The influence of the VUCA era on the competitiveness of Islamic educational institutions

Sofyan Rofi[1]* (ID), Dahani Kusumawati[2] (ID), Bahar Agus Setiawan[1] (ID)

[1]Universitas Muhammadiyah Jember, Jember, Jawa Timur, Indonesia
[2]Universitas Bondowoso, Bondowoso, Jember, Indonesia

*Corresponding author; Email: sofyan.rofi@unmuhjember.ac.id

Abstract

Historically, Islamic educational institutions in Indonesia were often regarded as second-class education. However, with the development of Islamic schools in recent years, the existence of Islamic educational institutions has become increasingly popular, as evidenced by the establishment of institutions such as Muhammadiyah Boarding School, Al-Mahira, and International Islamic Boarding School (IIBS), which conceptually integrate religious knowledge with science. In the current era, commonly referred to as the VUCA era (Volatility, Uncertainty, Complexity, and Ambiguity), there is a growing need for educational institutions that demonstrate accountability in forming and educating students comprehensively. The purpose of this study is to examine the influence of VUCA on the competitiveness of Islamic educational institutions. Using a quantitative approach, with a sample consisting of 152 students from SMA Muhammadiyah 3 Jember. The research instrument uses a questionnaire, with the VUCA and Islamic school competitiveness variables each with fifteen questions. The results indicate that the influence of VUCA challenges on the existence of Islamic educational institutions is reflected in an R^2 value of 0.325. The conclusion of this study confirms that VUCA has a significant influence on the existence and competitiveness of Islamic educational institutions.

Keywords: VUCA, competitiveness, Islamic educational institutions, Muhammadiyah

1.0 Introduction

Islamic educational institutions in Indonesia have a long history from their inception and existence until now. The terms pesantren and madrasah are two terms that are very closely associated with Islamic educational institutions (Susilo & Wulansari, 2020; Sandiko, 2021; Sofyan, 2022). The character of pesantren and madrasah before modernization gave a less positive or stereotypical impression, seen as educational institutions that were outdated and traditional, ancient connotations, dualism and dichotomy compared to public schools (Jalaludin, 2020; Busahdiar, 2016), thus viewing pesantren and madrasah as "second class" educational institutions, which resulted in minimal interest in pursuing education at these institutions (Rahman & Akbar, 2021).

Along with the modernization movement of Islamic boarding schools and madrasas, the stereotype began to fade by itself. The process of evolution of Islamic boarding schools and madrasas into modern Islamic educational institutions is marked by various changes in the management and administration systems. Changes and updates to the curriculum, adding general scientific content to learning, using modern learning models, synergizing with the school system, teaching staff, and infrastructure facilities (Nazlianto, 2016; Nurhasnawati, 2015; Bashori, 2017; Amir, 2020; Ulum, 2020; Mukri, 2016).

It is inevitable for Islamic educational institutions to make changes and updates to Islamic educational institutions, massively and comprehensively, so that they must be able to compete with other educational institutions, continue to exist and be able to provide complete educational services so that they can produce graduates to prepare the golden generation of Indonesia. The development of Islamic educational institutions today has a very encouraging track record both in terms of quality and quantity institutionally. In terms of quantity, the establishment of new Islamic educational institutions shows that public demand for quality educational institutions/organizations still has a wide open market share.

The emergence of Islamic educational institutions such as MAN Insan Cendikia, MAN Plus, Muhammadiyah Boarding School (MBS), Islamic boarding schools muaddalah, and integrated Islamic schools (IT) is a concrete form of renewal in the Islamic boarding school and madrasa education system. The pattern of change constructed by Islamic educational institutions by accommodating general knowledge and modern management in management, on the other hand, while maintaining the tradition of Islamic knowledge, is a very strong attraction in legitimizing its existence in society.

The existence of Islamic educational institutions with these forms and models cannot be separated from efforts to answer the challenges of the era of disruption marked by the industrial revolution 4.0 and society 5.0 with the phenomena of volatility, uncertainty, complexity, and ambiguity (VUCA). An era where changes occur rapidly and massively, so that they are able to construct a new world order in all fields, including the world of education (Heriyawati, 2019). VUCA as a characteristic and feature of the era of disruption, must be understood in a comprehensive and contextual manner by Islamic educational institutions, so that they can maintain their existence sustainably.

1.1. Brief Concept of VUCA

VUCA as a whole reflects the dimensions of challenges and obstacles, which must be addressed and solutions sought, so that the future of Islamic educational institutions can be maintained. Observing the very complex characteristics of VUCA, one definite step that can be taken is to improve and develop quality assurance through a quality assurance system for managing Islamic educational institutions (Ping & MengMeng, 2020). There are at least five components that must be realized in realizing quality assurance, including reliability, assurance, tangibility, empathy, and responsiveness (Hermiliah et al., 2020; Nurdin, 2019). On the other hand, with quality assurance, Islamic educational institutions can realize customer satisfaction (Setiawan, 2018) and can increase their own electability (Setiawan et al., 2020).

The quality assurance process in Islamic educational institutions should not be understood partially, but must be comprehensive and complete. This fact cannot be separated from the field of school resources which encompasses all the resources available in the school including humans, infrastructure, finances, and information (Junaedi, 2018). The ability to think critically, creatively, and innovatively in the development and management of resources are breakthroughs that can be made by Islamic educational institutions in facing VUCA.

In short, the ability to adapt and the attitude of flexibility of Islamic educational institutions will be key to problem-solving in facing VUCA. The emergence of VUCA Prime is a breath of fresh air for Islamic educational institutions in managing the changes and innovations that will be implemented. Conceptually, VUCA Prime has four aspects, namely vision, understanding, clarity, and agility (Bartolomeo, 2019; O'Shea, 2017; Çiçeklioğlu, 2020). Based on this concept, the description of VUCA Prime as the antithesis of VUCA can be illustrated as follows.
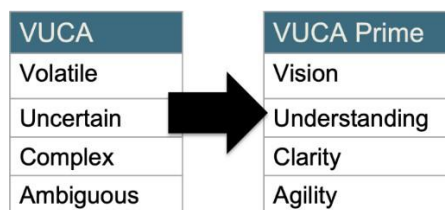

Figure 1. VUCA vs VUCA Prime (Felton, 2020)

Based on the image above, the sustainability of the future of Islamic educational institutions must be addressed with four aspects of VUCA Prime as the antithesis of VUCA, which include vision, understanding, clarity, and agility. The VUCA Prime aspect related to Islamic educational institutions can be linked to the leadership dimension of the institution/principal, understanding is related to the mindset of human resources, clarity as the antithesis of complexity, is related to the activities of effective and efficient educational institutions, and agility, agility, and flexibility in responding to changes from internal and external schools such as parents and students.

2.0. Literature Review

One example of the fact of change in the era of disruption with the VUCA identity, in the aspect of implementing learning, is marked by changes in the role of teachers. Before the complexity of VUCA, the role of teachers was dominant, positioned as learning material providers, facilitators, inspirers and figures who were able to motivate students in learning (Nurani, 2021). This context repositions the role of students from a passive nature towards active learners (Chrismastianto & Wulanata, 2020; Lubis, 2019). In line with the influence of VUCA, the orientation of education not only touches on the cognitive and intellectual aspects of nature, but how to develop students' character, so that they have conformity with moral values in the social realm of community life (Sofiasyari et al., 2019). In short, adaptability and flexibility in dealing with VUCA have given rise to many changes in the context of implementing education and teaching in Islamic educational institutions.

Several studies have examined Islamic educational institutions with the VUCA phenomenon, such as research entitled "Strategy to Strengthen the Existence of Islamic Education in the Industrial Era 4.0, and Society 5.0. This research examines the problems faced by Islamic education, and solutions and ways out in answering these problems (Aziz, 2022). The results of the research entitled "Islamic Education in the Era of the Industrial Revolution 4.0" outline ways out in answering challenges with several reforms including management, strengthening leadership, and policy reform (Priyanto, 2020). Research that is almost the same in title, but has a different focus, Abdullah's research explains that Islamic education needs to transform with the mainstream on tarbiyyah, ta'lim, and ta'dib, as well as integrated education (Abdullah, 2020)

3.0 Methodology

This study uses a quantitative approach, with a case study. The research location survey at SMA Muhammadiyah 3 Jember. The research instrument uses a questionnaire, with two variables VUCA and school competitiveness, and option answers use likert scale containing 15 questions on each research variable. The sample used was 152 students from grades XI and XII. Data analysis used a simple regression model. The level of significance of the research used was 0.05. Testing the research hypothesis using the t-test.

4.0 Result and Discussion

Based on the results of the questionnaire that has been collected, the implementation of this research took place at SMA Muhammadiyah 3 Jember, with a total population of students in grades XI and XII of SMA Muhammadiyah 3 Jember. As for the research sample with a significance level of 5 percent with the Slovin formula, there were 152 students. The sample distribution can be shown in the following table.

Table 1: Sample Distribution

No	Class	Number of Student	Percentage	Number of Samples
1	XI	131	51,3	78
2	XII	124	48,6	74
	Amount	255	100	152

Based on the formulation of the hypothesis, related to the influence of VUCA on the existence of Islamic educational institutions, the test results are as follows.

Table 2: Changes in Respondent Distribution by Class

No	Class	Beginning	Change	%
1	XI	78	69	52,6
2	XII	74	62	47,3
	Amount		131	100

Based on the formulation of the hypothesis, regarding the influence of VUCA on the existence of Islamic educational institutions, the test results are as follows.

Table 3: Coefficients Result

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	21.032	2.852		7.376	.000
	VUCA	.541	.068	.574	7.966	.000

a. Dependent Variable: Competitiveness

The results of data processing for the *f-test*, the result is a sig value of 0.000 < 0.05 as a significance level value, so it can be concluded that there is a simultaneous influence of the VUCA variable on the competitiveness variable. The following are the output results of the *f-test* data processing.

Table 4: ANOVA Result

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1435.792	1	1435.792	63.453	.000[b]
	Residual	2918.956	129	22.628		
	Total	4354.748	130			

a. Dependent Variable: Competitiveness
b. Predictors: (Constant), VUCA

The magnitude of the influence of the VUCA variable on the competitiveness variable is 0.325. These results indicate that the ability of the independent variable to influence the dependent variable is 32.5 percent. The following are the output results of the test value of the influence of the independent variable on the dependent variable.

The relationship between VUCA and the existence of Islamic educational institutions is very closely related, with a probability scale value < 0,05, which means it is significant. This fact cannot be separated from the fact that Islamic educational institutions must be able to synergize and align themselves with the development of the modern world in the era of disruption. Change, creativity, and innovation in the management of Islamic educational institutions will enable them to maintain their existence as a manifestation of the competitiveness they have.

In the context of the VUCA (Volatility, Uncertainty, Complexity and Ambiguity) era, rapid and unpredictable changes require Islamic educational institutions to have a high level of adaptability (Bennett & Lemoine, 2014). Change is inevitable, whether in curriculum design, teaching methods, or institutional governance. Institutions that are able to respond proactively to change will be better prepared to face social and technological dynamics and the ever-evolving needs of students (Hargreaves & Shirley, 2012. Additionally, creativity plays an important role in dealing with uncertainty and complexity. Creativity in

management allows Islamic educational institutions to design learning strategies that are contextual, interesting and relevant to answer contemporary challenges without ignoring Islamic values (Azra, 2015). This can be realized through the development of superior programs, the integration of religious knowledge and science, as well as the use of digital technology in the educational process.

Meanwhile, innovation is the key to overcoming the ambiguity that characterizes modern education. Innovation encourages Islamic educational institutions to continue to improve their management systems, improve the quality of human resources, and create competitive and sustainable education models (Drunker, 2014). Through continuous innovation, Islamic educational institutions are not only able to maintain their existence but also strengthen their competitiveness amidst global competition. Therefore, implementing change, creativity and innovation in the management of Islamic educational institutions is a relevant and strategic approach in maintaining the existence of institutions and strengthening competitiveness in responding to the challenges of the VUCA era (Fullan, 2016).

Schools, especially Islamic educational institutions, including Islamic boarding schools, must be able to anticipate the rapid changes in this era of disruption in the form of VUCA with the attitude of the VUCA prime model. This cannot be separated from the dimension of existence itself, as a dynamic process, something that becomes or exists. In the context of the VUCA era, VUCA Prime which consists of Vision, Understanding, Clarity, and Agility offers a strategic leadership framework that enables Islamic educational institutions to maintain their existence by turning volatility, uncertainty, complexity, and ambiguity into growth opportunities; a clear vision guides institutions to set long-term goals and direction, deep understanding helps stakeholders align on shared challenges and solutions, clarity simplifies complex decision-making processes, and agility drives rapid adaptation to educational, social, and technological changes (Hasanah, 2024).

Research shows that applying these principles increases leadership effectiveness, supports adaptive governance, and strengthens institutional resilience in turbulent educational contexts, thereby helping Islamic educational institutions remain relevant and competitive while maintaining their core values. By prioritizing a VUCA Prime strategy, education leaders can build a strong framework to address uncertainty, strengthen institutional identity, and ensure that Islamic education continues to make meaningful contributions to societal development and global education trends. This is the same as the word exsistere, which means to come out of, go beyond or overcome. So existence is not rigid and stopped, but flexible or elastic and experiences development or vice versa decline, depending on the ability to actualize the potentials within it (Minciu, et al., 2025, Komaraih, et.al)

One of the steps that can be taken to maintain the existence of Islamic educational institutions as a manifestation of the school's competitiveness is the quality of educational services provided to students and parents. This is in line with VUCA as a whole, reflecting the dimensions of challenges and obstacles, which must be addressed and solutions sought, so that the future of Islamic educational institutions can be maintained. Observing the very complex characteristics of VUCA, one definite step that can be taken is to improve and develop quality assurance through a quality assurance system for managing Islamic educational institutions (Ping & MengMeng, 2020).

High service quality enables organizations to navigate competition and complexity by consistently meeting stakeholder expectations, fostering trust, and increasing adaptability through responsive and reliable service (Atanassova, 2025). In a VUCA environment, providing services best contributes to organizational resilience by enabling institutions to quickly identify problems, adapt processes, and maintain operational performance in uncertain conditions (Barbier & Tengeh, 2022). Therefore, a focus on high-quality services helps educational institutions remain relevant and responsive to dynamic demands, supporting long-term desirability and stakeholder satisfaction. satisfaction is the key to building the commitment of all school members in encouraging the existence of the Islamic school institution.

There are at least five components that must be realized in realizing quality assurance, including reliability, assurance, tangibility, empathy, and responsiveness (Hermiliah et al., 2020; Nurdin, 2019). On the

other hand, with quality assurance, Islamic educational institutions can realize customer satisfaction (Setiawan, 2018), and can increase their own electability (Setiawan et al., 2020).

To ensure Islamic educational institutions thrive within a VUCA environment, quality assurance must be viewed as a holistic endeavor rather than a fragmented one. This comprehensive approach is deeply intertwined with the strategic management of school resources—spanning human capital, infrastructure, finance, and information (Junaedi, 2018). By fostering critical thinking, creativity, and innovation, these institutions can achieve the breakthroughs necessary for modern resource development. Ultimately, the capacity for organizational agility and proactive adaptation serves as the primary mechanism for navigating contemporary challenges.

Furthermore, in order to maintain existence with competitive strength, educational institutions must be able to change the challenges of VUCA with its antithesis, namely VUCA Prime. Schools must be able to implement VUCA Prime comprehensively. The Vision element in VUCA prime as the antithesis of volatility, schools must be able to build a vision that is in accordance with the challenges that students will face. Vision is a picture of ideals that are embedded in school programs or activities. Vision plays an important role in constructing a blueprint for the direction of school development (Anisa & Rahmatullah, 2020; Calam & Qurniati, 2016).

In the VUCA era, the school vision functions as a strategic compass that guides all institutional policies and actions, so that all stakeholders have a clear direction in facing uncertainty and the complexity of change (Aulia et al., 2025). A strong vision helps schools set long-term priorities, strengthen institutional identity, and ensure that all efforts to develop educational quality remain consistent even though external conditions change rapidly (Rahayu et al., 2025). Thus, the formulation and internalization of an effective vision is an important foundation for schools to remain adaptive, innovative and relevant in an unstable and challenging educational environment (Aulia et al., 2025; Rahayu et al., 2025).

The steps that schools must take to face the challenges of uncertainty with understanding are concrete strategies. Understanding what customers want, in the context of schools are students, parents and stakeholders, is a real form of effort to maintain the existence and competitiveness of schools. The impact of the understanding that schools can have will affect the militancy and commitment of all parties related to the school (Setiawan, 2018). On the other hand, a strong understanding, especially from top management, namely the principal, will have a real impact on the level of school electability with the synergy between the vision and understanding contained in school programs and activities that can be felt by school customers (Setiawan et al., 2020; Syamsir et.al., 2025).

The challenges of complexity and facing them with clarity, in accordance with VUCA Prime conceptual mapping, require schools to move quickly and precisely so that they can find solutions to problems that must be realized. Building a strong network (Zamani & Soudane, 2022), being creative and innovative in developing schools are the right steps that schools can take. Strengthening school culture with values based on excellence will make schools an increasingly strong institution. The resonance effect will affect the increasing level of public trust in schools (Widjaja, 2020).

In the context of ambiguity, schools must be able to align with the elements of agility. The speed in recovering and learning from several failures experienced by schools will produce a more comprehensive and complete strategy. Based on the philosophy of try hard, fail fast and learn, this is something that must be done, so that schools can quickly and precisely find problem-solving (Hanafi et al., 2022).

Referring to the description above, schools in maintaining the existence of their competitiveness must be able to implement VUCA Prime comprehensively, not only partially, but all of these components must be implemented carefully, quickly and precisely. In short, Vuca Prime, as the antithesis of VUCA, can be described as a long process, where vision is a destination or goal, understanding is a map, clarity is the direction of the path or route that must be taken, and agility is a strategy to answer the challenges factually faced by schools.

5.0 Conclusion

Based on the formulation of the research hypothesis, it can be concluded that the influence of VUCA on the existence of the competitiveness of Islamic educational institutions is 0.325 at the R2 value. To face VUCA challenges, schools must implement VUCA Prime to maintain their competitiveness. This is related to the problems faced by Islamic schools in maintaining their existence; they must be able to build quality schools that are able to have an impact on realizing satisfaction for all human resources in the school. The school's ability to build this quality requires a clear vision as the basis for the school's strategic plan to improve its competitiveness and quality.

References

Abdullah, A. H. bin. (2020). Pendidikan Islam Dalam Era Revolusi Industri 4.0. *TAMADDUN*, *21*(1). https://doi.org/10.30587/tamaddun.v21i1.1384

Amir, S. (2020). Studi Implementasi Modernisasi Pendidikan di Pondok Pesantren. *Manhajuna: Jurnal Pendidikan Agama Islam Pascasarjana STAI Syamsul'Ulum*, *1*(1).

Anisa, C., & Rahmatullah, R. (2020). Visi Dan Misi Menurut Fred R. David Perspektif Pendidikan Islam. *Journal EVALUASI*, *4*(1). https://doi.org/10.32478/evaluasi.v4i1.356

Atanassova, I. (2025). Managing the VUCA environment: The dynamic role of organizational learning and strategic agility. *Journal of Business Research, 150*, 112345.

Aulia, Y., Ose, F., Idris, I., Rusdinal, R., & Anisah, A. (2025). *Pentingnya merumuskan visi dan misi pada lembaga pendidikan*. Jurnal Kepemimpinan dan Pengurusan Sekolah, 9(1), 58–67. https://doi.org/10.34125/jkps.v9i1.428

Aziz, A. (2022). Strategi Memperkuat Eksistensi Pendidikan Islam di Era Industri 4.0 dan Society 5.0. *Jurnal Pendidikan Dan Kewirausahaan*, *11*(1). https://doi.org/10.47668/pkwu.v11i1.597

Azra, A. (2015). *Pendidikan Islam: Tradisi dan modernisasi di tengah tantangan milenium III*. Kencana.

Barbier, L., & Tengeh, R. K. (2022). Enhancing public service delivery in a VUCA environment: A literature review. *RUDN Journal of Public Administration, 9*(4), 418–437.

Bartolomeo, M. (2019). *VUCA Prime: The answer to a VUCA dinamic*. Axelos.

Bashori, B. (2017). Modernisasi Lembaga Pendidikan Pesantren. *Jurnal Ilmu Sosial Mamangan*, *6*(1). https://doi.org/10.22202/mamangan.1313

Bennett, N., & Lemoine, G. J. (2014). What VUCA really means for you. *Harvard Business Review, 92*(1–2), 27.

Busahdiar. (2016). Dinamika Pendidikan Di Pesantren. *Misykat Al-Anwar Jurnal Kajian Islam Dan Masyarakat*, *27*(2).

Calam, A., & A. Qurniati. (2016). Merumuskan Visi dan Misi Lembaga Pendidikan, Jurnal Ilmiah SAINTIKOM Sain dan Komputer. *Jurnal Ilmiah Saintik*, *15*(1).

Chrismastianto, I. A. W., & Wulanata, B. (2020). *Quo Vadis of Indonesia's Education in Disruption Era: Teacher's Role in Value and Technology Perspective*. https://doi.org/10.5220/0009493900830087

Çiçeklioğlu, H. (2020). VUCA Concept and Leadership. *Management & Strategy*, *October*.

Drucker, P. F. (2014). *Innovation and entrepreneurship*. Routledge.

Felton, J. (2020). "The VUCA Antidote". Retrieved from: https://www.linkedin.com/ pulse/vuca-antidote-julia-felton. (Online). Diakses 28 September 2023Nurani, D. (2021). Menyiapkan pendidik di era society 5.0. *Seminar Nasional Pendidikan Nasional Di Era Society Kemdikbud,*.

Fullan, M. (2016). *The new meaning of educational change* (5th ed.). Teachers College Press.

Hanafi, I., Suryadi, S., Sukanto, S., Wijaya, A. F., & Saleh, C. (2022). Faktor-Faktor Penyebab dan Solusi

Kegagalan Layanan Pendidikan Tinggi di Malang Raya: Suatu Studi Kasus. *Journal of science and social research*, *5*(2). https://doi.org/10.54314/jssr.v5i2.780

Hargreaves, A., & Shirley, D. (2012). *The global fourth way: The quest for educational excellence*. Corwin Press.

Hasanah, U. (2024). Integrating VUCA 2.0 Principles into Islamic Education to fostering Sustainable Future . *ICEETE Conference Series*, *2*(1), 148-156. https://doi.org/10.36728/iceete.v2i1.179.

Heriyawati, Y. (2019). The Convergence of the Era of Disruption, Industri 4.0, and Society 5.0. *Prosiding Pascasarjana ISBI*, *1*(1).

Hermiliah, Pahlawanti, W. D., & Fitria, H. (2020). Peningkatan Quality Assurance Menuju Pendidikan Berkualitas. *Jurnal Ilmiah MEA*.

Hermiliah, Pahlawanti, W. D., & Fitria, H. (2020). Peningkatan Quality Assurance Menuju Pendidikan Berkualitas. *Jurnal Ilmiah MEA*.

Jalaludin, J. (2020). Persimpangan Pendidikan Islam Tradisional Dan Modern Di Indonesia: Mencari Titik Temu. *NUR EL-ISLAM : Jurnal Pendidikan Dan Sosial Keagamaan*, *7*(1). https://doi.org/10.51311/nuris.v7i1.179

Junaedi, E. (2018). Manajemen Pengembangan Sumber Daya Sekolah Dalam Meningkatkan Mutu Pembelajaran. *Jurnal Pendidikan Islam Rabbani*, *2*(2).

Komariah, N., Asmariani, A., Sain, M., & Munawaroh, F. (2025). Pengembangan SDM Untuk Memperkuat Mutu Kinerja Institusi Pendidikan Di Era Vuca . *RIGGS: Journal of Artificial Intelligence and Digital Business*, *4*(2), 2278–2284. https://doi.org/10.31004/riggs.v4i2.844

Lubis, Fitriani. (2019). Education in the Disruption Era. *Britain International of Linguistics Arts and Education (BIoLAE) Journal*, *1*(2). https://doi.org/10.33258/biolae.v1i2.85

Minciu, M., Veith, C., Dobrea, R. C., & Ciocoiu, C. N. (2025). The Challenges of the VUCA World and the Education System: The Need for Change to Ensure Sustainable Learning Process. Sustaunability,17(14), 6600. https://doi.org/10.3390/su17146600.

Mukri, S. G. (2016). Modernisasi Sistem Pendidikan Pesantren. *Modernisasi Sistem Pendidikan Pesantren*, *15*(1).

Nazlianto, R. (2016). Modernisasi Sistem Pendidikan Islam Dalam Konteks Indonesia. *Fitra: Jurnal Pendidikan Islam*, *2*(2).

Nurdin, D. (2019). Quality Assurance dalam Pendidikan. *Jurnal MANAJERIAL*, *4*(1). https://doi.org/10.17509/manajerial.v4i1.16512

Nurdin, D. (2019). Quality Assurance dalam Pendidikan. *Jurnal MANAJERIAL*, *4*(1). https://doi.org/10.17509/manajerial.v4i1.16512

NURHASNAWATI. (2015). Pendidikan Madrasah Dan Prospeknya Dalam Pendidikan Nasional. *POTENSIA: Jurnal Kependidikan Islam*, *14*(1).

O'Shea, T. (2017). Ready to SHIFT Your VUCA to VUCA Prime? *Strategic Agility Institue*, *3*.

Ping, G., & MengMeng, S. (2020). *Impact Analysis of VUCA Environment on Quality Management System*. https://doi.org/10.2991/assehr.k.201023.100.

Ping, G., & MengMeng, S. (2020). *Impact Analysis of VUCA Environment on Quality Management System*. https://doi.org/10.2991/assehr.k.201023.100

Rahayu, S., Syahuri, S., Oktavia, A., Adania, R., Huda, F., & Saefudin, D. M. (2025). *Pentingnya visi dan misi sekolah dalam pengelolaan mutu pendidikan*. Jurnal Pendidikan Tambusai, 9(2), 17035–17040. https://doi.org/10.31004/jptam.v9i2.28554

Rahman, D., & Akbar, A. R. (2021). Problematika Yang Dihadapi Lembaga Pendidikan Islam Sebagai Tantangan Dalam Meningkatkan Mutu Pendidikan. *Nazzama: Journal of Management Education*, *1*(1). https://doi.org/10.24252/jme.v1i1.25242

Riyanto, A. (2020). Pendidikan Islam dalam Era Revolusi Industri 4.0. *J-PAI: Jurnal Pendidikan Agama Islam*, *6*(2). https://doi.org/10.18860/jpai.v6i2.9072

Sandiko, S. (2021). Menelaah Eksistensi Lembaga Pendidikan Islam (MI, MTs, dan MA) di Indonesia. *At-Turost : Journal of Islamic Studies*, *8*(2). https://doi.org/10.52491/at.v8i2.82

Setiawan, B. A. (2018). Tingkat Kepuasan Pelanggan Terhadap Layanan Pendidikan Di Sd Integral Lukman Al-Hakim Jember. *Tarlim : Jurnal Pendidikan Agama Islam*. https://doi.org/10.32528/tarlim.v1i2.1702

Setiawan, B. A. (2018). Tingkat Kepuasan Pelanggan Terhadap Layanan Pendidikan di SD Integral Lukman Al-hakim Jember. *Tarlim : Jurnal Pendidikan Agama Islam*. https://doi.org/10.32528/tarlim.v1i2.1702

Setiawan, B. A., Huda, H., & Rofi, S. (2020). The Electability Of Islamic Educational Institutions. *Jurnal Pendidikan Islam*, *6*(1). https://doi.org/10.15575/jpi.v6i1.6443

Setiawan, B. A., Huda, H., & Rofi, S. (2020). THE ELECTABILITY OF ISLAMIC EDUCATIONAL INSTITUTIONS. *Jurnal Pendidikan Islam*, *6*(1). https://doi.org/10.15575/jpi.v6i1.6443.

Setiawan, B. A., Huda, H., & Rofi, S. (2020). The Electability Of Islamic Educational Institutions. *Jurnal Pendidikan Islam*, *6*(1). https://doi.org/10.15575/jpi.v6i1.6443

Sofiasyari, I., Atmaja, H., & Suhandini, P. (2019). Pentingnya pendidikan karakter pada siswa sekolah dasar di era 4.0. *Prosiding Seminar Nasional Pascasarjana (PROSNAMPAS)*, *2*(1).

Sofyan, S. (2022). Eksistensi Pendidikan dan Lembaga Pendidikan Islam di Indonesia Pra dan Pasca Kemerdekaan. *Al Qalam: Jurnal Ilmiah Keagamaan Dan Kemasyarakatan*, *16*(1). https://doi.org/10.35931/aq.v16i1.856

Susilo, A. A., & Wulansari, R. (2020). Sejarah Pesantren Sebagai Lembaga Pendidikan Islam di Indonesia. *Tamaddun: Jurnal Kebudayaan Dan Sastra Islam*, *20*(2). https://doi.org/10.19109/tamaddun.v20i2.6676

Syamsir, S., Saputra, N., & Mulia, R. A. (2025). Leadership agility in a VUCA world: a systematic review, conceptual insights, and research directions. *Cogent Business & Management*, *12*(1). https://doi.org/10.1080/23311975.2025.2482022

Ulum, M. (2020). Modernisasi Pendidikan Islam (Tinjauan Filosofis tentang Modernisasi Pendidikan Pesantren). *Ta'limDiniyah: Jurnal Pendidikan Agama Islam*, *1*(1).

Widjaja, S. (2020). Sekolah Unggulan. *Metanoia*, *2*(1), 1–12.

ZamaniH. & AIT SOUDANE J. (2022) « Strategic Leadership and VUCA environment », Revue Internationale des Sciences de Gestion «Volume 5 : Numéro 1» pp : 479 – 505.