

Analysis of the Implementation of Total Quality Management and Organizational Commitment in Improving the Performance of Education Personnel Semarang State University

Suprpti^{1✉}, Lesa Paranti², Margunani³, Evita Septiana Tyas Utami⁴

¹Directorate of Planning and Finance - Subdirector of Finance and Taxation - Fund Disbursement and Taxation Section Universitas Negeri Semarang

²Education in Dramatic Arts, Dance and Music, Faculty of Languages and Arts, Universitas Negeri Semarang

³Economic Education, Faculty of Economics and Business, Universitas Negeri Semarang

⁴Directorate of Information Systems and Public Relations - General Administration and Finance Universitas Negeri Semarang

Article Info

Article History :

Received Maret 2023

Accepted April 2023

Published June 2023

Keywords:

*Semarang State University,
Education Personnel, ISM,
TQM*

Abstract

The aim of this research is to develop a strategy for implementing TQM in improving the inclusive performance of educational staff at Semarang State University. This research is a quantitative and qualitative descriptive research. Quantitative descriptive research is research that consists of formulating a problem, preparing a model, collecting data, analyzing the results, and implementing it. The analytical method used in this research is Interpretative Structural Modeling (ISM) analysis. ISM as applied by Bhattacharya and Momaya (2009), is a sophisticated interactive planning methodology that allows a group of people, working as a team, to develop a structure that defines the relationships among the elements in a set. The results of the classification of strategic elements for developing the competence and expertise of educational staff in supporting the acceleration of UNNES to become a PTN-BH consisting of 15 criteria resulting in 8 policy levels. The policy elements of tightening selection in the recruitment of educational staff (A1) and the elements of mentoring in increasing competence (A3) are at the first level. The classification of policy elements to increase the competency skills of education personnel at UNNES can be classified into 4 (four) sectors. The sector occupied by the most elements is sector III (Linkage). The elements in this sector have a large driving force but also have a large dependence on other elements.

© 2023 Universitas Negeri Semarang

✉ Correspondence :

Directorate of Planning and Finance - Subdirector of Finance
and Taxation - Fund Disbursement and Taxation Section
Universitas Negeri Semarang
E-mail: suprpti@mail.unnes.ac.id

p-ISSN 2301-7341

e-ISSN 2502-4485

INTRODUCTION

The increasingly widespread era of technological disruption requires universities to be able to keep up with existing technological developments. Universities play a central role in building capabilities for technology adoption and innovation creation. The two important roles of universities are (1) as institutions to prepare quality and competitive human resources and (2) as research centers for the development of science and the creation of technological innovation. The second role is very closely related to the function of a center of excellence. The comparative advantage of a university can be measured through its global ranking. UNNES as one of the universities in Indonesia is trying to become a PTN-BH so that it can participate in increasing the nation's competitiveness.

Legal entity universities (PTN-BH) have the potential to be developed into CoEs because they have financial and academic management autonomy. Since the enactment of Law number 12 of 2012 concerning Higher Education and Government Regulation No. 58 of 2013, the Government has attempted to improve the quality of higher education through management with a legal entity pattern. The Ministry of Research, Technology and Higher Education allocates PTN-BH Funding Assistance (BPPTN-BH) and various other fiscal interventions to improve resource quality, research and development productivity, institutional quality and innovation capacity. PTN-BH is encouraged to improve its academic reputation towards becoming a World Class University (WCU) and strengthen higher education innovation in industry. To measure the extent of universities' efforts in developing centers of excellence, it is necessary to evaluate the utilization of allocations and the effectiveness of program intervention results at PTN-BH.

Human resources (HR) are a core factor in an organization. Therefore, managing and developing human resources is very important for organizations [1]. Human resource management is carried out to develop and utilize all existing potential to support the achievement of the desired organizational goals. Human resource development is an important topic to study,

considering that human resource development is an urgent aspect in efforts to increase an institution's competitive advantage [2] [3]. Human resource development is workforce development that is oriented towards increasing knowledge and skills whose ultimate goal is productivity and quality of the institution [4]. Educational institutions require effective human resource management to improve their performance. Efforts to improve quality have implications for the need for schools to have human resources to work optimally, resulting in the need to develop human resources so that they have a creative and innovative attitude in facing competition [5].

Semarang State University as a PTNBH is required to have human resources, especially qualified and productive educational staff. Efforts to improve the performance of educational staff are still hampered by the skills and abilities of educational staff which are not yet optimal, resulting in suboptimal performance. Efforts need to be made to increase organizational commitment with a Total Quality Management (TQM) approach.

Previous research discussing improving the quality of human resources using the Total Quality Management (TQM) approach at the higher education level has been widely carried out but still produces varying findings. Research conducted by previous researchers explains that efforts to improve the quality of human resources in higher education need to be focused on increasing skills and competencies [12] [13]. Other research conducted by other researchers actually produced different findings that the TQM approach in improving the quality of human resources must start from the mindset of human resources [14]. Other research also explains different findings, that the TQM approach to improving the quality of human resources must be based on the commitment and consistency of the human resources themselves [15] [16]. Based on the results of previous research which still produces varying findings, this provides an opportunity for further research. This research carries a novel concept of improving the quality of human resources for education staff with an inclusive Total Quality Management (TQM) approach. The word inclusive in this research concept refers to the basis of improving the quality of human resources from

all aspects, including organizational commitment, performance orientation, cohesiveness, discipline and also the mindset of human resources.

Based on the background of this problem, the aim of this research is to develop a strategy for implementing TQM in improving the inclusive performance of educational staff at Semarang State University.

RESEARCH METHODS

This research is a quantitative and qualitative descriptive research. Quantitative descriptive research is research that consists of formulating a problem, preparing a model, collecting data, analyzing the results, and implementing it [17]

Meanwhile, qualitative research emphasizes analysis on the inductive inference process, meaning that data is collected, analyzed, abstracted and theories will emerge as dynamics as relationships between observed phenomena using scientific logic [18]. For this purpose, a qualitative method was carried out using interview techniques and also Focus Group Discussion (FGD). This research seeks to explore human resource data, in this case the staff at Semarang State University and develop a policy scheme for developing the performance of educational staff at UNNES.

The type of data used in this research is divided into two, namely primary data and secondary data. Primary data is obtained in verbal form or the words and behavior of subjects (informants) related to the research. The selection of informants was carried out using a purposive sampling technique. The informants in this research consisted of several stakeholders related to the research topic. Primary data in this research was obtained by means of a field survey to obtain data related to the potential and expertise of staff at Semarang State University. Apart from that, in-depth interviews and Focus Group Discussions (FGD) were also conducted to complete the required primary data. Meanwhile, secondary data is data that comes from documents, photographs, recordings and objects that are used as a complement to primary data. Secondary data in this research was obtained from literature studies

from journals, daily reports, publications from government agencies, and others.

Based on the approach used in obtaining data, the data collection techniques used in this research are as follows:

1. Observation or Field Survey

Observation in this research involves systematically observing and recording symptoms or phenomena that exist in a research object. This observation can be divided into two, namely direct observation and indirect observation. The survey in this research was carried out to obtain data on the potential of educational staff at Semarang State University

2. Interview Method

Interviews in this research were carried out with informants/keypersons who had been determined in the research to obtain in-depth information regarding problems, obstacles and efforts to be made to develop staff potential and expertise. Apart from conducting interviews, in this research keypersons will also be involved in Focus Group Discussions (FGD) to deepen the data collection needed in the research.

3. Documentation Method

Documentation is a technique of searching for data regarding things or variables in the form of writing, books, pictures, notes, biographies and so on. Researchers are looking for data and information regarding conditions and problems in efforts to develop the potential and expertise of students at UNNES.

The analytical method used in this research to answer objectives number one and two is to use qualitative analysis. Qualitative data analysis is carried out by examining the meaning contained therein. Data categories, criteria for each category, analysis of relationships between categories, are carried out by researchers before including interpretations. The role of statistics is not needed because the sharpness of the researcher's analysis of the meaning and concepts of the data is sufficient as a basis for compiling research findings, because in qualitative it is always descriptive, meaning that the data analyzed is in the form of descriptive phenomena, not in the form of numbers or coefficients about the relationship between variables. According to Milles and Huberman, there are two types of data analysis, namely:

a) Flow Analysis: Data analysis flows, the three components of analysis, namely data reduction, data presentation, drawing conclusions or verification, are carried out in a flowing manner with the data collection process and simultaneously.

b) Interaction Analysis (Interactive Analysis) In interaction analysis, the components of data reduction and data presentation are carried out simultaneously with the data collection process. After the data is collected, the three components of analysis (data reduction, data presentation, drawing conclusions or verification) interact.

The analytical method used in this research is Interpretative Structural Modeling (ISM) analysis. ISM as applied by Bhattacharya and Momaya (2009), is a sophisticated interactive planning methodology that allows a group of people, working as a team, to develop a structure that defines the relationships among the elements in a set. The ISM process starts from system modeling and ends with model validation. Through the ISM technique, unclear mental models are transformed into visible system models. ISM is a method for making decisions from complex situations by connecting and organizing ideas in a visual map. ISM is a modeling that describes specific relationships between variables, a comprehensive structure and has output in the form of a graphical model in the form of quadrants and variable levels (Li & Yang, 2014).

The first step in processing ISM is to create a Structural Self Interaction Matrix (SSIM), where

contextual relationships are made between these variables by making one variable i and variable j . The next step is to create a reachability matrix (RM) by changing V, A, X and O with the numbers 1 and 0. The final step is to create a Canonical Matrix to determine levels through iteration. After there are no more intersections, then a model is created which is produced by ISM which is a model for solving problems, in this case the development of a cash waqf model. From this model a road map for institutional development (level) will then be created.

For various sub-elements in an element based on RM, DriverPower-Dependence is arranged. The sub-element classification is described in the following 4 sectors (Marimin, 2004):

a) Sector 1: Weakdriver-weak dependent variables (AUTONOMOUS). Changes in this sector are generally not related to the system, and may have a small relationship, although the relationship can be strong.

b) Sector 2: Weak driver-strongly dependent variables (DEPENDENT). Generally, changes here are not free.

c) Sector 3: Strong driver-strongly dependent variables (LINKAGE). Variables in this sector must be studied carefully because the relationship between variables is unstable. Every action on this variable will have an impact on others and the feedback effect can magnify the impact.

d) Sector 4: Strong drive weak dependent variables (INDEPENDENT). Variables in this sector are the remaining part of the system and are called independent variables.

<i>Driver power</i>	IV. Independent: Strong Driver weak Dependent variabels	III. Linkage: Strong driver – strongly Dependent variabels
	I. Autonomous Weak Driver - weak Dependent variabels	II. Autonomous Weak Driver - strongly Dependent variabels
<i>Dependence</i>		

Figure 3.1. Driver Power-Dependence Matrix

RESULTS AND DISCUSSION

Based on the results of interviews and discussions with experts, the results showed that there were 15 strategy elements for developing the competence and expertise of educational staff in supporting the acceleration of UNNES to become PTN-BH. The fifteen elements of the strategy are as follows:

1. Tightening selection in the recruitment of educational staff (A1)

In an effort to improve the competence and expertise of educational staff at UNNES, it must start with attention to the upstream side where the upstream side is related to the recruitment of educational staff. The selection/acceptance procedure for UNNES educational staff needs to be carried out carefully and selectively, especially in accordance with the needs, both in number and area of expertise. The quality of the educational staff who will be accepted must also be guaranteed and have a good track record, especially the competency and expertise they have must be in accordance with the placement if accepted later.

2. Providing training in improving quality and quality (A2)

Education staff in higher education are not only required to have expertise in teaching in the classroom, but are also required to have expertise in the field of research and service because this is a requirement of the Tri Dharma of Higher Education which must be carried out by every education staff. In order to improve the quality and quality of educational staff in carrying out the Tri Dharma of Higher Education, it is necessary to provide training for educational staff which includes teaching training, research training, writing article manuscripts, publications and IPR.

3. Assistance in increasing competence (A3)

Providing training for educational staff in order to improve their quality needs to be complemented by mentoring. Once the training has been carried out, assistance must be provided to ensure that the knowledge provided can actually be implemented well. Mentoring can be done vertically (centralized) or horizontally (between educational staff). The assistance provided must be targeted so that it can provide real output.

4. Providing a platform for career development according to the field of science (A4)

The competency and expertise of educational staff at UNNES must be developed according to their respective fields. To support the development of existing competencies and skills, it is necessary to have a forum for educational staff to develop their careers, both academic (scientific) and non-academic (positions, etc.) careers. The forums provided can be in the form of discussion forums, scientific study forums or consultation forums.

5. Improved performance monitoring and evaluation system (A5)

The performance of UNNES educational staff must be monitored and evaluated to find out how they are developing. This needs to be done to see whether the resulting performance is in line with the target or not. If it is not in accordance with the target, it can be evaluated and identified the factors that caused the performance to not be achieved. Then alternative solutions can be prepared to overcome existing performance deficiencies.

6. Providing rewards for outstanding educational staff (A6)

Reward is one of the important aspects in an organization. Rewards can be given to educational staff who have achievements, especially achievements that are in accordance with the expertise and field of each educational staff. With the rewards given, it is hoped that it can stimulate the enthusiasm of educational staff to continue to improve their achievements in accordance with their respective competencies and skills.

7. Providing incentives for developing skills and competencies (A7)

Incentives are also an aspect that must be considered in efforts to increase the competence and expertise of educational staff. Incentives can be given in various ways, both in the form of direct and indirect incentives. Direct incentives can be provided through remuneration. Meanwhile, indirect incentives can be provided in the form of facilitating the development of skills and competencies.

8. Improved communication between leaders and subordinates (A8)

In an organization, communication is important to support the organization's performance. Ongoing communication must be effective and efficient so as not to cause conflict.

9. Improved human resource management (A9)

In an effort to create effectiveness and efficiency in organizational management, existing human resources must be managed well. Good human resource management will be able to have a positive impact on the organization in achieving its goals, in this case increasing the competence and expertise of educational staff.

10. Training of educational staff in innovation (A10)

Innovation is one of the important aspects that UNNES must have to encourage existence as well as output and outcomes in supporting the acceleration of UNNES towards PTNBH. Therefore, educational staff who are potential human resources in producing innovation must be given supporting training both in finding innovation and commercializing the resulting innovation.

11. Training and mentoring in the downstream research of educational staff (A11)

Research and service is one of the Tri Dharmas of higher education that must be carried out by educational staff. The research carried out must be able to provide real outcomes for UNNES. This can be done if the research carried out can be carried out well. Therefore, educational staff at UNNES must be given training and assistance in downstreaming research results.

12. Improvement of facilities and infrastructure supporting downstream innovation (A12)

To support the downstreaming of innovation, supporting facilities and infrastructure are needed. This function not only stimulates the

enthusiasm and motivation of educational staff, but can also help optimize the implementation of existing innovations.

13. Transparency in human resource management (A13)

In managing human resources, in this case educational staff, there needs to be transparency that can support the trust of existing human resources. Transparency in question is not only transparency in terms of policies and operations but also transparency in the financial sector.

14. Improvement of the principle of Reasonable Without Exception (WTP) (A14)

The WTP principle is an important aspect in realizing optimal organizational performance. The implementation of WTP at UNNES must be increased, especially WTP in terms of management and competency development of educational staff at UNNES.

15. Increasing good cooperative and partnership relations (A15)

Collaboration networks can be carried out with several potential partners who can encourage the development of the competence and expertise of educational staff. The collaboration carried out must have a positive impact on competence and expertise at UNNES. Each education staff must be accompanied to obtain potential partners, especially those in accordance with each education staff's field of expertise.

4.4. Policy Structure/Level

Based on the results of the classification of strategic elements for developing the competency and expertise of educational staff in supporting the acceleration of UNNES to become a PTN-BH which consists of 15 criteria resulting in 8 policy levels as follows:

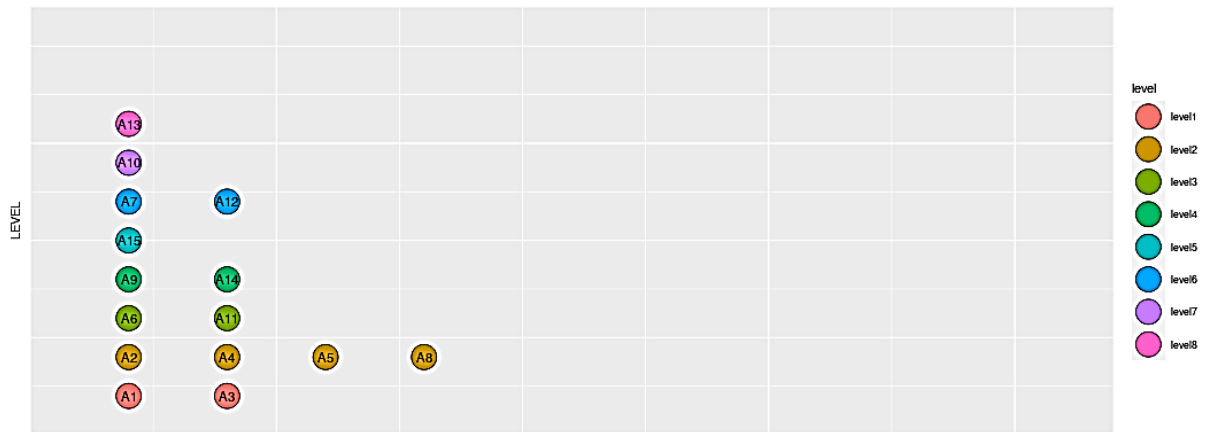


Figure 4.14. Hierarchical Structure of Policy Strategy Elements for Developing Competency Skills of Education Personnel

Based on the hierarchical structure presented in Figure 4.14, it can be explained that the selection policy element of tightening selection in the recruitment of educational staff (A1) and the mentoring element in increasing competence (A3) are at the first level. This shows that the policy of tightening the selection of educational staff and providing assistance in increasing competence is the main strategy that must be prioritized. If the policies at this first level can be implemented well, then other policies can support the further development of the competency skills of educational staff. As we know, in an effort to achieve maximum organizational performance, the available human resource input must also be of good quality. Efforts to increase the competency skills of education staff at UNNES must first pay attention to the upstream side, namely tightening the selection for admissions to education staff.

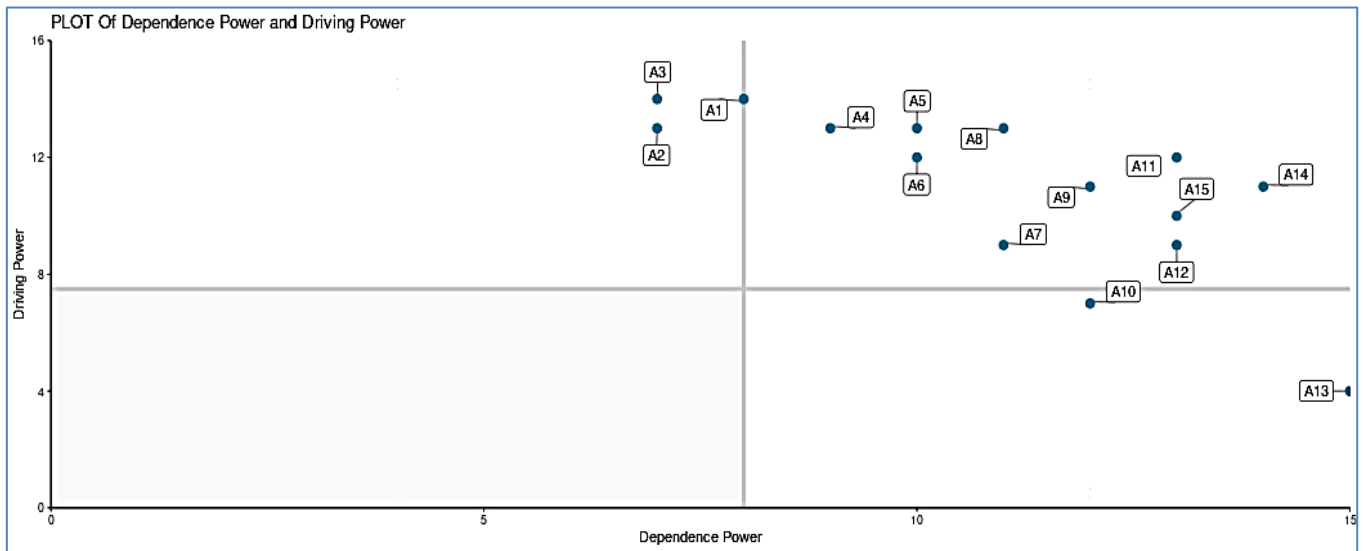
Then the elements of providing training in improving quality and quality (A2), providing a platform for career development according to the field of science (A4), improving the performance monitoring and evaluation system (A5), and improving communication between leaders and subordinates (A8) are at the second level where policy This is the second priority that must be

implemented after the first level policy. The next level is occupied by the elements of providing rewards for outstanding educational staff (A6) and training and mentoring in the downstream research of educational staff (A11). Followed by the fourth level which is occupied by elements of improving human resource management (A9) and improving the principle of reasonableness without exception (WTP) (A14). Meanwhile, the fifth level is occupied by the element of improving cooperative relations and good partnerships (A15).

Next, the sixth level is occupied by the elements of providing incentives for developing skills and competencies (A7) and improving facilities and infrastructure that support downstream innovation (A12). Followed by the training element for educational staff in innovation (A10) which occupies the seventh level. Meanwhile, the last level or eighth level is occupied by the Transparency element in human resource management (A13).

4.3. Policy Quadrant

The classification of policy elements to increase the competency skills of education personnel at UNNES can be classified into 4 (four) sectors as presented in figure 4.15 as follows:



Gambar 4.15. Matriks Driver Power-Dependence

Based on figure 4.15. The classification of policy elements is carried out based on the coordinate points obtained from the Level Partitioning results. These results produce a classification of three sectors in the power-dependence driver matrix. Based on the power-dependence driver matrix, the elements of tightening selection in the recruitment of educational staff (A1), providing training in improving quality and quality (A2) and the elements of mentoring in increasing competence (A3) are included in sector IV (independent). These three elements have great driving force, but have little dependence on other policy elements.

Then the training element for educational staff in innovation (A10) and the transparency policy element in human resource management (A13) are in sector II (dependent) or the dependent variable sector. These two elements are elements that are very dependent on other elements. This shows that these elements have a relatively small driving force and are very dependent on other variables.

Meanwhile, the elements are Providing a platform for career development according to the field of science (A4), Improving the performance monitoring and evaluation system (A5), Providing rewards for outstanding educational staff (A6), Providing incentives for developing skills and competencies (A7), Training and improving leadership communication and subordinates (A8), Improving human resource management (A9), Assistance in the

downstreaming of educational staff research (A11), Improving facilities and infrastructure supporting the downstreaming of innovation (A12), Increasing the principle of Reasonable Without Exception (WTP) (A14), Increasing Good cooperative and partnership relations (A15) are in sector III (Linkage). The elements in this sector have a large driving force but also have a large dependence on other elements. Elements in this sector must be studied carefully because the relationship between variables is unstable. Every action on this variable will have an impact on others and the feedback effect can magnify the impact.

CONCLUSION

Based on the results and discussions previously described, the following conclusions can be drawn that Semarang State University (UNNES) is one of the universities in Indonesia that has the quality and quantity of potential human resources. The total number of educational staff at Semarang State University in 2021 was recorded at 1,129 educational staff. The number of educational staff at Semarang State University who have functional positions until 2021 is 909 educational staff spread across eight faculties, namely the Faculty of Languages and Arts, the Faculty of Mathematics and Natural Sciences (FMIPA), the Faculty of Economics (FE), Faculty of Education (FIP), Faculty of Social Sciences (FIS), Faculty of Law (FH),

Faculty of Sports Sciences (FIK), and Faculty of Engineering (FT).

Results of the classification of strategic elements for developing the competency and expertise of educational staff in supporting the acceleration of UNNES to become PTN-BH, which consists of 15 criteria resulting in 8 policy levels. The policy elements of tightening selection in the recruitment of educational staff (A1) and the elements of mentoring in increasing competence (A3) are at the first level. The classification of policy elements to increase the competency skills of education personnel at UNNES can be classified into 4 (four) sectors. The sector occupied by the most elements is sector III (Linkage). The elements in this sector have a large driving force but also have a large dependence on other elements.

Based on the results and conclusions that have been explained, the following suggestions can be given:

1. Efforts to develop the Competency and Skills of Higher Education Education Personnel to Support the Acceleration of UNNES Towards PTN-BH require synergy between relevant stakeholders.
2. There needs to be commitment and seriousness from stakeholders in developing and implementing strategies for developing the competence and skills of educational staff
3. Developing the competence and expertise of educational staff must be carried out by paying attention to all aspects, both academic and educational.
4. The policies implemented must include development policies from upstream to downstream.

REFERENCES

- Aryana, I. N., Wardana, I. M., & Yasa, N. N. K. (2017). Building Competitive Advantage Through Information System Performance and Customer Intimacy in Improving Marketing Performance. *Udayana University Economics and Business E-Journal*, 6(4), 1343–1364
- Hijrawan, R. (2019). Development of TQM-based Human Resource Management at Madrasah Aliyah Nurul Ummah Kota Gede Yogyakarta.
- Al-Fahim: Journal of Islamic Education Management, 1(2), 109-134.
- Krismiati, K. (2017). Development of Human Resources in Improving the Quality of Education at SD Negeri Inpres Angkasa Biak. *Office Journal*, 3(1), 43–50.
- Li, M., and Yang, J. (2014), "Analysis of interrelationships between critical waste factors in office building retrofit projects using interpretive structural modeling", *International Journal of Construction Management*, Vol. 14, no. 1, pp. 15-27.
- Marimin (2004), *Compound Criteria Decision Making. Techniques and Applications*. Gramedia Widiasarana Indonesia. Jakarta.
- Moleong, Lexy. J. (2014). *Qualitative Research Methodology*. Bandung: Rosda
- Muhardi. (2004). Aspects of Higher Education Competitive Advantage. *Pulpit*, 20(2), 179–193.
- Maisana, Z., Hartoyo, S., Fahmi, I., & Wijaya, H. (2012). Total quality management approach for rejected broiler products. *Journal of Management & Agribusiness*, 9(3), 163-172.
- Putra, R. A., Dewi, P. R., Jalaludin, A., & Amrullah, A. M. K. (2021). Curriculum Development Strategy Perspective of Total Quality Management (TQM) Approach in Higher Education. *Educative: Journal of Educational Sciences*, 3(5), 2135-2145.
- Yasin, I. (2021). Cultural Problems of Improving Education Quality in Indonesia: Total Quality Management Perspective. *Ainara Journal (Journal of Research and PKM in the Field of Education)*, 2(3), 239-246.
- Warits, A. (2017). Development of the Quality of Islamic Religious Islamic Boarding Schools through a Total Quality Management Approach. *PROCEEDINGS*, 1(2), 184-201.
- Rachmawati, I. K. (2008). *Human Resource Management*. Yogyakarta: Andi.
- Sugiyono. (2017). *Qualitative Quantitative Research Methods and R&D*. Bandung: Alfabeta
- Suhermanto, S., & Anshari, A. (2018). Implementation of TQM on Institutional Quality in Educational Institutions. *Al-Tanzim: Journal of Islamic Education Management*, 2(1), 107–113.
- Supardi, E. (2006). Total Quality Management in Empowering Human Resources. *GEA Geography Journal*, 6(1), 1–11.
- Syam, A. R. (2017). The Concept of Quality Leadership in Islamic Education. *Al-Ta'dib*, 12(2), 49–69.
- Walidin, W. (2016). Directions for Human Resource Development in the Dimensions of Islamic Education. *Journal of Education*, 2(2), 148–163.

- Widiansyah, A. (2018). The Role of Educational Resources as a Determining Factor in Education System Management. *Horizon*, 18(2), 299–234.
- Sonia, N. R. (2021). Total Quality Management in Higher Education Institutions. *Southeast Asian Journal of Islamic Education Management*, 2(1), 125-139.
- Ismail, F. (2018). Implementation of total quality management (TQM) in educational institutions. *Iqra' Scientific Journal*, 10(2).