

CREATING HIGHER EDUCATION INSTITUTION PERFORMANCE: EXECUTION CAPABILITY AS A MEDIATOR OF ALIGNMENT

Nurul Kamilia *

*Diponegoro University,
Universitas Negeri Semarang*

Suharnomo

Diponegoro University

Mirwan Surya Perdhana

Diponegoro University

ABSTRACT

The objective of the study is to explore the impact of the strategic alignment process on improving the Study Program's Performance and explore the impact of execution capability as a mediator. By using quantitative research and Structural Equation Modeling (SEM) AMOS as data analysis, 124 samples were chosen by random sampling method. Respondents are the Head of Study Programs at several Prominent Universities in Central Java Province, Indonesia. The research revealed that the strategic alignment process and execution capabilities have a significant effect on the performance of the Study Program. Execution capability as a mediator significantly increases the influence of the strategic alignment process on improving performance of Study Program's performance. Contributions of the study provide theoretical and managerial implications to the management of higher education institutions in terms of the ability to implement the strategy. Therefore, a study program needs to improve the quality of the strategic alignment process that takes place in its organization as a recommendation. In this case, it would be better for study programs to choose and develop strategies that suit the stakeholder needs. The originality of this research lies in the simultaneous use of strategic alignment processes and execution capabilities to improve the performance of higher education institutions, which, in several previous studies, discussions on both concepts in higher education management were still rarely carried out.

Keywords: Alignment Process, Execution Capability, Performance, Higher Education

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* Corresponding author:

- Ph.d student of Faculty of Economics and Business, Diponegoro University, Email: nurulkamilia@students.undip.ac.id, Phone number : +6282134506128
- Lecture of Faculty of Economics and Business, Universitas Negeri Semarang (UNNES)

1. INTRODUCTION

The dynamics of campus management processes have been influenced by the forces of globalization and its changes such as the increase in the share of private funding and digitalization, have resulted in increasingly complex factors for universities to succeed in demonstrating the best quality of their education and performance (Mainardes et al., 2011). University has been considered as an educational community that autonomously operate within the corridors of professionalism where its members have freedom to set their priorities and goals by the criteria set by their scientific disciplines (Harley et al., 2004). As a complex organization that simultaneously forms the largest industrial sector in the world with a different way of operating companies, universities or higher education institutions are expected to be adaptive to change, aside from the need for organizational stability (Sporn, 1999).

The development of higher education in Indonesia in the last decade has grown significantly. The number of universities in Indonesia has reached 4,259 units, of which more than 50% are private universities spreading throughout Indonesia, with the largest number still being on the island of Java. The number of universities can accommodate around 7 million students and 250 thousand lecturers. This fact outnumbers the universities in Europe. The number of universities in Indonesia shows how massive higher education has grown in Indonesia. However, this large number turns out to be large in disparities. Some universities have international quality, but there are more universities whose quality are still low. Apart from disparities in quality, the role of universities in economic development is often not clearly manifested. Indonesia, as one of the countries with the largest population of school-age in Asia, including at the higher education level, also faced the problem of improving the quality of education and had to compete due to changes in the world of education (Kemenristekdikti, 2021). Compared to several neighboring countries in the ASEAN region, the performance of Indonesian higher education is lower in general, for example compared to Malaysia whose three universities ranked are above of Indonesia. Based on undergraduate unemployment data (BPS and Kemenristekdikti 2021 data), it showed a real picture of the mismatch in the Indonesian Higher Education curriculum. The lower quality of Indonesian human resources can also be seen by comparing experts with doctoral degrees (S3) per million population compared to other countries. For example, Egypt is about 400 doctors, India 1,250 doctors, Germany 4,000 doctors, France 5,000 doctors, Japan and United States have the same score of 6,500 doctors, Israel 16,500 doctors, while in Indonesia there are only 65 doctors per million population (Tosepu, 2017). This condition impacted Indonesia's competitiveness in global economics.

The problems in developing Higher Education Institutions are numerous and complex. Various problems in education management, such as limitations in the nation's internal conditions in terms of the quality of human resources, facilities, infrastructure, and funds, require serious attention from all stakeholders. Strategic steps are necessary to realize various important issues in the development of higher education in Indonesia. In this condition, it is necessary to make extensive, comprehensive efforts, integrated and united management system, starting from planning, implementation, monitoring and evaluation as well as revision, so that a cycle of continuous improvement is created and the system can coordinate various strategic issues in higher education, such as directing the management of higher education institutions (Sumardi & Fernandes, 2018). In order to develop Higher Education Institution, alignmet is a need to make an adaption for better

condition, both in the internal and external environment of the Higher Education Institution, in which alignment become a solution for adapting the change and unite problems in a comprehensive solution (Branson, 2008). Alignment is a management function where various activities in organization are well aligned and interrelated (Branson, 2008; Dickson et al., 2006; Joshi et al., 2003a; Kathuria et al., 2007; Quiros, 2009; Sender, 1997). Alignment could also support the role of human resources, especially administrative staff, to take action not just as a supporting role to achieve organizational goals, but also to support the institutions in administration process in higher education institution effectively and efficiently (Sumual & Soputan, 2019). Those reasons make alignment considered as a facilitating process of adaption of change to make a better condition in Higher Education Institution.

Several studies prove that alignment has a positive influence on organizational performance, both in business institutions and higher education institutions such as universities. Organizations with low alignment have low employee satisfaction and commitment scores, which also means low performance (Crotts et al., 2009). Correlation between implementation of alignment strategies and organizational performance is carefully identified by top managers in the company and implemented in harmony together with all elements (Sadeghi, 2011). Similar result showed the significant influence of aligning factors that support performance success and information technology on organizational performance in higher education institutions (Sabherwal & Kirs, 1994). On the other hand, a study to examine alignment in two variables, balanced alignment and strengthening alignment, showed different results, in which the relationship between strengthening alignment and the company's competitive performance is not significant (Zhang et al., 2016). Another studies also state that alignment does not have a significant direct influence on performance, both research were done in companies and at higher education institutions (Joshi et al., 2003; Sumardi & Fernandes, 2018). The differences in results of the researches above indicate a gap to study. One approached that can be used trough is the concept of strategy execution capabilities.

Strategy execution is a concept that was believed could bridge the gap between alignment and performance (Khadem, 2008). Alignment requires compatibility between the strategic path and the cultural path, as well as consistency between the two, for alignment refers to the process of integrating key factors of a system in response to changes in the external environment (Scherpereel, 2006). Clear and focused direction regarding strategy implementation from the leadership of the organization will form a clear work structure as well. Likewise, clarity and unified-understanding regarding organizational goals are very important, remembering that changes and adjustments in actions will always occur in every element in the organization (Dickson et al., 2006). One factor that hinder an organization from achieving its best performance is when some leaders do not realize the need of re-align the implementation into new strategy because they do not realize the implications of alignment (Higgins, 2005). Strategy formulation and strategy implementation or execution are both interdependent and are part of an overall package of organizational planning, implementation and adaptation processes. The success's probability of strategy execution will later influence strategies and plans which change over time (Hrebiniak, 2006). Most research on the alignment concept and execution has been conducted in business organizations. However, the relationship between organizational alignment and the implementation or execution of strategies within university as a sample has not been talked much. Most of the researches talked about aligning success factors in improving the performance of higher education organizations and

examined how deep the influence of these factors in improving organizational performance (Beckers et al., 2015; Sabherwal & Kirs, 1994; Skarlicki & Latham, 2009; Sumardi & Fernandes, 2018). Although strategy implementation has become an important part of international competition, it is more concentrated in business institutions, while the challenges of implementing strategy in higher education institutions has got much attention (Jiang & Carpenter, 2013). Strategy implementation is an activity that continuous activity and require a long periode of time, therefore pressures often arise on managers who deal with execution. These pressures include long-term needs that must be transcribed into short-term goals. Good control over the feedback provided and guard against external 'shocks' or changes are necessary. Therefore, the execution process must be dynamic and adaptive, to respond and compensate for unexpected events (Hrebiniak, 2006). One of the studies that tried dig deeper into strategy implementation as part of the management change process at universities is Rytkonen et al, (2017) which was one of the follow-up research from Beckers et al, (2015). Rytkonen et al, (2017) tried to examine the concept of strategy alignment and execution as part of dynamic change management at universities by combining controlled management and involvement management approaches which resulted in a dynamic campus management process diagram. However, it has not been discussed deeply regarding the relationship between organizational alignment and strategy implementation.

The differences resulted from researches related to the relationship between alignment and performance, as well as the limited research that discussed strategy execution and alignment as an integrated part to improving performance in Higher Institution, indicate that the need for further research regarding the relationship between the concept of organizational alignment and the strategy implementation process is necessary, especially in higher education institutions. Based on these circumstances, this research will specifically concern on strategy execution capabilities that follow-up alignment as initial assumptions in dynamic change management to improve Higher Education Performance. (Harrison & Bazy, 2017; Khadem, 2008a; Srivastava & Sushil, 2017). This research will concern on the concept of alignment as a series with strategy implementation capabilities by placing emphasis on the success of strategy execution and its influence on organizational performance, since on previous research, studies on organizational alignment and strategy execution are still often carried out separately, especially for university research objects.

2. LITERATURE REVIEW

2.1. Strategic Alignment Process

Alignment is a management function in which different activities in a business or organization are well-aligned and interrelated (Branson, 2008; Dickson et al., 2006; Joshi et al., 2003b; Kathuria et al., 2007; Quiros, 2009). Alignment is difficult to define, although by its nature, easy to recognize because it is a characteristic found in successful organizations. Even though a broader concept is needed to provide an understanding of alignment, it is usually considered in relation to aligning an organization's information technology, or between a strategy and its business strategy, including the relationship between strategy, structure, processes, people and technology. The very broad concept of alignment, involving consistency, suitability, relevance, and similar ideas made alignment was not easy to define (Macdonald, 1994). Based on research conducted by Contador et al. (2020) regarding the taxonomy of alignment terms, alignment is divided into seven forms,

namely strategic alignment, strategic contingency, strategic coalignment, strategic fit, strategic consistency, strategic congruence and strategy alignment. The seven shapes are processed and then put into 2 large classes, namely aligned and fit (Contador et al., 2020). Meanwhile, Gerow et al. (2015) divides alignment into 4 main forms of alignment, namely business alignment, operational alignment, intellectual alignment and IT alignment, as well as 2 combined forms of alignment between business alignment and IT alignment in terms of infrastructure availability (Gerow et al., 2015).

Strategic alignment is representative of various components of alignment in previous research. The concept of strategic alignment involves the idea of achieving a level of conformity and harmony between various organizational elements that ensures the achievement of the organization's strategic priorities, so that organizations, both private and public, operate in a particular context by consolidating the synergy between strategy, processes, organizational resources, and technological capabilities can achieve the best performance and high competitiveness (Ghonim et al., 2020). McAdam et al. (2019) defined strategic alignment as a dynamic process that brings adaptation to environmental changes with their various uncertainties. The concept of strategic alignment itself is rooted in contingency theory in management where the basic premise is when the balance between an organization's strategy and its environmental context has a significant influence on performance. Therefore, strategic alignment, even if achieved over a period of time, may not be maintained due to the changes that organizations always face in the business environment (McAdam et al., 2019). Strategic alignment is also a match between information technology strategy, organizational strategy, culture and financial strategy to achieve the best results when in general strategic alignment is described as "an environment in which the organization's business strategy and business infrastructure are aligned with the information technology structure and infrastructure (Beer et al., 2005). Based on the explanation above, it can be concluded that the alignment concept used in this research is the Strategic Alignment Process which has the definition as a dynamic process that involves compatibility between business strategy, infrastructure, organizational structure and organizational culture which involves integration between functions to achieve results. (Beer et al., 2005; Contador et al., 2020; Gerow et al., 2015; Henderson & Venkatraman, 1993; McAdam et al., 2019).

2.2. Execution Capability

Organization should have capability on strategy execution. It would make an organization be able to realize its goals through implementing programs or other technical steps (Khadem, 2008; O'Regan & Ghobadian, 2004; Srivastava & Sushil, 2017). Strategy execution or strategy implementation is an interrelated process and procedure, starting from the exchange of information between managers and employees regarding company challenges, then translated into strategic plans (either explicitly stated or only assumed by top level managers) in the form of specific actions and build consistency between these efforts (de Oliveira et al., 2019). This process is very likely to be carried out well if there is an element of adaptation as the ability to face change and collaboration as a means of working together effectively (Blomqvist & Levy, 2006; Hrebiniak, 2006; Hrebiniak & Joyce, 1985).

According to Hrebiniak and Joyce (1984) strategy execution and strategy implementation are inseparable series. The strategy will be implemented well when a framework is created. Overall,

the framework will be useful in formulating strategies in the field. When transferred in terms of execution, the framework can shift to an understanding of how an organization operates and competes in a fragmented and incomplete form. This competition that must be translated into action (Richardson, 2005). Strategy execution will be successful if it is supported by three main points, the readiness of human resources, the accuracy of the chosen strategy, and support from operational activities. Human resources, company structure and organizational culture will make the strategy implemented well and perfectly. People in the organization must be able to understand that their actions will be connected to the actions of people in other parts to support and execute the strategy. Then, to provide direction for employee behavior, organizational culture becomes glue that reflects company norms and ideals. It called organizational personality (Joyce & Slocum, 2012). From the explanation above, it can be concluded that human resources, organizational structure and culture have a large role in the success of strategy execution.

Strategy execution or strategy implementation also experiences confusion in definition. Several searches in electronic databases of journals such as Ebsco, ProQuest, Emerald, Web of Science, and Google Scholar using the keywords "strategy execution" and "strategy implementation" revealed that strategy execution in academic research mostly limited to these phenomena and topics that were carried out by consultants who emphasize direct orientation for managers to practice rather than theory development. One of the studies that tried to define strategy execution as a measurable construct is De Oliveira (2019) who tried to find definition of strategy execution from several studies over a period of 30 years and then classified it based on 2 large groups, namely action and reaction (de Oliveira et al., 2019) From the results of this research, it was concluded regarding the definition of strategy execution as :

“ a process, and related procedures consisting of the activities of 1) informing – and being informed by managers and employees about the company's challenges, 2) translating strategic plans (either explicitly stated or simply assumed by top-level managers) into specific actions and 3) build consistency in the company's efforts to distribute the allocation of its respective resources as an effort to implement decisions by seeking coherent movements to maintain alignment between organizational efforts and strategic intentions in pursuing company goals. “

Capability is carried out as complement to execution with the consideration that capabilities represent several specific organizational assets that require continued investment to maintain company excellence, created by four foundations, namely strategy, structure, execution and culture (Joyce & Slocum, 2012). Definition of strategy execution of De Oliviera (2019) will be developed into Execution Capability with several considerations. First, the study provided a detailed measurement model of the strategy implementation construct. Second, the research explicitly dismantled the complex phenomenon of strategy execution into two main components, namely “actions” or "causes" and results or "consequences". Action means the efforts was taken by managers to translate strategic plans into actionable activities, while results showed how the strategy was implemented. Third, the research brought theoretical arguments and empirical evidence about the complex nature of the strategy execution construct (de Oliveira et al., 2019).

2.3. Performance

Performance often described as a level of achievement of activity or policy in realizing the goals, objectives, mission and vision of an organization as stated in an organization's strategic plan. It is

refer to the achievement or level of success of individuals or groups of individuals. Performance can be known only if the individual or group of has predetermined success criteria. These success criteria are in the form of certain goals or targets to be achieved. Without goals or targets, the performance of a person or organization cannot be known because there is no benchmarks (Silva & Borsato, 2017). Researchers used many criteria or indicators to describe organizational performance. The criteria used often for companies are growth rates, profits, market share, operational efficiency and opportunities for success(Timmor & Zif, 2010)

Improving the quality of higher education in all aspects can help build public trust in higher education. Higher education quality assurance is an appropriate system for maintaining and improving sustainable quality for the tertiary institution concerned and is implemented internally (Sukrisno, 2010). The results of research by Skarlicki and Latham (2009) on organizational behavior at two universities in Ontario Canada which divided organizational performance criteria into 3 things, become one of determinations of organizational performance criteria at universities. First, it can be seen from the number of publications produced. Second, from the quantity and quality of synergistic activities between the university and its environment. Third, from students who are active in lecture activities. Performance assessment is also seen from how long employees stay to work at the university (Skarlicki & Latham, 2009). The performance of university presented by Skarlicki and Latham (2009) is in line with Saldanha's (2018) research who determine non-financial performance in the Timor-Leste higher education industry can be measured using the parameters contained in the three main pillars of higher education, namely: (1) Learning and teaching (student satisfaction, end-user satisfaction, drop out rate, employment rate, enrollment rate, and grade point average). (2) Research performance is measured by publications in national and international journals, staff participation in scientific activities, research that generates funds, and research that has an impact on society. 3) Community service is measured by increasing counseling activities for students, increasing community service activities, and participating in curriculum development (Saldanha, 2018).

Statutory regulations, such Regulation of Minister of Research, Technology and Higher Education on concerning Accreditation of Study Programs and Higher Education, also become a reference to determin performance. Accreditation as an assessment standard for a department or study program assessed by the government institution in the field of education, BAN-PT (National Accreditation Board for Higher Education), aims to assess the suitability and quality of performance of a study program or department itself in running its education system. To obtain an accreditation score, a study program must go through a series of steps that have been determined by BAN-PT, thus accreditation has a big influence on every element of the study program or department. For the study program or department itself, this accreditation has its own selling point. The number of people interested in the department or study program will certainly increase when the accreditation is maximum. And it will have a positive impact on the department itself. Likewise, for alumni, accreditation also has a big influence, especially in the kob-recruitment process. The better the accreditation attached, the greater the chance of being accepted for the job application.

Study Program Performance concept, will the function and will be developed as the final result of this research model. It described as level of achievement in implementing an activity/policy in realizing the goals, objectives, mission and vision of the organization. Measurement of Study

Program Performance consists of measurements from several previous studies in the world of higher education and quality assurance standards at the Study Program level.

2.4. Hypothesis Development

The preparation of hypotheses in this research used a hypothetical-descriptive approach, namely a research process approach that allows the development and testing of a null hypothesis with a complete description of empirical facts to give color to the accompanying theoretical conception (Ferdinand, 2016). Starting with the discovery of gaps or discrepancies in various studies, then a literature review is carried out to develop research hypotheses. The developing hypothesis started from the concept of alignment, where alignment within the organization in some studies contributes positively to performance, but in several other studies it does not provide a direct relationship to increased performance (Barba Aragón et al., 2014; Hanaysha, 2016; Hung et al., 2010). This concept will be linked to the concept of execution ability which will be a mediator in improving performance in higher education. One of the initial assumptions was built on previous research which states that strategy execution is a follow-up of organizational alignment in dynamic change management (Harrison & Bazzi, 2017; Khadem, 2008). Strategy execution is a capability which organization should have and be able to realize its goals through programs implementation or other technical steps (Khadeem, 2008, Srivastava & Sushil, 2017, O'Reganand & Ghobadian, 2004).

H1: Strategic Alignment Process has a positive effect on Execution Capability

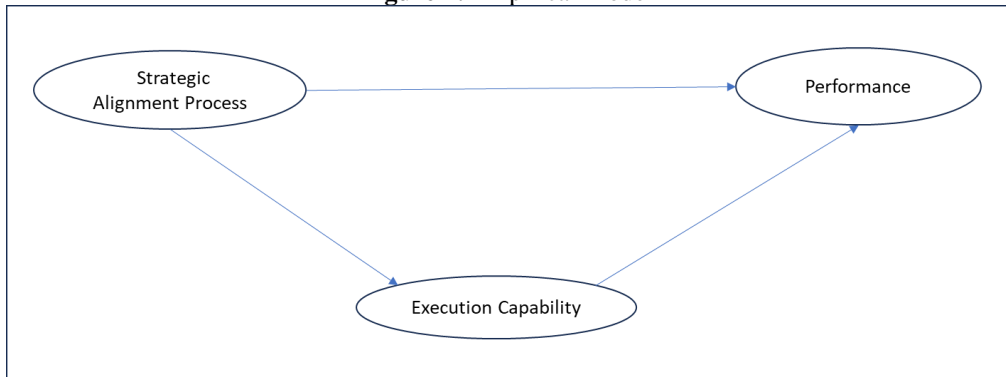
The following hypothesis was developed to review whether this one will prove that alignment has a positive influence on performance or vice versa. Hypotheses will be developed based on the research which have no positive correlation between alignment and performance Zhang.et.al. (2016), Joshi et al. (2003) and Sumardi and Fernandes (2018). Additionally, it is supported by studies that have shown a positive association between performance and alignment (Sabherwal & Kirs, 1994, Crotts, 2009, Sadeghi, 2011)

H2: Strategic Alignment Process has a positive effect on Study Program Performance

If a strategy is not implemented, it will not eventually yield any outcomes for the organisation. Several studies have proven that strategy implementation actually provides the most important value to the success of an organization. The effectiveness of a strategy's implementation affects the performance of the organisation and also contributes to its improvement (Njagi & Kombo, 2014). The success of strategy execution is demonstrated by an increase in company profits and an increase in the ability to return capital (Zaidi et al., 2018, Ibrahim et al., 2012). Organisational performance is positively impacted by the strategy's implementation and all of its modifications. A blend of organisational styles and strategic orientation demonstrates how strategy execution has a positive impact on performance (Andrews et al., 2011).

H3: Execution Capability has a positive effect on Study Program Performance.

Figure 1: Empirical Model



Source: Hung, et al (2010), Khadeem (2008), Srivastava and Sushil (2017), O'Reganand and Ghobadian, (2004), Sabherwal and Kirs (1994), Crotts (2009), Sadeghi (2011)

3. RESEARCH METHODS

This research uses quantitative methods with Structural Equation Modeling (SEM) analysis tools. The advantage of using SEM is that the data does not have to be normally distributed, it can be used for analysis of variables with reflective or formative indicators, and can be used to analyze relationships between variables with small sample sizes. SEM is also very good for multivariate data analysis in the areas of management and strategy (Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, 2014). By expanding the strategy execution construct inside the framework of change management at universities, this study builds upon earlier research addressing issues of alignment. Therefore, this research tries to exploit attributes in strategic alignment as well as execution capabilities and their influence on university performance.

3.1. Sample and Data Collection

This research collects data using a survey with a structured questionnaire to identify how execution capability can be a mediator of the strategic performance alignment process structured in a research model framework. Central Java Province was chosen as the research's location with the consideration that the distribution of Higher Education facilities in Indonesia is still centered on Java Island, around 50% of the total Higher Education Institutions in Indonesia, including in Central (Higher Education Statistics, 2019). The department or study program at a university's higher education institution serves as the research's analytical unit. The number of study programs from all universities in Central Java is about 2,700, and 709 of study programs from prominent universities were used as the population. The sample was drawn from a number of prestigious Central Java Universities, including both private and public institutions. Structural Equation Modeling (SEM), the analytical tool used in this study, can be used to establish the minimum sample size. For the SEM analysis method, the minimum sample adequacy number is 100, hence the minimum sample size is 100. Apart from that, it is also required that the recommended sample size be at least 5 times the number of variable indicators and 100-200 samples for Maximum (Ferdinand, 2016; Hair et al., 2010). The structured questionnaire used includes a seven-point scale,

starting from strongly disagree, represented by the number 1, to strongly agree, represented by the number 7. This research used an online survey distributed via WhatsApp where respondents fill out the questionnaire on Google Forms as well as an offline survey where respondents fill out a questionnaire containing structured questions. The survey was carried out with assistance from the admissions department at the Faculty and Study Program to facilitate distribution of questionnaires and as coordinator of offline data collection. The data collection process was carried out from the beginning of March 2022 to the end of May 2022. From around 300 questionnaires distributed, both offline and online, 124 respondents filled in the questionnaire.

3.2. Measurement

High validity and reliability measuring scales based on prior research are used in this study for each construct. The following table contains the formation constructs for each variable.

Tabel 1: Measurement

| No | Constructs | Indicator | Reference | |
|----|-----------------------------|-----------|---|--|
| 1 | Strategic Alignment Process | SAP1 | Organizational strategies are prepared to be in line with the vision, mission and goals of the organization | Higgins (2005), Hung et al. (2010) |
| | | SAP2 | Strategy formulation gives the organization the opportunity to achieve its best performance | Higgins (2005), Gerow et al. (2014) |
| | | SAP3 | Selection and development of strategies and work programs tailored to stakeholder needs | Hung et al. (2010) |
| 2 | Execution Capability | EC1 | The existence of human resource maintenance activities that have an impact on the sustainability of the implementation of work programs | De Olivieara (2019) |
| | | EC2 | The existence of infrastructure maintenance activities that have an impact on the sustainability of the | Srivastava (2014, 2017), De Olivieara (2019) |

| | | implementation of work programs | | |
|---|-------------|---------------------------------|---|---|
| | | EC3 | Evaluation of each activity or work program is carried out on an ongoing basis | Srivastava (2014, 2017), De Oliveira (2019) |
| 5 | Performance | P1 | There is an increasing number of seminars, workshops, etc. | Alpert (1985) Scarlicki and Latham (2009) Tjahyadi et al. (2009) Kemenristekdikti (2016) |
| | | P2 | There is increased cooperation in academic activities with other parties outside the campus | Alpert (1985) Scarlicki and Latham (2009) Tjahyadi et al. (2009) Kemenristekdikti (2016) |
| | | P3 | There is increased cooperation in activities with the community | Alpert (1985) Scarlicki and Latham (2009) Tjahyadi et al (2009) Kemenristekdikti (2016) |
| | | P4 | There is an increase in the number of lecturers or lecturers who graduated from S3 | Alpert (1985) Scarlicki and Latham (2009) Tjahyadi et al. (2009) Kemenristekdikti (2016) |

Table 1 shows the measurement sources used in this study. Data was collected using online and offline questionnaires. The study model's construct data is gathered by the ten questions in the questionnaire. All items were recorded using a seven-point Likert-type scale. The variables in this research model were operationalized using indicators that were adapted from previous research as listed in Table 1. The Strategic Alignment Process consists of 3 indicators measured using several dimensions and indicators from research by Higgins (2005), Hung et al. (2010) and Gerrow et al (2015). Meanwhile, the Execution Capability variable consists of 3 indicators which are measured using dimensions and indicators in research by Srivastava (2014, 2017) and De Oliveira (2019). Meanwhile, the Performance variable which consists of 4 indicators, is measured using dimensions and indicators from research by Alpert (1985), Scarlicki and Latham (2009), Tjahyadi et al. (2009). Apart from that, the performance variable measurement also includes several quality assurance measures sourced from the Ministry of Research, Technology and Higher Education or the Ministry of Research, Technology and Higher Education. (Alpert, 1985; de Oliveira et al., 2019; Gerow et al., 2015; Higgins, 2005; Hung et al., 2010; Skarlicki & Latham, 2009; Srivastava, 2014; Srivastava & Sushil, 2017).

3.3. Sample Characteristics

This study used a survey to gather information from Heads of Study Programs at a number of prestigious universities in Central Java Province, Indonesia, including private as well as public universities. The survey was conducted using random sampling method and assisted by administrative staff from each university, both through online and offline surveys. This study distributed almost 300 questionnaires to the Head of the Study Program with a respondent rate of around 36%, which came from 124 questionnaires that were returned or filled out. However, this study only used 122 complete questionnaires to continue data analysis after data filtering was carried out.

Table 2: Respondent Demographic

| Item | Demographics | Number | Percentage |
|-------------------------------|---------------|--------|------------|
| Gender | Male | 81 | 65 % |
| | Female | 43 | 35% |
| Age | < 35 | 9 | 7 % |
| | 35 – 45 | 38 | 31 % |
| | 46 – 56 | 56 | 46 % |
| | >56 | 19 | 16 % |
| University Type | State | 104 | 85% |
| | Private | 18 | 15 % |
| Length of Work | <5 years | 3 | 2 % |
| | 5 – 10 years | 12 | 10 % |
| | 11 – 15 years | 17 | 14 % |
| | >15 year | 90 | 74 % |
| Length of Office | < 1 year | 13 | 11 % |
| | 1 – 3 th year | 56 | 46 % |
| | >3 th year | 53 | 43 % |
| Number of Staff and Lecturers | < 10 | 21 | 17 % |
| | 10 – 20 | 54 | 44 % |
| | >20 | 47 | 39 % |

Source: Data Analysis (2023)

4. DATA ANALYSIS AND RESULTS

This study used a two-step approach including confirmatory factor analysis (CFA) and structural equation modeling (SEM) to analyze the data as recommended by Anderson and Gerbing (Anderson & Gerbing, 1988). CFA was used to test measurement models related to the reliability and validity of research constructs. The data obtained from the field was processed using the AMOS program. Before data analysis was carried out, the KMO and Bartlett's Test was done to determine the feasibility of whether a variable can be processed further using this factor analysis technique or not. From the results of the KMO and Bartlett's Test calculations, the results were 0.857 (>0.60), so data analysis from field measurement results can be continued.

4.1. Reliability Test and Validity Test

The reliability of the instrument was tested using Cronbach's α analysis tool. If Cronbach's α coefficient is above 0.70, it indicates a reliable instrument. On the other hand, if the Cronbach's α coefficient is below 0.70, it means that the instrument is not as recommended by Nunnally (1978). The data in table 3 shows that the reliability of all variables is >0.7 . This means that the measuring instrument used in this research is reliable. Thus, the questionnaire is appropriate to be distributed to respondents in this study. Meanwhile, to test the validity of the instrument, based on suggestions from Fornell and Larcker (1981), using the composite reliability (CR) value which describes the joint divergence of the observed variables to define the main construct (Fornell & Larcker, 1981). Table 3 shows that CR reaches an adequate level of reliability for each construct between 0.729 and 0.852. Likewise, the Cronbach's alpha value of each construct achieved a level of reliability that could be higher than 0.70 as recommended by Nunnally (1978). The average variance extracted (AVE) value is between 0.473 and 0.647. Specifically, the AVE of each latent factor must be greater than the squared correlation of that factor with other latent factors. The average variance extracted must be higher than the minimum threshold of 0.5. However, according to Fornell and Larcker (1981), even though the AVE is less than 0.5, if the composite reliability is higher than 0.6, then the convergent validity of the construct is still adequate. Table 4 also reveals that the square root of the AVE of each construct is greater than the correlation with other constructs, indicating adequate discriminant validity.

Table 3: Validity and Reliability of Construct

| Construct | Indicator | Loading Factor | Error variance | Composite Reliability | Variance Extracted | Discriminant |
|-----------------------------|-----------|----------------|----------------|-----------------------|--------------------|--------------|
| Strategic Alignment Process | SAP1 | 0,645 | 0,584 | 0,729 | 0,473 | 0,688 |
| | SAP2 | 0,699 | 0,511 | | | |
| | SAP3 | 0,717 | 0,486 | | | |
| Execution Capability | EC1 | 0,782 | 0,388 | 0,740 | 0,489 | 0,699 |
| | EC2 | 0,705 | 0,503 | | | |
| | EC3 | 0,599 | 0,641 | | | |
| Performance | P1 | 0,830 | 0,311 | 0,852 | 0,647 | 0,804 |
| | P2 | 0,754 | 0,431 | | | |
| | P3 | 0,942 | 0,113 | | | |
| | P4 | 0,666 | 0,556 | | | |

Source: Data Analysis (2023)

Table 4. Discriminant Validity

| No | Construct | SAP | EC | P |
|----|-----------------------------|-------|-------|-------|
| 1 | Strategic Alingment Process | 0,688 | | |
| 2 | Execution Capability | 0,673 | 0,699 | |
| 3 | Performance | 0,614 | 0,695 | 0,804 |

Source: Data Analysis (2023)

4.2. Structural Research Model and Hypothesis Testing

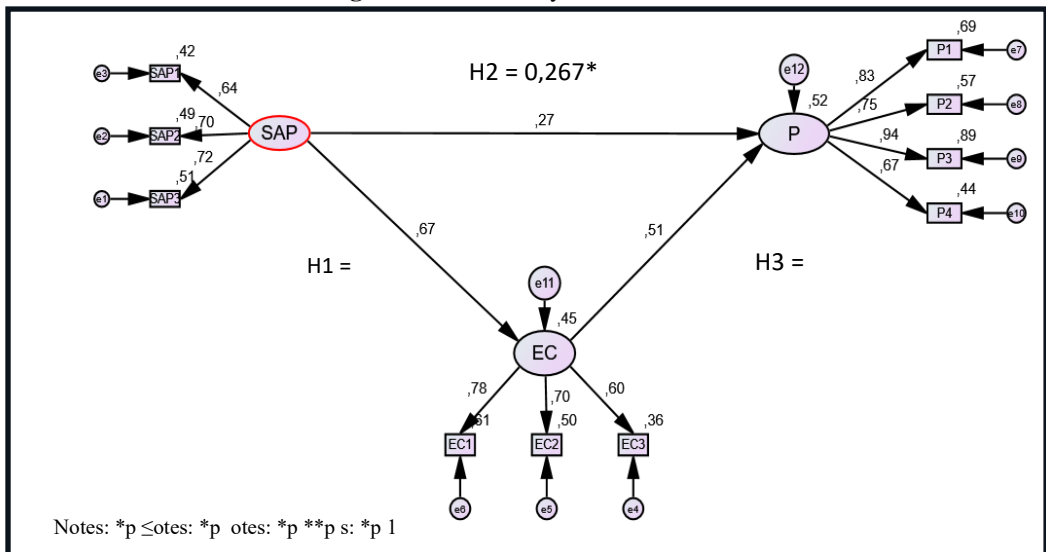
Based on Hair et al. (Hair et al., 2010), the second step of SEM analysis showed good model fit: Chi square (χ^2) = 40.942; Significance Probability (α) = 0.134, degrees of freedom: 32 and CMIN/DF = 1.279; goodness index (GFI) = 0.939; AGFI = 0.895; IFI = 0.983, Tucker Lewis index (TLI) = 0.975; comparative fit index (CFI) = 0.983; root mean square error of approximation (RMSEA) = 0.048 and standard RMR (SRMR) = 0.029. Meanwhile, validation of the hypothesis shows that the antecedents proposed in this framework are significant. The research results show that the strategic alignment process has a significant effect on execution capability (H1) and performance (H2). Apart from that, execution capability also significantly influences performance (H3). Table 4 and Figure 2 show details of hypothesis validation.

Table 5: Result of Hypothesis Testing

| Hypothesis | Estimate | S.E | C.R. | Result |
|--|----------|-------|-------|-----------|
| Strategic Alignment Process → Execution Capability | 0,673 | 0,142 | 4,152 | Supported |
| Strategic Alignment Process → Performance | 0,267 | 0,204 | 1,822 | Supported |
| Execution Capability → Performance | 0,515 | 0,257 | 3,176 | Supported |

Source: Data Analysis (2023)

Figure 2: Path Analysis of



Source: Data Analysis (2023)

This research identifies several antecedents of study program performance in higher education which include strategic alignment processes and execution capabilities. Based on Figure 2.

regarding the structural model path analysis that has been carried out, it can be seen that the strategic alignment process influences the execution capability a study program in higher education to implement its programs. This is indicated by the estimated value of H1 hypothesis testing of 0.673, which is significant at $p \leq 0.001$. The strategic alignment process also has a significant effect of 0.267 at $p \leq 0.1$ on performance. The findings show that the strategic alignment process and execution capability both simultaneously influence performance. However, the impact value of the strategy alignment process becomes greater and more significant if it is moderated by execution capability. These results are in line with previous research which reports that strategic alignment has a positive effect on improving performance (Sadeghi, 2011; Sardana et al., 2016). Likewise with execution ability, has an influence on improving the performance of an organization (de Oliveira et al., 2019). This research also succeeded in confirming previous research such as that conducted by Khadem (2008) and Srivastava (2017) which stated that execution ability is an important step or follow-up to alignment (Khadem, 2008b; Srivastava & Sushil, 2017). Where the more aligned an organization is, the higher the level of strategy execution capability that is developed. Therefore, considering the strategic alignment process and increasing the ability to execute a strategy is very important for higher education institutions, especially at the study program level.

5. DISCUSSION

In previous studies, alignment was proven to have a positive influence on performance. These studies reveal similar findings. The ability of an organization to carry out or implement the developed strategies is one factor that contributes to an increase in the performance of that organization. According to this research, strategy execution serves as a mediator between alignment and performance, with strategy execution having a greater impact on alignment than performance. The outcomes of this study are highly intriguing when it comes to the case study of the higher education environment. This is due to the fact that case studies pertaining to the execution of strategies linked to alignment have not received enough attention in higher education. Research by Sumardi and Fernades (2018) is one of the studies examined the relationship between alignment and Higher Education Performance in Makassar, Indonesia which result found the alignment had a positive effect on performance when mediated by other variables.

Several factors indicate the success of the strategic alignment process in higher education institutions. Those including the compatibility between the strategy designed by the study program and the vision and mission of the study program, faculty, and university (Higgins, 2005). This is in line with the research's findings, which show that the strategy developed by the study program and the vision and goal of the organization are compatible, indicating a strategic alignment process. Providing opportunities for study programs to formulate strategies according to their needs and those of stakeholders, also relevant to make alignment process in Study Programs work out well in the long term (Gerow et al., 2015; Higgins, 2005; Hung et al., 2010). Sumardi and Fernades (2018), also state that Higher Education will improve its quality and able to compete nationally, regionally and globally if there is a preparation long term development framework for higher education with a focus on increasing national competitiveness, higher education autonomy and organizational health.

For execution capability, human resource maintenance factors have the largest contribution to strategy execution capability in addition to adequate infrastructure. In order to create the essential human resources for Indonesia, higher education plays a significant role. These conditions require a broad, comprehensive, integrated and unified management system; starting from planning, implementation, monitoring, evaluation and revision, so as to create a cycle of continuous improvement. This study indicates that the existence of a work program evaluation serves as a predictor of the capacity to carry out a study program's strategy (de Oliveira et al., 2019; Srivastava & Sushil, 2017). Higher education performance is generally evaluated by a variety of indicators, including statistics on the number of graduates, publications in scientific journals, collaborations, and other indicators that the institution contributes in teaching, service, and research. Based on the studies, it indicates that collaboration with the community or community groups is the indicator that has the biggest impact on the study program's performance. Another factor is the quantity and quality of research conducted or various seminars held (Alpert, 1985; Skarlicki & Latham, 2009).

5.1. Conclusion

Based on the results of statistical analysis, this research strengthens previous research conducted by de Oliveira, et al (2019) and Srivastava & Sushil (2017) where alignment had a stronger influence on performance when mediated by strategy execution ability. The object of this research is higher education, where discussions about strategy execution and alignment have not been carried out comprehensively in one unit. This research is one of the studies that finally provide evidence regarding the connection between alignment and strategy execution capabilities at universities. To strengthen the connection of each variable, it is important to consider the indicators. In the strategic alignment process, the university's strategy should be in line with the goals to be achieved. These conditions will further strengthen the alignment process. In a comparable manner, developing a suitable plan will facilitate universities in reaching their highest possible performance. However, adequate human resources, a strong infrastructure to support it, and ongoing assessments of how different programs are being implemented will improve the capacity to carry out organizational plans at the university and study program levels.

5.2. Theoretical Implication

Theoretically, this research contributes to existing knowledge in the Higher Education environment by providing antecedents to the strategic alignment process which includes strategy execution capabilities and study program performance. The findings of this study should advance ideas of change management and contingency theory, a foundational theory of organizational alignment. These findings open new insights to fill the gap in previous research regarding alignment where there were inconsistencies in results regarding the influence of alignment and performance, especially in higher education. Mediated by the ability to execute strategies, alignment has a stronger influence on the performance of study programs in higher education. This result additionally supports and contributes to the results of previous research on execution skills, which constitute a follow-up to alignment. In the end, this research strengthens the role of RBV theory with its execution capabilities in a change management framework to improve the performance of Study Programs in Higher Education.

5.3. Industrial Implication

This study indicates that improving the Study Program's performance is positively impacted by the strategic alignment process and strategy execution capabilities. Therefore, it is important for a study program to improve the quality of the strategic alignment process that takes place in its organization. In this case, it would be better for study programs to choose and develop strategies that suit stakeholder needs. Apart from that, the strategies contained in various work programs in a Study Program must be prepared in line with the Vision, mission and objectives of the Study Program. Meanwhile, in terms of strategy development, the formulation used should give a study program at the university the opportunity to achieve its best performance. On the other hand, the ability to execute work programs that have been prepared also plays an important role. Based on this research, execution ability will further increase the opportunity for a study program to improve its performance. In this case, the better the ability of a study program to execute or implement strategies that have been prepared and planned both in the form of work programs and in other forms of activities, the greater the opportunity for the study program to improve its performance, especially in terms of collaboration with other parties. outside the University. Meanwhile, regarding the ability to execute programs which are the study program's strategy, the study program can focus on human resource maintenance activities in addition to infrastructure maintenance which will also have an impact on the success of the work program. Apart from that, regular evaluation is also needed for each activity or work program on an ongoing basis.

5.4. Limitation and Future Research Agenda

There are various restrictions on this study. First off, the results of this study cannot be applied to other universities because the participants in it were limited to those offering study programs at universities. Therefore, future research could use more varied respondents such as study programs from vocational schools or academies. Second, although the strategic alignment process and execution capabilities were successful in predicting improvements in Study Program performance, this research only explored it from the perspective of the Chief or Study Program Coordinator. Future research could use a broader perspective, such as from lecturers or other educational staff.

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