



Working together  
www.rcis.ro

## **Revista de Cercetare și Interventie Sociala**

ISSN: 1583-3410 (print), ISSN: 1584-5397 (electronic)

---

### **THE IMPACT OF MUHAMMADIYAH' LEADERSHIP STYLE AND TOTAL QUALITY MANAGEMENT ON COMPETITIVE ADVANTAGE IN UNIVERSITIES – CASE ON UNIVERSITIES IN YOGYAKARTA, INDONESIA**

*Utik BIDAYATI, Armanu THOYIB, Siti AISJAH, Mintarti RAHAYU*

---

Revista de cercetare și intervenție socială, 2023, vol. 81, pp. 62-84

<https://doi.org/10.33788/rcis.81.4>

Published by:  
Expert Projects Publishing House



On behalf of:  
„Alexandru Ioan Cuza” University,  
Department of Sociology and Social Work  
and  
HoltIS Association

# **The Impact of Muhammadiyah' Leadership Style and Total Quality Management on Competitive Advantage in Universities – Case on Universities in Yogyakarta, Indonesia**

Utik BIDAYATI<sup>1</sup>, Armanu THOYIB<sup>2</sup>, Siti AISJAH<sup>3</sup>, Mintarti RAHAYU<sup>4</sup>

## **Abstract**

The distinctiveness of the Muhammadiyah Leadership Style (MLS) and the implementation of total quality management (TQM) in realizing the competitive advantage of higher education, especially at Muhammadiyah-'Aisyiyah (PTMA) universities, is an interesting situation to be revealed. This article explores the Muhammadiyah Leadership Style's distinctiveness with Total Quality Management's role in increasing competitive advantage. This research uses a positivistic paradigm with an explanatory research type, data collection through questionnaires on 115 study programs at Ahmad Dahlan University, Muhammadiyah Yogyakarta University, and 'Aisyiyah Yogyakarta University using saturation samples and smartPLS as a testing tool. The results showed that the Muhammadiyah Leadership Style, directly or indirectly through Total quality management, positively increased competitive advantage. The treatment of Total Quality Management in higher education proved to bring Muhammadiyah-'Aisyiyah universities to achieve a competitive advantage. The research subjects were taken at the study program of the Muhammadiyah-'Aisyiyah College (PTMA) in the Special Region of Yogyakarta (DIY) among the many study programs in the PTMA environment located in various regions of Indonesia and abroad, which is a limitation of this study. For universities, the importance of leadership styles is carried out by the unique considerations of each university to realize the organization's competitive

---

<sup>1</sup> University Ahmad Dahlan, Faculty of Economic and Business, Yogyakarta, Indonesia;  
University Brawijaya Malang, Faculty of Economic and Business, Malang, Indonesia.  
E-mail: utik.bidayati@mgm.uad.ac.id

<sup>2</sup> University Brawijaya Malang, Faculty of Economic and Business, Malang, Indonesia.  
E-mail: armanuthoyib@gmail.com

<sup>3</sup> University Brawijaya Malang, Faculty of Economic and Business, Malang, Indonesia.  
E-mail: aisjahsiti@gmail.com

<sup>4</sup> University Brawijaya Malang, Faculty of Economic and Business, Malang, Indonesia.  
E-mail: mintarti.rahayu@gmail.com

advantage and provide insight into the development of leadership styles under the Muhammadiyah Association.

*Keywords:* Muhammadiyah's Leadership Style, TQM, competitive advantage.

## **Background**

Higher education faces different limitations and challenges from its environment in moving the organization to produce quality graduates (De Haan, 2015; Ghufron, 2018). Higher education organization management must adjust to existing changes by improving the quality of its performance, outputs, and outcomes to the needs of all stakeholders with increasingly high standards. The tight competition encourages every organization to improve its business process management to achieve its competitive advantage (Nadarajah & Latifah, 2014). Organizations compete strategically by minimizing losses to get the best benefits through their competitive advantages (Porter, 1990). Organizational competitive advantage can be formed by utilizing internal strengths, including the distinctiveness that exists in the organization (intangible resources). The durability of an organization's excellence depends on whether or not other organizations can duplicate its advantages. Competitive advantage in higher education can be obtained through the ability to build market orientation and adapt to its environment and professional management (Wahyudin, 2015; Mainardes et al., 2011). Muhammadiyah-'Aisyiyah Higher Education (PTMA), as the subject of this study, is unique in determining its competitive advantage by applying Al Islam and Kemuhammadiyah as the main superiority values carried out in every activity, in addition to the learning process, research, and community service. The characteristics and uniqueness of PTMA, with the values of Al Islam and Kemuhammadiyah, become a vision that must be realized by the university's leadership, distinguishing this university from others. PTMA uses Muhammadiyah's leadership values developed in the educational process as a form of sustainable competitive advantage to win the competition.

Leaders who mobilize members and all their resources are needed to bring the organization to excellence (Memon et al., 2009). Leaders with transactional, transformational, and autocratic styles encourage the emergence of creative subordinates, thus making the organization achieve excellence (Almheiri et al., 2022). The leadership style in running the organization affects the level of organizational success in achieving competitive advantage (Khan & Anjum, 2013; Al-Zoubi, 2012) and the dynamic ability of the organization to face its environment (Sriwidadi et al., 2016; Syafarudin, 2016). Organizations need leaders who can anticipate and adjust quickly to the conditions around them. Leaders can use local wisdom to achieve educational goals (Burhan et al., 2018; Harsoyo et al., 2019). Local wisdom as an organizational characteristic is interesting and important to explore. Higher education's typical leadership style paradigm includes hierarchical,

individual, collective, collegial, and transformative leadership models (A. Black, 2015). Collegial collective leadership is also implemented in Muhammadiyah organizations.

The leaders in the Muhammadiyah Association have a leadership style adapted to the organization's development in their time. The leadership style in the Muhammadiyah organization is built based on organizational values set out in the Muhammadiyah Islamic Life Guidelines (PHIWM) (Muhammadiyah PP Team, 2000). Every leader under the Muhammadiyah organization must have a leadership spirit that refers to the characteristics of the Apostle Muhammad SAW, namely Sadiq, Amanah, fathonah and tabligh (Muhammadiyah Library Assembly, 1990). The attitude of Sidiq is a form of truth-oriented attitude. Amanah is interpreted as the attitude of someone who can be trusted. Tabligh means being able to communicate and convey things well. Finally, someone who leads in the Muhammadiyah organization must also be intelligent or a fathonah leader. These four traits and attitudes are the minimum characteristics that leaders in Muhammadiyah must have to realize a truly Islamic society (Nashir, 2010). Leadership patterns in Muhammadiyah continue to adjust to changes in the environment and time without eliminating the basic values of leadership that have been established. Qualitative studies related to leadership styles in Muhammadiyah universities conducted by Mursidi et al. (2017), showed the ability of college leaders to bring the organization to excellence. Prophetic nature, associative leadership, and activist leadership carried out by the leadership proved to bring the college to achieve excellence (Mursidi et al., 2017). The process of leading Muhammadiyah universities guided by the organizational rules is capable of improving the performance and quality of the institution.

An integrated management system and implementing Total Quality Management (TQM) is one mechanism to gain a superior position by providing customer satisfaction (Sallis, 2010). This quality concept has been developed in the world of education called Total Quality in Education (TQE). Implementing quality management in higher education improves quality in the implementation of learning, reduces costs, improves organizational performance, and meets customer needs (Sallis, 2010). The performance of study program management with total quality-oriented management is proven to impact student satisfaction as a stakeholder (Sutanto, 2015).

This research was conducted at Muhammadiyah universities in Yogyakarta Special Region (DIY), where the Muhammadiyah organization was founded by Ahmad Dahlan in 1912. Muhammadiyah is one of the social organizations in Indonesia that began with a movement in the field of Islamic preaching, education, and social welfare with the characteristics of the Amar Makruf Nahi Munkar preaching movement and the Tajdid movement (PHIWM, 2000). Dakwah Amar Makruf Nahi Munkar is a movement that calls for doing good and preventing things that are Munkar or not good. The Tajdid movement is a movement of the spirit of renewal and a pioneer of progress with the characteristics of purification and

modernization (Setiawan et al., 2010; Pasha & Darban, 2000). These characteristics make Muhammadiyah an organization that always follows the changing conditions and times it goes through in its development (Nashir, 2010).

Based on the Directory of Muhammadiyah and 'Aisyiyah Universities in 2022, there are 3 (three) Muhammadiyah-'Aisyiyah Universities (PTMA) in Yogyakarta, namely Ahmad Dahlan University (UAD), Muhammadiyah University of Yogyakarta (UMY), and 'Aisyiyah University (UNISA) Yogyakarta which has the task of being a center of excellence and *uswah hasanah* (center of excellence within the region) and being a driving force for the realization of the Muhammadiyah *da'wah* and *tajdid* movement (PTM Guidelines, 2016). Muhammadiyah universities develop integrative holistic education (Huda & Kusmawati, 2019), combining modern mindsets with actualizing the Qur'an in real activities in life (Binfas et al., 2014).

Inconsistencies occur in research on leadership and its effect on competitive advantage (Khan & Anjum, 2013; Al-Zoubi, 2012). Samsir (2018) and Al Owais (2019) found that leadership will achieve an organizational competitive advantage after being mediated by innovation in the organization. Leadership style on competitive advantage has been widely studied, but in the context of Muhammadiyah and Aisyiyah Universities (PTMA) with a distinctive Muhammadiyah leadership style (Mursidi et al., 2017) on competitive advantage is new to be tested empirically. This inconsistency provides an opportunity for further exploration by making Muhammadiyah's Leadership Style an antecedent of competitive advantage. In addition, research on TQM in educational organization activities using comprehensive quality implementation (TQM) is new when juxtaposed with Muhammadiyah's leadership in achieving competitive advantage.

## Literature Review

Competitive advantage is a strategic step for an organization to survive and be better than its competitors in the face of competition (Amaya *et al.*, 2022). Excellence is formed because of the characteristics and resources owned by the company (Porter, 1985). The development of science and technology and intense competition encourage organizations to determine the resources and capabilities that allow them to be their competitive advantage. The sustainability of competitive advantage depends on the possibility of competitive duplication of attributes and resources that cannot be duplicated or imitated by current or potential competitors (Barney, 1991). Leaders have a role in achieving organizational effectiveness and competitive advantage (Al Zoubi, 2012; Bryman, 2007; Ahn *et al.*, 2004)

Empirical studies of prophetic leadership have been conducted by Budiharto and Himam (2006). Prophetic leadership is a form of ability to control oneself and influence others to achieve goals, as done by the prophets. The influencing process is carried out by example. From the resulting prophetic leadership scale, the

keywords for the Sidiq aspect are guided by conscience and courage, for the Amanah aspect are professional and committed, the Tabligh aspect is communication skills, and for the Fathonah aspect is the ability to overcome problems. A prophetic leadership style positively influences internal and external stakeholders, increasing staff, lecturers, and students loyalty, trust, and commitment (Mursidi, 2018). Prophetic leadership can be used to analyze the problems in the Islamic community (ummah) to establish harmony in national life (El Syam, 2017). The leadership style in Muhammadiyah universities generally follows the prophetic leadership style consisting of Sidiq, Tabligh, Amanah, and Fathinah characters, associative leadership that upholds organizational culture and collective and collegial approaches, straight and dynamic where leadership movements are progressive, flexible, and rational (Mursidi *et al.*, 2017). Leaders in Muhammadiyah have Islamic spirituality, and Islamic insight, understand the current state of Indonesia and the world, have the art of mobilizing leadership, understand administrative and managerial, are flexible in da'wah, carry out collegial and progressive collective patterns, which can synergize or network (Danarto, 2020). Leaders with this style gradually change from standard to more progressive movements. This further increases universities' productivity and changes universities' position from market followers to market leaders.

Quality leadership in Islamic education is essential, as it is an agent of change in the institution and has an active role in improving the quality of education (Syam, 2017). Richards (2012) found that teachers who can appear as leaders positively influence student learning. The leader's expertise and ability to innovate become a resource advantage in the organization (Syafarudin, 2016; Samsir, 2018), and the organizational culture that grows from strong leadership can bring the organization to excellence (Anning, 2016).

Companies ensure the quality of management and products to maintain customer satisfaction. Attention to quality can have a significant impact on company goals. Quality management can be a competitive advantage because it can improve performance (Elshaer & Augustyn, 2016). Total Quality Management (TQM) is the cornerstone of success in today's competitive environment (David & David, 2017). Total Quality Management (TQM) is the quality management activities of the organization as a whole at all levels of management and all functions (Russell & Taylor, 2004), all dimensions of products and services that are considered important by customers to be superior or special Chase *et al.* (2001). In education, the management process is organized with customer-oriented, which began to feel important. Quality-oriented educational processes were implemented using the Total Quality Education (TQE) process, including managing learning quality (Sallis, 2010). The impact of quality management on competitive advantage may depend on the length of implementation of the quality management program (Powell, 1995; Corredor & Goni, 2011). Organizations can implement TQM processes to meet customer needs to maintain consistency in assuring quality (Deming, 1986).

## Hypotesis development

### *The Influence of Muhammadiyah Leadership Style (MLS) on Competitive Advantage (CA)*

Several leadership styles can be applied to an organization. Leadership styles that are suitable for the internal and external conditions of the organization and run at a certain time or period, resulting in good organizational performance. The leader's ability to coordinate all existing resources will determine the organization's ability to achieve its competitive advantage. The level of organizational success in achieving a competitive advantage is influenced by the leadership style in running the organization (Khan & Anjum, 2013; Al-Zoubi, 2012), including when facing dynamic environmental conditions (Syafarudin, 2016). Good leadership will encourage subordinates to innovate, further improving company performance (Syafarudin, 2016). The leader's ability to run his organization affects the organization's competitive advantage (Sriwidadi *et al.*, 2016). Leaders who are oriented towards innovation will bring the organization high competitiveness. Leadership with a higher innovation orientation will also lead to a higher competitive advantage (Samsir, 2006).

Higher education leaders are determinants in setting innovation policies in their institutions (Sallis, 2010). The leader's character has a role in taking strategic steps for the organization he leads (Mursidi *et al.*, 2017), so leaders can encourage the emergence of competitive advantage. Leaders in Muhammadiyah universities have additional duties as one of the institutions that produce cadres of Muhammadiyah organizations, so they must be able to carry out their functions so that the system run in universities can excel and have a distinctiveness that can be used to differentiate from other organizations.

H1. Muhammadiyah's Leadership Style positively affects the competitive advantage of study programs.

### *The Influence of Muhammadiyah Leadership Style (MLS) on Total Quality Management (TQM)*

Das *et al.* (2011) researched specific leadership competencies to implement TQM in Thailand, showing that leaders with high competence in implementing TQM in their companies will encourage companies to produce higher-quality products. Appropriate TQM will help leaders continuously improve innovation to make the right decisions and smooth functioning to achieve maximum performance (Kumar & Sharma, 2018).

Ability and commitment in organizational leadership is the key to implementing TQM. Leaders who have personality traits with high integrity will succeed in implementing TQM (Kadir *et al.*, 2010). Leaders will invite all parties to run the organization with its quality targets (Kaynak, 2003; Hayes *et al.*, 2005; Kaynak &

Hartley, 2008). The following hypothesis is formulated based on the description of the research results above:

H2. Muhammadiyah's Leadership Style has a positive effect on TQM.

### *The Influence of Total Quality Management (TQM) on Competitive Advantage (CA)*

The best service for customers can be realized by applying the concept of Total Quality Management (TQM) at any business scale (Sila, 2006) and getting the same results (Ahire & Golhar, 1996). The effect of Total Quality Management (TQM) on competitive advantage can be proven (Douglas & Jugde, 2001). Implementing quality management with TQM that focuses on community empowerment, continuous quality improvement, leadership commitment, and stakeholder satisfaction, has an impact on achieving competitive advantage in tertiary institutions (Rodriguez *et al.*, 2018). TQM can improve performance and competitiveness, increase customer satisfaction. (Hendricks and Singhal, 1997; Han *et al.*, 2007). These findings are consistent with empirical research (Powell, 1995; Lakhali *et al.* (2006) which also show that there is a positive relationship between TQM practices and competitive advantage. Based on this description, the hypothesis that can be formulated is as follows:

H3. Total Quality Management has a positive effect on Competitive Advantage.

### *Total Quality Management Mediate Muhammadiyah's Leadership Style*

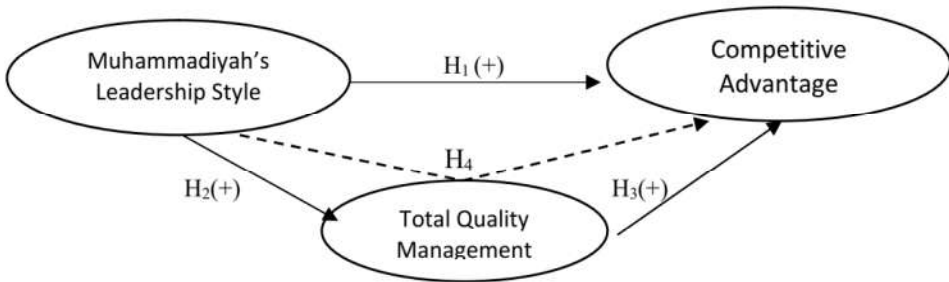
Leadership doesn't directly affect the company's competitive advantage (Samsir, 2018). The effects of reliability, responsiveness, tangibles, empathy, and assurance on student satisfaction are varied and inconsistent. TQM in education becomes a mediator between reliability, responsiveness, tangibles, empathy, and assurance of satisfaction (Fatmawati, 2004; Atikah, 2016)

H4. Total Quality Management mediates the effect of Muhammadiyah's Leadership Style on Competitive Advantage.

Based on the results of observing empirical studies and phenomena around the organization and theories in management studies, some of which have been presented in the explanation above, the conceptual framework can be shown in Figure 1 as follows.



Figure 1. Research Framework



## Methodology

This research used a positivistic, quantitative approach with empiric rational principles. The type of research used is explanatory research using the unit of analysis of lecturers in the study program through questionnaires In three Muhammadiyah- 'Aisiyiah Universities (PTMA) located in the Special Region of Yogyakarta (DIY), namely Ahmad Dahlan University, Muhammadiyah University of Yogyakarta, and 'Aisiyiah University of Yogyakarta. The research location was chosen with the consideration that the three universities are located in the DIY area, where the Muhammadiyah Association was founded, with each high institutional and study program accreditation rating that can describe good university governance

### Population and sample

The population of this study was all study programs at Ahmad Dahlan University, Muhammadiyah University of Yogyakarta, and Yogyakarta 'Aisiyiah University, totaling 115 study programs in 2021. Sampling using non-probability sampling technique with saturated sample method.

### Research Instrument Testing

Testing the research instrument uses a validity test (test of validity) and a reliability test (test of reliability) in the validity and reliability tests. The validity test is carried out by calculating the correlation coefficient between the item and total scores at the 95% significance level or  $\alpha = 0.05$ . The instrument is said to be valid using the criteria if the correlation significance value  $\leq \alpha = 0.05$  or the correlation coefficient value ( $r \geq 0.30$ ) (Solimun, 2010).

The composite reliability (CR) value is calculated to get a model that can be used to analyze the influence between research variables, Composite reliability (CR) is calculated by entering the outer loading value of each item grouped according to each dimension; the acceptable CR value is when it is more than 0.70 (Nunnally & Bernstein, 1994). Furthermore, to show the ability of each statement item to be explained by its latent variable, the AVE calculation is carried out in

each dimension. Convergent validity is acceptable when the AVE value exceeds 0.5 (Fornell & Larcker, 1981).

### Data Analysis

The use of smartPLS is done considering that this study has a complex structural model with several constructions as well as indicators and model relationships. The unit of analysis used is the study program. For this reason, the data collected from respondents are divided according to their respective study programs. Furthermore, the analysis of the research model was carried out using smartPLS.

## Results

### Profil Respondent

The characteristics of this study can be seen in Table 1. The Respondent's Character consists of gender, college origin, age, tenure, position, and intensity of interaction with study program leaders. Respondents are then divided to represent each study program..

Table 1. Respondent Characteristic

Characteristic	Information	Total	Percentage (%)
Gender	Man	90	34%
	Woman	174	66%
Total		264	100%
Universities Origin	University Ahmad Dahlan	108	42%
	University 'Aisyiyah Yogyakarta	60	22%
	University Muhammadiyah Yogyakarta	96	36%
Total		264	100%
Age	20-30 years old	56	21%
	31-40 years old	111	42%
	41-50 years old	56	21%
	51-60 years old	35	13%
	> 60 years old	6	2%
Total		264	100%

Period of employment	1-3 years	61	23%
	4-6 years	73	28%
	7-9 years	33	12%
	> 9 years	97	37%
Total		264	100%
Position	No structural position	183	69%
	Having structural position	81	31%
Total		264	100%
Respondents' Interaction with Leaders	Everyday	84	31%
	Every 2-4 days in a week	123	47%
	Every 5-7 days in a week	38	14%
	>8 days in a week	20	8%
Total		264	100%

There are 115 study programs at UAD, UNISA, and UMY from diploma to postgraduate level, of which 89 study programs are represented out of 264 respondents, shown in Table 2

Table 2. List of Sample Study Programs at UAD, UNISA, and UMY

Universities	Level	Total Study Programme	Total Sampel Study Programme	%
University Ahmad Dahlan	D4	1	1	100%
	Bachelor	38	34	92%
	Master	10	7	70%
	Ph.D	1	0	0%
	Professional	3	2	67%
TOTAL STUDY PROGRAMME UAD		53	44	
University 'Aisyiah Yogyakarta	D3	2	2	100%
	D4	2	2	100%
	Bachelor	15	10	67%
	Master	1	1	100%
	Professional	1	1	100%

TOTAL STUDY PROGRAMME UNISA		21	16	
University Muhammadiyah Yogyakarta	D3	1	1	100%
	D4	2	2	100%
	Bachelor	21	20	95%
	Master	8	3	38%
	Ph.D	4	0	0%
	Professional	5	3	60%
TOTAL STUDY PROGRAMME in UMY		41	29	
Total		115	89	77%

Sources: UAD, UNISA, UMY, 2022.

### Outer Model Analysis

Table 3 shows that all statement items in the first-order and second-order construct have an outer loading value > 0.4. In the first-order construct, the lowest outer loading value is 0.677, while the highest is 0.953. The results of the second-order construct where the calculated outer loading value of each dimension also shows an outer loading value > 0.4. While the composite reliability (CR) value is more than 0.70, meaning that all items are acceptable.

Table 3 . Results of Convergent Validity and Reliability Tests on the Outer Model

Construct	Item Codes	Outer Loading	AVE	CR
First Order Construct				
PROP	PROP1	0.886	0.681	0.944
	PROP 2	0.777		
	PROP 3	0.795		
	PROP 4	0.865		
	PROP 5	0.852		
	PROP 6	0.889		
	PROP 7	0.799		
	PROP 8	0.724		
ASS	ASS1	0.878	0.760	0.940
	ASS2	0.923		
	ASS3	0.877		
	ASS4	0.866		
	ASS5	0.810		

ACT	ACT1	0.897	0.822	0.902
	ACT2	0.916		
DIN	DIN1	0.849	0.712	0.925
	DIN2	0.752		
	DIN3	0.899		
	DIN4	0.881		
	DIN5	0.830		
SUP	SUP1	0.826	0.700	0.875
	SUP2	0.835		
	SUP3	0.848		
CI	CI1	0.904	0.859	0.948
	CI2	0.939		
	CI3	0.938		
SATO	SATO1	0.914	0.789	0.918
	SATO2	0.886		
	SATO3	0.865		
LEA	LEA1	0.909	0.811	0.896
	LEA2	0.892		
FSA	FSA1	0.953	0.862	0.949
	FSA2	0.916		
	FSA3	0.916		
RSA	RSA1	0.477	0.562	0.832
	RSA2	0.820		
	RSA3	0.838		
	RSA4	0.805		
CS	CS1	0.774	0.562	0.837
	CS2	0.809		
	CS3	0.733		
	CS4	0.677		
Second Order Construct				
MLS	PROB	0.960	0.842	0.955
	ASS	0.950		
	ACT	0.834		
	DIN	0.920		

TQM	SUP	0.853	0.781	0.934
	CI	0.915		
	SATO	0.944		
	LEA	0.818		
CA	FSA	0.853	0.698	0.874
	RSA	0.869		
	CS	0.781		

To strengthen the results of model validity, discriminant validity calculations are carried out based on the Fornell & Larkcer Criterion. While convergent validity can be because all dimensions have an AVE value > 0.50, it can be seen that the lowest value is 0.562, and the highest is 0.862. The Fornell & Larkcer Criterion analysis in this study is shown in the table presented in Table 4 below

*Tabel 4. Discriminant Validity Fornell & Larkcer Criterion*

	ACT	ASS	DIN	SUP	PROP	CS	FSA	RSA	SATO	CI	LEA
ACT	0.907										
ASS	0.758	0.872									
DIN	0.732	0.839	0.844								
SUP	0.749	0.757	0.737	0.837							
PROP	0.762	0.806	0.816	0.719	0.825						
CS	0.228	0.312	0.371	0.302	0.299	0.750					
FSA	0.493	0.511	0.478	0.558	0.543	0.466	0.928				
RSA	0.441	0.394	0.511	0.473	0.407	0.564	0.613	0.750			
SATO	0.616	0.703	0.751	0.736	0.699	0.422	0.638	0.709	0.889		
CI	0.679	0.737	0.775	0.702	0.739	0.473	0.572	0.548	0.816	0.927	
LEA	0.513	0.545	0.599	0.585	0.568	0.433	0.627	0.553	0.764	0.649	0.901

*Notes: Diagonal value (bold) is the square root of the AVE, off-diagonal is the correlation coefficient*

The numbers in the table above show that all values obtained on the left and below the diagonal numbers have a smaller magnitude than those listed on the table's diagonal line. Thus the test results using the Fornell & Larkcer discriminant validity criteria can show that all dimensions in this study are valid so that further hypothesis testing can be carried out

*Hypotesis Testing*

Hypothesis testing is done using the smartPLS analysis tool. This stage is carried out after testing the validity and reliability of all model variables obtained acceptable results; the following hypothesis test results are in Table 5.

*Tabel 5. Results of Hypothesis Testing on Model*

Hypothesis	Variable Path	Std. Estimate ( $\beta$ )	T-Value	CI	Conclusion
H <sub>1</sub> (+)	MLS → CA	0.548	5.340	0.680 - 0.710	Supported
H <sub>2</sub> (+)	MLS → TQM	0.840	20.829	0.757 - 0.872	Supported
H <sub>3</sub> (+)	TQM → CA	0.821	6.249	0.617 - 1.043	Supported
H <sub>4</sub>	MLS→ TQM→CA	0.689	5.710	0.525 - 0.931	Supported

*MLS= Muhammadiyah Leadership Style; TQM= Total Quality Management; CA=Competitive Advantage.*

*Hypothesis Testing of the Influence of Muhammadiyah Leadership Style on the Competitive Advantage of the Study Program*

The results of hypothesis testing are based on Table 5. show that the effect of Muhammadiyah’s Leadership Style on Competitive Advantage is 0.548. The magnitude of the effect is significant because the T-value is  $5.340 > 1.96$  ( $\alpha = 5\%$ ). The Confidence Interval (CI) in the first hypothesis test (H<sub>1</sub>) is between 0.680 - 0.710, which indicates that the influence of Muhammadiyah’s Leadership Style on Competitive Advantage is significant. These results mean that Muhammadiyah’s Leadership Style positively and significantly affects Competitive Advantage.

*Hypothesis Testing of the Influence of Muhammadiyah’s Leadership Style on Total Quality Management*

The hypothesis test results of the influence of Muhammadiyah’s Leadership Style on Total Quality Management amounted to 0.840. The magnitude of the effect is significant because the T-value is  $20.829 > 1.96$  ( $\alpha = 5\%$ ). The Confidence Interval (CI) in the second hypothesis test (H<sub>2</sub>) is between 0.757 - 0.872, indicating the magnitude of the influence of Muhammadiyah’s Leadership Style on Total Quality Management is significant. These results can be interpreted that the Muhammadiyah Leadership Style has a positive and significant effect on Total Quality Management.

*Hypothesis Testing of the Influence of Total Quality Management on Competitive Advantage.*

The third hypothesis of this study is to see the effect of Total Quality Management implementation on the Competitive Advantage of study programs. The results of hypothesis testing are based on Table 5.19. show that the effect of the Total Quality Management style on Competitive Advantage is 0.821. The magnitude of the effect is significant because the T-value is  $6.249 > 1.96$  ( $\alpha = 5\%$ ). The Confidence Interval (CI) in the third hypothesis test ( $H_3$ ) is between 0.617 - 1.043, indicating that the magnitude of the effect of Total Quality Management on Competitive Advantage is significant. These results mean that Total Quality Management positively and significantly affects Competitive Advantage.

*Hypothesis Testing Total Quality Management Mediate Muhammadiyah's Leadership Style*

Table 5 show that the mediation of Total Quality Management on Muhammadiyah's Leadership Style on Competitive Advantage is 0.689. The magnitude of the effect is significant because the T-value is  $5.710 > 1.96$  ( $\alpha = 5\%$ ). The Confidence Interval (CI) in the fourth hypothesis test ( $H_4$ ) is between 0.525 - 0.931, indicating that Total Quality Management as mediation of Muhammadiyah's Leadership Style on Competitive Advantage is significant. The mediating role of Total Quality Management is shown in Figure 2. The direct effect of Muhammadiyah's Leadership Style on Competitive Advantage is 0.515. When Total Quality Management entered the mediation role, the effect of Muhammadiyah's Leadership Style on Competitive Advantage became - 0.2103. These results indicate that the mediation of Total Quality Management is full mediation. This means that Total Quality Management also mediates the effect of Muhammadiyah Leadership Style on Muhammadiyah Leadership.

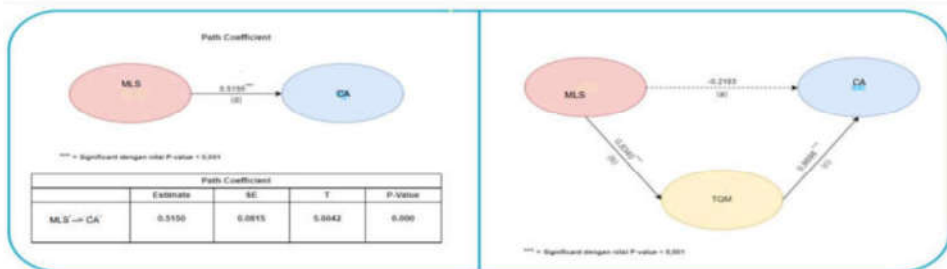


Figure 2. Mediation Research Model



## Discussion

### *The Influence of Muhammadiyah Leadership Style on Competitive Advantage*

This study shows that the Muhammadiyah Leadership Style carried out by the study program at the Muhammadiyah-'Aisyiyah College has a positive and significant effect directly on the competitive advantage of the study program. Prophetic traits (PROP) consist of Sidik or honesty, Tabligh can be interpreted as the ability to communicate well, Amanah means trustworthy, and Fathonah means intelligent. These traits are felt by lecturers to have been possessed by the head of the study program strongly.

Lecturers feel that the activities carried out in the study program have run well, led by the head of the study program. A strong organizational culture and close relationship between lecturers and the head of the study program is one of the efforts to communicate various activities routinely in the study program. Descriptive data on the intensity of meetings between lecturers and the head of the study program also support this. The ability of the head of the study program to initiate and mobilize active activities (ACT) in the study program is recognized by lecturers to have been carried out well. The role of the head of the study program encourages activities carried out by lecturers and study programs while maintaining cooperation and involving lecturers in making decisions. This shows that the activities in the study program are carried out collectively and collegially.

The head of the study program carries out his duties while still paying attention to and fulfilling the rules set by the university and other related external parties. The rapidly changing conditions of the external environment are anticipated by leadership that remains flexible in adapting and accepting new and dynamic things (DIN). The steps mentioned above are proven and show that the Muhammadiyah Leadership Style carried out by the head of the study program can produce a competitive advantage for the study program, resulting in excellent study program accreditation.

The research results are in line with the findings of Mursidi *et al.* (2017), which state that the character possessed by the leader plays a role in determining the strategic steps of the organization being led. Therefore, the head of the study program can also encourage the competitive advantage of his study program. Research conducted by Mahdi and Almsafir (2014) and Al-Zoubi (2012) previously supported this study's results, namely that leadership competence has a significant positive effect on competitive advantage. Hili *et al.* (2017) found that human capital and leadership significantly improve educational institutions' performance and competitive advantage. Therefore, the quality of policymakers in educational institutions is important.

### *The Impact of Muhammadiyah's Leadership Style on Total Quality Management*

This study shows that Muhammadiyah's Leadership Style (MLS) positively and significantly affects Total Quality Management (TQM). Lecturers assessed that the Muhammadiyah Leadership Style carried out by the head of the study program was able to encourage the implementation of quality management in the study program. This aligns with the transformative leadership found in K.H. Ahmad Dahlan from the establishment of Muhammadiyah until its development. It can be characterized by the attitude of charismatic leaders, role models, intellectual intelligence, and visionary thinking (Rasyid, 2018).

The implementation of TQM in educational institutions, such as study programs, is similar to the implementation in industry. The dimension of dynamic leadership (DIN) with indicators of obedience of the head of the study program to the rules and leaders above him, setting measurable targets, and adapting to changes and new rules can affect the implementation of TQM in educational activities organized by the study program. The head of the study program, who is active in carrying out his duties by involving lecturers in activities, is illustrated by the interaction between lecturers and the head of the study program, which is routinely carried out. Coordination and cooperation are carried out continuously involving leaders and subordinates, in this case, the head of the study program and lecturers, encouraging the emergence of a good and strong organizational culture. This study's results align with Zairi (1995), which states that the implementation of TQM requires leadership that can provide empowerment, recognition, direction, and development for others. The study is relevant to the results of research conducted by Kadir *et al.* (2010), namely that leaders with integrity will succeed in implementing TQM.

Nwabueze (2011) examined the effect of leadership traits on TQM implementation and found that leadership traits are critical to successful TQM implementation. Traditional leadership, such as planning, organizing, controlling, and directing, was more effective than charismatic, visionary, and other leaders. Bouranta (2020) also proved that transformational leadership affects TQM implementation. The positive impact of transformational leadership is effective in TQM implementation, such as process management, resource management, strategic planning, and training.

### *The Influence of Total Quality Management on Competitive Advantage*

Implementing Total Quality Management (TQM) has proven to have a positive and significant effect on competitive advantage. TQM in the field of education implemented by the study program is in the form of leadership support. These improvement processes are carried out regularly and measurably, carrying out academic activities according to existing rules and providing services to all study program stakeholders.

This study's results align with Powell (1995), who examines TQM as a potential source of sustainable competitive advantage. The researcher states that an open culture, employee empowerment, and commitment from leaders can generate profits. However, Powell has argued that TQM practices such as quality training, process improvement, and benchmarking do not provide a competitive advantage. El Shenawy *et al.* (2006) findings also support the effect of TQM on competitive advantage. Researchers concluded that effective implementation of TQM provides a competitive advantage, but leaders must analyze the organizational environment before determining its implementation. Researchers also found that TQM implementation improves company performance. If leaders can get employees interested in their careers through motivation and encouragement, they no longer need to be overly controlling and supervising. Companies that want to implement TQM, are important to know the obstacles that their organizations face first.

### *The mediating role of Total Quality Management in the relationship between Muhammadiyah Leadership Style and Competitive Advantage*

This study shows Total Quality Management as mediation in the relationship between Muhammadiyah's Leadership Style and Competitive Advantage with significant results and by the hypothesis built. The mediating role of Total Quality Management is full or full mediation. This study also found that in the object of study programs at Muhammadiyah and 'Aisyiyah universities, there may be other styles of leadership that must be juxtaposed. The existence of other leadership styles from the head of the study program will encourage the emergence of competitive advantages in the study program. This can be obtained from the results of data analysis, where the influence of Muhammadiyah's Leadership Style on the heads of study programs will be stronger when there is an implementation of Total Quality Management (TQM) in the field of education.

## **Conclusion**

Based on the results of this study, the Muhammadiyah Leadership Style can, directly and indirectly, achieve a competitive advantage, treated by providing the principle of implementing Total Quality Management because the implementation of total quality management in higher education has proven to be able to bring Muhammadiyah-'Aisyiyah universities to achieve competitive advantage. Continuous improvement in the study program is the strongest implementation of TQM in education, which can give the study program a competitive advantage. Muhammadiyah's Leadership Style has a strong influence, proven when only Muhammadiyah's Leadership Style, mediated by TQM, still has an effect. However, what is interesting is that the influence changes direction. The leadership style carried out by organizational leaders is believed to influence the emergence of

organizational competitive advantage. For this reason, the next step that needs to be done is to see the results when Total Quality Management moderates the Muhammadiyah Leadership Style to competitive advantage. This can be an opportunity for further research.

### *Limitation and Suggestion*

The research object was limited to the study programs of three Muhammadiyah-’Aisyiyah (PTMA) universities in the Special Region of Yogyakarta (DIY). Many study programs within PTMA are located in various parts of Indonesia and abroad. The diversity of the regions where these universities are located makes it possible to develop things that have yet to be researched to get more results. Then the respondents in this study were limited to study program lecturers. Respondents’ answers have yet to be able to describe the competitive advantage of their study program through the implementation of TQM more comprehensively. Information from peers and the head of the study program will be able to produce more complete data.

Muhammadiyah’s Leadership Style is one of the factors that can encourage the emergence of an organization’s competitive advantage. Suggestions for the future, study programs at Muhammadiyah Universities must achieve a competitive advantage to win the competition and can become partners with other organizations. Referring to the results of this study and several other studies, the head of the study program must have a leadership style that is in line with Muhammadiyah guidelines. This research provides an overview of the importance of leadership styles carried out by their respective conditions for universities. It considers each university’s unique conditions to realize its organization’s competitive advantage. For academics, future studies on leadership styles need to consider other objects of study in different study programs by considering accreditation achievements to provide broader insights into the development of leadership styles, especially leadership styles in study programs under the Muhammadiyah association.

### *References*

- Ahire, S. L., Waller, M. A., & Golhar, D. Y. (1996). Quality Management in TQM versus Non-TQM Firms: An Empirical Investigation. *International Journal of Quality & Reliability Management*, 13(8), 827; DOI: 10.1108/02656719610128466.
- Almheiri, M. M. O., Romle, A. R., dan Omar, R. (2022). Leadership Styles and Competitive Advantage: Does Employee Creativity Mediate The Relationship, *South Asian Journal of Social Sciences and Humanities*, 3 (1), 106-124; DOI:10.48165/sajssh.2022.3108.

- Amaya, Norbey, -Torres, César Augusto Bernal, Yoni W. Nicolás-Rojas, Pando-Ezcurra, Tamara T. , (2022), Role of internal resources on the competitive advantage building in a knowledge-intensive organisation in an emerging market, *VINE Journal of Information and Knowledge Management Systems*, Vol. ahead-of-print No. ahead-of-print, DOI:10.1108/VJKMS-01-2022-0029.
- Al Owais, T. M. (2019). Influence of Transformational Leadership Style on Global Competitive Advantage through Innovation and Knowledge. *Modern Applied Science*, 13(1), 183-191; DOI: 10.5539/mas.v13n1p183.
- Al-Zoubi, Majed Radi. (2012). Leadership Competencies and Competitive Advantage. *European Journal of Business and Management*, 4 (7). ISSN 2222-1905 (Paper) ISSN 2222-2839 (Online).
- Anning-Dorson, T. (2016). Organisational Culture and Leadership as Mediators of Service Innovation and Firm Competitiveness: A Study of An Emerging Economy. *International Journal of Innovation Management*, 20(7), DOI: 10.1142/S136391961650064X.
- Avolio, B.J. and Gardner, W.L., (2005). Authentic Leadership Development: Getting to the Root of Positive Forms of Leadership. *The Leadership Quarterly*, 16(3), 315-338; DOI: 10.1016/j.leaqua.2005.03.001.
- Barney, J.B. (1991). Firm Resources and Sustainable Competitive Advantage. *Journal of Management*, 17 (1), 99 – 120.; DOI: 10.1177/014920639101700108.
- Black, S. A. 2015. Qualifies of Effective Leadership in Higher Education. *Open Journal Leadership*, 2(4), 54-66.; DOI: 10.4236/oji.2015.42006.
- Bouranta, Nancy. (2020). Does Transformational Leadership Influence TQM Practices? A Comparison Analysis between Manufacturing and Service Firms. *TQM Journal*, 33 (3), 706-728; DOI: 10.1108/TQM-12-2019-0296.
- Bryson, J. M., Ackermann, F., & Eden, C. (2007). Putting the Resource-Based View of Strategy and Distinctive Competencies to Work in Public Organizations. *Public Administration Review*, 67(4), 702-717.; DOI: 10.1111/j.1540-6210.2007.00754.x.
- Budiharto, S., & Himam, F. (2006). Konstruksi Teoritis dan Pengukuran Kepemimpinan Profetik. *Jurnal Psikologi*, 33(2), 133-145.;DOI: 10.22146/jpsi.7081.
- Chase, Richard B., Nicholas J. Aquilano, F. Robert Jacobs, (2005). *Operation Management for Competitive Advantage*, Eleventh Edition, McGraw-Hill Inc. USA.
- Cho, Y. S., Jung, J. Y., & Linderman, K. (2017). The QM Evolution: Behavioral Quality Management as a Firm's Strategic Resource. *International Journal of Production Economics*, 191, 233-249.; DOI: 10.1016/j.ijpe.2017.05.002.
- Corredor, P. and Goni, S. (2011). TQM and Performance: Is the Relationship so Obvious? *Journal of Business Research*, 64 (8), 830-838.; DOI: 10.1016/j.jbsres.2010.10002.
- Das, A., Kumar, V., & Kumar, U. 2011. The Role of Leadership Competencies for Implementing TQM: An Empirical Study in Thai Manufacturing Industry. *International Journal of Quality & Reliability Management*, 28(2), 195-219; DOI: 10.1108/026567111111101755.
- David, Fred R & David, Forest R. (2017). *Strategic Management: A Competitive Advantage Approach, Concepts and Cases.*, 16th Edition, ISBN 978-0-13-416784-8, Pearson Education.

- Deming, W. Edwards. 1986. *Out of the Crisis*. Cambridge, Cambridge University Press. ISBN: 978026541152
- Douglas, T.J. & Judge, W.Q. (2001). Total Quality Management Implementation and Competitive Advantage: the Role of Structural Control and Exploration. *Academy of Management Journal*, 44 (1), pp. 158-169.;DOI: 10.2307/3069343.
- El Shenawy, E., Baker, T. and Lemak, D.J. (2007). A Meta-Analysis of the Effect of TQM on Competitive Advantage. *International Journal of Quality & Reliability Management*, 24(5),442-471; DOI: 10.1108/026567107148349.
- Elshaer, Ibrahim A., Augustyn, Marcjanna M. (2016). Direct Effects of Quality Management on Competitive Advantage. *International Journal of Quality & Reliability Management*, 33 (9). 1286-1310; DOI: 10.1108/ijqrm-07-2014-0086.
- El Syam, R. S. (2017). Prophetic Leadership: The Leadership Model of Prophet Muhammad in Political Relation of Social-Ummah. *Jurnal Pendidikan Islam*, 6(2), 371-396; DOI: 10.14421/jpi.2017.62.371-396.
- Fornell, C., & Larcker, F.D. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39–50.; DOI: 10.2307/3151312.
- Han, S. B., Chen, S. K., & Ebrahimpour, M. (2007). The Impact of ISO 9000 on TQM and Business Performance. *The Journal of Business and Economic Studies*, 13(2), 1-23.
- Hayes, R., Dassen, R., Schilder, A. and Wallage, P. (2005). *Principles of Auditors: An Introduction to International Standards on Auditing*. Pearson Education Limited: Edinburgh. ISBN: 0 273 68410 8.
- Hendricks, K. B., & Singhal, V. R. (1997). Does Implementing an Effective TQM Program Actually Improve Operating Performance? Empirical Evidence from Firms that Have Won Quality Awards. *Management Science*, 43(9), 1258-1274.; DOI: 10.1287/mnsc.43.9.1258.
- Hili, P., Gani, M., Hamzah, N., & Rahman, Z. (2017). Effect of Human Capital and Leadership on Institutions' Performance and Competitive Advantages. *IRA-International Journal of Management & Social Sciences* (ISSN 2455-2267), 7(3), 479-488; DOI: 10.21013/jmss.v7.n3.p9.
- Kadir, Mumtaz, BA., Azman, Nurzaini., Ibrahim., M.Sani. (2010). Influence of Leadership Integrityor Total Quality Managment in MARA Higher education Instituion. *Akademika* 78 (Jan-April), 67-75.
- Kaynak, H. (2003). The Relationship between Total Quality Management Practices and Their Effects on Firm Performance. *Journal of Operations Management*, 21, 405-435; DOI:10.1016/S0272-6963(03)00004-4.
- Kaynak, H., & Hartley, J. L. (2008). A Replication and Extension of Quality Management into the Supply Chain. *Journal of Operations Management*, 26(4), 468-489; DOI: 10.1016/j.jom.2007.06.002.
- Khan, Shahzad. & Anjum, Muhammad Asif. (2013). Role of Leadership Style and Its Impact on Getting Competitive Advantage, *European Journal of Applied Sciences*, 5(2):53-61.; DOI: 10.5829/idosi.ejas.2013.5.2.1114.
- Kumar, V., & Sharma, R. R. K. (2017). Relating Management Problem-Solving Styles of Leaders to TQM Focus: An Empirical Study. *The TQM Journal*, 29(2), 218-239; DOI: 10.1108/TQM-01-2016-0002.

- Mainardes, E. W., Ferreira, J. M., & Tontini, G. (2011). Creating A Competitive Advantage in Higher Education Institutions: Proposal and Test of A Conceptual Model. *International Journal of Management in Education*, 5(2-3), 145-168; DOI: 10.1504/IJMIE.2011.039482.
- Memon, M. Aslam, Mangi, Riaz Ahmed, dan Rohra, Chandan Lal, (2009). Human Capital a Source of Competitive Advantage “Ideas for Strategic Leadership, Australian Journal of Basic and Applied Sciences, 3(4): 4182-4189, ISSN 1991-8178.
- Mursidi, M. (2018). *Leadership Implementation in Muhammadiyah University: A Phenomenology Study at University of Muhammadiyah Malang*, Advances in Social Science, Education and Humanities Research, volume 231, 5th International Conference on Community Development (AMCA 2018), DOI: 10.2991/amca-18.2018.183.
- Mursidi, Armanu, Setiawan, Margono, Aisjah, Siti. (2017). Prophetic, Assosiative, Activist, Straght and Dynamic Leadership, A Phenomology Study at University of Muhammadiyah Malang, Indonesia. *Journal of Resources Development and Management*, Vol 29, pp 53-57, An International Peer-reviewed Journal Vol.29,ISSN 2422-8397.
- Nadarajah, Devika, Latifah, Sharifah Syed Abdul Kadir. (2014). A Review of The Importance of Business Process Management in Achieving Sustainable Competitive Advantage. *The TQM Journal*, 26(5), 522-531; DOI: 10.1108/tqm-01-2013-0008.
- Nashir, H. (2010). *Muhammadiyah Gerakan Pembaruan*. Suara Muhammadiyah. ISBN 978-979-3708-76-8.
- Nunnally, J.C. and Bernstein, I.H. (1994) The Assessment of Reliability. *Psychometric Theory*, 3, 248-292, New York : McGraw Hill.
- Nwabueze, Uche. (2011). Implementing TQM in Healthcare: The Critical Leadership Traits. *Total Quality Management & Business Excellence*, 22(3), 331-343; DOI: 10.1080/14783363.2010.532338.
- Pasha, Mustafa Kamal & Darban, Ahmad Adaby. (2000). *Muhammadiyah as Islamic Movement: in Perspektif Sejarah dan Ideologi*, LPPI UMY, Yogyakarta, ISBN: 9789798702068.
- Porter, Michael E. (1985). Technology and Competitive Advantage. *Journal of Business Strategy*, 5(3), 60-78, DOI: 10.1108/eb039075.
- Porter, Michael E. (1990). The Competitive Advantage of Nations. *Harvard Business Review*, March-April 1990.
- Powell, T.C. (1995). Total Quality Management as Competitive Advantage: A Review and Empirical Study. *Strategic Management Journal*, 16 (1), 15-37.; DOI: 10.1002/smj.4250160105.
- Rasyid, R. (2018). Kepemimpinan Transformatif KH Ahmad Dahlan di Muhammadiyah. *Humanika, Kajian Ilmiah Mata Kuliah Umum*, 18(1), 50-58; DOI:10.21831/hum.v18i1.23128.
- Richards, D. (2012). Leadership for Learning in Higher Education: The Student Perspective. *Educational Management Administration & Leadership*, 40(1), 84-108; DOI: 10.1177/1741143211420617.
- Rodriguez, Janette, Valenzuela, Madonna, Ayuyao, Nunilon. 2018. TQM Paradigm for Higher Education in the Philippines. *Quality Assurance in Education*, 26 (1), 101-114, DOI: 10.1108/QAE-12-2015-0048.

- Russell, R. & Taylor, B. 2004. *Operations Management*. 111 River Street, Hoboken: John Wiley & Sons.
- Sallis, Edward. 2010. *Total Quality Management in Education*, Terjemahan Ahmad Ali Riyadi dan Fahrurrozi, IRCiSoD, Cet IX, Jogjakarta, ISBN: 978-602-0806-69-3.
- Samsir, Samsir. (2018). The effect of leadership orientation on innovation and its relationship with competitive advantages of small and medium enterprises in Indonesia, *International Journal of Law dan Manajemen*, 60 (2), 530-542; DOI: 10.1108/IJLMA-01-2017-0005.
- Setiawan, Farid, Kuncoro, Heru, (2016), Collective-Collegial: Leadership Model of Muhammadiyah Education, Proceedings of the 28th International Business Information Management Association Conference, ISBN: 978-0-9860419-8-3.
- Sila, Ismail. (2006). Examining The Effects of Contextual Factors on TQM and Performance through The Lens of Organizational Theories: An Empirical Study. *Journal of Operations Management*, 25 (1), 83-109; DOI: 10.1016/j.jom.2006.02.003.
- Solimun. (2010). *Structural Equation Modeling LISREL dan AMOS*. Malang: Fakultas MIPA University Brawijaya.
- Sriwidadi, T, Arief, M, Prabowo, H, Muqorrobin AM. (2016). Sustainable Competitive Advantage in Private Higher Education Institutions in Indonesia. *Int. Journal of Economics and Management*, 10(1), 33-47. ISSN 1823-836X.
- Sutanto, Aftoni, Hadiwidjojo, Djumilah, Solimun, Djumahir. (2015). The Effect of the Implementation of TQM on the Satisfaction of Students and its Impact on The Performance of Management Departement. *Scient International*, 26(6), 6297-6305, ISSN 1013-5316.
- Syafarudin, A. (2016). Strategy of Leadership and Innovation in Improving Company Performance Against Competitive Advantage a Case Study of PT. Pegadaian (ltd) Indonesia. *International Journal of Economics, Commerce and Management*, 4(6), 471-482; ISSN 2348-0386.
- Wahyudin, Nanang. (2015). Analisis Faktor-Faktor yang Mempengaruhi Keunggulan Bersaing untuk Meningkatkan Kinerja Perguruan Tinggi Swasta (PTS) pada Sekolah Tinggi dan Akademi di Semarang, *Holistic Journal of Management Research*, 3(2), 75-90; DOI: 10.13140/RG.2.2.23258.64961.
- Zairi, Mohamed. (1995). Total Quality Education for Superior Performance. *Training for Quality*, 3(1), 29-35; DOI: 10.1108/09684879510082238.