performance (Y) | 0.708                            |

Source: Primary data processed using Smart-PLS, 2024

Based on the table above, the test results in Average Variance Extracted (AVE) show that all constructs have potential Reliability for further testing. This is because the AVE value for the entire construct is more significant than 0.50

### 4.3 Discriminant Validity (HTMT)

**Table 3** Discriminant Validity (HTMT)

| Variable                    | Competitive<br>Advantage (X1) | Digital<br>Transformation (X2) | Resource<br>Advantage (X3) | Strategic<br>Agility (Z) | Sustainable<br>Performance (Y) |
|-----------------------------|-------------------------------|--------------------------------|----------------------------|--------------------------|--------------------------------|
| Competitive Advantage (X1)  |                               |                                |                            |                          |                                |
| Digital Transformation (X2) | 0.706                         |                                |                            |                          |                                |
| Resource Advantage (X3)     | 0.694                         | 0.674                          |                            |                          |                                |
| Strategic Agility (Z)       | 0.703                         | 0.673                          | 0.696                      |                          |                                |
| Sustainable Performance (Y) | 0.673                         | 0.737                          | 0.706                      | 0.876                    |                                |

Source: Primary data processed using Smart-PLS, 2024

The table regarding the HTMT test above shows that all HTMT values are <0.9, so it can be stated that all constructs are valid in terms of discriminant validity based on the HTMT calculation.

### 4.4 Construct Reliability

Table 4

Construct Reliability

| Variable                    | Cronbach's Alpha | Composite Reliability | Results  |
|-----------------------------|------------------|-----------------------|----------|
| Competitive Advantage (X1)  | 0.949            | 0.958                 | Reliable |
| Digital Transformation (X2) | 0.972            | 0.974                 | Reliable |
| Resource Advantage (X3)     | 0.967            | 0.970                 | Reliable |
| Strategic Agility (Z)       | 0.951            | 0.961                 | Reliable |
| Sustainable Performance (Y) | 0.962            | 0.967                 | Reliable |

Source: Processed Results of Smart PLS 3.3.3 (2024)

Based on the table above, it can be seen that the test results composite reliability and Cronbach's shows factory value, namely that all latent variables are reliable because all latent variable values have value composite reliability and Cronbach's  $\geq 0.70$ . So, it can be concluded that the questionnaire used as a research tool is reliable and consistent

### 4.5 Variable Observed (VIF)

The VIF value must be less than five because more than 5 indicates collinearity between constructs. Multicollinearity or the existence of solid intercorrelation between independent variables, is shown in the following VIF Inner Model values:

**Table 5**Inner VIF Test Results

| Competitive Advantage (X1) 3.988  |  |
|-----------------------------------|--|
|                                   |  |
| Digital Transformation (X2) 4.083 |  |
| Resource Advantage (X3) 2.945     |  |

Source: Primary data processed using Smart-PLS, 2024

Based on the VIF values in the table above, no VIF value is>5, so there is no multicollinearity problem. The absence of a strong correlation between the independent variables supports this fact.

Table 6
Inner VIF Test Results

| Variable                    | Work Effectiveness (Y) |
|-----------------------------|------------------------|
| Competitive Advantage (X1)  | 3.408                  |
| Digital Transformation (X2) | 4.122                  |
| Resource Advantage (X3)     | 3.970                  |
| Strategic Agility (Z)       | 2.626                  |

Source: Primary data processed using Smart-PLS, 2024

Based on the VIF values in the table above, no VIF value is>5, so there is no multicollinearity problem. The absence of a strong correlation between the independent variables supports this fact.

#### 4.6 Mark R-Square Adjusted

The results in Table 7 above show that R-Square has a strategic agility of 0.944. This means that 94.4% of strategic agility is influenced by competitive advantage, digital transformation, and resource advantage. Moreover, the remaining 5.6% was

influenced by other factors outside this research. Next, the results for the sustainable performance were 0.979. This means that 97.9% of sustainable performance is influenced by competitive Advantage, digital transformation, resource advantage, and strategic Agility. Moreover, the remaining 2.1% is influenced by other factors outside this research.

Table 7

Endogenous Variable Values

| Variable                    | R-Square (R <sup>2</sup> ) |
|-----------------------------|----------------------------|
| Strategic Agility (Z)       | 0.944                      |
| Sustainable Performance (Y) | 0.979                      |

Source: Primary data processed using Smart-PLS (2024)

#### 4.7 Effect Size (f-Squared)

In the method, partial least square (PLS) search value effect size ( $F^2$ ) is needed to determine the goodness of the independent variable model with the dependent variable. Value one effect size divided into three categories, including 0.02, namely weak; 0.15, namely medium; and 0.35, namely large:

**Table 8**Mark Effect Size (F2)

VariableEffect SizeCompetitive Advantage (X1)0.151Digital Transformation (X2)0.974Resource Advantage (X3)0.142

Source: Primary data processed using Smart-PLS, 2024

The value effect size, which has been produced in the table above, shows that the competitive advantage variable has a value effect size of 0.151, variance; digital transformation has a value effect size of 0.974, and the resource advantage variable has a value effect size of 0.142. This shows that the influence of goodness in the competitive advantage variable is classified as medium compared to strategic agility because it is below 0.15. Next is the resource advantage variable, classified as weak for strategic agility because it is more significant than 0.15. Meanwhile, the digital transformation variable has a value effect size amounting to 0.974, which shows that the positive influence of the digital transformation variable is relatively considerable on strategic agility because it is above 0.35

**Table 9** Mark Effect Size (F2)

| Variable                    | Effect Size |
|-----------------------------|-------------|
| Competitive Advantage (X1)  | 0.172       |
| Digital Transformation (X2) | 0.344       |
| Resource Advantage (X3)     | 0.272       |
| Strategic Agility (Z)       | 0.239       |

Source: Primary data processed using Smart-PLS, 2024

From value effect size which has been produced in Table 9, shows that the competitive advantage variable has a value effect size of 0.172; digital transformation variables have a value effect size of 0.344; the resource advantage variable has a value effect size of 0.272, and the strategic agility variable has a value effect size of 0.239. This shows that the positive influence of the competitive advantage, digital transformation, resource advancement, and strategic agility variables on sustainable performance is classified as medium because it is above 0.15

# 4.8 Predictive Relevance (Q-Squared)

Testing Goodness of Fit Model structural oninner model using value predictive relevance  $(Q^2)$ . Mark Q-square greater than 0 (zero) indicates that the model has value predictive relevance. Markpredictive relevance in this research as follows:

**Table 10** Predictive Relevance (Q<sup>2</sup>)

| Variable                    | $\mathbf{Q}^2$ |
|-----------------------------|----------------|
| Strategic Agility (Z)       | 0.750          |
| Sustainable Performance (Y) | 0.680          |

Source: Primary data processed using Smart-PLS, 2024

The calculation results above consider the predictive relevance of the strategic agility variable, which is 0.750>0. Moreover, the predictive relevance of the sustainable performance variable is 0.680>0. Therefore, the model is worthy of having relevant predictive value.

#### 4.9 Hypothesis Testing

From Table 11, several points are explained as follows:

- a. Competitive advantage has a positive and significant effect on strategic agility. This is because it has an original sample value of 0.349, indicating a positive effect, with the calculated value (t-value) > critical value (t-table), which is 3.875 > 1.96. Additionally, the P-value of 0.000 is below 0.05 (P-value < 0.05), indicating significance. Therefore, the first hypothesis is accepted, meaning that competitive advantage positively and significantly affects strategic agility.
- b. Digital transformation has a positive and significant effect on strategic agility. This is because it has an original sample value of 1.202, indicating a positive effect, with the calculated value (t-value) > critical value (t-table), which is 7.453 > 1.96. Additionally, the P-value of 0.000 is below 0.05 (P-value < 0.05), indicating significance. Therefore, the second hypothesis is accepted, meaning that digital transformation positively and significantly affects strategic agility.
- c. Resource advantage has a positive and significant effect on strategic agility. This is because it has an original sample value of 0.587, indicating a positive effect, with the calculated value (t-value) > critical value (t-table), which is 2.707 > 1.96. Additionally, the P-value of 0.000 is below 0.05 (P-value < 0.05), indicating significance. Therefore, the hypothesis is accepted, meaning that resource advantage positively and significantly affects strategic agility.
- d. Competitive advantage has a positive and significant effect on sustainable performance. This is because it has an original sample value of 0.403, indicating a positive effect, with the calculated value (t-value) > critical value (t-table), which is 4.037 > 1.96. The P-Value of 0.000 is below 0.05 (P-Value < 0.05), indicating significance. Therefore, the fourth hypothesis is accepted, meaning that competitive advantage positively and significantly affects sustainable performance.
- e. Digital transformation has a positive and significant effect on sustainable performance. This is because it has an original sample value of 0.268, indicating a positive effect, with the calculated value (t-value) > critical value (t-table), which is 2.000 > 1.96. Additionally, the P-Value of 0.046 is below 0.05 (P-Value < 0.05), indicating significance. Therefore, the fifth hypothesis is accepted, meaning that digital transformation has a positive and significant effect on sustainable performance.
- f. Resource advantage has a positive and significant effect on sustainable performance. This is because it has an original sample value of 0.455, indicating a positive effect, with the calculated value (t-value) > critical value (t-table), which is 2.858 > 1.96. Additionally, the P-value of 0.004 is below 0.05 (P-value < 0.05), indicating significance. Therefore, the sixth hypothesis is accepted, meaning that resource advantage positively and significantly affects sustainable performance.
- g. Strategic Agility has a positive and significant effect on sustainable performance. This is because it has an original sample value of 0.293, indicating a positive effect, with the calculated value (t-value) > critical value (t-table), which is 3.963 > 1.96. Additionally, the P-Value of 0.000 is below 0.05 (P-Value < 0.05), indicating significance. Therefore, the seventh hypothesis is accepted, meaning strategic agility positively and significantly affects sustainable performance.
- h. Leadership as a moderating effect has a significant effect on sustainable performance. This is because it has an original sample value of 0.484, indicating a positive effect, with the calculated value (t-value) > critical value (t-table), which is 2.005 > 1.96. Additionally, the P-Value of 0.044 is below 0.05 (P-Value < 0.05), indicating significance. Therefore, the eighth hypothesis is accepted, meaning that leadership can moderate the relationship between competitive agility and sustainable performance.

Table 11 Hypothesis Results

| Variables   | Original Sample<br>(O) | T Statistics<br>( O/STDEV ) | P Values | Results             |
|---|------------------------|-----------------------------|----------|---------------------|
| Competitive advantage → Strategic Agility                   | 0.349                  | 3.875                       | 0.000    | (+) and Significant |
| Digital Transformation → Strategic Agility                  | 1.202                  | 7.453                       | 0.000    | (+) and Significant |
| Resource Advantage → Strategic Agility                      | 0.587                  | 2.707                       | 0.007    | (+) and Significant |
| Competitive advantage → Sustainable Performance             | 0.403                  | 4.037                       | 0.000    | (+) and Significant |
| Digital Transformation → Sustainable Performance            | 0.268                  | 2.000                       | 0.046    | (+) and Significant |
| Resource Advantage → Sustainable Performance                | 0.455                  | 2.858                       | 0.004    | (+) and Significant |
| Strategic Agility → Sustainable Performance                 | 0.293                  | 3.963                       | 0.000    | (+) and Significant |
| Moderating Effect (Leadership) → Sustainable<br>Performance | 0.484                  | 2.005                       | 0.044    | (+) and Significant |

Source: Primary data processed using Smart-PLS, 2024

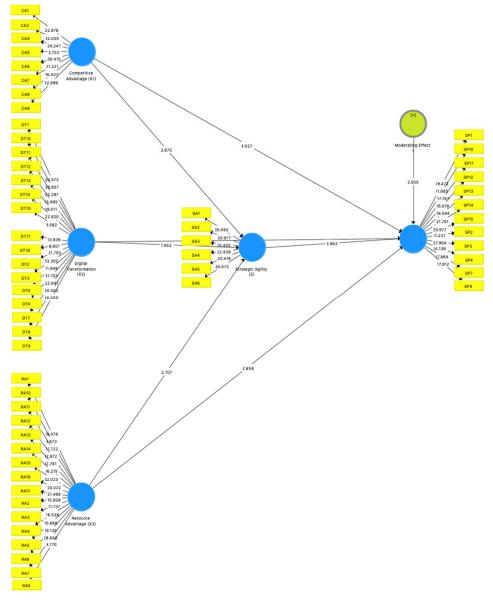


Fig. 3. Bootstrapping Test Results

#### 5. Conclusion

The research results and hypothesis testing conducted by the researcher found that competitive advantage, resource advantage, and digital transformation are essential factors influencing sustainable performance in private universities in the LLDikti III Jakarta region. This can happen because maintaining the sustainability of a university to compete with foreign universities entering the capital city and to survive with good quality will be influenced by the respective advantages of each University. Also, reliable digital transformation is essential. Moreover, every higher education institution in competing must have flagship products chosen by departments or faculties to offer to the public. Additionally, the resource advantage factor is also essential in maintaining the sustainability of a higher education institution. Human resource advantage is essential for developing and maintaining a higher education institution, which the implementation of adequate information technology will also support. Digital transformation is also essential in maintaining the sustainability of higher education, especially private universities in the LLDikti III Jakarta region. The resource advantage variable is the most potent factor influencing universities' sustainable performance. Meanwhile, strategic agility becomes a good mediator between competitive advantage, digital transformation, and resource advantage toward the sustainable performance of universities.

# References

Akbar, Y.K., Ariana, S., Setyadi, A., Pawirosumarto, S., & Endri, E. (2024). Human capital and sustainable university:

- Mediating role of sustainable human resource management in Indonesia. *Problems and Perspectives in Management*, 22(1), 182-192. doi:10.21511/ppm.22(1).2024.16.
- Al Shehab, N. (2020). Does losing jobs during the COVID-19 pandemic affect knowledge management in businesses? In *International Conference on Intellectual Capital and Knowledge Management and Organisational Learning* (pp. 6-14). Academic Conferences International Limited.
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99–120. https://doi.org/10.1177/014920639101700108
- Battistella, C., De Toni, A. F., De Zan, G., & Pessot, E. (2017). Cultivating business model agility through focused capabilities: A multiple case study. *Journal of Business Research*, 73, 65-82. <a href="https://doi.org/10.1016/j.jbusres.2016.12.007">https://doi.org/10.1016/j.jbusres.2016.12.007</a>
- Chonko, L. B., & Jones, E. (2005). The need for speed: Agility selling. *Journal of Personal Selling & Sales Management*, 25(4), 371-382. DOI: 10.1080/08853134.2005.10749071
- Endri, E., Susanti, D., Hutabarat, L., Simanjuntak, T.P., & Handayani, S. (2020). Financial Performance Evaluation: Empirical Evidence of Pharmaceutical Companies in Indonesia. *Systematic Reviews in Pharmacy*, 11(6), 803-816. DOI: 10.31838/srp.2020.6.117.
- Fahy, J. (2000). The resource-based view of the firm: some stumbling blocks on the road to understanding sustainable competitive advantage. *Journal of European Industrial Training*, 24(2/3/4), 94–104. https://doi.org/10.1108/03090590010321061
- Fumasoli, T., & Huisman, J. (2013). Strategic agency and system diversity: Conceptualizing institutional positioning in higher education. *Minerva*, 51, 155-169. <a href="https://doi.org/10.1007/s11024-013-9225-y">https://doi.org/10.1007/s11024-013-9225-y</a>
- Gitonga, A. G., Kilika, J. M., & Obere, E. (2016). Generation Y talent management strategy and competitive advantage: Case of commercial banks in Kenya. *Journal of Human Resource Management*, 4(2), 10–18. doi: 10.11648/j.jhrm.20160402.11
- Hapsari, D., Riyanto, S. & Endri, E. (2021). The Role of Transformational Leadership in Building Organizational Citizenship: The Civil Servants of Indonesia. *Journal of Asian Finance, Economics, and Business, 8*(2), 595-604. <a href="https://doi.org/10.13106/jafeb.2021.vol8.no2.0595">https://doi.org/10.13106/jafeb.2021.vol8.no2.0595</a>
- Junni, P., Sarala, R. M., Tarba, S. Y., & Weber, Y. (2015). The role of strategic agility in acquisitions. *British Journal of Management*, 26(4), 596-616.
- Marlapa, E., Yuliantini, T., Junaedi, J., Kusuma, M., Shahnia, C & Endri, E. (2024). Determinants of sustainable performance: The mediating role of organizational culture. *Uncertain Supply Chain Management*, 12(2), 1031-1040. doi: 10.5267/j.uscm.2023.12.005
- Mandagie, W., Susanto, K., Endri, E & Wiwaha, A. (2024). Corporate governance, financial performance and sustainability disclosure: Evidence from Indonesian energy companies. *Uncertain Supply Chain Management*, 12(3), 1791-1800. DOI: 10.5267/j.uscm.2024.3.003
- Lankshear, C., & Knobel, M. (Eds.). (2008). Digital literacies: Concepts, policies, and practices (Vol. 30). Peter Lang.
- Nurhayati, I., Azis, A. D., Setiawan, F. A., Yulia, I. A., Riani, D., & Endri, E. (2023). Development of the Digital Accounting and Its Impact on Financial Performance in Higher Education. *Journal of Educational and Social Research*, 13(2), 55-67. https://doi.org/10.36941/jesr-2023-0031
- Queiroz, M. (2017). Mixed results in strategic IT alignment research: a synthesis and empirical study. *European Journal of Information Systems*, 26(1), 21–36. https://doi.org/10.1057/s41303-016-0024-z
- Ricardianto, P., Lembang, A., Tatiana, Y., Ruminda, M., Kholdun, A., Kusuma, I., Sembiring, H., Sudewo, G., Suryani, D & Endri, E. (2023). Enterprise risk management and business strategy on firm performance: The role of mediating competitive advantage. *Uncertain Supply Chain Management*, 11(1), 249-260. DOI: 10.5267/j.uscm.2022.10.002
- Saluy, A. B., Armansyah, S., Djamil, M., Mulyana, B., Pramudena, S.M., Rinda, R.T., & Endri, E. (2022). Motivation Moderating the Influence of Organizational Culture and Leadership on Employment Performance. WSEAS Transactions on Environment and Development, 18, 662-670. DOI: 10.37394/232015.2022.18.63
- Schwertner, K. (2017). Digital transformation of business. *Trakia Journal of Sciences*, 15(1), 388-393. doi:10.15547/tjs.2017.s.01.065
- Shriberg, M. (2002). Institutional assessment tools for sustainability in higher education: strengths, weaknesses, and implications for practice and theory. *Higher education policy*, 15(2), 153–167. <a href="https://doi.org/10.1016/S0952-8733(02)0006-5">https://doi.org/10.1016/S0952-8733(02)0006-5</a>
- Thompson A.A., & Strickland A.J. (2003). *Strategic Management: Concepts and Cases*. 13th ed. New Delhi: Tata MacGraw-Hill Company Publishing Limited.
- Venkatraman, N., & Ramanujam, V. (1986). Measurement of business performance in strategy research: A comparison of approaches. *Academy of Management Review*, 11(4), 801-814. <a href="https://doi.org/10.5465/amr.1986.4283976">https://doi.org/10.5465/amr.1986.4283976</a>

