A New Paradigm of Pesantren Management in the Perspective of Social Change in the Globalization Era

Teguh Budiharso[1]*, Toto Suharto[2]

A R T I C L E I N F O	A B S T R A C T

Purpose This study investigates the new management paradigm for pesantren from the standpoint of societal transformation in the digital age. Social change is considered in modern management, technology, educational reforms, and quality assurance. **Design/methodology/approach:** This study uses a quantitative research methodology to investigate the new pesantren management paradigm from the standpoint of social transformation. 155 valid responses to a questionnaire survey were used for data collection and analysis. PLS-SEM, or partial least squares structural equation modeling, was used to analyze the data. **Findings:** As a result of social change, pesantren administration is modernized, and the educational system has altered due to increased digitization. As a result, the administration of pesantren has undergone many adjustments due to social development. The management of pesantren can be improved in the digital age through modern management, technology, educational changes, and quality assurance. **Practical implications:** The administration of pesantren must adopt a new paradigm in the current era of digitization. Pesantren's management needs modern management, technology, educational reforms, and quality assurance to handle social change. Therefore, practitioners should consider social change when developing strategies for pesantren management. **Originality/value:** The interesting aspect of this study is how it manages pesantren by employing social transformation. Pesantren management was the subject of prior studies, but pesantren management was not viewed in light of social change.

---

[1] Corresponding Author, Doctoral Program in Islamic Education Management, State Islamic University (UIN) Raden Mas Said Surakarta, Indonesia. Email: teguhbudiharso@staff.uinsaid.ad.id,ORCID: https://orcid.org/0000-0001-7259-9364
[2] Doctoral Program in Islamic Education Management, State Islamic University (UIN) Raden Mas Said Surakarta, Indonesia. Email: tosuh71@gmail.com, ORCID: https://orcid.org/0000-0001-8351-9067

1. Introduction

Since its founding, the educational institution Pesantren has held several positions (Muttaqin, Azma, & Harun, 2022). Pesantren has been referred to as the defender of moral and religious principles since the kingdom, even during the colonial and independent periods. These are the indigenous Islamic institutions of Indonesia, which serve as a centre for advancing Islam. Pesantrens are transformed into millennial pesantren in the millennial era when the social communication system and the world become global due to information technology by changing the learning system and communication that was initially focused on modern management into an ICT-based learning system. According to the social change hypothesis, forming this pesantren is a need that cannot be avoided. To develop human resources, practice modern management, and focus on vision and missions, pesantren should keep up with social advancements and modernization.

Pesantrens are viewed as institutions that stand in the way of progress and as social or educational institutions that are unresponsive to it (Elhady, 2020; Ramli, 2018). Over time, the globe has become more digital (Baker, 2020; Kümmel, 2024; Pu, Tanamee, & Jiang, 2022). The impact of modernity on pesantren's conventional management. Traditional methods for managing pesantren lead to decreased performance in several areas. New interventions in pesantren management were necessary due to introducing of new technologies and the demand for excellent quality. Therefore, these institutions must embrace a variety of cutting-edge management systems.

According to the social change theory on the sociology of religion and social change, this study looked at the management of pesantren and the reform of the educational system (Johnson, 2008; Windzio & Martens, 2022). The development of pesantren chronologically based on history, current educational administration, and information and communication technology-based for the global or millennial eras are at the centre of transformation (ICT). Pesantrens were considered in several earlier research (Marzuki, Miftahuddin, & Murdiono, 2020; Zaki et al., 2022; Zulfikar & Roesminingsih, 2023), but the social transformation was not a focus of these studies. Pesantrens were discussed multiple times in literature, and various crucial elements were noted. Various perspectives depict the history of pesantren education in the national educational system. Previous studies also thoroughly considered pesantren schooling characteristics while describing both traditional and modern pesantren. Researchers additionally looked at the Madrasah Ibtidaiyah Education Management. The research's objective was to look at madrasa development from the perspective of contemporary management. Although the previous study focused on the managerial side, the findings revealed a review of several madrasa development ideas.

This study investigates the new management paradigm for pesantren from the standpoint of societal transformation in the digital age. Pesantren management was taken into account by social change in terms of contemporary management, technology, educational reforms, and quality assurance. So, to fulfill the requirements of modern education, this study took into account societal change in connection to modern management, technology, educational reforms, and quality assurance. This study took into account contemporary perspectives to advance the pesantren management system and compete in the market. From the review of the literature, this study identified several gaps

in the literature, including the following: prior research did not formulate problems, particularly the practical problem of tradition management style; researchers did not use a standard methodology; instead, they prioritized the review of the literature, which is not supported by an elaborate research process; and the researches did not explore the results following the formulation of the problems. Considering all these shortcomings, the current study contributed to the literature.

2. Literature Review

2.1. Pesantrens in Historical Perspective

Santri, which means "educated," is where the word "pesantren" originates (Fauzi, 2012). Students are referred to as santri, and educational institutions are referred to as pesantren. So a pesantren is a place where santries can learn. "Potok pesantren" is another name for pesantren. The first Islamic educational model to emerge in Java was called pesantren. Actors, hardware facilities (mosques, homes, cottages, schools, pesantren management offices, cooperatives, etc.), and software tools (curriculum, books, and learning methods) make up the three primary components of pesantren.

As a hub for Hindu and Buddhist education, Indonesia's educational system was initially implemented through "Patapan" and "Mandala" (Susanti, 2018). A Mandala is a sacred location where specialists and students dwell on studying religion, magic, ethics, and state administration and on devoting their lives to religion and the state. A Patapan is a place to meditate. The reliefs of the Borobudur temple from the time of the prehistoric Mataram dynasty depict schooling in Mandala. It depicts a specialist surrounded by students carrying books for religious studies. In a dorm inside the mandala, the students shared quarters with the specialists.

Pesantrens faced significant political constraints throughout the Dutch colonial era. It is a result of santries being respected by the populace. Islam was divided into politics, social community, and worship. Neutrality does not apply in the political sphere, necessitating the early eradication of Islamism as a political force. As a result, the public started to hear about discriminatory laws and ideas that denigrated Islam. Numerous Islamic activities were even outlawed and subject to strict surveillance. Instead, the Dutch mandated that Christianity be taught in the schools set up in each regency. The motto of the European empire, Gold, Glory and Gospel or Gold, Glory and God, was spread along with the suppression of public education. The reputation of pesantren as having little education was damaged. Because Islamic doctrines are so militant and might inspire the ummah to fight, pesantren are dreaded today. Because of this, the Dutch counterbalanced it by putting contemporary, European-style schools based on churches and Christians into place. In addition to defending one of the parties, this opposition has a history of oppression and disruption of the Islamic religion brought about by Dutch colonial actions.

There are two types of pesantren: Salaf (traditional) and Khalaf (contemporary) (Rahman & Asrohah, 2022; Zamhari & Rahmayanti, 2021). The Salaf pesantrens are conventional pesantren who study classical literature using the Sorogan and Bandongan educational systems. The khalaf pesantren include modern education components into the curriculum while keeping characteristics of traditional pesantrens such as the classical learning system. The researchers contrasted how Salaf pesantren were managed to current

pesantren. This study painted a detailed image of pesantren. However, it omitted to discuss how conventional pesantrens are modernized. The literature did not touch on the sociological implications of transformation, only the management-related issues.

2.2 Framework Development and Hypotheses

Social change is shifting in interpersonal connections and interactions that affect cultural and social structures. These changes occur gradually over time and frequently have profound and lasting effects on society. Various factors, such as cultural, religious, economic, environmental, scientific, or technical pressures, can cause social change. However, social changes trigger significant societal and institutional transformation (Siregar, 2022). Similar to how social change affects the management of pesantren. Modern management in the study at hand was a result of social change. The pesantren must be managed in a contemporary manner. In addition, the technology needed to replace the conventional management of pesantren. Increased digitalization has prompted the adoption of cutting-edge management approaches.

Additionally, the administration of pesantren needed to implement educational reforms. Additionally, management of pesantren requires quality assurance in schooling. To handle pesantren, this study considered four factors connected to social change. In Figure 1, which serves as the study's conceptual framework, the connections between contemporary management, technology, educational reforms, and quality assurance are underlined.
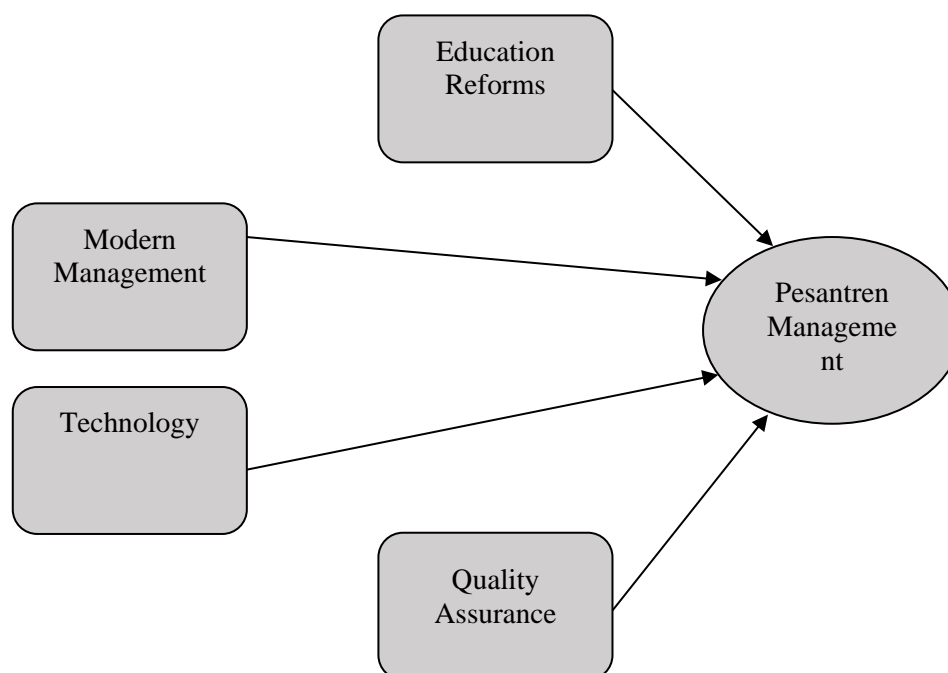
Figure 1. *The framework of the study shows the relationship between modern management, technology, education reforms, quality assurance and pesantren management*

The process of using techniques to accomplish endpoints in a dependable and unified manner without compromising security is known as modern management. It is a comprehensive strategy that makes the management system simple to manage. The current administration is expanding significantly with the rise of digitization, which is important for businesses and educational institutions. According to earlier studies, modern management is extremely important for firms (Bachanova, Perales, & Abramson, 2020; Robbins et al., 2019). With the aid of a current management system, pesantren management needs a better one. Better management methods may improve the whole mechanism. As a result, modern management and pesantren management are related. Modern management makes it easier for professionals to spread different operations throughout institutions (Kitana, 2016). As a result, this study concluded that modern management among the pesantren can improve the management system by lowering the reliance on traditional management systems. Therefore, it is suggested that;

Hypothesis 1. *Modern management has a positive relationship with pesantren management.*

The competitive environment of today requires technology (Wang, Zhang, & Liu, 2021). Because technology has such important advantages, businesses are increasingly using it. The developed world heavily relies on cutting-edge technology because of its lasting benefits. The contemporary era is founded on the fourth industrial revolution, in which businesses operate digitally due to advancing technology. The growth of technology in educational institutions is comparable to that in other enterprises. Educational institutions' effectiveness is rising due to the usage of modern technology. Because of technology, operational efficiency is growing day by day. Technology not only increases productivity but also improves accuracy and the management system. According to earlier studies, technology plays a critical role in the management system (Andronie et al., 2023; Fartash, Mohseni Kiasari, & Sadabadi, 2023). Modern technology can help with pesantren management as well. Educators can better manage students' data and the educational system through technology. As a result, this study suggested that;

Hypothesis 2. *Technology has a positive relationship with pesantren management.*

Due to the significant advantages, reforms in the education sector are expanding along with global digitalization. The term "educational reforms" refers to efforts to change both the theory and practice of public education. The emphasis of education reform has shifted from inputs to outputs, such as student achievement. Student performance and career accomplishments rise as a result of educational innovations. According to earlier studies, educational changes are crucial to the education sector (Aguilar & Castaneda, 2022; Verger, Parcerisa, & Fontdevila, 2019). Future demands drive the implementation of educational reforms as the world changes due to the advancement of technology. Reforms in education are directly related to pesantren administration. Due to the conventional system used by pesantren and the infrequent introduction of new changes, learner performance and pesantren management are subpar. In this approach, implementing recent reforms can enhance the management of pesantren and the educational process. Therefore, the current study's findings support the fowling hypothesis, which holds that educational improvements have a significant impact on pesantren management;

Hypothesis 3. *Educational reforms have a positive relationship with pesantren management.*

The preservation of a service's or product's expected level of quality can be summed up as quality assurance. This is accomplished, in particular, by paying close attention to each step of the service delivery process. Aside from corporate companies, quality assurance is the most important aspect of educational institutions. The students' career is directly related to quality assurance among educational institutions, which is crucial to improving performance. According to earlier studies, quality control is an essential component of the academic industry (Hou et al., 2022; Suresh & Kumaravelu, 2022). The importance of quality in the management of pesantren cannot be overstated. The numerous systems connected to education and other activities needed to be managed by the traditional pesantren system to ensure excellence. The following hypothesis suggests that the interaction between quality assurance and pesantren management is of utmost importance:

Hypothesis 4. *Quality assurance has a positive relationship with pesantren management.*

3. Research Methodology

This study examined how modern management, technology, educational reforms, quality control, and pesantren management relate. Several research methodologies can be used to investigate this link. However, the most appropriate procedure was chosen for the current study. The quantitative research method used in this study was appropriate, given the nature of the investigation and the relationship it was intended to analyze. The current study's variables are of a type that lends itself well to a quantitative methodology.

The pesantren from Indonesia make up the study's population. Employees who work in pesantren are the study's respondents. As a result, data for this study were gathered from pesantren personnel. Both the teachers and those involved in pesantren management are considered employees. As both respondents are adequately educated to respond to the questions, they both have better knowledge of pesantren management. All the variables are measured by considering the scale items from earlier studies. Six scale items are used to measure contemporary management. Seven scale elements are used to evaluate how technology affects schooling. Five scale items are used to assess educational reforms. Additionally, pesantren management is evaluated using four scale items, while quality assurance is evaluated using five scale items.

A questionnaire was created by considering the scale items for each variable and the questions to gather respondents' personal information. As a result, the questionnaire was split into two sections: one based on the respondents' demographic data and the other on scale items relating to modern management, technology, educational reforms, quality assurance, and pesantren management. 320 surveys were given out to pesantren staff members. Out of 320 questionnaires, 155 were returned. A total of 148 questionnaires were employed in the data analysis, with only a few being incomplete.

4. Findings

Using the data screening procedure, the data obtained from the questionnaire were evaluated to identify and correct any inaccuracies (Won, Wan, & Sharif, 2017). This study looked at the data's missing values, outliers, and normalcy during the data screening

procedure. It has been noted that the data does not contain any missing values or outliers. Kurtosis and Skewness are also used to determine the data's normalcy. A few of the values of Skewness are greater than the maximum threshold, and the normality of the data was determined to be somewhat disturbed. However, this study moved forward with data analysis since it used partial least squares (PLS), which is best suited for analyzing non-normal data (Hair Jr et al., 2016).

Table 1.

Data Statistics

	No.	Missing	Mean	Median	Min	Max	SD	Kurtosis	Skewness
MM1	1	0	2.011	2	1	5	0.948	0.708	0.992
MM2	2	0	2.069	2	1	5	1.209	0.508	1.19
MM3	3	0	1.857	2	1	5	0.923	0.999	1.142
MM4	4	0	1.81	2	1	5	0.894	1.148	1.146
MM5	5	0	2.101	2	1	5	1.175	0.783	1.222
MM6	6	0	2.095	2	1	5	1.132	0.802	1.178
TEC1	7	0	1.852	2	1	5	0.959	2.812	1.607
TEC2	8	0	1.878	2	1	5	1.008	1.43	1.308
TEC3	9	0	2.016	2	1	5	0.995	1.638	1.269
TEC4	10	0	2.011	2	1	5	1.15	0.996	1.305
TEC5	11	0	2.127	2	1	5	1.295	0.286	1.176
TEC6	12	0	2.016	2	1	5	1.148	0.56	2.133
TEC7	13	0	1.947	2	1	5	1.068	0.727	1.131
ER1	14	0	2.011	2	1	5	1.049	1.171	1.254
ER2	15	0	1.915	2	1	5	0.983	1.208	1.249
ER3	16	0	2.085	2	1	5	1.095	0.604	1.098
ER4	17	0	1.926	2	1	5	1.086	0.66	1.197
ER5	18	0	1.995	2	1	5	1.184	0.925	3.302
QA1	19	0	1.799	2	1	5	0.977	2.129	1.478
QA2	20	0	1.968	2	1	5	1.028	0.743	1.124
QA3	21	0	2.222	2	1	5	1.114	-0.077	0.846
QA4	22	0	1.783	2	1	5	0.891	3.13	1.572
QA5	23	0	2.037	2	1	5	1.138	0.992	1.273
PM1	24	0	2.111	2	1	5	1.133	0.614	1.121
PM2	25	0	2.069	2	1	5	1.099	0.681	1.094
PM3	26	0	2.259	2	1	5	1.222	-0.095	0.912
PM4	27	0	2.148	2	1	5	1.182	0.016	0.97

Note: MM **=** Modern Management, TEC = Technology, ER = Education Reforms, QA = Quality Assurance, PM = Pesantren Management

The minimum factor loading in this investigation, which also considered factor loadings, was 0.5. Table 2 provides all factor loadings. As depicted in Figure 2, the PLS algorithm considers factor loadings. The majority of the scale items have factor loadings greater than 0.5, as seen in Table 2. Only two scale items with factor loading are more than 0.5 but less than 0.7. As a result, all of the scale items were kept. None were eliminated.

Table 2.

Factor Loadings

Variables	Items	Loadings	Alpha	CR	AVE
Education Reforms (ER)	ER1	0.808	0.829	0.878	0.59
	ER2	0.739			
	ER3	0.813			
	ER4	0.702			
	ER5	0.772			
Modern Management (MM)	MM1	0.683	0.846	0.88	0.551
	MM2	0.791			
	MM3	0.67			
	MM4	0.778			
	MM5	0.76			
	MM6	0.764			
Pesantren Management (PM)	PM1	0.761	0.816	0.876	0.64
	PM2	0.843			
	PM3	0.788			
	PM4	0.805			
Quality Assurance (QA)	QA1	0.766	0.794	0.85	0.533
	QA2	0.725			
	QA3	0.79			
	QA4	0.763			
	QA5	0.59			
Technology (TEC)	TEC1	0.775	0.869	0.898	0.557
	TEC2	0.721			
	TEC3	0.754			
	TEC4	0.752			
	TEC5	0.708			
	TEC6	0.766			
	TEC7	0.746			

Note: MM **=** Modern Management, TEC = Technology, ER = Education Reforms, QA = Quality Assurance, PM = Pesantren Management

According to Henseler, Ringle, and Sarstedt (2015), the heterotrait-monotrait ratio of correlations (HTMT) and cross-loadings are two techniques used to assess discriminant validity. HTMT0.9 was taken into consideration, with 0.9 being the highest level. Table 3 contains the information that supports the discriminant validity. Table 4 includes cross-loadings, which further support the discriminant validity.

Table 3.

$HTMT_{0.9}$

	ER	MM	PM	QA	TEC
ER					
MM	0.858				
PM	0.777	0.783			
QA	0.523	0.871	0.818		
TEC	0.719	0.561	0.773	0.884	

Note: MM **=** Modern Management, TEC = Technology, ER = Education Reforms, QA = Quality Assurance, PM = Pesantren Management
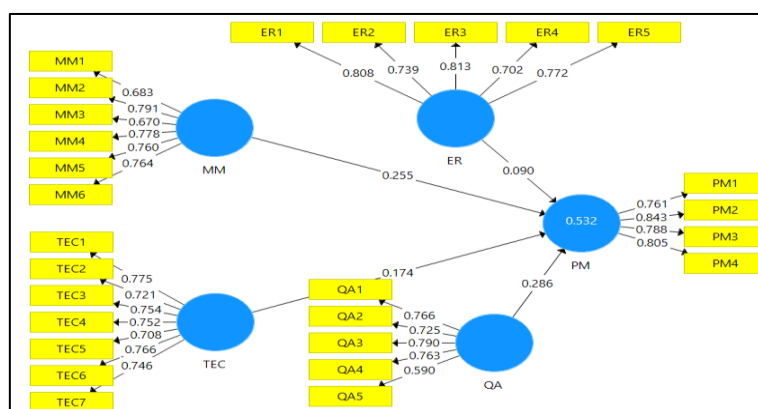
Table 4.

Cross-Loadings

	ER	MM	PM	QA	TEC
ER1	0.808	0.665	0.523	0.596	0.748
ER2	0.739	0.431	0.524	0.602	0.61
ER3	0.813	0.612	0.52	0.613	0.562
ER4	0.702	0.503	0.448	0.672	0.503
ER5	0.772	0.533	0.448	0.655	0.549
MM1	0.5	0.683	0.36	0.533	0.469
MM2	0.634	0.791	0.515	0.567	0.649
MM3	0.478	0.67	0.445	0.515	0.603
MM4	0.465	0.778	0.543	0.422	0.596
MM5	0.481	0.76	0.463	0.507	0.612
MM6	0.619	0.764	0.579	0.582	0.705
PM1	0.551	0.573	0.761	0.598	0.598
PM2	0.562	0.553	0.843	0.544	0.545
PM3	0.456	0.454	0.788	0.47	0.456
PM4	0.476	0.523	0.805	0.492	0.492
QA1	0.57	0.507	0.459	0.766	0.491
QA2	0.615	0.436	0.503	0.725	0.427
QA3	0.715	0.554	0.584	0.79	0.573
QA4	0.645	0.599	0.472	0.763	0.625
QA5	0.421	0.452	0.374	0.59	0.527
TEC1	0.508	0.64	0.487	0.501	0.775
TEC2	0.521	0.646	0.518	0.495	0.721
TEC3	0.528	0.671	0.466	0.548	0.754
TEC4	0.488	0.657	0.501	0.586	0.752
TEC5	0.681	0.584	0.453	0.575	0.708
TEC6	0.729	0.629	0.442	0.557	0.766
TEC7	0.628	0.494	0.56	0.512	0.746

Note: MM **=** Modern Management, TEC = Technology, ER = Education Reforms, QA = Quality Assurance, PM = Pesantren Management

Note: MM **=** Modern Management, TEC = Technology, ER = Education Reforms, QA = Quality Assurance, PM = Pesantren Management

Figure 2. *Measurement Model Assessment*

Table 5 presents the findings of the hypothesis. These findings were attained utilizing the PLS bootstrapping procedure, which is advised by earlier research (Hair & Alamer, 2022; Hair et al., 2017; Hair, Ringle, & Sarstedt, 2013; Hair et al., 2012; Hair Jr et al., 2016). Along with the beta value, the t-value of 1.96 was considered in this process.

With a t-value of 2.847, modern management has a favorable impact on pesantren management. Additionally, with a t-value of 3.55, technology has a favourable effect on pesantren control. The t-value of 4.23 indicates a strong and favorable link between educational changes and pesantren management. The association between quality control and pesantren management was finally discovered to have a t-value of 2.687 and a positive beta value. Additionally, the fact that the relationship between Upper Limited (UL) and Lower Limit (LL) is non-zero demonstrates its importance. As a result, hypotheses 1, 2, 3, and 4 are true.

Table 5.

Results

	Beta	**Mean**	**SD**	**T Statistics**	**P Values**
ER -> PM	0.09	0.078	0.021	4.23	0
MM -> PM	0.255	0.255	0.09	2.847	0.005
QA -> PM	0.286	0.291	0.106	2.687	0.007
TEC -> PM	0.174	0.186	0.049	3.55	0
	Beta	**Mean**	**Bias**	**Upper Limited (UL)**	**Lower Limit (LL)**
ER -> PM	0.09	0.078	0.012	0.135	0.264
MM -> PM	0.255	0.255	0	0.07	0.425
QA -> PM	0.286	0.291	0.005	0.114	0.52
TEC -> PM	0.174	0.186	0.012	0.025	0.425

Note: MM **=** Modern Management, TEC = Technology, ER = Education Reforms, QA = Quality Assurance, PM = Pesantren Management

5. Discussion and Conclusion

This study aimed to investigate the new pesantren management paradigm from the standpoint of social transformation in the digital age. To meet this goal, this study used four hypotheses to explore the impact of contemporary management, technology, educational reforms, and quality assurance on pesantren management.

The connection between contemporary management and pesantren management was underlined in Hypothesis 1. The study's findings revealed a strong correlation between current management and pesantren management, demonstrating the latter's beneficial influence on the former. It illustrates how contemporary management might improve pesantren management. Modern management expansion may improve pesantren management. Similar to the current study, earlier research revealed the beneficial effects of contemporary governance in a range of enterprises (Jurakulovna, 2021; Robbins et al., 2019; Semenets-Orlova et al., 2020).

The impact of technology on pesantren management was mentioned in hypotheses 2 and 3. The technological revolution is accelerating rapidly as a result of societal transformation, which has a significant impact on organizational activities. Similarly to this, technology has a considerable effect on pesantren management. According to the data, technology is having a favourable impact on pesantren management. The management system for pesantren in Indonesia may improve if firms adopt new technologies.

According to published research, technology is essential to management tasks (Kim et al., 2020). Consequently, the current study's findings are consistent with those of earlier ones.

The third hypothesis demonstrates the connection between pesantren administration and educational improvements and is significant and favorable. Pesantren management could improve as new reforms are introduced in the academic field. Particularly, pesantren management relies on a traditional structure; as a result, recent changes are required to advance activities in a cutthroat atmosphere. The fourth and final hypothesis examined the connection between quality control and pesantren management. According to Belash et al. (2015), quality is always crucial in the services sector and is also significant in the educational sector. As a result, this study discovered that quality assurance positively impacts pupil management. The management efforts may rise as service quality among pesantren improves.

6. Implications

The main contribution of this study, which started a new discussion in pesantren management, is the consideration of the societal change in pesantren management. One frequently mentioned phenomenon in the literature is social change, although it was not discussed about pesantren management. In the case of Indonesian pesantren management, it is extremely uncommon. More crucially, there is little research on how modern management practices, technology, educational reforms, and quality control affect pesantren management when societal change is considered. As a result, our study filled the most significant knowledge gap and gave practitioners useful information. The findings of this study are useful in achieving social change goals that can support pesantren management. Therefore, practitioners should consider social change when developing strategies for pesantren management. The study's findings are also significant for developing digital-age strategies to promote management activities among Indonesian pesantren.

7. Limitations and Future Directions

The current study identified social change as a crucial component, yet social change has many different manifestations. Modern management, technology, educational reforms, and quality assurance are the only topics covered in this study. On the other hand, several other aspects of societal change, such as cultural, religious, economic, environmental, scientific, and technical influences, have been discussed in the literature. Future research should therefore consider several other pertinent facets of societal transformation besides pesantren management. Additionally, conclusions cannot be generalized because only Indonesian pesantren were considered in this study. Future research should consider various other companies when looking at social change and management practices.

References

Aguilar, M. S., & Castaneda, A. (2022). Out of the public eye: Researching political factors that influence the implementation of research knowledge as part of educational reforms and mathematics textbooks. *Implementation and Replication Studies in Mathematics Education, 1*(aop), 1-23. https://doi.org/10.1163/26670127-bja10001

Andronie, M., Lăzăroiu, G., Karabolevski, O. L., Ştefănescu, R., Hurloiu, I., Dijmărescu, A., & Dijmărescu, I. (2023). Remote Big Data Management Tools, Sensing and Computing Technologies, and Visual Perception and Environment Mapping Algorithms in the Internet of Robotic Things. *Electronics, 12*(1), 22. https://doi.org/10.3390/electronics12010022

Bachanova, V., Perales, M.-A., & Abramson, J. S. (2020). Modern management of relapsed and refractory aggressive B-cell lymphoma: a perspective on the current treatment landscape and patient selection for CAR T-cell therapy. *Blood Reviews, 40*, 100640. https://doi.org/10.1016/j.blre.2019.100640

Baker, N. (2020). Authentic leadership, leader optimism, and follower affective commitment: An experimental study. In *Leadership Styles, Innovation, and Social Entrepreneurship in the Era of Digitalization* (pp. 329-344). IGI Global. https://doi.org/10.4018/978-1-7998-1108-4.ch013

Belash, O., Popov, M., Ryzhov, N., Ryaskov, Y., Shaposhnikov, S., & Shestopalov, M. (2015). Research on university education quality assurance: Methodology and results of stakeholders' satisfaction monitoring. *Procedia-Social and Behavioral Sciences, 214*, 344-358. https://doi.org/10.1016/j.sbspro.2015.11.658

Elhady, A. (2020). Education for Development. In *The 3rd National and International Conference on Islamic Education and Education for Development* (pp. 578-586). Social Sciences Building, Faculty of Education, Yala Rajabhat University, Thailand. https://www.researchgate.net/publication/344841306

Fartash, K., Mohseni Kiasari, M., & Sadabadi, A. (2023). The Role of Technology Management Capability in Defense New Product Development Process (The Empirical Findings). *Innovation Management Journal, 5*(2), 135-162. http://www.nowavari.ir/article_39221.html?lang=en

Fauzi, M. L. (2012). Traditional Islam in Javanese society: The roles of kyai and pesantren in preserving Islamic tradition and negotiating modernity. *Journal of Indonesian Islam, 6*(1), 125-144. https://doi.org/10.15642/JIIS.2012.6.1.125-144

Hair, J., & Alamer, A. (2022). Partial Least Squares Structural Equation Modeling (PLS-SEM) in second language and education research: Guidelines using an applied example. *Research Methods in Applied Linguistics, 1*(3), 100027. https://doi.org/10.1016/j.rmal.2022.100027

Hair, J., Hollingsworth, C. L., Randolph, A. B., & Chong, A. Y. L. (2017). An updated and expanded assessment of PLS-SEM in information systems research. *Industrial management & data systems, 117*(3), 442-458. https://doi.org/10.1108/IMDS-04-2016-0130

Hair, J. F., Ringle, C. M., & Sarstedt, M. (2013). Partial least squares structural equation modeling: Rigorous applications, better results and higher acceptance. *Long Range Planning: International Journal of Strategic Management, 46*(1-2), 1-12. https://doi.org/10.1016/j.lrp.2013.01.001

Hair, J. F., Sarstedt, M., Pieper, T. M., & Ringle, C. M. (2012). The use of partial least squares structural equation modeling in strategic management research: a review of past practices and recommendations for future applications. *Long Range Planning: International Journal of Strategic Management, 45*(5-6), 320-340. https://doi.org/10.1016/j.lrp.2012.09.008

Hair Jr, J. F., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2016). *A primer on partial least squares structural equation modeling (PLS-SEM)*. Sage Publications.

Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the academy of marketing science, 43*(1), 115-135. https://doi.org/10.1007/s11747-014-0403-8

Hou, A. Y. C., Hill, C., Justiniano, D., Lin, A. F. Y., & Tasi, S. (2022). Is employer engagement effective in external quality assurance of higher education? A paradigm shift or QA disruption from quality assurance perspectives in Asia. *Higher Education*, 1-20. https://doi.org/10.1007/s10734-021-00808-2

Johnson, M. S. (2008). Historical legacies of Soviet higher education and the transformation of higher education systems in post-Soviet Russia and Eurasia. In *The worldwide transformation of higher education* (pp. 159-176). Emerald Group Publishing Limited. https://doi.org/10.1016/S1479-3679(08)00006-6

Jurakulovna, J. G. (2021). The Necessity and Theoretical Basis of Financial Statement Analysis in Modern Management. *Academic Journal of Digital Economics and Stability, 7*, 89-95. http://economics.academicjournal.io/index.php/economics/article/download/123/118

Kim, J.-h., Seok, B.-i., Choi, H.-j., Jung, S.-h., & Yu, J.-p. (2020). Sustainable management activities: a study on the relations between technology commercialization capabilities, sustainable competitive advantage, and business performance. *Sustainability, 12*(19), 7913. https://doi.org/10.3390/su12197913

Kitana, A. (2016). Overview of the Managerial Thoughts and Theories From the History: Classical Management Theory to Modern Management Theory. *Indian Journal of Management Science, 6*(1), 16-21. https://www.proquest.com/openview/311615f0b8755cef85b2c9d98934493f

Kümmel, E. (2024). *Sustainable and Transparent Digitalization in Academic Teaching: The Role of Theoretical Research Perspectives and University Alignment for Learning Outcomes and Student Engagement in Higher Education.* (Doctoral dissertation). Universität Tübingen. https://doi.org/10.15496/publikation-67391

Marzuki, M., Miftahuddin, M., & Murdiono, M. (2020). Multicultural education in salaf pesantren and prevention of religious radicalism in Indonesia. *Jurnal Cakrawala Pendidikan, 39*(1), 12-25. https://doi.org/10.21831/cp.v39i1.22900

Muttaqin, K. Z., Azma, A., & Harun, U. (2022). Islamic Boarding School: Character Building Educational Institutions. *Proceeding of International Conference on Islamic and Interdisciplinary Studies, 1*, 383-387. https://jurnal.uindatokarama.ac.id/index.php/iciis/article/view/1288

Pu, R., Tanamee, D., & Jiang, S. (2022). Digitalization and higher education for sustainable development in the context of the Covid-19 pandemic: A content analysis approach. *Problems and Perspectives in Management, 20*(1), 27-40. https://doi.org/10.21511/ppm.20(1).2022.03

Rahman, M. R., & Asrohah, H. (2022). Virtual Pesantren: Pesantren Sustainability in Facing the Challenges of 4.0 Era. *Jurnal Pendidikan Islam Indonesia, 6*(2), 63-73. https://doi.org/10.35316/jpii.v6i2.403

Ramli, M. (2018). Karakteristik Pendidikan Pesantren; Sebuah Potret. *Al-Falah: Jurnal Ilmiah Keislaman dan Kemasyarakatan, 18*(1), 89-116. https://doi.org/10.47732/alfalahjikk.v18i1.56

Robbins, H. A., Callister, M., Sasieni, P., Quaife, S. L., Cheung, L. C., Brennan, P., Katki, H. A., Berg, C. D., Baldwin, D., & Johansson, M. (2019). Benefits and harms in the National Lung Screening Trial: expected outcomes with a modern management protocol. *The lancet respiratory medicine, 7*(8), 655-656. https://doi.org/10.1016/S2213-2600(19)30136-5

Semenets-Orlova, I., Klochko, A., Tolubyak, V., Sebalo, L., & Rudina, M. (2020). Functional and role-playing positions in modern management teams: an educational institution case study. *Business Perspectives, 18*(3), 129-140. http://enpuir.npu.edu.ua/handle/123456789/34320

Siregar, I. (2022). The Relationship between Conflict and Social Change in the Perspective of Expert Theory: A Literature Review. *International Journal of Arts and Humanities Studies, 2*(1), 09-16. https://doi.org/10.32996/bjahs.2022.2.1.2

Suresh, E., & Kumaravelu, A. (2022). Enhancing the Quality Assurance of Fashion Technology Courses in India: A Comparative Study between Educators and Industry Professional. In *Proceedings 2022 Canadian Engineering Education Association (CEEA-ACEG22) Conference.* https://doi.org/10.24908/pceea.vi.15881

Susanti, N. (2018). Variety of distinct style scripts in inscriptions found in Mandalas of the late Majapahit era: An overview of the paleography to mark religious dynamics. In *Cultural Dynamics in a Globalized World* (pp. 585-591). Routledge. https://www.taylorfrancis.com/chapters/oa-edit/10.1201/9781315225340-82

Verger, A., Parcerisa, L., & Fontdevila, C. (2019). The growth and spread of large-scale assessments and test-based accountabilities: A political sociology of global education reforms. *Educational Review, 71*(1), 5-30. https://doi.org/10.1080/00131911.2019.1522045

Wang, X., Zhang, S., & Liu, Y. (2021). ITGInsight-Discovering and Visualizing Science, Technology and Innovation Information for Generating Competitive Technological Intelligence. In *1st Workshop on AI + Informetrics - AII2021* (pp. 202-219). Ceur-WS. http://ceur-ws.org/Vol-2871/paper17.pdf

Windzio, M., & Martens, K. (2022). The Global Development, Diffusion, and Transformation of Education Systems: Transnational Isomorphism and 'Cultural Spheres'. In *Global Pathways to Education* (pp. 1-35). Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-030-78885-8_1

Won, N. C., Wan, C. Y., & Sharif, M. Y. (2017). Effect of leadership styles, social capital, and social entrepreneurship on organizational effectiveness of social welfare organization in Malaysia: Data screening and preliminary analysis. *International Review of Management and Marketing, 7*(2), 117-122. https://dergipark.org.tr/en/download/article-file/367518

Zaki, I., Zusak, M. B. F., Mi'raj, D. A., & Hasib, F. F. (2022). Islamic community-based business cooperation and sustainable development goals: a case of pesantren community in Indonesia. *International Journal of Ethics and Systems, 38*(4), 621-632. https://doi.org/10.1108/IJOES-12-2021-0218

Zamhari, A., & Rahmayanti, I. (2021). The response and negotiation of pesantren in maintaining the values of pesantren during the Covid-19 pandemic: A case study of Pondok Pesantren Darussunnah Hadith. *Jurnal Iqra': Kajian Ilmu Pendidikan, 6*(1), 125-139. https://doi.org/10.25217/ji.v6i1.1397

Zulfikar, A. S., & Roesminingsih, M. V. (2023). Policies Implementation by Pesantren Effective Schools to Achieve Excellence in Morality and General Sciences: A Case From Indonesia. *Res Militaris, 13*(1), 191-203. https://resmilitaris.net/menu-script/index.php/resmilitaris/article/download/966/792