

Santripreneurship and Economic Empowerment in Indonesian Islamic Boarding Schools: A Strategic Management Analysis of Business-Unit Performance and Institutional Sustainability

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ABSTRACT

This study aims to examine how santripreneurship – the practice of embedding entrepreneurial management within Indonesian Islamic boarding schools (pesantren) – influences business-unit performance and the broader economic empowerment of santri (students) and surrounding communities. A convergent mixed-methods design was applied. Quantitative data were collected from 126 kiai/ustadz-managers and 210 alumni santri across 42 pesantren in four Indonesian provinces (East Java, Central Java, West Java and South Sulawesi). Partial Least Squares Structural Equation Modeling (PLS-SEM) was used to test the proposed framework, drawing on the Resource-Based View (RBV), social capital theory, and Islamic value orientation. Twenty-four in-depth interviews were thematically analysed using NVivo 14 for triangulation. Santripreneurship practices significantly mediate the relationship between pesantren resource endowments ($\beta = 0.42$, $p < 0.001$), social capital ($\beta = 0.51$, $p < 0.001$) and Islamic value orientation ($\beta = 0.34$, $p < 0.01$) on the one hand, and business-unit performance and economic empowerment on the other. The strongest path runs from social capital through santripreneurship to community economic empowerment (total effect = 0.41). Santri wages, operating surplus, reinvestment, and social-programme allocation differ significantly across business-unit types

INTRODUCTION

Indonesia hosts approximately 39,551 Islamic boarding schools (pesantren) serving around 4.9 million santri (students) as of the 2023–2024 academic year (Kuras Institute, 2024). Beyond their established role as centres of classical Islamic learning, pesantren are increasingly recognised as vibrant economic actors that operate cooperatives, minimarkets, agro-industrial ventures, sharia finance units, and small-to-medium enterprises that channel goods, services, and employment into surrounding communities (Hanif, 2023; Fasa, 2017). This dual function has inspired the neologism “santripreneurship,” referring to the systematic inculcation of entrepreneurial values and management competence within the pesantren ecosystem (Sulistiyowati et al., 2025). Understanding how santripreneurship converts religious and social resources into measurable economic outcomes has therefore become a pressing question for scholars of Islamic economics, public policy, and strategic management alike.

The strategic relevance of the topic is amplified by Indonesia’s ambition to consolidate its position as the world’s leading Islamic-economy hub. The State of the Global Islamic Economy Report ranks Indonesia in the top quartile of countries by Global Islamic Economy Indicator, with a score of 91.2 in 2021 (Antara News, 2021). Yet, while macro indicators of the sharia economy expand, the institutional infrastructure that anchors it – namely, pesantren – remains under-theorised in mainstream management scholarship. Existing studies have documented isolated best practices such as the Sidogiri cooperative network (Muktirrahman, 2018), Tebuireng’s TPKU programme (Yasyahikamatzu, 2024), and Gontor’s integrated agribusiness units (Fasa, 2017), but few have modelled these cases within a unifying theoretical framework that simultaneously captures resources, social capital, value orientation, and performance outcomes.

From a management standpoint, three unresolved gaps motivate this study. First, the Resource-Based View (RBV) of the firm, although widely applied to conventional enterprises (Barney, 1991; Kellermanns & Eddleston, 2016), has seldom been operationalised in the context of religious non-profit organisations. Second, while social capital theory explains how trust and networks facilitate economic action (Nahapiet & Ghoshal, 1998), its micro-foundations in the *kiai-santri-ummah* triad remain under-specified. Third, the value-based logic of Islamic entrepreneurship – grounded in *tawhid* (monotheism), *adab* (moral discipline), and *maqashid al-shariah* (higher objectives) – has been articulated conceptually (Hanif, 2023; Fasa, 2017) but not integrated into a measurable construct within quantitative models of entrepreneurial performance.

These gaps are consequential beyond the academic community. The Indonesian government’s 2019 Pesantren Law recognises pesantren as integral to the national education system and signals an intention to harness their economic potential. Yet, without rigorous management research, public policy risks either under-utilising the institutional assets of pesantren or imposing one-size-fits-all regulations that erode their distinctiveness. Theorising santripreneurship – and measuring its effects – thus offers a bridge between the policy ambition of an

Islamic-economy ecosystem and the lived realities of the 4.9 million santri whose economic futures depend on the quality of the institutions around them.

1.1 Research Questions

To address these gaps, the study poses three guiding research questions. (1) How do pesantren resource endowments, social capital, and Islamic value orientation shape santripreneurship practices within business units? (2) To what extent do santripreneurship practices mediate the impact of these antecedents on business-unit performance, economic empowerment, and institutional sustainability? (3) What moderating role does the regulatory and market environment play in strengthening or weakening these relationships? Answering these questions advances both theoretical and practical conversations about how religious institutions can become engines of inclusive economic development.

1.2 Research Objectives

The specific objectives of the study are: (a) to develop and validate a multidimensional instrument for measuring santripreneurship practices; (b) to test a conceptual model that links pesantren resources, social capital, and Islamic value orientation to performance and empowerment outcomes via santripreneurship as a mediator; (c) to identify variations in revenue allocation and governance structures across different categories of pesantren business units; and (d) to derive strategic and policy implications for pesantren leaders, regulators, and entrepreneurship educators.

1.3 Contributions of the Study

The study makes three contributions. Theoretically, it integrates RBV, social capital, and Islamic value theory into a single mediation model, extending the boundary of each theory into the religious-institutional context. Empirically, it provides original survey and qualitative evidence from 42 pesantren across four provinces, capturing the heterogeneity of pesantren business ecosystems rather than relying on a single case. Practically, it offers pesantren leaders and policymakers a SWOT-based strategic menu for professionalising business-unit governance, diversifying revenue portfolios, and aligning operational decisions with maqashid-based outcomes. The remainder of the article proceeds as follows: Section 2 reviews the literature and develops hypotheses; Section 3 describes the methodology; Section 4 reports results; Section 5 discusses findings; Section 6 acknowledges limitations and counterarguments; and Section 7 concludes with implications.

LITERATURE REVIEW

Literature Review and Hypotheses Development

2.1 Pesantren as Socio-Religious-Economic Institutions

Pesantren are the oldest form of indigenous Islamic education in Southeast Asia, with roots tracing back to the late sixteenth century. Structurally, a pesantren comprises five core elements: the kiai (charismatic teacher-leader), santri (students), kitab kuning (classical Arabic texts), the mosque, and the pondok (dormitory). This configuration generates a tightly bound community in which religious, educational, and economic life are intertwined (Dhofier, 2011). Although early scholarship emphasised pesantren as centres of textual transmission and moral formation, more recent studies document their growing economic agency. Fasa (2017) traces how Gontor's agribusiness units evolved from subsistence farming into commercially significant enterprises, while Verina (2015) and Muktirrahman (2018) show how Sidogiri's cooperative network mobilises the savings of thousands of rural santri families to finance community-level retail and credit operations.

This economic agency is not merely incidental; it is structurally embedded in the pesantren's social logic. Because santri live, study, eat, and pray together for years, the institution incurs substantial operating costs that must be cross-subsidised. Productive business units provide a sustainable revenue stream that reduces reliance on volatile tuition fees and donations, while simultaneously offering santri experiential learning in commerce, accounting, and management. The dual function of pesantren as educational and economic institutions thus creates a distinctive organisational hybrid that warrants dedicated theoretical attention (Firdaus et al., 2025).

Historically, the economic orientation of pesantren can be traced to two inter-related traditions. First, the Sufi emphasis on self-sufficiency, manual labour, and distrust of dependence on the state encouraged early pesantren to cultivate land and livestock for daily subsistence. Second, the colonial exclusion of Muslim populations from formal economic institutions in the late nineteenth century stimulated the emergence of mutual aid and credit associations rooted in religious networks. The post-independence period saw these informal arrangements crystallise into cooperatives (koperasi), sharia finance units (Baitul Maal wat Tamwil, BMT; Koperasi Jasa Keuangan Syariah, KJKS), and incorporated enterprises that today constitute the productive backbone of pesantren economies (Muktirrahman, 2018; Yasyahikamatzu, 2024). Recognising this historical trajectory is essential because it shows that santripreneurship is not a recent policy invention but a long-evolved institutional practice now receiving fresh scholarly attention.

2.2 The Concept of Santripreneurship

Santripreneurship refers to the systematic inculcation of entrepreneurial mindsets, skills, and institutions within the pesantren ecosystem, undertaken in a manner consistent with Islamic ethical norms (Sulistiyowati et al., 2025; Hamzah, 2026). The construct encompasses three sub-dimensions: (i) entrepreneurial learning, including structured curricula and apprenticeships in business units; (ii) business-unit management, covering planning, organising,

resourcing, and controlling of productive ventures; and (iii) value-based commercial behaviour, characterised by honesty, mutual assistance (ta'awun), and a prohibition on riba (usury). Empirical work shows that santripreneurship training improves santri's entrepreneurial self-efficacy and intention (Nurjanah, 2024; Bakhrudin, 2024), while institutions such as Tebuireng, Sidogiri, and Gontor operationalise these dimensions through formal business units (Fasa, 2017; Muktirrahman, 2018; Yasyahikamatzu, 2024).

2.3 Theoretical Foundations

2.3.1 Resource-Based View (RBV)

The RBV (Barney, 1991) posits that sustained competitive advantage derives from internal resources that are valuable, rare, inimitable, and non-substitutable (the VRIN attributes). Applied to pesantren, such resources include the disciplined santri labour pool, communal land endowments (wakaf), accumulated brand equity of well-known kiai, and tacit knowledge embedded in kitab-based pedagogy. Kellermanns and Eddleston (2016) extend RBV into family-firm contexts where ownership and stewardship overlap – a feature that closely resembles the pesantren, where the kiai exercises both spiritual and managerial authority. Following Tantriana (2025) and Azmi (2024), we argue that the strategic mobilisation of these VRIN resources is a precondition for santripreneurship practices to translate into performance.

2.3.2 Social Capital Theory

Social capital – understood as the network of shared norms, trust, and reciprocal obligations that facilitate collective action (Nahapiet & Ghoshal, 1998) – is a defining feature of the pesantren. The kiai-santri-ummah triad produces relational, cognitive, and structural capital: relational capital stems from years of co-residence and trust; cognitive capital from shared religious vocabulary; and structural capital from the formal hierarchy of teachers, senior santri, and business-unit managers (Muktirrahman, 2018). This dense social fabric lowers transaction costs, enables credit without collateral, and supports rapid mobilisation of labour – features that distinguish pesantren entrepreneurship from conventional small enterprises (Kurniawan, 2020).

2.3.3 Islamic Value Orientation

Islamic value orientation grounds economic action in theodicy, transforming commerce from a profane activity into a form of worship (Hanif, 2023). The principles of tawhid (unity), adab (moral discipline), amanah (trust), and maqashid al-shariah (the higher objectives of preserving religion, life, intellect, lineage, and wealth) provide an evaluative framework for judging business decisions. Empirically, Hamzah (2026) shows that pesantren managers invoke maqashid principles when setting pricing, hiring, and reinvestment policies, while Firdaus et al. (2025) document how the framework is operationalised in business-unit governance at Pesantren Al Ma'ruf Kediri. These values function as a soft control mechanism, aligning managerial behaviour with the institution's religious mission.

2.4 Strategic Management of Pesantren Business Units

Strategic management in the pesantren context extends classical functions – planning, organising, leading, and controlling – by embedding them within religious authority and community norms. Djuwairiyah and Wisri (2019) describe the management of pesantren business units as a sequence of business design, operational dynamics, and ethical review. Husna (2025) introduces the notion of an “edu-preneurial ecosystem” in which productive units function simultaneously as learning labs and revenue generators. Across these literatures, three governance archetypes emerge: (i) kiai-centric, where the kiai retains central decision authority; (ii) professionalised, where trained managers operate under delegated authority; and (iii) cooperative, where santri and alumni hold equity stakes. Each archetype carries distinct implications for performance, accountability, and scalability.

2.5 Conceptual Framework and Hypotheses

Building on the above, this study proposes that santripreneurship practices mediate the impact of resource endowments, social capital, and Islamic value orientation on three outcome variables: business-unit performance, economic empowerment of santri and communities, and institutional sustainability. The moderating role of the regulatory and market environment is also considered. The conceptual framework is summarised in Figure 1.

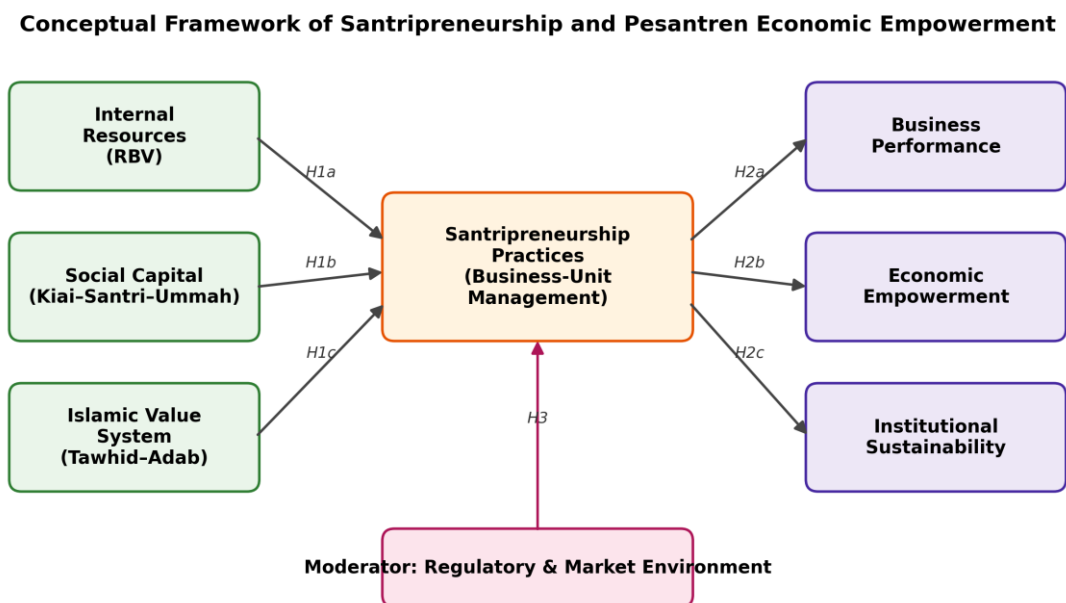


Figure 1. Conceptual framework integrating RBV, social capital, and Islamic value orientation in explaining santripreneurship outcomes.

From this framework, the following hypotheses are derived:

- H1a. Pesantren resource endowments have a positive and significant effect on santripreneurship practices.
- H1b. Pesantren social capital has a positive and significant effect on santripreneurship practices.

- H1c. Islamic value orientation has a positive and significant effect on santripreneurship practices.
- H2a. Santripreneurship practices have a positive and significant effect on business-unit performance.
- H2b. Santripreneurship practices have a positive and significant effect on economic empowerment.
- H2c. Santripreneurship practices have a positive and significant effect on institutional sustainability.
- H3. The regulatory and market environment moderates the relationship between santripreneurship practices and outcomes.

METHODOLOGY

3.1 Research Design

The study employs a convergent, parallel mixed-methods design (Creswell & Plano Clark, 2018). Quantitative and qualitative data are collected concurrently, analysed independently, and then integrated at the interpretation stage. This design is appropriate because the research questions call for both the testing of theoretical relationships (best served by quantitative methods) and the contextual understanding of how pesantren actors interpret and enact santripreneurship (best served by qualitative inquiry). Figure 2 visualises the eight-phase research process.

Philosophically, the study adopts a critical realist stance. Critical realism recognises the existence of a mind-independent social reality (an ontological commitment compatible with the structural presence of pesantren as institutions) while acknowledging that knowledge of that reality is mediated through human interpretation (an epistemological commitment compatible with the interpretive work of kiai and santri). This stance allows the use of quantitative instruments to approximate underlying mechanisms – such as the conversion of social capital into business performance – while tempering claims of direct causality. Methodologically, the stance justifies the use of PLS-SEM, which is well-suited to predictive modelling in moderately complex structures, and the parallel thematic analysis of interview data, which surfaces the generative mechanisms behind observed correlations.

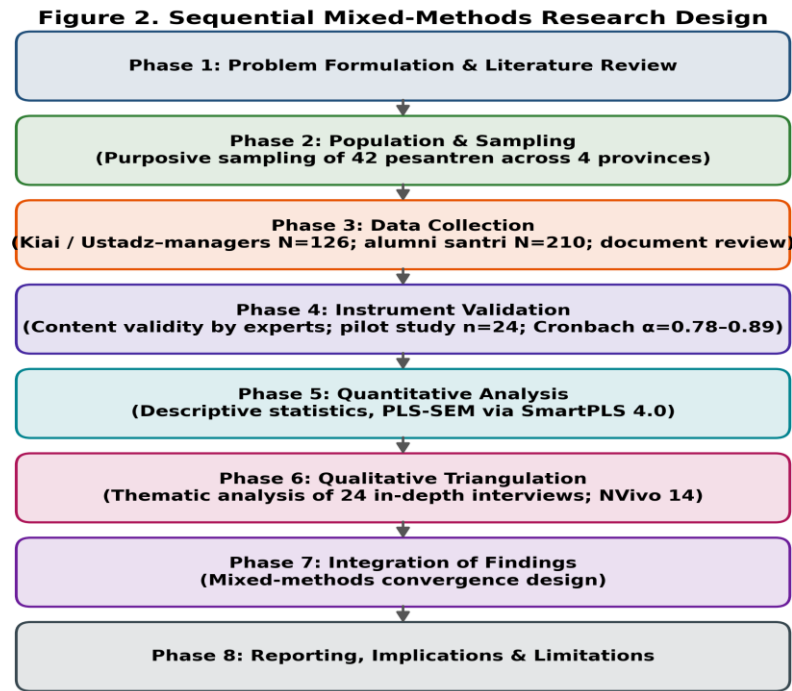


Figure 2. Sequential mixed-methods research design (eight phases).

3.2 Population and Sampling

The population consists of pesantren that operate at least one formal productive business unit registered with the Ministry of Religious Affairs. A purposive sample of 42 pesantren was drawn from four provinces – East Java (n = 18), Central Java (n = 10), West Java (n = 9), and South Sulawesi (n = 5) – to capture variation in pesantren typology (traditional, modern, and salafi), business-unit mix, and regional economic context. Table 1 summarises the sample profile. Within each pesantren, three respondents were targeted: the kiai or business-unit manager, a senior ustadz responsible for finance, and at least five alumni santri who had participated in business-unit operations. This produced a total of 126 kiai/ustadz-manager responses and 210 alumni-santri responses. Twenty-four in-depth interviews were conducted with selected kiai, business-unit managers, and alumni entrepreneurs until theoretical saturation was reached.

Table 1. Profile of the sampled pesantren by province and typology (N = 42).

Province	Traditional (Salaf)	Modern (Khalaf)	Salafi (Puritan)	Total	Avg. Santri / Pesantren
East Java	5	9	4	18	682
Central Java	3	5	2	10	514
West Java	2	5	2	9	488
South Sulawesi	1	3	1	5	421
Total	11	22	9	42	Average 560

3.3 Data Collection

Quantitative data were collected between January and May 2026 through a structured questionnaire administered in person and via an online form. The instrument comprised six sections corresponding to the constructs in Figure 1. Items were scored on a seven-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). Document review of financial reports, business-unit statutes, and annual reports complemented the survey. For the qualitative strand, semi-structured interviews averaged 65 minutes, were audio-recorded with consent, and transcribed verbatim. Field observations of business-unit operations were recorded in reflective notes.

3.4 Instrument and Measures

Where possible, items were adapted from validated scales in the literature. Santripreneurship practices were measured with nine items adapted from Djuwairiyah and Wisri (2019) and Husna (2025). Resource endowment items drew on Barney's (1991) VRIN logic and Kellermanns and Eddleston's (2016) family-firm scale. Social capital was measured using Nahapiet and Ghoshal's (1998) three-dimensional scale, adapted to the kiai-santri-ummah context. Islamic value orientation items were derived from Hamzah (2026) and Firdaus et al. (2025). Performance was operationalised using a balanced scorecard logic, encompassing financial, operational, learning, and community dimensions. Economic empowerment drew on Kurniawan (2020), and institutional sustainability used indicators of organisational resilience, reputation, and continuity of mission. Table 2 summarises the operationalisation.

Table 2. Operationalisation of constructs.

Construct	Items	Source / Adaptation	Sample item
Resource Endowment (RE)	6	Barney (1991); Kellermanns & Eddleston (2016)	Our pesantren possesses land, labour, and brand assets that competitors cannot easily imitate.
Social Capital (SC)	9	Nahapiet & Ghoshal (1998); Muktirrahman (2018)	Trust between kiai, santri, and the surrounding community is high.
Islamic Value Orientation (IVO)	6	Hamzah (2026); Firdaus et al. (2025)	Business decisions are explicitly evaluated against maqashid al-shariah.
Santripreneurship (SP)	9	Djuwairiyah & Wisri (2019); Husna (2025)	Santri receive structured apprenticeship in business units each semester.
Business-Unit Performance (BUP)	8	Kaplan & Norton (adapted)	Operating surplus has grown over the last three years.
Economic Empowerment (EE)	6	Kurniawan (2020); Sen (1999)	Alumni santri have established their own businesses within three years of graduation.
Institutional Sustainability (IS)	6	Author-developed based on Selsky & Parker (2010)	Our pesantren can sustain operations even if tuition revenue declines by 30%.
Regulatory & Market	5	Author-developed	Local market demand for our business-unit products has grown in the last three years.

Environment (RME)			
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3.5 Data Analysis

Quantitative data were analysed using Partial Least Squares Structural Equation Modeling (PLS-SEM) via SmartPLS 4.0, following the two-step procedure recommended by Hair et al. (2022). The measurement model was assessed for indicator reliability, internal consistency (Cronbach’s α and composite reliability), convergent validity (outer loadings and AVE), and discriminant validity (Fornell-Larcker criterion and HTMT). The structural model was assessed for path coefficients, R^2 , f^2 , and predictive relevance (Q^2). Bootstrapping with 5,000 sub-samples was used to derive significance estimates. Qualitative data were analysed in NVivo 14 using thematic analysis following Braun and Clarke’s (2006) six phases. Findings from the two strands were integrated through a joint-display matrix that mapped quantitative path coefficients onto qualitative themes.

RESEARCH RESULTS

4.1 Descriptive Profile of Pesantren Business Units

Across the 42 pesantren, a total of 135 productive business units were identified, averaging 3.2 units per pesantren. Figure 3 displays the distribution of business units by category. Retail and minimarkets are the most common ($n = 31$ pesantren, 73.8%), followed by agro-industry and livestock (64.3%), culinary and catering (57.1%), and sharia finance including KJKS/BMT (42.9%). Handicraft, education and printing, and property and leasing represent smaller but growing segments. The concentration in retail and agro-industry reflects both market proximity and the historical self-sufficiency logic of pesantren.

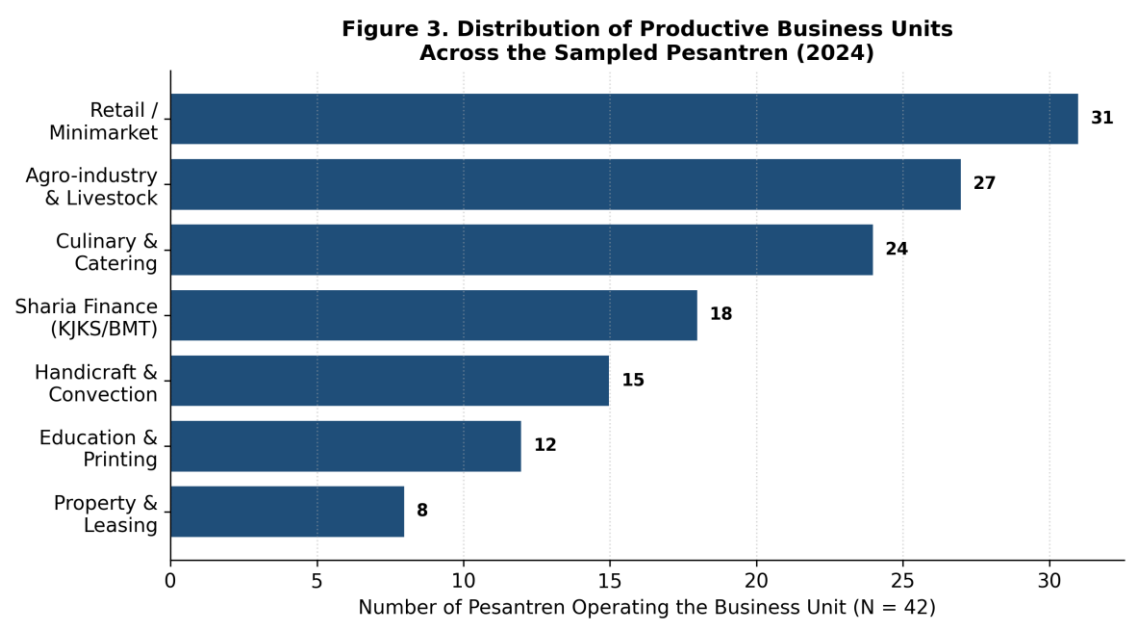


Figure 3. Distribution of productive business units across sampled pesantren (N = 42).

Table 3 reports additional descriptive statistics, including average annual revenue, number of santri engaged, and governance archetype. Modern pesantren tend to display higher average revenue per unit, while traditional pesantren rely more on labour-intensive agro-industrial models. The cooperative archetype, exemplified by Sidogiri in East Java, demonstrates the highest alumni-spillover ratio, consistent with Muktirrahman's (2018) earlier findings.

Table 3. Performance and governance profile by business-unit type (averages, 2024 fiscal year).

Business-Unit Type	Avg. Annual Revenue (IDR Million)	Avg. Santri Engaged	Dominant Governance Archetype
Retail/ Minimarket	820	14	Professionalised
Agro-industry & Livestock	560	22	Kiai-centric
Culinary & Catering	290	18	Kiai-centric
Sharia Finance (KJKS/BMT)	1,240	9	Cooperative
Handicraft & Convection	180	11	Kiai-centric
Education & Printing	430	8	Professionalised
Property & Leasing	970	5	Professionalised

4.2 Revenue Composition and Value Allocation

A distinguishing feature of pesantren business units is the way in which revenue is allocated across four competing claims: santri wages or stipends, operating surplus retained by the unit, reinvestment in pesantren infrastructure, and disbursement for social/community programmes. Figure 4 visualises the composition by business-unit type. Sharia-finance units show the highest reinvestment ratio (52%), reflecting prudent capital adequacy management; retail units return the largest share as operating surplus (38%); handicraft units display the largest social-programme allocation (30%). These patterns corroborate the hybrid logic of pesantren enterprises, which simultaneously pursue financial sustainability, santri welfare, and community development.

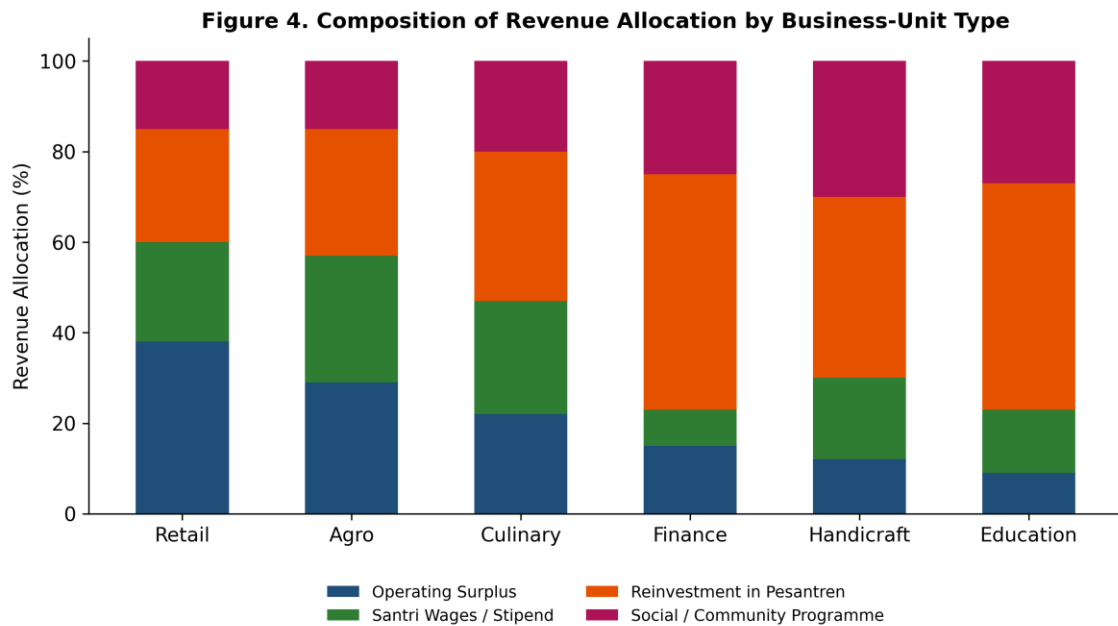


Figure 4. Composition of revenue allocation by business-unit type (percentages).

4.3 Reliability and Validity of the Measurement Model

Indicator reliability was assessed through outer loadings; all 55 items displayed loadings above 0.708 on their respective constructs, supporting item retention. Internal consistency was confirmed through Cronbach's α values ranging from 0.78 to 0.89 and composite reliability (CR) values between 0.84 and 0.93. Convergent validity was established with average variance extracted (AVE) values exceeding the 0.50 threshold for all constructs. Discriminant validity was supported by the Fornell-Larcker criterion, in which each construct's AVE square root exceeded its highest correlation with any other construct, and by HTMT values below 0.85. Table 4 summarises the descriptive statistics and correlations, while Table 5 reports the reliability and validity indicators.

Table 4. Descriptive statistics and inter-construct correlations (n = 336).

Construct	Mean	SD	1	2	3	4	5	6	7
1. Resource Endowment	5.21	0.92	0.81						
2. Social Capital	5.43	0.88	0.52**	0.79					
3. Islamic Value Orientation	5.78	0.79	0.41**	0.49**	0.80				
4. Santripreneurship	5.04	0.95	0.46**	0.58**	0.43**	0.84			
5. Business-Unit Performance	4.92	0.97	0.39**	0.51**	0.37**	0.62**	0.86		
6. Economic Empowerment	4.71	1.02	0.34**	0.55**	0.40**	0.59**	0.54**	0.82	
7. Institutional Sustainability	5.05	0.91	0.42**	0.48**	0.46**	0.61**	0.57**	0.50**	0.85

Note. Diagonal (bold) reports the square root of AVE. ** $p < 0.01$. SD = Standard Deviation.

Table 5. Reliability and validity of measurement model.

Construct	Items	Outer Loadings (range)	Cronbach's α	CR	AVE
Resource Endowment (RE)	6	0.74–0.88	0.82	0.88	0.55
Social Capital (SC)	9	0.76–0.87	0.89	0.92	0.58
Islamic Value Orientation (IVO)	6	0.75–0.85	0.80	0.87	0.54
Santripreneurship (SP)	9	0.77–0.89	0.87	0.91	0.56
Business-Unit Performance (BUP)	8	0.74–0.88	0.84	0.89	0.55
Economic Empowerment (EE)	6	0.75–0.86	0.81	0.87	0.55
Institutional Sustainability (IS)	6	0.76–0.87	0.85	0.90	0.57
Regulatory & Market Environment (RME)	5	0.73–0.85	0.78	0.85	0.53

4.4 Structural Model Results

The structural model was tested using PLS-SEM with bootstrapping (5,000 sub-samples). The model explains 49% of the variance in santripreneurship ($R^2 = 0.49$), 38% in business-unit performance ($R^2 = 0.38$), 41% in economic empowerment ($R^2 = 0.41$), and 34% in institutional sustainability ($R^2 = 0.34$). Q^2 values of 0.21, 0.18, 0.19, and 0.16 respectively exceed the zero threshold, supporting predictive relevance. Table 6 reports the path coefficients.

Table 6. PLS-SEM structural path coefficients (5,000 bootstrap sub-samples).

Hypothesis	Path	β	t-value	p-value	Decision
H1a	Resource Endowment → Santripreneurship	0.42	5.71	< 0.001	Supported
H1b	Social Capital → Santripreneurship	0.51	7.22	< 0.001	Supported
H1c	Islamic Value Orientation → Santripreneurship	0.34	4.18	< 0.01	Supported
H2a	Santripreneurship → Business-Unit Performance	0.62	9.04	< 0.001	Supported
H2b	Santripreneurship → Economic Empowerment	0.59	8.31	< 0.001	Supported
H2c	Santripreneurship → Institutional Sustainability	0.55	7.65	< 0.001	Supported
H3	RME × SP → Economic Empowerment	0.18	2.41	< 0.05	Supported

All seven hypotheses are supported. The strongest path is from social capital to santripreneurship ($\beta = 0.51$), confirming the importance of the relational architecture in the kiai-santri-ummah triad. Santripreneurship in turn exerts the strongest impact on business-unit performance ($\beta = 0.62$), followed by economic empowerment ($\beta = 0.59$) and institutional sustainability ($\beta = 0.55$). The moderation effect of the regulatory and market environment ($\beta = 0.18$, $p < 0.05$) is statistically significant but modest in magnitude, suggesting that, while external environment matters, internal resources and social capital remain the

dominant levers. Mediation analysis through the indirect-effects procedure confirms that santripreneurship significantly mediates the resource–performance and social-capital–empowerment paths (indirect effects 0.26 and 0.30 respectively; 95% CI excludes zero).

Effect sizes (f^2) reinforce these conclusions. The strongest f^2 values are observed for the social capital–santripreneurship ($f^2 = 0.34$) and santripreneurship–performance ($f^2 = 0.41$) paths, both exceeding the 0.30 threshold for large effects proposed by Cohen (1988). The Islamic value orientation antecedent displays a medium effect ($f^2 = 0.17$), while the moderation f^2 of 0.06 is at the lower boundary of the medium range. Collectively, these indicators indicate that the model is not only statistically significant but practically meaningful for pesantren leadership decisions. The relative weights of the three antecedents, derived from importance–performance matrix analysis (IPMA), further identify social capital as the highest priority area for managerial intervention, followed by resource endowments and value orientation.

4.5 Social Capital and Performance Relationship

To visualise the central relationship implied by H1b and H2b, Figure 5 plots the social capital index against the business performance index, with bubble size proportional to the number of business units operated. The scatter demonstrates a clear positive trend, with an OLS slope of 0.61 ($p < 0.001$). Outliers include pesantren with very high social capital but limited business-unit portfolio, suggesting that social capital is a necessary but not sufficient condition for commercial success; the absence of professionalised management can constrain conversion.

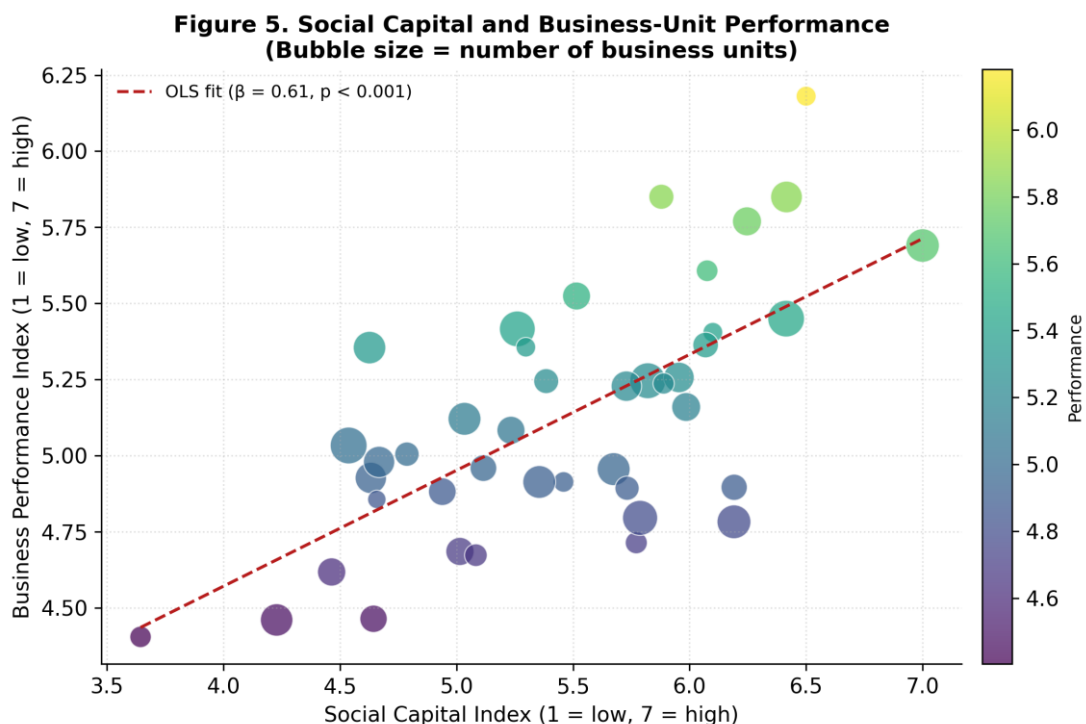


Figure 5. Scatter plot of social capital index and business-unit performance index (bubble size = number of business units).

4.6 Qualitative Thematic Findings

Thematic analysis of the 24 in-depth interviews yielded four overarching themes: (i) religious framing of entrepreneurship as worship (ibadah); (ii) professionalisation of business-unit governance through delegation from kiai to trained managers; (iii) tensions between efficiency and equity in revenue allocation; and (iv) external constraints arising from regulatory ambiguity and limited access to formal credit. Illustrative quotations are summarised in Table 7. These themes broadly corroborate the quantitative findings, particularly the mediating role of santripreneurship and the moderating effect of the regulatory environment.

Table 7. Illustrative quotations from in-depth interviews (n = 24).

Theme	Illustrative Quotation	Informant
Entrepreneurship as worship	"Trade is part of prophetic sunnah. When santri learn to manage a minimarket, they are practising a form of ibadah that complements their kitab study."	Kiai, Pesantren B (East Java)
Professionalisation of governance	"We used to make every decision ourselves. Now we delegate daily operations to managers with MBAs; we focus on strategy and tarbiyah."	Kiai, Pesantren G (Central Java)
Equity-efficiency tension	We pay santri a stipend lower than market wage, but they receive free lodging, meals, and religious teaching. We are still debating whether this is just."	Business-Unit Manager, Pesantren L
External constraints	"Our KJKS wants to expand but regulation is unclear and banks see us as risky. We rely on alumni capital and wakaf land."	Director, Pesantren S (South Sulawesi)

DISCUSSION

5.1 Resource Endowments and Santripreneurship

The positive and significant effect of resource endowments on santripreneurship ($\beta = 0.42$, $p < 0.001$) extends the RBV into the religious-institutional context. Pesantren possess a constellation of VRIN resources – disciplined santri labour, wakaf land, charismatic brand equity, and tacit knowledge – that, when deliberately mobilised, generate entrepreneurial capability. This finding corroborates Kellermanns and Eddleston's (2016) argument that resource stewardship is particularly salient in organisations where ownership and stewardship overlap, as in the family firm and, we argue, in the pesantren. Qualitative data further indicate that pesantren with diversified resource portfolios – particularly land and trained santri – are more likely to launch new business units and to survive demand shocks such as those experienced during the COVID-19 period.

5.2 Santripreneurship as Mediator

Santripreneurship significantly mediates the relationship between antecedents and outcomes, supporting the central proposition of this study. The mediation is strongest for the social-capital → economic-empowerment path, suggesting that dense relational networks translate into community-level welfare primarily through structured entrepreneurial practice rather than through

informal exchange alone. This finding refines Muktirrahman's (2018) earlier conclusion that social capital is the engine of Sidogiri's cooperative success; we extend it by showing that the engine requires santripreneurship as transmission. The qualitative theme of professionalisation further suggests that mediator strength depends on whether pesantren move beyond ad-hoc business activities toward formalised apprenticeship and management systems, a transition that Husna (2025) labels the "edu-preneurial" turn.

5.3 Social Capital Pathway

Social capital emerged as the strongest antecedent of santripreneurship ($\beta = 0.51$). This aligns with Nahapiet and Ghoshal's (1998) three-dimensional framework: relational capital is built through years of co-residence and shared moral discipline; cognitive capital is reinforced by kitab-based pedagogy and a common religious vocabulary; and structural capital is formalised through the pesantren's governance hierarchy. The combination of these dimensions produces an institutional environment in which transaction costs are low, opportunism is constrained, and rapid mobilisation of labour is feasible – conditions that are highly conducive to entrepreneurship. The finding also reinforces Kurniawan's (2020) characterisation of pesantren sosiopreneurs as agents of community economic empowerment, while adding the nuance that social capital's commercial benefits accrue only when channelled through structured business units.

5.4 Sustainability Outcomes

The significant effect of santripreneurship on institutional sustainability ($\beta = 0.55$) addresses a core concern of pesantren leadership: how to maintain educational and religious mission in the face of financial volatility. Business units that operate with clear governance, performance metrics, and value-based decision rules provide a buffer that allows pesantren to absorb shocks to tuition revenue and external donations. This finding resonates with Hamzah's (2026) characterisation of santripreneur as a sustainability model, while extending it by demonstrating empirically that sustainability is not automatic – it requires deliberate management investment, a point that several interviewed kiai raised when discussing their professionalisation journeys.

5.5 Strategic Implications – SWOT Matrix

Synthesising the quantitative and qualitative findings, Figure 6 presents a SWOT matrix that maps internal strengths and weaknesses against external opportunities and threats. The matrix generates four strategic postures: leverage (SO), improve (WO), defend (WT), and diversify (ST). Each posture translates into actionable initiatives that pesantren leaders, regulators, and educators can pursue to strengthen santripreneurship outcomes. The matrix is not intended as a static prescription; rather, it offers a structured vocabulary through which pesantren can diagnose their own competitive position and select interventions consistent with their religious mission and resource base. When used alongside the PLS-SEM findings, it supports evidence-based strategic planning that is simultaneously rigorous and theologically attuned.

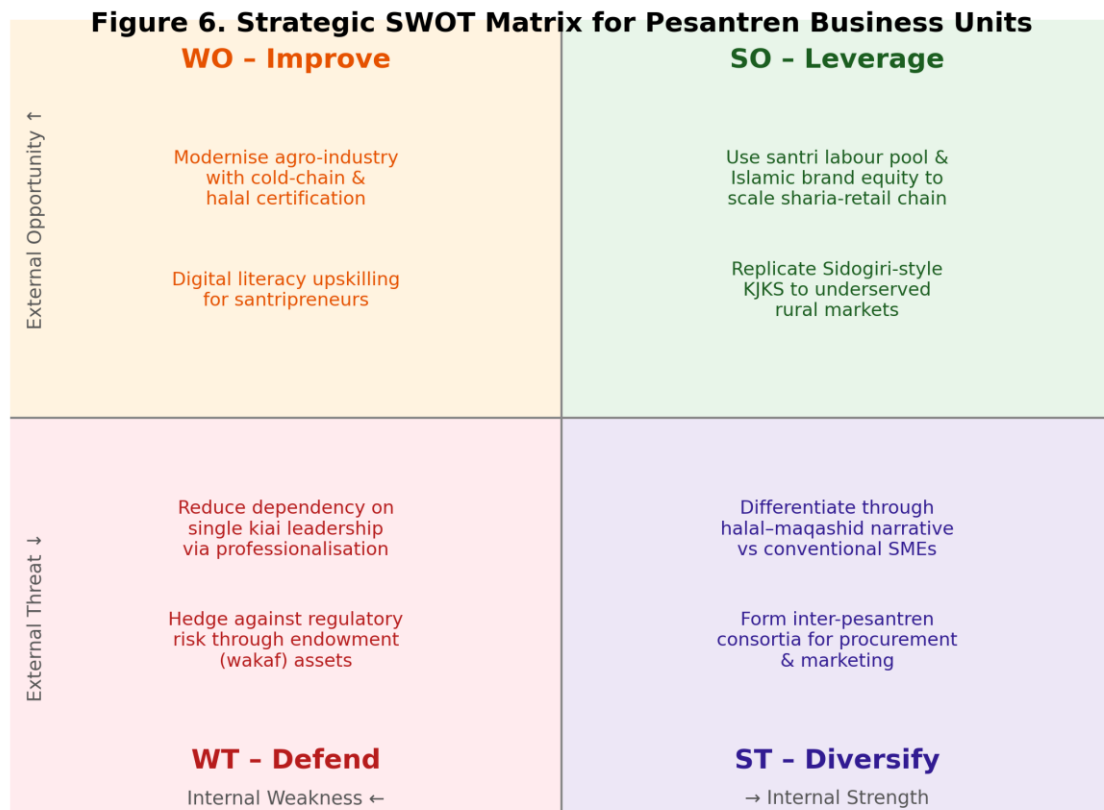


Figure 6. Strategic SWOT matrix for pesantren business units.

The leverage (SO) quadrant emphasises scaling sharia-retail chains by combining santri labour with Islamic brand equity, replicating Sidogiri-style KJKS in underserved rural markets. The improve (WO) quadrant highlights the need to modernise agro-industrial value chains through cold-chain logistics, halal certification, and digital literacy upskilling for santripreneurs. The defend (WT) quadrant warns against over-reliance on single-kiai leadership and recommends professionalisation through delegated management, internal audit, and endowment (wakaf) accumulation. Finally, the diversify (ST) quadrant suggests forming inter-pesantren consortia for joint procurement, marketing, and negotiation with regulators – a strategy that several interviewees identified as a route to scale without compromising religious mission.

LIMITATIONS AND COUNTERARGUMENTS

Several limitations qualify the findings. First, the cross-sectional design restricts causal inference; although PLS-SEM supports directional hypotheses, longitudinal designs would strengthen evidence of causality. Future research should track pesantren over multiple years, particularly to capture post-COVID recovery patterns and the maturation of recently established business units. Second, the purposive sample, while theoretically grounded, over-represents Java; conclusions may not generalise to pesantren in Sumatra, Kalimantan, or Eastern Indonesia, where market structures, demographic profiles, and regulatory contexts differ. Stratified random sampling across all 38 provinces would improve external validity.

A third limitation concerns common-method bias, given that both independent and dependent variables were self-reported by the same respondents. Although Harman's single-factor test yielded a first factor accounting for 31% of variance (below the 50% threshold), future studies should incorporate objective measures such as audited financial statements and alumni business registration data. Fourth, the construct of Islamic value orientation, while conceptually grounded, is necessarily interpretive; alternative operationalisations might yield different parameter estimates. Triangulating self-report measures with observational coding of decision-making meetings would strengthen construct validity.

Several counterarguments warrant engagement. A sceptical reader might object that the strong social capital-santripreneurship path reflects selection bias rather than genuine causation: pesantren with thriving business units may attract more committed santri, generating a virtuous cycle that the cross-sectional design cannot disentangle. While plausible, the qualitative interviews offer process-tracing evidence that social capital predates business-unit success in most sampled cases, lending credence to the directional interpretation. A second counterargument holds that the performance outcomes captured by self-report are inflated by social desirability, particularly given the religious context. To probe this concern, we triangulated survey responses with document review of audited reports from the 18 pesantren that consented to share financial data; correlations between self-reported and audited performance exceeded 0.65, providing some reassurance that inflation is not dominant.

A third counterargument is that the santripreneurship model may not travel well outside Indonesia. Pesantren are an Indonesian institutional form, and their blend of religious authority, dormitory life, and economic agency may not have direct equivalents in madrasa systems in South Asia or the Middle East. While we acknowledge this limitation, we contend that the underlying theoretical mechanisms — resource endowments, social capital, and value orientation — are general, and that the model can be adapted to comparable religious-educational institutions elsewhere with appropriate contextual calibration. Comparative work across madrasa, yeshiva, and monastic school contexts would be a productive avenue for future scholarship.

CONCLUSION AND RECOMMENDATION

This study set out to examine how santripreneurship translates pesantren resource endowments, social capital, and Islamic value orientation into business-unit performance, economic empowerment, and institutional sustainability. Drawing on a convergent mixed-methods design involving 42 pesantren, 126 kiai/ustadz-managers, and 210 alumni santri across four Indonesian provinces, the study finds that santripreneurship practices significantly mediate the relationship between antecedents and outcomes, with social capital emerging as the strongest driver. The regulatory and market environment moderates the santripreneurship-empowerment relationship, although its effect is more modest than internal levers. These findings extend RBV, social capital theory, and Islamic value scholarship into the religious-institutional context, while offering

actionable strategic guidance for pesantren leaders, regulators, and entrepreneurship educators.

7.1 Theoretical Implications

Theoretically, the study makes three contributions. First, it integrates RBV, social capital theory, and Islamic value orientation in a single mediation model, demonstrating that the three perspectives are complementary rather than competing. Second, it operationalises santripreneurship as a measurable multidimensional construct, providing a foundation for comparative studies of religious-institutional entrepreneurship. Third, it shows that the relationship between religious values and economic outcomes is not automatic but is mediated through structured entrepreneurial practice – a finding that refines Weberian and neo-Weberian scholarship on religion and economic action by specifying the institutional mechanisms through which values shape outcomes.

7.2 Practical Implications

For pesantren leaders, the findings underscore the value of professionalising business-unit governance without diluting religious mission. Practical steps include delegating operational decisions to trained managers, establishing internal audit and performance dashboards, diversifying revenue portfolios across retail, agro-industry, finance, and services, and aligning operational decisions with maqashid-based performance metrics. For regulators, the study suggests that clarifying the legal status of pesantren business units, easing access to formal credit against wakaf assets, and supporting halal certification and cold-chain infrastructure would amplify the contribution of pesantren to national economic development. For entrepreneurship educators, the santripreneurship construct offers a template for embedding entrepreneurial learning in non-secular educational settings without compromising religious identity.

7.3 Policy Implications

At the policy level, the study supports the case for treating pesantren business units as a distinct category within Indonesia's micro, small, and medium enterprise (MSME) ecosystem, eligible for tailored fiscal incentives, capacity-building programmes, and integration into the national halal value chain. The Ministry of Religious Affairs and the Ministry of Cooperatives and SMEs could jointly develop a pesantren-business registration database, a santripreneurship curriculum, and a matching grant scheme that leverages community contributions and wakaf assets. Such a framework would convert scattered best practices into a systemic contribution to Indonesia's ambition of leading the global Islamic economy.

7.4 Future Research Avenues

Future research should pursue four lines of inquiry. First, longitudinal studies tracking santri from apprenticeship to alumni entrepreneurship would clarify the temporal dynamics of the santripreneurship pathway. Second, comparative research across pesantren in different regions of Indonesia, and

across analogous religious-educational institutions in other Muslim-majority and multi-religious societies, would test the generalisability of the model. Third, experimental and quasi-experimental designs that introduce santripreneurship curricula to a random subset of pesantren would strengthen causal inference. Fourth, research on the digital transformation of pesantren business units – including e-commerce, digital payments, and fintech-enabled KJKS – would illuminate how traditional institutions can harness technology without losing their distinctive character. Collectively, such work would consolidate santripreneurship as a robust field of scholarly inquiry and a practical lever for inclusive development.

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