

Mapping Governance Gaps in The Business Model of an Artisanal Fisheries MSME: A Triple-Layered Business Model Canvas Analysis of King Fish, Depok

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Keywords:

Artisanal Fisheries;
Business Model;
Governance Gap;
Sustainability Gap in
Communication;
TLBMC

Abstract

The majority of Indonesian artisanal fisheries micro, small, and medium enterprises (MSMEs) operate without documented governance systems, creating structural vulnerabilities that threaten business continuity and limit access to higher-value market segments. This study aimed to systematically map governance gaps in the business model of King Fish, a micro-scale fresh fish trading enterprise in Cimanggis, Depok, and identify systemic cross-layer root causes requiring integrated solutions. A single case study was analyzed using the 27-block Triple-Layered Business Model Canvas (TLBMC), integrated with a four-dimensional governance framework consisting of accountability, transparency, stakeholder engagement, and compliance and risk management, resulting in a 108-combination diagnostic matrix. Data were triangulated from four primary sources: in-depth interviews with the owner, structured interviews with active customers and employees, and participatory observations across four operational areas. Twenty-six governance gaps were identified (9 critical, 9 high, and 8 moderate) across all three TLBMC layers, with nearly all gaps stemming from a lack of documentation rather than the absence of practices. Critical gaps were concentrated in the economic layer rather than the environmental layer. Cross-layer analysis revealed three systemic gaps, including the sustainability gap in communication, where the enterprise organically implemented substantive sustainability practices that were not communicated as strategic value. This study contributes the first application of TLBMC to Indonesian artisanal fisheries MSMEs, positions governance as an analytical infrastructure across all 27 TLBMC blocks, and introduces the concept of the sustainability gap in communication. The findings provide an empirical basis for designing governance interventions aligned with micro-enterprise capacity.

INTRODUCTION

Micro, small, and medium enterprises (MSMEs) form the backbone of the Indonesian economy, absorbing approximately 97% of the national workforce and contributing 61.07% of gross domestic product (Badan Pusat Statistik, 2024; Kementerian Koperasi dan UKM, 2023). In the fisheries sector, the dominance of micro-scale enterprises is even more pronounced, with small-scale fisheries accounting for nearly 90% of the national catch (Food and Agriculture Organization [FAO], 2022). This configuration positions artisanal fisheries enterprises, including fresh fish trading links that connect fishers with end consumers, as strategic nodes within the food system and as sources of livelihood for millions of households. The perishable nature of fresh fish further increases the importance of governance because trust in freshness, cold-chain integrity, and supply provenance forms the core of the value proposition. Without

verifiable mechanisms, this trust relies entirely on personal relationships that cannot be easily transferred or scaled.

Nevertheless, the majority of artisanal fisheries MSMEs operate without documented governance systems. Financial records, partnership agreements, operating procedures, and sustainability communication practices generally depend on the owner's memory and personal relationships. This condition creates structural vulnerabilities: business claims are difficult for business-to-business (B2B) partners to verify, access to formal financing is limited, supplier relationships are exposed to bargaining-power imbalances, and business continuity depends heavily on the presence of a single individual. However, Law No. 20 of 2008 explicitly mandates the strengthening of micro-enterprise institutional capacity (Republik Indonesia, 2008), and gradual formalization is a prerequisite for MSME development toward higher-value market segments (Organisation for Economic Co-operation and Development [OECD], 2023).

The urgency of governance in fisheries value chains is further reinforced by market dynamics. Demand for sustainability and safety traceability in fishery products continues to increase, and supply chain systems that cannot provide documented evidence risk exclusion from market segments requiring verification (Rahman et al., 2021). For micro-scale fish traders, the absence of documentation is therefore not merely an administrative issue but also a structural barrier to entering higher-value segments, such as partnerships with restaurants, catering services, and modern retailers. At the same time, the trader's position as a connecting node provides strategic leverage because trade relationships can transmit compliance expectations to upstream fishing practices without requiring direct regulatory intervention (Hutter & Jones, 2007).

In the sustainable business model literature, Joyce and Paquin (2016) developed the Triple-Layered Business Model Canvas (TLBMC), which extends the conventional business model canvas into 27 blocks across three layers: economic, environmental, and social. The framework emphasizes horizontal coherence within each layer and vertical coherence across layers. TLBMC enables holistic visualization of sustainable value creation and facilitates the identification of misalignments across sustainability dimensions. Two architectural features are particularly relevant to this study: horizontal coherence ensures consistency within each layer, while vertical coherence enables the alignment of corresponding blocks across layers, allowing cross-layer analysis to identify whether a problem in one layer originates from a root cause operating in another. However, based on the literature review conducted, no application of TLBMC to Indonesian artisanal fisheries MSMEs was identified; existing applications have primarily focused on medium-to-large enterprises or manufacturing and service sectors with relatively established administrative capacity.

In another stream of literature, governance research indicates that governance should not be treated merely as one component within the social layer of a business model. Aguilera et al. (2015) argue that governance functions as an organizational infrastructure that extends across all aspects of an organization. Four governance dimensions are relevant to the micro-enterprise context. First, accountability refers to mechanisms for recording and evaluating organizational actions to enable verification (Ebrahim, 2003). Second, transparency consists of disclosure, clarity, and accuracy in communication with stakeholders (Schnackenberg & Tomlinson, 2016). Third, stakeholder engagement emphasizes the creation of value for multiple stakeholders, including fishers, employees, and local communities (Freeman et al.,

2020). Fourth, compliance and risk management recognize that compliance pressures originate not only from government regulations but also from industry standards, business partners, and social expectations (Hutter & Jones, 2007).

The intersection of these two research streams reveals three gaps. First, the application domain of TLBMC has not yet extended to Indonesian artisanal fisheries MSMEs, despite the dominant role of this segment in the national fisheries structure. Second, governance has not been integrated as a cross-block analytical dimension within the TLBMC framework; the perspective of governance as organizational infrastructure (Aguilera et al., 2015) has not been operationalized in existing TLBMC studies. Third, empirical evidence regarding governance conditions in primary-sector micro-enterprises remains limited as a basis for intervention. Existing assessment standards, such as ISO 26000 (International Organization for Standardization [ISO], 2010) and the GRI Standards (Global Reporting Initiative [GRI], 2021), are designed primarily for organizations with established administrative capacity, while systematic and granular assessments of micro-enterprise governance remain scarce (OECD, 2023).

The novelty of this research lies in three main contributions. First, this research represents the first application of TLBMC to artisanal fisheries MSMEs in Indonesia, expanding the application domain of TLBMC beyond manufacturing and service sectors with relatively established administrative capacity. Second, this study positions governance as an analytical infrastructure that crosses all 27 TLBMC blocks through a 108-combination diagnostic matrix rather than treating it solely as a component within the social layer, thereby enabling cross-layer analysis beyond the conventional TLBMC framework. Third, this study introduces the concept of the sustainability gap in communication, which distinguishes between gaps in sustainability practices and gaps in communicating sustainability values, providing a conceptual contribution to the literature on organizational transparency and MSME sustainability.

Based on these research gaps, this study aimed to: (1) identify and map governance gaps in the King Fish business model across the three TLBMC layers using a four-dimensional governance framework; and (2) identify cross-layer root causes requiring integrated solutions. The resulting map was intended to serve as an empirical basis for designing a contextual governance intervention framework for artisanal fisheries MSMEs, which represents the subsequent phase of the research agenda and is reported separately. This research is expected to provide theoretical contributions by expanding the application of TLBMC to Indonesian artisanal fisheries MSMEs, operationalizing governance as a cross-layer infrastructure through a 108-combination matrix, and introducing the concept of the sustainability gap in communication to broaden the framework of organizational transparency. Practically, this research provides MSME owners with guidance for prioritizing gradual interventions, facilitators with an evidence-based prioritization tool, policymakers with input for gradual formalization policies, and business partners with a foundation for developing verification mechanisms to support MSME access to higher-value market segments.

The scope of this study is bounded in five respects. First, the research object was King Fish, a single fresh fish trading enterprise in Cimanggis, Depok; therefore, the findings are intended for theoretical transferability through a case study approach rather than statistical generalization. Second, the analytical framework employed the 27-block TLBMC (Joyce &

Paquin, 2016) integrated with four governance dimensions (D1–D4). Third, this study represented the diagnostic phase of a broader Design Science Research agenda, covering Phase 1 (problem identification and motivation) and Phase 2 (definition of solution objectives) according to Peffers et al. (2007); artifact design, demonstration, and evaluation phases are reported separately. Fourth, data collection was conducted from November 2025 to March 2026 through interviews and field observations. Fifth, three data items could not be verified during the research period, namely the specific type of BPJS (social security) coverage, the destination of organic waste management in Indramayu, and the type of fishing gear used by partner fishers. Therefore, these items were treated as areas requiring further confirmation and were not used as the basis for definitive claims.

RESEARCH METHOD

Research Design

The research employed a single case study strategy (Yin, 2018), selected based on three considerations: governance phenomena in micro-enterprises are highly contextual and require in-depth analysis; the boundary between the phenomenon and its operational context cannot be clearly separated; and governance gap mapping as a basis for intervention design requires a detailed understanding of a single unit of analysis.

The study was positioned as the diagnostic phase within the Design Science Research (DSR) methodology, which focuses on developing problem-solving artifacts with practical value (Hevner et al., 2004). Among the six standard stages proposed by Peffers et al. (2007), this study implemented Phase 1 (problem identification and motivation) and Phase 2 (definition of the objectives for a solution). The systematic governance gap mapping operationalized Phase 1, while the identification of cross-layer root causes and proposed intervention directions provided input for Phase 2. Reporting the diagnostic phase separately from the artifact design phase enabled the mapping analysis, which formed the foundation for the validity of the broader research agenda, to be presented comprehensively.

Location, Time, and Data Sources

Data collection was conducted from November 2025 to March 2026 at King Fish, a fresh fish trading enterprise in Cimanggis, Depok, operating since 2006. King Fish was selected as the case because it meets three characteristics relevant to the research question: the enterprise has operated for almost two decades, so its operational practices are established and can be observed stably; its supply chain connects directly with artisanal fishers through an advance-capital (talangan) system, so upstream–downstream relations can be analyzed within one unit; and the enterprise operates entirely without a documented governance system, thus representing the typical condition of the artisanal fisheries MSMEs targeted by the framework. Primary data were obtained from four sources forming a triangulation (Denzin, 1978): (S1) in-depth interviews with the owner; (S2) structured interviews with active customers; (S3) structured interviews with employees; and (S4) participatory observation of four operational areas. The four sources perform complementary verification functions: the owner's claims about the enterprise's advantages are tested against customer perceptions (S2), claims about working and operational conditions are tested against employee accounts (S3), and both are cross-checked against directly observed physical conditions (S4). Cross-source triangulation

was used to examine the consistency of claims across sources before a finding was treated as verified.

Data Analysis Framework

The analysis was conducted by codifying the 27 TLBMC blocks against the four governance dimensions, producing 108 combinations as the study's main diagnostic matrix. In each combination, a gap is defined as the deviation between the observed condition (triangulation result) and the normative expectation derived from reference standards: ISO 26000 (ISO, 2010), the GRI Standards (GRI, 2021), the OECD (OECD, 2023), and applicable national regulations with expectations calibrated to micro-enterprise capacity rather than to corporate standards. Severity is classified into three levels: Critical for gaps posing active and direct risks to operations, compliance, or the continuity of business relations; High for gaps in mechanisms that exist partially or informally but are undocumented and dependent on individuals; and Moderate for gaps in activities whose impact is estimated to be limited but entirely unmeasured.

The four governance dimensions are defined as follows. Accountability (D1) is the mechanism of recording and evaluation that enables verification of organizational actions (Ebrahim, 2003). Transparency (D2) comprises disclosure, clarity, and accuracy in communication with stakeholders (Schnackenberg & Tomlinson, 2016). Stakeholder engagement (D3) emphasizes the simultaneous creation of value for all interested parties, including fishers, employees, and local communities (Freeman et al., 2020). Compliance and risk management (D4) recognizes that sources of compliance pressure originate not only from state regulation but also from industry standards, trading-partner pressure, and social norms (Hutter & Jones, 2007).

The trustworthiness of the study is ensured through the four criteria of Lincoln and Guba (1985): credibility through four-source triangulation and member checking; transferability through thick description and a replicable analysis protocol; dependability through a documented research protocol; and confirmability through an audit trail of raw data.

RESULTS AND DISCUSSION

Profile and Competitive Advantages of King Fish

King Fish holds four competitive advantages verified across sources. First, visually verified freshness through fish being cut in front of the customer, confirmed by customers (S2) as the primary trust factor. Second, memorization of customers' names and preferences, building loyalty based on personal trust, also confirmed by S2. Third, a short supply chain without intermediaries, direct from Indramayu fishers through an advance-capital (*talangan*) system (S1, S4). Fourth, the use of crystal ice that secures cold-chain quality beyond the common standard of traditional-market fish traders (S1, S4).

These four advantages share a single structural vulnerability: dependence on the owner as an individual, creating a single point of failure (SPF) condition. The owner acknowledges this explicitly (S1) and it is independently confirmed by employees (S3). This finding is consistent with the knowledge management literature on SMEs, which shows that the organizational knowledge of small enterprises is generally embedded in the owner and rarely codified (Durst & Edvardsson, 2012), so that competitive advantages built over years can vanish instantly with the owner's absence. It is also worth noting that two of the four advantages

namely the short supply chain and cutting fish in front of the customer are simultaneously substantive sustainability and transparency practices; the fact that neither has ever been framed as strategic value provides an early clue to the cross-layer finding discussed later.

Identification of the 26 Governance Gaps

Systematic analysis of the 108-combination matrix identified 26 governance gaps distributed across the three TLBMC layers, composed of 9 Critical, 9 High, and 8 Moderate. Table 1 presents the distribution of gaps by layer and severity.

TLBMC layer	Critical	High	Moderate	Main Critical gaps
Economic (E1–E9)	4	3	1	EG1 (financial records), EG2 (B2B transaction receipts), EG3 (fisher contracts), EG4 (single point of failure)
Environmental (Env1–Env9)	2	2	5	EnvG1 (fishing-gear verification), EnvG2 (environmental impact baseline)
Social (Soc1–Soc9)	3	4	2	SG1 (SPF governance), SG2 (incident log), SG3 (fisher bargaining-power imbalance)
Total	9	9	8	

Source: Research analysis results (2026)

The distribution pattern in Table 1 is diagnostically informative. In the economic layer, four Critical gaps are concentrated in the foundations of business verifiability. In the environmental layer, two Critical gaps concern upstream sustainability uncertainty, while five Moderate gaps indicate that the environmental footprint of kiosk operations is relatively limited but entirely unmeasured. In the social layer, Critical gaps cover the governance dimension of the SPF condition, the absence of work-incident records, and the bargaining-power imbalance of fishers in the advance-capital relationship. Table 2 details the nine Critical gaps demanding the most urgent intervention.

Table 2. The nine Critical gaps in the King Fish business model

Code	Layer	Description and main consequence
EG1	Economic	No financial records of any form; all decisions rest on the owner's memory, so profitability cannot be verified and access to formal financing is closed
EG2	Economic	No transaction receipts/invoices; the absence of standardized transaction evidence obstructs entry into B2B partnerships that require documentation
EG3	Economic	No written contract with supplier fishers; the advance-capital relationship is entirely verbal, leaving supply risks and disputes unmitigated
EG4	Economic	Single point of failure: operations halt without the owner's presence because no delegation mechanism exists
EnvG1	Environmental	The fishing gear used by partner fishers is unknown and unverified; upstream sustainability claims cannot be substantiated

EnvG2	Environmental	No baseline figures for operational environmental impact—fish volume, organic waste, ice consumption, and energy—so improvement cannot be measured
SG1	Social	The governance dimension of the SPF: no written delegation procedure, so the continuity of employees' livelihoods depends on a single individual
SG2	Social	No record of work incidents; workplace accidents are undocumented, so corrective action is unsystematic
SG3	Social	Bargaining-power imbalance of fishers in the advance-capital relationship; no formal channel is available for fishers to raise objections or renegotiate

Source: Research analysis results (2026)

The cross-layer asymmetry in Table 1 carries a counterintuitive implication. Sustainability discourse commonly associates the largest gaps with the environmental dimension; at King Fish, the concentration of Critical gaps lies instead in the economic layer within the foundations of recording, contracting, and continuity, while the environmental layer is dominated by Moderate gaps. For micro-enterprises, this finding suggests that the entry point to sustainability is not a stand-alone environmental intervention but the construction of an economic accountability foundation that is the prerequisite for verifying claims in any layer. Assistance programs that target environmental aspects directly without repairing this foundation risk producing claims that cannot be substantiated.

Gaps classified as High and Moderate complete the picture with a different character. High gaps generally concern mechanisms that exist partially but are undocumented for instance, the employment relationship, which is already equipped with active BPJS (social security) coverage but lacks a written contract stipulating wages, working hours, and leave entitlements. Moderate gaps are concentrated in the environmental layer and reflect the absence of measurement of activities whose impact is estimated to be limited; one of them, the documentation of organic waste management, also intersects with a data item that could not be verified within the research period, so any claim regarding waste management is excluded from the findings.

The key finding of this mapping is that nearly all gaps converge on a single root: the absence of documentation, not the absence of practice. King Fish performs many sound operational practices, but none leaves a written trace verifiable by third parties. In the terminology of Ebrahim (2003), what is missing is not organizational action but the accountability mechanism that allows such action to be verified.

Three Systemic Cross-Layer Gaps

Cross-layer analysis identified three cross-layer gaps (CLG): root causes operating simultaneously across all three layers, which therefore cannot be resolved through intervention in any single layer. CLG1 is the absence of a written advance-capital contract, which simultaneously creates reputational risk in B2B relations (economic layer), ecological risk from unverified fishing gear (environmental layer), and a bargaining-power imbalance for fishers (social layer). CLG2 is the absence of record-keeping across all layers, leaving no verification basis for any economic, environmental, or social claim the enterprise makes. CLG2 is a

precondition for the other gaps: without records, the accuracy component of transparency (Schnackenberg & Tomlinson, 2016) is impossible to fulfill because no data exist to support the truth of claims, and accountability mechanisms in the sense of Ebrahim (2003) lose their object of verification. The sequencing implication is clear: record-keeping interventions must precede communication interventions.

CLG3 is the most conceptually valuable finding: the sustainability gap in communication. The concept distinguishes a gap in sustainability practice (gap in practice) from a gap in communicating sustainability value (gap in communication). King Fish organically performs four sustainability practices such as a short supply chain, an advance-capital system for artisanal fishers, cutting fresh fish in front of customers, and BPJS coverage for employees, yet none is communicated as strategic value. Borrowing the transparency framework of Schnackenberg and Tomlinson (2016), King Fish's deficit lies not in the substance of practice but in the disclosure component: value that has been created is never disclosed, so it can be neither recognized, verified, nor rewarded by stakeholders. This condition is the inverse of greenwashing, rather than communicating practices that are not performed, the enterprise performs practices that are not communicated and it implies the loss of potential market premiums from segments that demand traceability (Rahman et al., 2021).

Discussion

The mapping findings reveal a competence paradox. On one hand, King Fish demonstrates high operational capacity: it has survived two decades, built strong customer loyalty, and managed an efficient direct supply chain. On the other hand, its governance readiness is almost nil, not a single accountability mechanism is documented. These two facts are not a coincidence but explain each other: precisely because informal mechanisms based on the owner's memory and personal relationships have proven "successful" for years, the incentive to formalize has never emerged from within. The SME knowledge management literature confirms this pattern, owner-embedded knowledge is rarely codified until disruption occurs (Durst & Edvardsson, 2012) even though knowledge codification is associated with firm performance and resilience (Audretsch & Belitski, 2021). Consequently, formalization pressure for such enterprises realistically comes only from outside: B2B partner requirements, financing access, or assistance programs (OECD, 2023).

The configuration of gaps in the upstream relationship points to a single intervention point with outstanding leverage. Three Critical gaps from three different layers namely EG3 (supply contract), EnvG1 (fishing-gear verification), and SG3 (fisher bargaining position) together with CLG1 converge on one and the same absence: the formalization of the advance-capital relationship. This means that a single well-designed contract document could potentially resolve four gaps at once. This direction of intervention is supported by two streams of evidence: fair agricultural contracts have been shown to improve smallholder welfare in developing countries (Meemken & Bellemare, 2020), and trade relations are an effective channel for transmitting compliance pressure, including fishing-practice standards, without regulator intervention (Hutter & Jones, 2007). The finding also positions intermediary traders such as King Fish not as passive objects of governance but as nodes capable of transmitting sustainability standards upstream along the supply chain.

Theoretically, the CLG3 finding extends the organizational transparency literature. The framework of Schnackenberg and Tomlinson (2016) maps transparency into disclosure, clarity,

and accuracy, with primary attention to the quality of communicated information; the King Fish case reveals a deficit category that precedes all three, namely the absence of disclosure of practices that are real and substantive. The category matters because its intervention prescription is the opposite of the prescription for greenwashing: rather than demanding verification of claims, the required intervention is to build articulation of practice. Given that organic sustainability practices are common in primary-sector micro-enterprises, short supply chains and patronage relations with producers are structural features, not strategic choices, the phenomenon is presumably far more widespread than the literature documents.

Findings on the stakeholder engagement dimension (D3) add an important nuance. Value creation for stakeholders in the sense of Freeman et al. (2020) has de facto been taking place at King Fish: fishers obtain capital access through the advance system, employees obtain BPJS protection and accommodation, and customers obtain a freshness guarantee they can witness directly. What is absent is not the creation of value but its institutionalization, engagement runs entirely informally, without schedules, procedures, or channels for voicing concerns, so its continuity depends on personal goodwill and remains exposed to bargaining-power imbalances. This refines the diagnosis: the intervention required is not to create stakeholder relationships from scratch but to protect already-valuable relationships through minimal formalization.

At the methodological level, the 27-block $\times$ 4-dimension matrix used in this study operationalizes the thesis of Aguilera et al. (2015) that governance is an organizational infrastructure rather than a stand-alone component. The mapping results validate this choice empirically: King Fish's governance gaps are not localized in the social layer, where governance is commonly placed in TLBMC applications, but are distributed and interlinked across all three layers, with the most Critical gaps located in the economic layer. An analysis confining governance to one layer would miss the majority of the findings, including the three cross-layer gaps that constitute the systemic root causes.

The mapping findings indicate three interrelated directions of intervention: formalizing supplier-partner relations, codifying operational knowledge to mitigate the SPF, and building sustainability value communication on top of a verified record-keeping base. These three directions demand a design that is integrated across layers and calibrated to micro-enterprise capacity; the design of the intervention framework and its readiness assessment instrument constitutes the subsequent phase of this study's Design Science Research agenda and is reported in a separate publication.

Academic Contributions

This study yields three academic contributions, summarized in Table 3.

Table 3. Three academic contributions of the study

No	Contribution	Description	Implication
C1	Application of TLBMC to Indonesian artisanal fisheries MSMEs	Extends the TLBMC domain which, based on the literature search, has not reached this segment	Opens a TLBMC research avenue for primary-sector MSMEs in Southeast Asia
C2	Repositioning of governance as an infrastructure across the 27 blocks	Governance is not merely a social-layer component but an analytical dimension traversing all 27 TLBMC blocks through a 108-combination matrix	A methodological contribution for subsequent TLBMC research
C3	The concept of the sustainability gap in communication	Distinguishes the gap in sustainability practice from the gap in communicating sustainability value	A new diagnostic frame for MSME assistance interventions

Source: Research analysis results (2026)

The three contributions reinforce one another. C1 tests TLBMC under the conditions most challenging to its assumptions which is an organization with no documentation whatsoever and shows that the framework remains functional as a diagnostic lens provided it is paired with field verification mechanisms such as multi-source triangulation. C2 supplies the analytical architecture that allows cross-layer findings to emerge, and C3 is the most conceptual fruit of that architecture: a diagnostic category visible only when the transparency dimension is analyzed simultaneously against actual practice in all three layers.

Managerial Implications

For the owner of King Fish and for facilitators of micro-scale fisheries MSMEs, the findings imply a clear order of priority. First, start with zero-cost interventions that can be executed immediately: a simple daily cash book and a work-incident log, which together build the verification foundation for all business claims. Second, formalize the advance-capital arrangement with partner fishers in writing, a single step that this study shows to have leverage over four Critical gaps at once. Third, once the record-keeping base is in place, articulate the sustainability practices that have so far been organic such as the short supply chain, the fisher advance system, verified freshness, and employee BPJS coverage as a value narrative to customers and prospective B2B partners. The order matters: value communication without a record-keeping base would merely reproduce claims that cannot be verified. For designers of MSME assistance programs, the map of 26 gaps and their severity classification can serve as an evidence-based prioritization tool, replacing generic approaches that treat all assisted enterprises as having identical needs.

CONCLUSION

This study systematically mapped the governance conditions of an artisanal fisheries MSME through a 27-block TLBMC $\times$ 4 governance-dimension matrix. The analysis identified 26 governance gaps across three layers (9 critical, 9 high, and 8 moderate), with nearly all gaps converging on a single root cause: the absence of documentation rather than the absence of practices. Cross-layer analysis identified three systemic gaps—the absence of advance-capital agreements, the absence of record-keeping across all layers, and the sustainability gap in

communication—which require integrated solutions and cannot be addressed through single-layer interventions.

The most generalizable contributions of this study are the concept of the sustainability gap in communication (C3) and the repositioning of governance as a cross-layer analytical dimension (C2). Both contributions extend beyond the King Fish case: the first applies to primary-sector MSMEs that implement sustainability practices organically but lack the capacity to communicate their value, while the second contributes to sustainable business model research that has traditionally positioned governance primarily within the social layer. The agenda for future research covers three directions: (1) developing a governance intervention framework and readiness assessment instrument calibrated to micro-enterprise capacity as a continuation of the Design Science Research agenda; (2) replicating similar mapping studies in other artisanal fisheries MSMEs to assess the transferability of the identified governance gap patterns; and (3) investigating the sustainability gap in communication phenomenon in other primary-sector MSMEs, such as agriculture and livestock, to understand how organic sustainability practices can be transformed into verifiable competitive advantages.

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