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Behavioral Biases and Investment Intention Among Generation Z Investors in South Tangerang: A PLS-SEM Approach

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A B S T R A C T
This research investigates how five behavioral biases, namely Fear of Missing Out (FOMO), Socially Responsible Investing (SRI) awareness, Overconfidence, Herding Behavior, and the Disposition Effect, shape the investment intentions of Generation Z in South Tangerang, Indonesia. Utilizing the generational bias framework proposed by Altaf and Jan (2023), this study employs a cross-sectional quantitative analysis via PLS-SEM on a sample of 321 experienced Gen Z investors. Findings reveal that SRI awareness is the primary driver of investment intention (β=0.371), followed by the Disposition Effect, Overconfidence, and Herding Behavior. Conversely, FOMO negatively impacts intention (β=−0.109). These results underscore distinct behavioral patterns in Gen Z compared to previous generations, offering vital insights into Indonesia's evolving digital investment landscape.

INTRODUCTION

Village-Owned Enterprises, locally known as *Badan Usaha Milik Desa* (BUMDes), have increasingly become strategic instruments for rural economic transformation in Indonesia. They are expected to mobilize local assets, create village-based business opportunities, strengthen village original revenue, and improve community welfare through locally embedded economic initiatives. In contemporary rural governance, BUMDes are not merely business entities but hybrid socio-economic institutions that combine public mandates, community interests, and entrepreneurial activities. Recent studies emphasize that BUMDes governance must be grounded in cooperative, participatory, transparent, accountable, and sustainable principles to ensure that village enterprises contribute meaningfully to community empowerment and rural development (Hadi et al., 2024). Empirical evidence from village-owned enterprises in Riau also indicates that good governance practices can enhance value co-creation and organizational performance, particularly when management, monitoring, and accountability mechanisms are properly institutionalized (Nelly Sari et al., 2022)

Despite their strategic role, many BUMDes continue to face persistent governance and financial management challenges. These challenges are reflected in weak transparency, limited accountability, inadequate documentation, low managerial capability, weak supervision, and insufficient community participation. Studies on BUMDes financial governance show that although elements of transparency and accountability are often formally present, their implementation remains inadequate because financial practices are frequently based on the understanding of managers rather than standardized governing documents (Ekawati & Sari, 2024). Similarly, accountability studies reveal that BUMDes are required to be transparent and participatory because their capital often derives from village fund allocations; however, limited managerial competence and weak understanding of financial reporting continue to constrain substantive accountability (Budi Putra & Damayanti, 2024). These findings suggest that BUMDes financial governance problems are not merely technical accounting issues but are closely related to institutional capacity, human capital, community engagement, and the quality of internal and external oversight.

The governance problem is particularly relevant in Bengkalis Regency, Riau Province, where BUMDes have received substantial support and occupy an important position in village economic development. The thesis on BUMDes financial governance in Bengkalis shows that formal governance structures have been established, yet the substantive implementation of financial governance remains weak. The main problems include limited business planning, inadequate human resource capacity, low community participation, weak knowledge of planning–organizing–actuating–controlling processes, and supervision that tends to be administrative rather than transformative. In this context, the paradox of BUMDes governance emerges: institutional structures exist normatively, but their operational effectiveness is constrained by weak financial literacy, limited managerial professionalism, low community trust, and insufficient integration among supervisory, human resource, participatory, and institutional collaboration mechanisms (Fadhil Junery et al., 2026a).

Recent literature supports the need to understand BUMDes development through a systemic rather than fragmented perspective. (Akbar & Karmila, 2024) argue that BUMDes empowerment requires an adaptive and responsive approach because BUMDes operate in a complex and dynamic environment. Their agility model identifies human resource capacity, technology adoption, collaboration, local government support, operational transparency, oversight, strategic planning, and human resource development as important elements in strengthening BUMDes performance and community empowerment. In a similar direction, (Kusmulyono et al., 2023) found that successful village-owned enterprises require a combination of village government commitment, professional management, and community involvement to balance social and economic performance. These studies confirm that BUMDes performance depends not only on financial capital but also on the interaction among managerial capability, institutional commitment, community participation, and governance mechanisms.

Institutional collaboration is also increasingly recognized as a determining factor in BUMDes sustainability. Studies on BUMDes strengthening show that governance, financial sustainability, and community engagement remain major challenges despite significant government support, while government support, professional management, and active community participation are central factors for enterprise success (Fahmi & Panorama, 2025). The success of joint village-owned enterprises has also been linked to managerial and technical skills, leadership, political support, equality of capability among villages, and government support (Sari & Ilham, 2024). These findings indicate that BUMDes financial governance cannot be strengthened only through internal reform; it also requires coordinated institutional support involving village governments, local governments, supervisory bodies, communities, and external partners.

However, existing studies tend to examine BUMDes governance through separate dimensions, such as transparency, accountability, community participation, innovation, financial reporting, local government support, or managerial capability. While these studies provide valuable insights, there remains a research gap in developing an integrated empowerment model that connects supervision, human capital, community participation, and institutional collaboration within a single financial governance framework. This gap is important because the weakness of BUMDes financial governance is systemic: poor supervision reduces accountability, limited human capital weakens financial reporting, low community participation undermines legitimacy, and fragmented institutional collaboration limits the effectiveness of corrective action. Therefore, a more comprehensive model is needed to explain how these components interact and how they can be strategically integrated to strengthen BUMDes financial governance.

Against this background, this article aims to formulate a systemic empowerment model for BUMDes financial governance by integrating supervision, human capital, community participation, and institutional collaboration. Using Bengkalis Regency as the empirical context, this article argues that the empowerment of BUMDes financial governance requires a shift from procedural compliance toward substantive accountability. The proposed model contributes to the literature in three ways. First, it reframes BUMDes financial governance as a systemic empowerment process rather than a narrow administrative or accounting function. Second, it integrates internal and external governance dimensions by linking supervision, managerial competence, community involvement, and institutional collaboration. Third, it offers a policy-relevant framework that may assist village governments, local governments, BUMDes managers, and supervisory actors in designing more transparent, accountable, participatory, and sustainable financial governance practices. Thus, this study is expected to contribute not only to academic debates on rural enterprise governance but also to the practical strengthening of BUMDes as instruments of inclusive and sustainable village economic development.

LITERATURE REVIEW

Village-Owned Enterprises, locally known as *Badan Usaha Milik Desa* (BUMDes), occupy a distinctive position in Indonesia's rural development architecture because they combine business-oriented functions with public and community-based development mandates. Contemporary studies conceptualize BUMDes as hybrid village economic institutions that are expected to transform village assets, village funds, and local economic potential into productive activities that support rural welfare, employment, and village original income. A systematic review of Indonesian village-owned enterprises indicates that BUMDes are increasingly discussed as instruments for building village economies, yet their performance remains uneven because many enterprises are not yet managed optimally in terms of governance, managerial capacity, business innovation, and community participation (Nasfi et al., 2023). Similarly, empirical evidence on village funds, village-owned enterprises, and village original income shows that BUMDes can contribute to rural development when they are managed transparently, professionally, and aligned with local competitive advantages (Hilmawan et al., 2023).

In the Indonesian decentralization context, the relevance of BUMDes is inseparable from the broader governance of village funds and rural development policy. The Village Fund Program has been widely positioned as a fiscal instrument to accelerate local development, reduce inequality, and align village-level programs with the Sustainable Development Goals. (Permatasari et al., 2021) found that village fund activities can be mapped to the SDGs, indicating that village development policy has a multidimensional development orientation rather than a purely administrative budgeting function. However, the effectiveness of such policy depends on whether village institutions, including BUMDes, are able to convert fiscal transfers into productive, accountable, and sustainable economic outcomes. This implies that BUMDes financial governance must be understood not only as financial reporting practice but also as a mechanism that links local resources, public accountability, institutional legitimacy, and community welfare outcomes.

Financial governance is a core element in strengthening BUMDes because these enterprises manage public-related resources and are expected to generate both financial and social returns. In this context, accountability cannot be reduced to the existence of financial reports alone. (Fitriani et al., 2024a) show that BUMDes may already have reporting, disclosure, meetings, dialogues, community involvement, performance evaluation, and assessment mechanisms; nevertheless, fairness accountability and performance accountability may remain unclear when objectives, indicators, and accountability standards are not sufficiently institutionalized. Their study therefore recommends regulatory clarification, alignment between financial and social performance indicators, structured administrator capacity-building, and compliance-based mechanisms to strengthen accountability. This finding is highly relevant to the present study because a systemic empowerment model for BUMDes financial governance must address both formal accountability and substantive accountability.

Internal supervision and control mechanisms also play a critical role in BUMDes financial governance. (Purnamasari et al., 2024a) found that internal control and information system implementation are positively associated with village performance accountability, transparency, efficiency, resource management, and sustainable rural development. This evidence suggests that supervision should not be treated merely as post-activity inspection but as a preventive and corrective governance mechanism that ensures financial discipline, risk mitigation, accurate documentation, and reliable decision-making. Within BUMDes, internal supervision becomes especially important because financial transactions often involve village capital, community expectations, and local political interests. Therefore, an effective financial governance model requires structured supervision involving BUMDes managers, village government, supervisory boards, local government agencies, and community representatives.

Human capital is another decisive component in BUMDes financial governance. Studies on village-owned enterprises show that the performance of BUMDes is strongly shaped by the financial literacy, managerial ability, and technical competence of their managers. (Nugroho et al., 2023a), using evidence from East Java, found that financial literacy matters for village-owned enterprise performance, particularly when performance is measured through profit and return on investment. More recent evidence by (Mahmudah et al., 2026a) further demonstrates that financial literacy strengthens financial attitudes and financial intelligence, while digital financial practices enhance managerial capability through behavioral and cognitive pathways. Their findings indicate that sustainable BUMDes performance depends not only on institutional support or financial resources but also on financial capability, digital tools, and resilience in responding to rural economic uncertainty.

The role of digital finance and information systems is increasingly relevant because many BUMDes still rely on manual financial records and simple spreadsheet-based reporting. Digital financial practices can improve documentation quality, reduce recording errors, accelerate transaction monitoring, and support evidence-based decision-making. However, digital transformation does not automatically improve performance unless it is accompanied by human resource readiness, financial literacy, organizational discipline, and institutional commitment. (Mahmudah et al., 2026b) emphasize that financial technology has limited direct effect on profitability when it is not supported by adequate financial capability and resilience. This means that digitalization in BUMDes financial governance should be integrated with training, supervision, reporting standards, and adaptive managerial practices rather than being implemented as a stand-alone technical tool.

Community participation is equally important because BUMDes are not ordinary business entities; they are village-owned institutions expected to represent collective interests. Participation strengthens legitimacy, creates a sense of ownership, improves public monitoring, and reduces the risk of elite domination in decision-making. Evidence from BUMDes governance in tourism village development shows that transparency, openness, accountability, fairness, and independence contribute positively to village development outcomes, with transparency emerging as one of the most influential governance elements. The same study also notes that many BUMDes have not yet implemented adequate vertical and horizontal accountability, indicating that participation and accountability mechanisms must be strengthened simultaneously. Therefore, community participation in BUMDes financial governance should cover planning, implementation, monitoring, evaluation, and benefit distribution rather than being limited to formal village meetings (Revida et al., 2023a).

Institutional collaboration provides the broader governance ecosystem needed to sustain BUMDes performance. Local government capability is central because local governments possess authority to guide, supervise, and develop BUMDes. Evidence from Bintan Regency shows that successful BUMDes management cannot be separated from the role of local government in fostering, supervising, and developing village-owned enterprises (Sari & Ilham, 2023). In addition, open innovation research on village-owned enterprises demonstrates that BUMDes performance can be improved when internal resources are combined with external knowledge, partnerships, entrepreneurial orientation, and collaboration. Wulandari & Wardani, (2024) found that open innovation significantly affects both social and financial performance, indicating that BUMDes need to move beyond closed, inward-looking management models toward collaborative and innovation-oriented governance.

Based on these streams of literature, the empowerment of BUMDes financial governance should be framed as a systemic process that integrates four mutually reinforcing dimensions: supervision, human capital, community participation, and institutional collaboration. Supervision strengthens accountability and risk control; human capital improves financial literacy, managerial competence, and digital readiness; community participation enhances legitimacy, transparency, and social control; while institutional collaboration connects BUMDes with village governments, local governments, communities, universities, private actors, and other stakeholders. This systemic view is consistent with the thesis foundation, which positions financial governance as a multidimensional framework involving transparency, accountability, reporting systems, internal supervision, regulatory compliance, and manager competence, all of which influence BUMDes performance through business sustainability, profitability, management efficiency, community trust, and contribution to the village economy (Fadhil Junery et al., 2026b).

Therefore, this study advances the proposition that BUMDes financial governance cannot be strengthened through isolated interventions such as accounting training, financial reporting, or supervision alone. Instead, it requires an integrated empowerment model that links internal control with human resource development, community-based accountability, and inter-institutional collaboration. The literature indicates that fragmented governance often produces procedural compliance without substantive accountability, whereas systemic empowerment can help BUMDes move toward transparent, accountable, participatory, innovative, and sustainable financial governance. This conceptual positioning provides the theoretical basis for developing

METHOD

This study adopts a qualitative exploratory and descriptive case study design to formulate a systemic empowerment model for BUMDes financial governance in Bengkalis Regency, Riau Province, Indonesia. The qualitative approach was selected because the study seeks to understand financial governance practices, institutional constraints, actor perceptions, and strategic priorities within their real-life organizational and socio-institutional context. This design is appropriate for examining complex governance phenomena that involve multiple actors, contextual meanings, and interdependent relationships among supervision, human capital, community participation, and institutional collaboration. Recent methodological literature also emphasizes the relevance of qualitative case studies, interviews, and thematic analysis for generating in-depth understanding and developing conceptual models from complex social and organizational data (Naeem et al., 2023a; Thelwall & Nevill, 2021).

The empirical setting of this study is BUMDes in Bengkalis Regency. The selection of Bengkalis is justified by its strategic position as one of the regions with a large number of BUMDes and substantial village economic potential. Based on the thesis data, Bengkalis has 136 BUMDes distributed across 11 sub-districts, with 102 BUMDes already having legal status, while 34 others were still in the licensing process. Twelve BUMDes from selected sub-districts were chosen as research cases based on criteria such as funding sources, business units, number of workers, income, and organizational relevance to the study objectives. The unit of analysis is BUMDes financial governance, particularly the mechanisms through which financial planning, organizing, implementation, reporting, supervision, and accountability are practiced and strengthened.

Primary data were collected through in-depth semi-structured interviews with BUMDes managers and experts, while secondary data were obtained through document analysis. The use of semi-structured interviews enabled the researcher to explore informants' experiences, institutional practices, financial governance challenges, and strategic views in a flexible but focused manner. In the thesis, interviews were conducted with BUMDes directors and expert informants to address three main objectives: identifying existing financial governance practices, analyzing financial governance weaknesses, and formulating a financial governance model for BUMDes in Bengkalis. Purposive sampling was employed because the study required information-rich participants who had direct knowledge, managerial experience, or technical expertise related to BUMDes governance and financial management. This is consistent with recent qualitative research guidance that purposive sampling is appropriate when participants are selected based on their relevance to the research phenomenon and their ability to provide rich contextual data (Campbell et al., 2020; Dahal et al., 2024).

The informants consisted of two main groups. The first group comprised BUMDes managers from 12 selected BUMDes, coded IP01 to IP012. The second group comprised experts from government, financial practice, and academia who were involved in BUMDes development, village financial governance, regional finance, and institutional supervision. The thesis identifies expert groups including local government officials, village empowerment officers, financial analysts, regional enterprise financial managers, officers from the Financial Services Authority, and academics with experience in BUMDes, cooperatives, MSMEs, and regional economic governance.

Table 1. Informant Profile

Informant Group	Participant Category	Role / Expertise	Code
BUMDes Managers	Directors of selected BUMDes	Practical experience in managing BUMDes operations and financial governance	IP01–IP012
Government Experts	Regional revenue, village empowerment, supervisory coordination, and village financial analysis	Experience in regional finance, BUMDes supervision, village empowerment, and public financial governance	IPR01–IPR04
Financial Practitioners	Regional enterprise finance and financial services authority	Experience in financial documentation, financial service regulation, and supervision	IPK01–IPK02
Academic Experts	Lecturers and researchers	Expertise in BUMDes, cooperatives, MSMEs, local economic institutions, and governance studies	IPA01–IPA02

Data collection was carried out through three complementary techniques: semi-structured interviews, document analysis, and field observation. Interview questions were developed based on the research objectives and were validated through expert review. The thesis states that the interview instrument was reviewed by supervisors and three experts, consisting of two academic experts and one financial practitioner, to ensure content relevance, clarity, and suitability before fieldwork. A pilot study was also conducted to test the interview questions, improve wording, and ensure that informants could understand the questions properly. Document analysis was used to examine regulatory documents, BUMDes-related institutional documents, financial governance records, reports, and supporting materials related to planning, reporting, accountability, supervision, and institutional collaboration. Observation was used to enrich contextual understanding of BUMDes governance practices during the fieldwork process.

Data analysis proceeded in two interrelated stages. First, qualitative data from interviews, observations, and documents were analyzed using content analysis and thematic analysis with the assistance of NVivo 12. The analysis involved transcription, data familiarization, coding, theme development, interpretation, and synthesis. The main themes were derived from the research focus, including financial transparency, reporting accountability, internal supervision, managerial competence, regulatory compliance, community participation, institutional collaboration, and the impact of financial governance on BUMDes performance. The thesis specifically notes that NVivo 12 was used to code and categorize key themes such as financial transparency, accountability in financial reporting systems, internal supervision, managerial competence, regulatory compliance, and the impact of financial governance on BUMDes performance. Thematic analysis was used because it enables researchers to identify patterns, meanings, and conceptual relationships from qualitative data and to transform empirical findings into a conceptual model (Naeem et al., 2023b).

Second, the study applied the Analytic Network Process–Benefit, Opportunity, Cost, and Risk framework to formulate and prioritize strategic alternatives for strengthening BUMDes financial governance. ANP was used because the main governance elements in this study are interdependent rather than linear. In the context of BUMDes, human capital, supervision, community participation, institutional collaboration, transparency, accountability, and moral hazard risks influence one another and cannot be adequately examined through a simple hierarchical model. The thesis explains that ANP was selected because it is capable of handling feedback, inner dependence, and interdependence among elements in a complex decision system. The BOCR framework was integrated to evaluate strategies more comprehensively by considering positive dimensions, namely benefits and opportunities, as well as negative dimensions, namely costs and risks. Pairwise comparison procedures were used to assess the relative importance of criteria, sub-criteria, and strategic alternatives, while consistency testing was applied to ensure the logical coherence of expert judgments. Recent MCDM literature confirms that pairwise comparison methods such as AHP and ANP are widely used to derive relative weights through structured comparisons, while consistency checking is important for ensuring the quality of decision inputs (Salomon & Gomes, 2024).

Trustworthiness was ensured through triangulation, expert validation, pilot testing, and consistency checking. Triangulation was conducted by comparing evidence from BUMDes managers, experts, government actors, financial practitioners, academics, documents, and field observations. The thesis emphasizes that triangulation was used to strengthen credibility and reduce methodological and personal bias by involving informants from different backgrounds, including BUMDes directors, academics, regional officials, and financial governance experts. This procedure is consistent with recent methodological studies which argue that triangulation strengthens credibility in case study research by integrating multiple data sources, methods, or analytical perspectives (Schlunegger et al., 2024). In addition, expert validation was used to assess the relevance of the final model, ensuring that retained elements met theoretical relevance, practical importance, and expert agreement. The thesis states that the final model was validated through interviews and expert opinions involving government representatives, academics, BUMDes practitioners, village committees, and village auditors, so that the model reflected both theoretical foundations and empirical realities in Bengkalis.

Overall, this methodological design enabled the study to move from empirical diagnosis to model formulation. The qualitative phase provided an in-depth understanding of financial governance problems, while the ANP–BOCR phase produced a structured prioritization of systemic empowerment strategies. Through this integration, the study formulates a financial governance empowerment model that links supervision, human capital, community participation, and institutional collaboration as mutually reinforcing components for strengthening BUMDes accountability, transparency, sustainability, and rural economic performance.

FINDINGS AND DISCUSSION

Formal Financial Governance Structure and Procedural Compliance in BUMDes Bengkalis

The findings reveal that BUMDes in Bengkalis Regency have generally established formal governance structures in accordance with the regulatory framework governing village-owned enterprises. These structures commonly consist of advisers, operational managers, and supervisory bodies. At the normative level, this indicates that BUMDes have adopted the basic institutional architecture required for financial governance. However, the empirical evidence also shows that the existence of formal structures does not automatically ensure effective governance practices. In many cases, the governance structure operates more as a form of procedural compliance than as a functional mechanism for financial control, risk management, and accountability. The thesis identifies this condition as a critical gap between formal institutional legitimacy and substantive governance performance.

This finding is consistent with recent studies on BUMDes accountability, which argue that village-owned enterprises often experience a mismatch between government expectations of financial returns and the broader realities of operational and social performance. (Fitriani et al., 2024b) found that BUMDes contribute only a limited proportion to village revenue and remain dependent on government support, indicating that formal establishment alone is insufficient to produce strong financial performance and accountability. In the context of Bengkalis, this gap is reflected in the weak translation of formal governance arrangements into effective financial planning, reporting, supervision, and community-based accountability.

The main implication is that BUMDes financial governance should not be evaluated merely by the presence of organizational organs or formal reports. Rather, it should be assessed based on whether these mechanisms function as instruments of strategic planning, financial discipline, internal control, and public accountability. Therefore, strengthening BUMDes governance requires a shift from administrative compliance toward substantive accountability.

Transparency and Accountability: From Disclosure to Substantive Public Accountability

The study finds that financial transparency in BUMDes Bengkalis has been practiced through formal mechanisms such as the preparation of work plans and budgets, internal discussion, hierarchical financial reporting, and presentation of reports in *Musyawarah Desa* (Musdes). From the perspective of several managers and facilitators, the presentation of financial reports in Musdes is considered sufficient to fulfil transparency obligations. However, deeper analysis shows that this form of transparency remains largely procedural. Financial information is formally disclosed but is not always accessible, understandable, comparable, or useful for community monitoring and strategic decision-making.

This finding indicates a distinction between formal disclosure and substantive transparency. Formal disclosure occurs when information is presented in official forums, while substantive transparency requires that information be understandable, accessible, complete, and capable of enabling public scrutiny. In Bengkalis, financial information often remains concentrated among village elites, village heads, supervisory bodies, and BUMDes managers. As a result, wider community members are not always able to evaluate financial reports, question financial decisions, or participate meaningfully in accountability processes.

The accountability findings also reveal a similar tension. BUMDes have reporting chains involving business units, treasurers, directors, supervisors, and Musdes. However, the quality of reports remains problematic because many reports do not fully comply with appropriate accounting standards and often lack key components such as cash flow statements, statements of changes in equity, and notes to financial statements. This aligns with (Fitriani et al., 2024c), who emphasize that BUMDes accountability should balance financial, operational, and social expectations, rather than being reduced to the mere existence of reports.

Accordingly, the empowerment model proposed in this study positions financial accountability as a multidimensional process. It requires standardized reporting, accessible disclosure, community understanding, digital documentation, and supervisory follow-up. Without these elements, accountability risks becoming symbolic rather than substantive.

Internal Supervision and the Weakness of Control Mechanisms

The findings show that internal supervision is one of the weakest components of BUMDes financial governance in Bengkalis. Formally, supervision is carried out by supervisory bodies or the Village Consultative

Body. In principle, this structure should provide checks and balances, separate operational and supervisory functions, and prevent the concentration of financial authority. However, the study finds that supervision often remains administrative, formalistic, and vulnerable to village-level political influence. In some cases, supervisory bodies do not operate independently but tend to validate decisions that have already been shaped by local political interests.

This finding demonstrates that the effectiveness of supervision depends not only on the existence of supervisory organs but also on their independence, competence, authority, and ability to conduct objective financial review. When supervision becomes a rubber-stamping mechanism, it fails to detect irregularities, prevent moral hazard, or strengthen financial discipline. The thesis therefore identifies supervision as a key arena where the tension between corporate governance theory and village political reality becomes most visible.
his result is consistent with studies showing that internal control and information system implementation significantly affect sustainable rural development by improving transparency, accountability, efficiency, resource management, and decision-making at the village level. Therefore, the strengthening of BUMDes supervision should not be limited to periodic review. It should involve systematic internal audit, risk-based monitoring, digital transaction tracking, supervisory training, and clearer separation between operational authority and oversight authority (Purnamasari et al., 2024b).

In this study, supervision is not positioned as a stand-alone mechanism but as part of a systemic empowerment model. Effective supervision depends on competent human resources, reliable financial data, community participation, and institutional collaboration with local government and external experts.

Human Capital as the Core Constraint of Financial Governance

The findings further indicate that human capital limitations constitute a central cause of weak financial governance in BUMDes Bengkalis. Many BUMDes managers do not have adequate educational background or professional experience in financial management, accounting, business planning, risk analysis, and digital reporting. This condition affects the quality of financial records, the accuracy of reports, the ability to develop business plans, and the capacity to make evidence-based decisions.

The study also shows that limited managerial competence creates dependency on external facilitators, village assistants, and local government support. This dependency weakens organizational autonomy and slows the development of internal governance capacity. Empirical evidence from East Java supports this finding. (Nugroho et al., 2023b), using survey data from 220 village-owned enterprises, found that financial literacy affects VOE performance measured through profit and return on investment.

The implication is that capacity building should be treated as a structural governance strategy, not merely as short-term training. Human capital development should include continuous financial management training, accounting standardization, digital reporting skills, risk management, business planning, and performance-based incentives. In the proposed model, human capital functions as an enabling mechanism that strengthens transparency, accountability, supervision, and strategic collaboration.

Community Participation and the Problem of Limited Social Control

The study finds that community participation in BUMDes financial governance remains limited. Although Musdes provides a formal participatory space, community involvement is often restricted to attendance or passive reception of information. Many community members do not fully understand BUMDes financial reports, do not have equal access to financial information, and are not actively involved in monitoring or evaluating BUMDes performance. This weakens social control and reduces the legitimacy of BUMDes as community-owned enterprises.

This condition confirms that participation cannot be measured merely by the existence of formal meetings. Substantive participation requires informed communities, open communication, accessible financial information, and mechanisms that allow citizens to question, evaluate, and influence BUMDes decisions. A study on BUMDes governance in tourism village development similarly found that transparency, openness, accountability, fairness, and independence contribute to village development, while inadequate vertical and horizontal accountability limits the effectiveness of BUMDes governance (Revida et al., 2023b).

Therefore, strengthening community participation requires transforming Musdes from a procedural forum into a deliberative accountability space. This can be done through simplified financial disclosure, public financial dashboards, community monitoring groups, participatory evaluation, and regular socialization of BUMDes activities. In this study, community participation is positioned as a legitimacy mechanism that connects financial governance with public trust and village welfare outcomes.

Institutional Collaboration an

The findings show that BUMDes financial governance cannot be strengthened by internal reform alone. BUMDes in Bengkalis require institutional collaboration involving village governments, local governments, supervisory bodies, universities, financial institutions, private actors, and community organizations. The thesis emphasizes that the proposed model includes institutional collaboration as one of the strategic components for building a stronger and more resilient financial governance ecosystem.

This finding is supported by recent research on open innovation in village-owned enterprises. Wulandari & Wardani, (2024b) found that open innovation and entrepreneurial orientation contribute to financial and social performance, indicating that BUMDes should not rely only on internal resources but also develop partnerships and external knowledge networks. Similarly, studies on rural development show that village funds, BUMDes, and village original income are important instruments for rural development, but their effectiveness depends on how they are institutionally managed across local governance systems.

In the Bengkalis context, institutional collaboration is needed to support technical assistance, financial audit, business mentoring, digital reporting, market access, and governance standardization. However, collaboration should not merely create dependency on external actors. It should be designed to transfer knowledge, strengthen local capacity, and gradually improve BUMDes autonomy.

ANP–BOCR Strategic Priorities for Strengthening BUMDes Financial Governance

The ANP–BOCR analysis in the thesis provides a strategic prioritization of alternative empowerment strategies. The results show that digital governance ranks first, followed by supervision strengthening, human resource capacity building, and institutional collaboration. Specifically, the global priorities are: digital governance with a score of 0.466, supervision strengthening with 0.277, human capital development with 0.160, and institutional collaboration with 0.097.

The BOCR synthesis also confirms this ranking. Digital governance records the highest synthesis value of 3.49, followed by supervision strengthening at 3.46, capacity building at 3.43, and institutional collaboration at 3.38. These results indicate that all strategic alternatives have positive potential, but digital governance provides the strongest leverage because it improves transparency, accelerates reporting, strengthens documentation, and supports accountability.

The dominance of digital governance does not imply that other strategies are less important. Rather, the findings show that digitalization functions as a transformational strategy, while supervision, capacity building, and collaboration function as reinforcing strategies. Digital systems will not be effective without competent managers, active supervisors, community oversight, and institutional support. Likewise, supervision will remain weak if it is not supported by accurate financial data and independent monitoring capacity. Therefore, the ANP–BOCR results support the argument that BUMDes financial governance requires an integrated model rather than fragmented interventions.

Systemic Empowerment Model for BUMDes Financial Governance

Based on the empirical findings and ANP–BOCR results, this study formulates a systemic empowerment model for BUMDes financial governance. The model integrates four core strategies: digital governance, supervision strengthening, human capital development, and institutional collaboration. These strategies are linked to six governance outcomes: financial transparency, accountability, internal supervision, managerial efficiency, community participation, and regulatory compliance. These governance outcomes are expected to improve BUMDes performance through business sustainability, managerial skill, community trust, and contribution to the village economy.

Conceptually, the model advances the argument that BUMDes financial governance problems are systemic. Weak reporting is related to low managerial capacity; weak supervision is related to political influence and unclear accountability; low participation is related to limited access to financial information; and weak institutional collaboration is related to fragmented support systems. Therefore, the solution must also be systemic. It should integrate digital reporting, risk-based supervision, continuous capacity building, participatory accountability, and multi-stakeholder collaboration.

This finding contributes to the literature by extending the discussion of BUMDes governance from isolated principles such as transparency and accountability toward an integrated empowerment framework. It also supports the broader view that village-owned enterprises can contribute to rural development when governance mechanisms are aligned with institutional capacity, financial literacy, public accountability, and local economic objectives. Systematic reviews of Indonesian village-owned enterprises emphasize that BUMDes remain important rural economic institutions, but their performance depends on the quality of governance, innovation, and institutional support.

Overall, the findings demonstrate that the empowerment of BUMDes financial governance in Bengkalis requires a transition from formal compliance to substantive accountability, from manual reporting to digital governance, from administrative supervision to risk-based control, from passive community participation to active public accountability, and from fragmented support to institutional collaboration. This transition is essential for transforming BUMDes into transparent, accountable, participatory, and sustainable village economic institutions.

CONCLUSION

This study demonstrates that the financial governance of Village-Owned Enterprises (*Badan Usaha Milik Desa*—BUMDes) in Bengkalis Regency remains in a transitional stage between formal institutional compliance and substantive accountability. Although BUMDes have established formal governance structures, reporting mechanisms, and supervisory arrangements, the findings reveal that these mechanisms have not yet fully functioned as effective instruments for transparency, accountability, financial discipline, and sustainable business performance. The main weaknesses are reflected in limited strategic financial planning, inadequate reporting quality, administrative-oriented supervision, insufficient managerial competence, low community participation, and fragmented institutional support. These findings confirm that the problem of BUMDes financial governance is not merely technical or administrative, but systemic and interdependent.

The study further concludes that strengthening BUMDes financial governance requires a systemic empowerment model that integrates supervision, human capital, community participation, and institutional collaboration. Based on the empirical findings and ANP–BOCR synthesis, digital governance emerges as the core strategic architecture for improving transparency, documentation, reporting accuracy, and financial accountability. However, digitalization cannot operate effectively as a stand-alone intervention. It must be supported by risk-based supervision, continuous capacity building for BUMDes managers, participatory community monitoring, and coordinated institutional collaboration involving village governments, local governments, supervisory bodies, academics, financial institutions, and community actors. The thesis also confirms that the proposed model is built on the integration of transparency, accountability, supervision, human resource capacity, and risk management within a strategic governance framework.

Conceptually, this study contributes to the literature by repositioning BUMDes financial governance from a narrow reporting-oriented function toward a systemic empowerment process. The proposed model advances the argument that substantive accountability can only be achieved when internal control, managerial capability, public participation, and institutional networks are strengthened simultaneously. Practically, the model provides guidance for BUMDes managers and policymakers in identifying priority actions, designing structured empowerment programs, improving financial reporting systems, strengthening supervisory mechanisms, and increasing community trust. The thesis also emphasizes that practical empowerment requires comprehensive improvements in managerial capacity, financial management systems, and community involvement in village economic development.

Overall, this study affirms that BUMDes in Bengkalis can become more transparent, accountable, participatory, and sustainable if financial governance reform moves beyond procedural compliance toward integrated, digital, and community-based accountability. The model developed in this study may serve as a strategic reference for strengthening BUMDes not only in Bengkalis but also in other regions of Indonesia with similar governance challenges. Future studies are encouraged to test this model in other districts, apply longitudinal research designs, and develop quantitative or hybrid approaches such as SEM, system dynamics, or impact evaluation to examine the long-term effects of digital governance, supervision, human capital development, and institutional collaboration on BUMDes financial performance and rural economic welfare.

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