

A Double-Edged Sword? Equity Crowdfunding, P2P Lending, and MSME Financial Sustainability: A CIMO-Based Systematic Review

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ARTICLE INFORMATION

Publication information

Research article

HOW TO CITE

Syahwildan, M., Nugraha, N., Sari, M., & Heryana, T. (2026). A double-edged sword? Equity crowdfunding, P2P lending, and MSME financial sustainability: A CIMO-based systematic review. *International Journal of Accounting and Finance in Asia Pacific*, 9(3), 1040-1060.

DOI:

<https://doi.org/10.32535/ijafap.v9i3.4556>

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Received: 11 August 2026

Accepted: 14 September 2026

Published: 20 October 2026

ABSTRACT

The global MSME financing gap estimated at US\$5.7 trillion across emerging markets has accelerated scholarly interest in technology-driven alternative financing instruments. Yet whether ECF and P2P lending enhance or undermine the long-term financial sustainability of MSMEs remains unresolved. This study conducts a systematic literature review following PRISMA 2020 guidelines, applying the CIMO framework to synthesize 13 empirical studies published between 2018 and 2026. The configurational analysis identifies four distinct pathways linking alternative financing to MSME financial sustainability. Information asymmetry reduction emerges as the linchpin mechanism across all studies, operating through governance, human capital, social-relational, and visual signaling channels that fundamentally differ from traditional intermediation. ECF functions as a double-edged sword, enhancing innovation yet elevating failure risk depending on governance structure and financial constraint severity. P2P lending improves sustainability within optimal credit thresholds but triggers moral hazard when leverage is excessive. These findings necessitate modifications to pecking order, signaling, and agency theories, and demonstrate that regulatory calibration of investor control rights and post-financing disclosure is essential for converting capital access into sustainable financial outcomes.

Keywords: CIMO Framework; Equity Crowdfunding; Financial Sustainability; Fintech; P2P Lending

JEL Classification: G21; G23; G32; L26

INTRODUCTION

Micro, small, and medium-sized enterprises (MSMEs) constitute the backbone of global economic systems, representing over 90% of all firms, approximately 70% of total employment, and nearly 50% of gross domestic product (GDP) worldwide ([International Finance Corporation \[IFC\], 2025](#)). Despite this centrality, access to formal credit remains one of the most persistent structural barriers to MSME growth and survival. The IFC–World Bank MSME Finance Gap Report in 2025 estimates that across 119 emerging markets and developing economies, the financing gap stands at US\$5.7 trillion, equivalent to 19% of GDP, with 40% of formal MSMEs classified as credit-constrained. This gap widened by 27% between 2015 and 2019, outpacing GDP growth by a factor of two, signaling that conventional financial intermediation has been unable to keep pace with the expanding demand for MSME credit ([IFC, 2025](#)). Restricted access to formal finance impedes productivity, forces reliance on costlier informal credit channels, and ultimately undermines the long-term financial sustainability of MSMEs across both developed and emerging economies, a pattern documented in the Indonesian MSME context ([Heliani & Iskandar, 2024](#)).

Against this backdrop, technology-driven alternative financing instruments, particularly equity crowdfunding (ECF) and peer-to-peer (P2P) lending, have emerged as potentially transformative mechanisms for bridging the MSME financing gap, with fintech lending in particular associated with improved MSME performance in emerging-market settings ([Hasanudin & Panigfat, 2024](#)). These platform-based innovations leverage digital infrastructure, algorithmic credit assessment, and crowd-based capital aggregation to reduce information asymmetry and transaction costs that characterize traditional bank-MSME relationships ([Ziegler et al., 2021](#)). The global online alternative finance market reached US\$304.5 billion in transaction volume by 2018, with nearly half of all activity directed toward SME borrowers and fundraisers ([Ziegler et al., 2021](#)). P2P marketplace lending alone accounted for US\$34.7 billion in 2020, while ECF has expanded across both developed and emerging regulatory jurisdictions ([Ziegler et al., 2021](#)). These developments represent a fundamental technological reconfiguration of how capital is mobilized and allocated to small firms, with implications for financial system architecture and regulatory governance. In Indonesia, crowdfunding is increasingly recognized as a viable channel for resource-constrained SMEs ([Nasoha et al., 2024](#)), even as fintech lenders must manage the credit risk of rapidly expanding loan portfolios ([Agustin, 2023](#)).

However, a critical disconnect persists between the growing body of literature on alternative financing adoption and what is known about its long-term consequences for MSME financial sustainability. Existing systematic reviews have primarily examined financing channels for SME innovation without distinguishing long-term sustainability outcomes from short-term capital access, the role of P2P lending in developing countries with limited attention to post-financing firm performance, or broad SME financing trends without mechanistic analysis of how alternative instruments affect financial health over time. Related review work has focused on herding behavior in crowdfunding markets or on campaign-level outcomes rather than firm-level financial trajectories. Consequently, the literature lacks a systematic synthesis that simultaneously addresses three fundamental questions: through what financial and institutional mechanisms do ECF and P2P lending influence MSME outcomes; under what contextual conditions are these effects positive versus negative; and how do the resulting financial sustainability trajectories compare with those of traditionally financed firms? This gap is particularly consequential given that individual empirical studies have reported seemingly contradictory findings: ECF-funded firms exhibit both elevated failure rates and superior innovative output compared with matched counterparts, while P2P borrowers

demonstrate lower default probabilities than generic SMEs despite being perceived as higher risk.

The theoretical foundations underpinning these empirical patterns are well established but have not been systematically integrated across instruments and contexts. Information asymmetry theory (Akerlof, 1970), pecking order theory (Myers & Majluf, 1984), agency theory (Jensen & Meckling, 1976), and signaling theory (Spence, 1973) each offer partial explanations for the mechanisms through which platform-based financing affects firm outcomes. Information asymmetry frameworks explain how digital platforms reduce informational barriers impeding MSME access to external capital. Pecking order theory predicts which firms resort to alternative financing and under what conditions, yet its prescriptive implications may not hold when crowd-based equity replaces debt without preserving equivalent governance mechanisms (Djabang et al., 2025). Agency theory illuminates the monitoring challenges inherent in dispersed crowd ownership, while signaling theory explains how entrepreneurs communicate quality through governance structures, human capital, and social-relational cues. However, no existing review has synthesized how these mechanisms interact configurally—that is, how combinations of contextual conditions, intervention characteristics, and mechanism activations jointly determine whether alternative financing produces positive or negative sustainability outcomes.

This study addresses these gaps by conducting a systematic literature review of empirical research on the impact of ECF and P2P lending on MSME financial sustainability, operationalized as profitability, solvency, and firm survival over a minimum period of three years post-financing. The review adopts the CIMO framework—Context, Intervention, Mechanism, Outcome (Denyer & Tranfield, 2009)—enabling configurational analysis beyond simple intervention–outcome correlations by explicitly modeling the mediating mechanisms and moderating contexts through which alternative financing instruments operate. The primary research question asks: in the context of MSMEs facing formal financing gaps, how do ECF and P2P lending influence financial sustainability within three or more years post-financing, and through what financial and institutional mechanisms does this relationship operate? Three subsidiary questions further decompose this inquiry into the identification of mediating financial mechanisms, the specification of moderating contextual and institutional conditions, and the comparative analysis of financial sustainability outcomes between alternatively and traditionally financed MSMEs.

This review contributes to the literature in three ways. First, to the best of the authors' knowledge, it provides one of the first systematic syntheses focused explicitly on long-term financial sustainability outcomes rather than short-term capital access of ECF and P2P lending for MSMEs. Second, the application of the CIMO framework produces configurational propositions that specify the conditions under which alternative financing enhances versus undermines financial sustainability, moving beyond the prevailing tendency to treat these instruments as unconditionally beneficial or harmful. Third, by integrating evidence across both ECF and P2P lending within a unified analytical framework, the review enables cross-instrument comparison of mechanisms and outcomes that individual studies, focused on a single instrument, cannot provide. These contributions carry direct implications for fintech platform design, MSME financial strategy, and regulatory calibration domains where evidence-based guidance remains urgently needed given the scale of the global MSME financing gap.

LITERATURE REVIEW

The relationship between alternative financing and MSME financial sustainability can be theoretically situated at the intersection of four established frameworks: information asymmetry theory, pecking order theory, agency theory, and signaling theory. Each provides a distinct lens for understanding the mechanisms through which ECF and P2P lending may influence firm-level financial outcomes, yet none individually accounts for the configurational complexity that characterizes platform-based financing environments.

Theoretical Review

Information Asymmetry Theory

Information asymmetry constitutes the foundational market failure that both motivates and shapes alternative financing instruments. In the classical formulation (Akerlof, 1970), informational disparities between capital providers and seekers generate adverse selection and credit rationing, disproportionately affecting informationally opaque firms such as MSMEs. Traditional intermediaries mitigate this through collateral requirements, credit screening, and relationship lending mechanisms that systematically exclude firms lacking tangible assets or established credit histories (Stiglitz & Weiss, 1981). Alternative financing platforms address this exclusion by deploying technology-enabled information channels, algorithmic scoring, crowd-aggregated due diligence, and digital disclosure that operate on fundamentally different informational inputs than bank-based intermediation (Cummins et al., 2018).

Pecking Order Theory

Pecking order theory (Myers & Majluf, 1984) predicts that firms prefer internal financing, followed by debt, with external equity as a last resort due to adverse selection costs. This hierarchy implies that MSMEs resorting to ECF are likely to be those that have exhausted less costly alternatives, a prediction with direct implications for the quality composition of ECF-funded firms and, consequently, their post-financing sustainability trajectories. However, the theory was developed in the context of publicly traded firms with professional investors; whether its prescriptive implications hold when equity is dispersed among non-professional crowd investors who lack conventional monitoring capacity remains an open empirical question.

Agency Theory

Agency theory (Jensen & Meckling, 1976) provides the analytical framework for understanding post-financing governance dynamics. The principal-agent relationship in alternative financing departs substantially from conventional settings: crowd investors are numerous, dispersed, typically unsophisticated, and possess limited individual incentives to monitor managerial behavior. This structural configuration may attenuate the disciplining mechanisms that traditional equity holders and creditors exert, potentially enabling managerial opportunism. The governance implications are further complicated by cross-jurisdictional variation in investor control rights and platform-specific structures such as nominee versus direct shareholding models.

Signaling Theory

Signaling theory (Spence, 1973) complements the information asymmetry framework by explaining how entrepreneurs and borrowers can proactively communicate quality to prospective funders. In traditional corporate finance, costly signals operate primarily through financial disclosures and reputational intermediaries (Connelly et al., 2011). Platform-based financing, however, introduces novel signal categories including governance structure choices, human capital indicators, social-relational endorsements, and visual information whose relative effectiveness in predicting financial sustainability has not been systematically mapped across instruments and contexts.

CIMO Framework

These four theoretical perspectives are not mutually exclusive but rather operate as complementary lenses that jointly shape the conditions under which alternative financing affects MSME financial sustainability. The present review employs the CIMO framework (Denyer & Tranfield, 2009) to integrate these perspectives configurally, examining not only whether ECF and P2P lending influence financial sustainability, but through which mechanisms and under what contextual conditions this influence materializes as positive or negative.

Review Propositions

Because this study synthesizes existing empirical evidence rather than estimating relationships from newly collected primary data, conventional statistical hypotheses are not formulated. Instead, consistent with the CIMO framework's capacity to "produce configurational propositions," the following review propositions summarize the Context–Intervention–Mechanism–Outcome configurations that emerge from the reviewed literature and are elaborated with full supporting evidence in the CIMO Configurational Analysis presented in the Results section (Table 2).

Proposition 1 (P1)

When ECF is delivered through a regulated platform with a nominee governance structure and investor control rights, in a developed-market context with moderate financial constraints and a management team of three or more members, information asymmetry reduction operates through signaling and certification mechanisms that are associated with enhanced firm survival and growth outcomes.

Proposition 2 (P2)

When ECF is extended to SMEs with severe financial constraints in the absence of effective governance safeguards and mandatory post-financing reporting, adverse selection and the loss of debt-based monitoring discipline are associated with fund misallocation and deteriorated post-financing performance.

Proposition 3 (P3)

When P2P lending is extended to unbanked or credit-constrained MSMEs at or below an optimal credit threshold, under risk-based pricing and reputation-based screening, financial inclusion and reputation mechanisms are associated with lower default probability and improved profitability.

Proposition 4 (P4)

When P2P lending exceeds a borrower's absorptive capacity and is priced at high interest rates without adequate collateral or screening, moral hazard is associated with higher default risk and deteriorated financial sustainability.

Conceptual Framework

Information asymmetry theory, pecking order theory, agency theory, and signaling theory jointly inform the Mechanism (M) component of the CIMO structure guiding this review. Each theory identifies a distinct channel through which the Intervention (I — ECF or P2P lending), moderated by Context (C — firm, market, and regulatory conditions), produces the Outcome (O — MSME financial sustainability, operationalized as profitability, solvency, and firm survival over a minimum of three years post-financing): information asymmetry theory motivates the reduction mechanism common to both instruments; pecking order theory explains the composition of firms selecting into alternative financing and the governance consequences of that choice; agency theory explains the monitoring dynamics that follow from dispersed crowd ownership; and signaling theory explains the

novel governance, human capital, social-relational, and visual signal categories through which quality is communicated on digital platforms. This integrated Context–Intervention–Mechanism–Outcome structure is depicted in [Figure 3](#) (CIMO-Based Mechanism–Outcome Thematic Map, Results section) and is further specified into the four empirically supported configurations presented in [Table 2](#).

RESEARCH METHOD

Research Design and Framework

This study adopts a systematic literature review (SLR) approach following the PRISMA 2020 guidelines ([Page et al., 2021](#)). The CIMO framework Context, Intervention, Mechanism, Outcome ([Denyer & Tranfield, 2009](#)) serves as the organizing framework throughout the review process, from the formulation of research questions to the definition of inclusion/exclusion criteria and configurational analysis. The application of CIMO enables the identification of not only intervention–outcome relationships, but also the mediating mechanisms and moderating contextual conditions through which these relationships operate. Consistent with the definition of financial sustainability introduced in the Introduction — profitability, solvency, and firm survival over a minimum of three years post-financing — the Outcome (O) element of the CIMO framework was operationalized identically in the inclusion/exclusion criteria (IC4/EC4) applied during screening, so that only studies measuring these dimensions over the specified horizon were retained in the final corpus. In lieu of a participant sampling method, the "sample" in this SLR is the corpus of eligible empirical studies itself; the sampling procedure is therefore the multi-stage PRISMA selection process described below (database search, deduplication, title/abstract screening, full-text screening, and quality appraisal), which functions as a purposive, criteria-based sampling frame for identifying all empirical studies eligible for synthesis.

Search Strategy

A systematic search was conducted across two major bibliographic databases: Scopus and Web of Science Core Collection. The search string was constructed using three keyword blocks connected by the Boolean AND operator: (1) alternative financing instruments (equity crowdfunding, P2P lending, marketplace lending, fintech lending, alternative financing); (2) MSMEs (SME, MSME, small business, entrepreneur, startup); and (3) financial sustainability indicators (financial performance, firm survival, profitability, solvency, credit risk, default). The initial search yielded 195 records (Scopus: 117; Web of Science: 78). Database filters were subsequently applied to restrict results to peer-reviewed journal articles, published in English, within the 2014–2026 timeframe, resulting in 126 records (Scopus: 76; Web of Science: 50). Although the initial search window covered publications from 2014 to 2026, only studies published between 2018 and 2026 ultimately satisfied all predefined eligibility criteria; records published between 2014 and 2017 were screened but did not survive title/abstract or full-text screening, so the final corpus is concentrated in the more recent sub-period.

Selection Process

The selection process was conducted in four stages, as illustrated in [Figure 1](#). In the first stage, duplicate removal was performed using exact title matching (case-insensitive normalization) combined with fuzzy matching (SequenceMatcher ratio >0.85), yielding 89 unique articles after eliminating 37 duplicates.

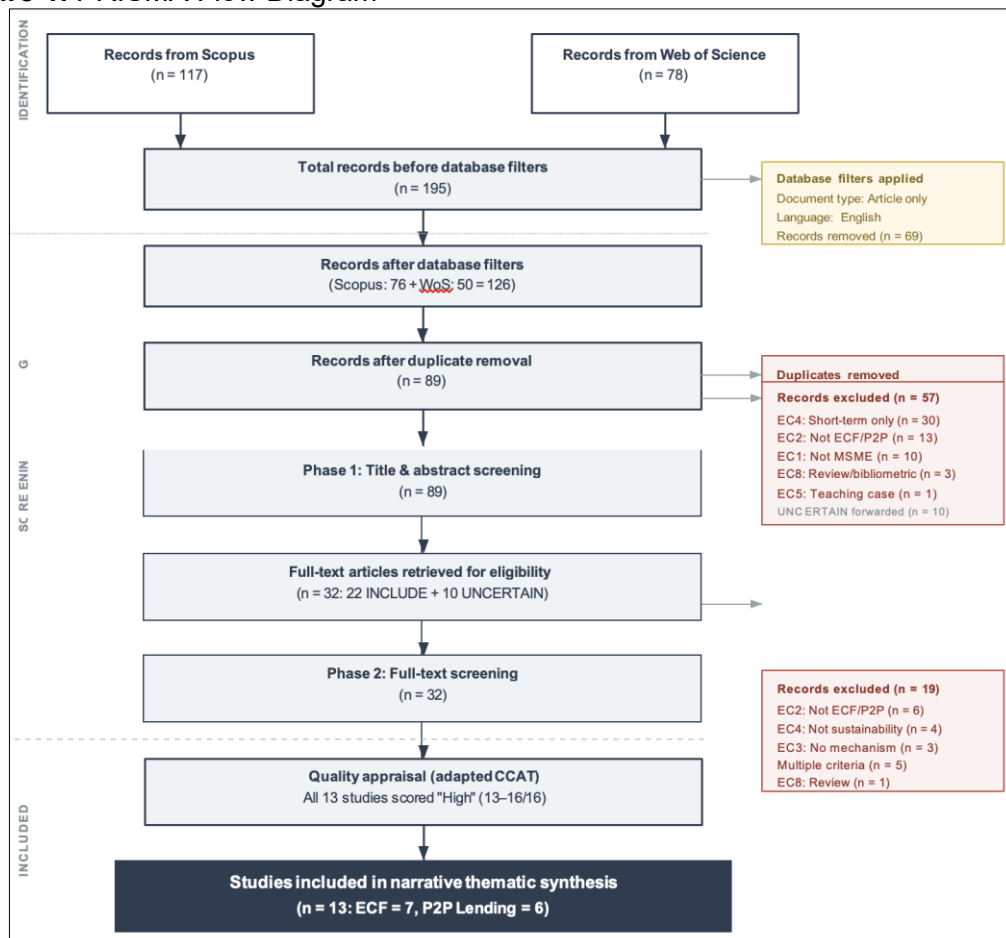
In the second stage, title and abstract screening (Phase 1) applied criteria based on the Context (IC1), Intervention (IC2), and Outcome (IC4) elements of the CIMO framework, along with general criteria relating to document type (IC5, IC6) and exclusion conditions (EC1, EC2, EC4, EC5, EC6, EC7, EC8). The Mechanism criterion (IC3/EC3) was not

applied at this phase, as mechanism- related information is frequently unavailable at the abstract level. Of 89 articles, 22 met the inclusion criteria, 10 were categorized as uncertain, and 57 were excluded. All 32 articles (22 included + 10 uncertain) were forwarded to the subsequent phase.

In the third stage, full-text screening (Phase 2) applied the complete set of inclusion and exclusion criteria (IC1–IC7, EC1–EC8), including the verification of mechanisms (IC3/EC3), empirical status (IC7), and the identification of review articles (EC8). Of the 32 articles, 19 were excluded predominantly due to outcomes not measuring financial sustainability (EC4: 13 articles) and mechanisms not being empirically tested (EC3: 10 articles), resulting in 13 articles that satisfied all eligibility criteria. Because a single article could fail more than one eligibility criterion simultaneously, the reasons for exclusion overlap: several of the 19 excluded articles failed both the outcome (EC4) and mechanism (EC3) criteria concurrently, which is why the sum of exclusion reasons (23) exceeds the number of unique excluded articles (19).

In the fourth stage, quality appraisal was independently conducted by two assessors using an adapted version of the Crowe Critical Appraisal Tool (CCAT) on a 0–16 scale. All 13 studies scored within the "High" category (range: 13–16), and no studies were excluded at this stage.

Figure 1. PRISMA Flow Diagram



Data Extraction and Synthesis

Data were extracted in a structured manner according to CIMO elements: geographic context and MSME characteristics (C), type of alternative financing instrument (I), financial and institutional mechanisms tested (M), and financial sustainability indicators

measured (O). Methodological information including research design, analytical techniques, sample size, and observation horizon was also extracted to support cross-study comparability assessment.

Synthesis was performed through a narrative thematic synthesis approach integrated with CIMO configurational analysis. Methodological heterogeneity and variation in outcome measures across studies rendered meta-analysis infeasible; accordingly, narrative thematic synthesis was adopted to accommodate this diversity while enabling the identification of configurations of conditions that produce positive and negative outcomes. The final corpus comprises 13 quantitative empirical studies published between 2018 and 2026, encompassing seven ECF studies and six P2P lending studies across nine countries. Throughout the Results, statistics are reported as extracted from each source study — regression/hazard coefficients, odds or hazard ratios, and marginal or percentage-point effects are distinct quantities and are labeled accordingly rather than treated as interchangeable; a coefficient is not, by itself, a percentage effect unless the source study reports it as such (e.g., as a marginal effect or an exponentiated ratio).

RESULTS

Descriptive Profile of Included Studies

The selection process yielded 13 empirical studies that satisfied all inclusion criteria (IC1–IC7) and passed quality appraisal using an adapted version of the Crowe Critical Appraisal Tool (CCAT). [Table 1](#) presents a summary of the characteristics of the included studies.

Table 1. Summary of Included Studies (n = 13)

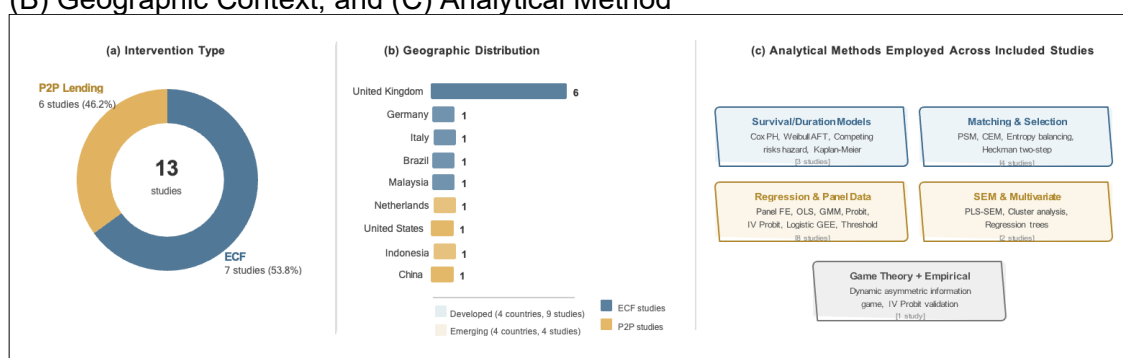
	Authors (Year)	Intervention	Country	Analytical Method	Sample Size	Key Outcome Measured	CCAT
1	Hornuf et al. (2018)	ECF	Germany, UK	Cox PH, Weibull AFT, mediation analysis	413 firms	Firm failure, follow-up funding, survival 36 mo.	15/16
2	Walthoff-Borm et al. (2018)	ECF	UK	CEM, nearest neighbor matching	410 + 250 matched	Failure rate, profitability, patent applications	16/16
3	Galema (2020)	P2P	Netherlands	Probit, OLS investor FE, bivariate probit	5,249 loans	Credit rationing, default, investment	16/16
4	Eldridge et al. (2021)	ECF	UK	OLS, PSM	89 matched pairs	Innovation, growth opportunity, ROA	16/16
5	Sabato et al. (2021)	P2P	UK	Logistic GEE, beta regression	1,536 firms	Probability of default, ROA, ROE	15/16
6	Li and Tian (2022)	P2P	China	Game theory, IV Probit	46,470 obs.	Default risk	15/16
7	Junarsin et al. (2023)	P2P	Indonesia	GMM, threshold regression	149 MSMEs	MSME profitability, default risk, bank NPLs	16/16
8	Kgoroadira et al. (2023)	P2P	USA	Probit regression	27,252 loans	Default rate (27%)	16/16
9	Kassim et al. (2024)	ECF	Malaysia	PLS-SEM	143 firms	ROA, ROE, sales growth	14/16

10	Fasano et al. (2025)	ECF	Italy	Panel FE, PSM, entropy balancing	396 firm-years	ROA, sales growth, debt structure	16/16
11	Vismara and Wirtz (2025)	ECF	UK	2SLS Probit, competing risks hazard	1,483 campaigns	Campaign success, follow-on, failure	16/16
12	Felipe et al. (2025)	ECF	Brazil	Cluster analysis, regression tree	37 startups	Profitability (17 KPIs), taxonomy	14/16
13	Do et al. (2026)	ECF	UK	Heckman selection, entropy balancing	1,574 firms	Firm size, ROA, follow-on, survival	16/16

Note: ECF = Equity Crowdfunding; P2P = Peer-to-Peer Lending; CEM = Coarsened Exact Matching; PSM = Propensity Score Matching; PH = Proportional Hazards; AFT = Accelerated Failure Time; FE = Fixed Effects; GEE = Generalized Estimating Equations; GMM = Generalized Method of Moments; IV = Instrumental Variables; SEM = Structural Equation Modeling; CCAT = Crowe Critical Appraisal Tool.

The temporal distribution spans from 2018 to 2026, with a concentration in the 2020–2026 period, confirming that scholarly attention to the long-term impact of alternative financing on MSMEs remains a relatively recent research phenomenon. In terms of intervention type, the corpus divides into two relatively balanced clusters: seven ECF studies and six P2P lending studies. Geographically, the studies are distributed across nine countries encompassing both developed markets (UK, Germany, USA, Netherlands) and emerging markets (Indonesia, Malaysia, Brazil, China), with the United Kingdom dominating the sample (six studies). All studies are quantitative in nature; the absence of qualitative and mixed-methods designs constitutes a noteworthy descriptive finding in itself. Sample sizes range from 37 (Felipe et al., 2025) to 46,470 observations (Li & Tian, 2022), with post-financing observation horizons extending up to 9 years (Do et al., 2026; Vismara & Wirtz, 2025). All studies scored within the high category on the CCAT (range: 14–16 out of 16), with eight studies achieving the maximum CCAT score of 16/16: Eldridge et al. (2021), Galema (2020), Junarsin et al. (2023), Kgoroadira et al. (2023), Do et al. (2026), Fasano et al. (2025), Vismara & Wirtz (2025), and Walthoff-Borm et al. (2018). Figure 2 presents the descriptive profile of the included studies.

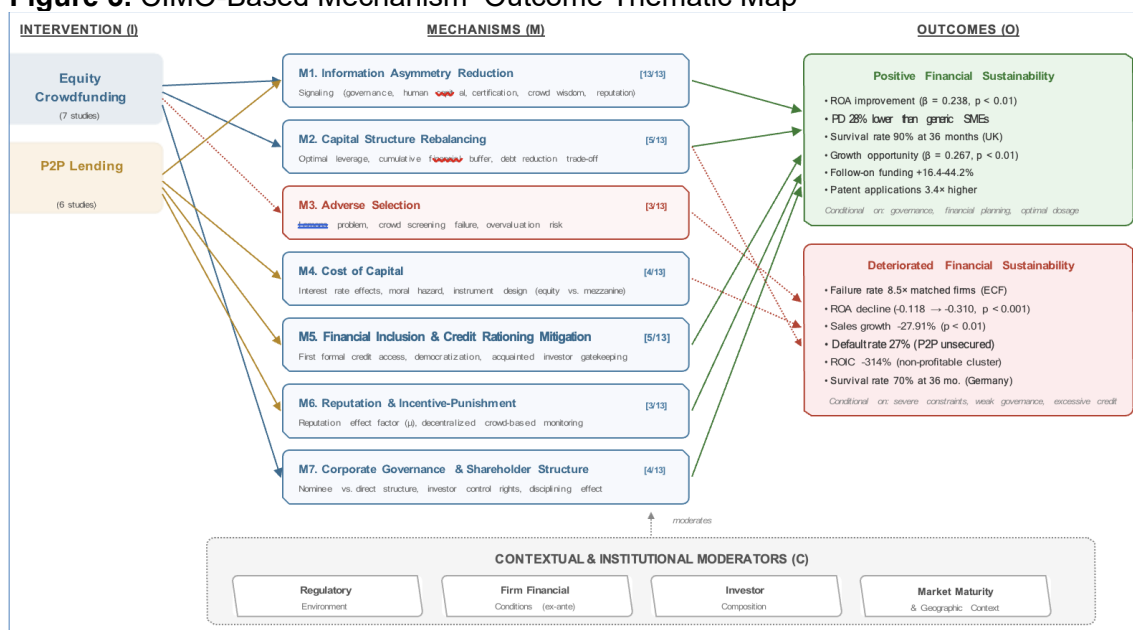
Figure 2. Descriptive Profile of Included Studies: (A) Distribution by Intervention Type, (B) Geographic Context, and (C) Analytical Method



Financial Mechanisms Mediating the Relationship Between Alternative Financing and Financial Sustainability (SRQ1)

Cross-study analysis identified seven financial and institutional mechanisms mediating the relationship between alternative financing and MSME financial sustainability. These mechanisms do not operate in isolation; rather, they form interconnected configurations as visualized in Figure 3.

Figure 3. CIMO-Based Mechanism–Outcome Thematic Map



Information Asymmetry Reduction

This mechanism was identified across all 13 studies, establishing it as the linchpin mechanism within the corpus. In the ECF context, it operates through four distinct pathways. First, signaling via governance structure: [Vismara and Wirtz \(2025\)](#) demonstrated that nominee ownership structure functions as a costly signal that reduces adverse selection, with the interaction effect of environmental orientation $\times$ nominee significantly increasing the probability of campaign success (coefficient = 0.238, $p < 0.01$). [Walthoff-Borm et al. \(2018\)](#) independently confirmed this finding: nominee structure yielded smaller financial losses than direct shareholder structure owing to reduced agency conflicts through concentrated monitoring.

Second, human capital signaling: [Hornuf et al. \(2018\)](#) identified that each additional senior management member reduced the hazard of firm failure by 32.5% (hazard ratio = 0.675, $p < 0.001$). Mediation analysis revealed that this effect is direct (total effect mediated = 0.001%), rather than mediated through follow-up funding. Third, certification effect: [Do et al. \(2026\)](#) showed that venture capitalist (VC) involvement increased the likelihood of follow-on events by 16.4% (coefficient 0.49, $p < 0.01$), rising to 44.2% for co-invested firms. However, [Hornuf et al. \(2018\)](#) found that the number of initial VC investors actually increased the hazard of failure (hazard ratio = 1.450, $p < 0.01$), indicating that professional investor involvement is double-edged. Fourth, [Eldridge et al. \(2021\)](#) identified information cascades that enhanced growth opportunity ($\beta = 0.267, p < 0.01$) and ROA ($\beta = 0.238, p < 0.01$), although [Walthoff-Borm et al. \(2018\)](#) demonstrated that the wisdom of the crowd has empirical limits. ECF firm failure rates were 8.5x higher than those of matched firms despite producing 3.4x more patent applications.

In the P2P lending context, the mechanism operates through different channels. [Kgoroadira et al. \(2023\)](#) showed that credit grade and repayment history reduced the probability of default; repeat borrowers exhibited a decrease of 18.7 percentage points. [Li and Tian \(2022\)](#) formalized through game theory that a reputation effect factor (μ), increasing with the number of investors, significantly reduces default risk (IV Probit coefficient: -1.154, $p < 0.01$). [Galema \(2020\)](#) provided evidence that pre-publication investment by acquainted investors as a proxy for soft information reduced the probability of default by approximately 6%, whereas formal credit scores did not significantly predict default.

Capital Structure Rebalancing

Five studies examined this mechanism, yielding ambiguous findings. On the positive side, [Junarsin et al. \(2023\)](#) demonstrated an inverted U-shaped relationship through threshold regression: fintech lending credit up to IDR 5 billion increased MSME profitability, whereas amounts exceeding IDR 6 billion increased default risk. [Sabato et al. \(2021\)](#) found that P2P borrowers exhibited higher leverage yet also significantly higher ROA and ROE ($p < 0.0001$), with a probability of default 28% lower (0.064 vs. 0.089) than generic SMEs. [Hornuf et al. \(2018\)](#) showed that capital accumulation from multiple ECF rounds reduced the hazard of failure by 22.6% per EUR 100,000 (hazard ratio = 0.774, $p < 0.001$).

On the negative side, [Fasano et al. \(2025\)](#) revealed that SMEs with severe financial constraints used ECF proceeds for debt reduction (total debt declined 14.4%, $p < 0.01$) rather than productive investment; tangible and intangible assets did not increase significantly post-ECF. This effect was ECF-specific; matched non-ECF firms did not exhibit the same pattern. [Felipe et al. \(2025\)](#) corroborated this finding, reporting that 72% of ECF-funded startups in Brazil exhibited poor economic performance, with an average ROIC of -314% for the non-profitable cluster.

Adverse Selection

[Walthoff-Borm et al. \(2018\)](#) identified this mechanism as a fundamental differentiator between ECF and traditional financing channels. Using coarsened exact matching, the study showed that ECF firm failure rates were 8.5× higher (17% vs. 2%) than those of matched firms, indicating that ECF platforms attract a disproportionate share of firms unable to secure financing from more selective sources. [Hornuf et al. \(2018\)](#) confirmed that higher firm valuations at the time of ECF significantly increased the hazard of failure (hazard ratio = 1.056, $p < 0.001$) overvaluation by the crowd constitutes an indicator of adverse selection.

Cost of Capital, Financial Inclusion, Reputation Mechanism, and Corporate Governance

Three P2P lending studies consistently examined the cost of capital mechanism: [Kgoroadira et al. \(2023\)](#) found a positive correlation between the average interest rate of 18.5% and default (+1.2 percentage points per 1 pp increase), while [Galema \(2020\)](#) reported that a 1 percentage point increase in the interest rate raised the probability of nonperformance by approximately 17%. [Hornuf et al. \(2018\)](#) added that differences in financial instruments across countries equity shares in the UK versus mezzanine instruments in Germany correlated with a dramatic survival divergence (90% vs. 70% after 36 months).

The financial inclusion mechanism was strongly documented in emerging market contexts. [Junarsin et al. \(2023\)](#) reported that 80.2% of MSMEs in their Indonesian sample were unbanked, with fintech lending serving as their first channel to formal credit. [Galema \(2020\)](#) demonstrated that acquainted investors reduced credit rationing specifically for startup firms (coefficient 0.131, $p < 0.05$) that were most excluded from formal financing.

[Li and Tian \(2022\)](#) formalized the reputation mechanism through dynamic game theory: when the reputation effect factor (μ) exceeds the threshold $(1+r)/2$, borrowers opt to repay. Investor participation functions not only as a source of capital but also as a collective screening mechanism that influences borrower behavior in a decentralized manner.

Three ECF studies examined the corporate governance mechanism with convergent findings: nominee structure reduced agency conflicts and improved financial performance (Vismara & Wirtz, 2025; Walthoff-Borm et al., 2018), while investor control rights through equity shares (UK model) exerted a disciplining effect on management compared with mezzanine instruments (German model), resulting in a 67% lower hazard of failure in the UK (hazard ratio = 0.331, $p < 0.05$) (Hornuf et al., 2018). Walthoff-Borm et al. (2018) uncovered a notable trade-off: nominee governance outperformed in financial outcomes, whereas the direct structure generated more patent applications (90 vs. 18 post-campaign).

Contextual and Institutional Moderators (SRQ2)

Four critical moderators were identified across the corpus. First, regulatory environment: regulatory differences produced significantly divergent outcomes. Hornuf et al. (2018) demonstrated a survival divergence of 90% (UK) versus 70% (Germany) correlated with differences in regulatory instruments and investor control rights. Junarsin et al. (2023) identified that Indonesia's regulatory credit limit (IDR 2 billion) fell substantially below the optimal threshold (IDR 5–6 billion), potentially constraining positive impact. Felipe et al. (2025) documented that 82% of ECF platforms in Brazil failed to comply with disclosure requirements, resulting in 72% of startups exhibiting poor performance.

Second, firm financial conditions: Fasano et al. (2025) provided evidence that SMEs with severe financial constraints exhibited the worst outcomes post-ECF. The interaction of ECF $\times$ Financial Constraints yielded a significant negative effect on ROA ($\beta = -0.259$, $p < 0.10$), which deteriorated further for sales growth ($\beta = -1.325$, $p < 0.001$). Walthoff-Borm et al. (2018) confirmed that firms resorting to ECF possessed lower underlying quality, consistent with pecking order theory predictions.

Third, investor composition: Do et al. (2026) showed that homogeneous syndicates produced superior outcomes; VC-BA co-investment resulted in employment +144% compared with all-BA syndication. Galema (2020) confirmed that acquainted investors were effective for opaque/startup firms (coefficient 0.131, $p < 0.05$) but not for established firms (0.009, n.s.).

Fourth, market maturity: in emerging markets with high financial exclusion, alternative financing operated as a complement to traditional financing (Junarsin et al., 2023), whereas in developed markets it operated as a substitute P2P lenders attracted quality borrowers who could also have obtained bank credit (Sabato et al., 2021).

Comparative Outcomes: Alternative Versus Traditional Financing (SRQ3)

The comparative analysis revealed two central findings. First, ECF functions as a double-edged sword: Walthoff-Borm et al. (2018) showed that ECF firm failure rates were 8.5 $\times$ higher (17% vs. 2%) while simultaneously producing 3.4 $\times$ more patent applications than matched firms. Second, P2P lending challenges the bottom-fishing narrative: Sabato et al. (2021) demonstrated that P2P borrower SMEs had a 28% lower probability of default (coefficient -0.3394 , $p < 0.0001$) and higher profitability than generic SMEs, supporting the substitution hypothesis.

Cross-study findings identified fundamental mechanistic differences: collateral significant in bank lending was not significant in P2P unsecured lending (Kgoroadira et al., 2023); crowd monitoring was weaker than institutional monitoring (Fasano et al., 2025; Walthoff-Borm et al., 2018); and alternative financing developed unique signaling mechanisms without counterparts in traditional banking, including visual information (Kgoroadira et al., 2023: -17.5 pp default for new firms), acquainted investors (Galema, 2020), and human capital signaling (Hornuf et al., 2018).

The complementarity–substitution relationship is market-contingent. [Junarsin et al. \(2023\)](#) found that fintech-bank synergy reduced bank NPLs (coefficient $-2.67e-06$, $p < 0.01$), while [Hornuf et al. \(2018\)](#) showed that 19% of ECF firms obtained follow-up funding from VCs/Bas; ECF functions as a stepping stone rather than a financing endpoint.

CIMO Configurations: Conditional Effectiveness of Alternative Financing

The overall synthesis reveals a central paradox: alternative financing is not unconditionally beneficial for MSME financial sustainability. [Table 2](#) presents the four identified CIMO configurations.

Table 2. CIMO Configurational Analysis: Conditions for Positive and Negative Financial Sustainability Outcomes

Configuration	Context (C)	Intervention (I)	Mechanisms (M)	Outcome (O)	Supporting Studies
1 Effective ECF (+)	SME in developed market with mature regulation, moderate financial constraints, management team ≥ 3 members	ECF via regulated platform, nominee structure, equity shares with control rights	Information asymmetry reduction (signaling, certification) $\rightarrow$ agency cost reduction $\rightarrow$ cumulative financial buffer	Survival rate 90% (36 mo.); growth opportunity $\beta = 0.267$; follow-on funding +16.4–44.2%	Do et al. (2026) ; Eldridge et al. (2021) ; Hornuf et al. (2018) ; Vismara & Wirtz (2025) ; Walthoff-Borm et al. (2018)
2 Dysfunctional ECF (–)	SME with severe financial constraints, weak regulation, overvaluation, mezzanine instruments without control rights	ECF without effective governance, without mandatory reporting, non-compliant platforms	Adverse selection (8.5× failure rate) $\rightarrow$ loss of debt disciplining effect $\rightarrow$ agency misconduct (fund misallocation)	ROA decline (-0.310 , $p < 0.001$); sales growth -27.91% ; failure rate 17% ; ROIC -314%	Felipe et al. (2025) ; Fasano et al. (2025) ; Hornuf et al. (2018) ; Walthoff-Borm et al. (2018)
3 Effective P2P (+)	Unbanked MSMEs in emerging market OR growth-oriented SMEs in developed market, credit $\leq$ optimal threshold	P2P lending with risk-based pricing, acquainted investors, two-phase investment model	Financial inclusion $\rightarrow$ reputation mechanism ($\mu > (1+r)/2$) $\rightarrow$ acquainted investor signaling $\rightarrow$ optimal leverage	PD 28% lower; profitability increase ($\leq$ IDR 5B); default -6% (acquainted investors); bank NPLs decrease	Galema (2020) ; Junarsin et al. (2023) ; Li & Tian (2022) ; Sabato et al. (2021)
4 Adverse P2P (–)	High-risk borrower, unsecured, interest rate $>18\%$, credit $>$ IDR 6B	P2P lending without collateral, suboptimal pricing, credit exceeding absorptive capacity	Moral hazard $\rightarrow$ excessive leverage $\rightarrow$ credit scores fail to predict default	Default rate 27% ; +1.2 pp default per 1 pp interest rate increase; nonperformance +17% per 1 pp	Galema (2020) ; Kgoroadira et al. (2023) ; Junarsin et al. (2023)

Note: (+) = positive outcome configuration; (–) = negative outcome configuration; PD = Probability of Default; mo. = months. The numerical conditions listed under Context and Intervention (e.g., management team ≥ 3 members, interest rate $>18\%$, credit $>$ IDR 6 billion) are values reported by the specific supporting study(ies) cited in each row, not universal thresholds established by this review; they should be read as illustrative boundary conditions observed in the context examined by the source study rather than generalizable cut-offs for MSMEs as a whole.

These configurations demonstrate that the effectiveness of alternative financing is associated with the interaction among firm contextual conditions, intervention design (particularly governance structure and instrument design), and the mechanisms activated. ECF yields positive outcomes when supported by nominee governance, investor control rights, and moderate firm financial conditions, yet becomes counterproductive when safeguards are absent and firms experience severe financial constraints. P2P lending is effective at optimal dosages and when reputation mechanisms are active, whereas high interest rates and excessive credit trigger moral hazard and the deterioration of financial sustainability.

DISCUSSION

The findings of this systematic review indicate that alternative financing encompassing ECF and P2P lending is associated with a conditional rather than universally beneficial influence on MSME financial sustainability. This section interprets these findings in relation to established theoretical frameworks, positions them within the broader empirical landscape, and derives implications for theory, practice, and policy. Because the review synthesizes findings from 13 heterogeneous, predominantly quasi-experimental and observational studies rather than estimating a new causal model, the interpretation below distinguishes empirical findings directly reported by individual studies from the CIMO-based configurational interpretation developed by the present review; where the reviewed studies do not themselves establish causal identification, wording such as "the reviewed evidence indicates," "is associated with," or "the synthesis suggests" is used in preference to causal language.

Theoretical Interpretation of Key Findings

Revisiting Pecking Order Theory in the Alternative Financing Context

The CIMO configurational analysis provides empirical grounds for reconsidering the applicability of pecking order theory (Myers & Majluf, 1984) to the alternative financing domain. Classical pecking order predicts that firms prefer internal funds, followed by debt, with equity as a last resort due to adverse selection costs. Our synthesis confirms the descriptive accuracy of this hierarchy: Walthoff-Borm et al. (2018) demonstrated that ECF firms exhibit lower profitability and higher leverage prior to campaign launch, and Fasano et al. (2025) showed that severely constrained SMEs use ECF proceeds predominantly for debt reduction rather than productive investment. These patterns are consistent with Djabang et al. (2025), who confirmed that pecking order dynamics persist among UK SMEs, and with the broader recognition that ECF often serves as a financing channel of last resort (Walthoff-Borm et al., 2018).

However, the theory's prescriptive dimension that equity issuance should optimize capital structure is contradicted by the evidence. Configuration 2 (Dysfunctional ECF) suggests that firms resorting to ECF under severe financial constraints experience deteriorated outcomes (ROA decline to -0.310 , $p < 0.001$; sales growth -27.91%), a pattern consistent with the interpretation that the removal of debt discipline enables fund misallocation. This finding aligns with Fasano et al. (2025), who characterized this pattern as the "dark side" of ECF, and extends pecking order theory by demonstrating that the sequence of financing choices does not merely reflect information asymmetry costs — the reviewed evidence suggests it also shapes the governance mechanisms available to discipline managerial behavior post-financing. When debt is replaced by dispersed equity from unsophisticated crowd investors, the disciplining effect that creditors traditionally exert is lost, creating an agency vacuum that pecking order theory does not account for.

Extending Signaling Theory Beyond Financial Information

The identification of information asymmetry reduction as the linchpin mechanism across all 13 studies necessitates a substantive extension of signaling theory (Spence, 1973) as applied to entrepreneurial finance. In traditional IPO and venture capital contexts, costly signals operate primarily through financial disclosures and underwriter reputation (Connelly et al., 2011). Our synthesis reveals that alternative financing platforms have generated novel signaling channels that lack direct counterparts in conventional financial markets.

Four distinct signal categories emerged: governance signals (nominee structure), human capital signals (management team size with a direct not mediated effect on survival), social-relational signals (acquainted investors as soft information proxies), and visual signals (firm imagery reducing default probability by 17.5 percentage points for new firms). Critically, the direct effect of human capital on survival without mediation through follow-up funding (Hornuf et al., 2018: total mediated effect = 0.001%) suggests that management team quality functions as an intrinsic safeguard rather than merely an external signal, a distinction not captured by conventional signaling models.

The finding that soft signals outperform hard signals for opaque firms (Galema, 2020: acquainted investor effect significant only for startups) while hard signals dominate for established firms (Kgoroadira et al., 2023) suggests a signal-contingency framework: signal effectiveness is moderated by firm opacity, with relational and visual signals filling information gaps that formal credit scoring cannot address. This observation extends the information asymmetry literature in P2P lending (Cummins et al., 2018) by identifying the boundary conditions under which different signal types achieve predictive validity.

Agency Theory and the Governance Paradox

The corporate governance findings present a paradox that enriches agency theory (Jensen & Meckling, 1976). Nominee structure reduced agency conflicts and improved financial performance, yet direct shareholder structure generated substantially more patent applications (90 vs. 18 post-campaign). This governance–innovation trade-off implies that concentrated monitoring optimizes financial discipline but constrains the knowledge-transfer and market- feedback channels through which dispersed crowd investors contribute to innovation.

The cross-country governance comparison between UK equity shares and German mezzanine instruments (Hornuf et al., 2018) yielding a 67% lower hazard of failure in the UK, reinforces the law and finance tradition (La Porta et al., 1998) with micro-level evidence. Investor control rights matter not only for aggregate market development but for individual firm survival trajectories, a finding that the regulatory frameworks literature has increasingly recognized (Cicchiello et al., 2021; Gupta et al., 2024). The dramatic survival divergence (90% UK vs. 70% Germany at 36 months) attributable to instrument design represents one of the most striking empirical demonstrations of how regulatory architecture shapes firm-level outcomes in alternative financing.

Positioning Findings Within the Broader Empirical Landscape

The Double-Edged Sword of Equity Crowdfunding

The simultaneous observation of elevated failure rates and enhanced innovative output among ECF firms (Configuration 1 vs. Configuration 2) positions our findings within and extends an emerging strand of literature on post-campaign firm performance. Our synthesis advances this literature by demonstrating that the dual outcome is not contradictory but rather reflects two distinct CIMO configurations activated under different contextual conditions: effective governance and moderate financial constraints activate signaling and certification mechanisms that are associated with enhanced

sustainability, whereas weak governance and severe constraints activate adverse selection and agency misconduct that are associated with firm failure.

This configurational interpretation resolves an apparent inconsistency in the literature where individual studies report either positive (Do et al., 2026; Eldridge et al., 2021) or negative (Fasano et al., 2025; Walthoff-Borm et al., 2018) ECF outcomes. The CIMO framework reveals that these are not contradictory findings but complementary configurations, each valid under specified boundary conditions.

P2P Lending: Beyond the Bottom-Fishing Narrative

The finding that P2P borrower SMEs exhibit a 28% lower probability of default than generic SMEs (Sabato et al., 2021) directly challenges the prevailing assumption that P2P platforms attract predominantly low-quality borrowers rejected by banks. This substitution effect, where quality borrowers voluntarily choose P2P lending over available bank credit, has broader implications for financial system architecture. However, the inverted U-shaped relationship between credit volume and MSME profitability (Junarsin et al., 2023) introduces a critical nuance: the benefits of P2P lending are bounded by an optimal dosage threshold (IDR 5–6 billion), beyond which excessive leverage triggers moral hazard and increased default risk.

The formalization of the reputation mechanism by Li and Tian (2022), where borrower behavior is governed by the reputation effect factor μ exceeding $(1+r)/2$, provides a theoretical micro-foundation for understanding why crowd-based monitoring can substitute for institutional monitoring, but only within specific parametric boundaries. Platform incentives to relax screening in pursuit of origination fees can introduce moral hazard that erodes the reputational equilibrium, explaining why Configuration 4 (Adverse P2P) emerges when pricing is suboptimal and credit exceeds absorptive capacity.

The Complementarity-Substitution Nexus

The market-contingent nature of the complementarity–substitution relationship between alternative and traditional financing constitutes a key contribution. In emerging markets characterized by high financial exclusion (80.2% unbanked MSMEs in Indonesia), alternative financing operates as a complement; fintech-bank synergy reduces bank NPLs (Junarsin et al., 2023), consistent with broader evidence that fintech enhances financial inclusion and indirectly supports MSME sustainability. In developed markets, the relationship shifts toward substitution, with P2P lenders attracting borrowers who could access bank credit. This dual dynamic suggests that the role of alternative financing in the financial ecosystem is not fixed but evolves with market maturity.

Research Implications

Theoretical Implications

This review offers four theoretical contributions. First, pecking order theory requires modification in the alternative financing context: the financing hierarchy accurately predicts which firms seek ECF but fails to account for the governance vacuum created when dispersed crowd equity replaces debt, enabling fund misallocation. Second, signaling theory must be expanded to accommodate the multi-dimensional signal architecture of platform-based financing, encompassing governance, human capital, social-relational, and visual signals with effectiveness contingent on firm opacity. Third, agency theory benefits from the governance–innovation trade-off identified between nominee and direct structures, suggesting that optimal governance in crowdfunding contexts involves balancing financial discipline against knowledge-transfer mechanisms. Fourth, the cross-country evidence reinforces institutional theory by demonstrating that instrument design and regulatory architecture produce measurable divergences in firm

survival, extending the law and finance framework (La Porta et al., 1998) to the platform financing domain.

Practical Implications

For MSMEs, financial planning and control constitute prerequisites for effective utilization of alternative financing (Kassim et al., 2024). Firms with severe financial constraints should exercise caution with ECF, given the documented risk of fund misallocation (Fasano et al., 2025). Management team development represents a direct investment in survival; each additional member reduces the failure hazard by 32.5% (Hornuf et al., 2018). For P2P borrowers, credit volumes should remain within absorptive capacity thresholds to avoid triggering adverse leverage dynamics.

For platforms, the implementation of nominee governance structures enhances both campaign success and long-term financial outcomes (Vismara & Wirtz, 2025; Walthoff-Borm et al., 2018). Platform designs that enable acquainted investors to invest prior to public listing provide effective signaling mechanisms (Galema, 2020). Pre-campaign due diligence and post-campaign reporting should be strengthened to mitigate adverse selection, while overvaluation screening merits integration into platform assessment protocols (Hornuf et al., 2018).

Policy Implications

Regulators face the challenge of calibrating frameworks at a "sweet spot" between excessive restriction, which constrains financial inclusion, and excessive permissiveness, which enables adverse selection and agency problems. Three specific recommendations emerge from the evidence. First, credit limits for fintech lending should be calibrated to MSME absorptive capacity rather than imposed uniformly; the Indonesian case illustrates that the regulatory limit (IDR 2 billion) falls substantially below the optimal threshold (IDR 5–6 billion), potentially constraining beneficial impact (Junarsin et al., 2023). Second, mandatory post-campaign reporting and milestone-based fund disbursement for ECF can prevent fund misallocation without restricting access. Third, instrument design matters: regulations that provide investor control rights (equity shares with voting rights) produce measurably better survival outcomes than those permitting mezzanine instruments without governance mechanisms, as evidenced by the UK–Germany comparison (Hornuf et al., 2018). These policy recommendations align with the broader call for adaptive regulatory frameworks that balance innovation with stability in fintech ecosystems (Gupta et al., 2024).

CONCLUSION

This systematic review of 13 empirical studies (2018–2026) indicates that ECF and P2P lending are associated with a conditional, not universally beneficial, influence on MSME financial sustainability. The CIMO configurational analysis identified four distinct pathways: effective governance, moderate financial constraints, and appropriate credit thresholds activate mechanisms that enhance sustainability, whereas weak governance, severe constraints, and excessive leverage trigger adverse selection and agency misconduct that deteriorate firm outcomes. Information asymmetry reduction emerged as the linchpin mechanism across all studies, operating through novel signaling channels governance structures, human capital, social-relational cues, and visual information that fundamentally differ from traditional financial intermediation.

These findings necessitate modifications to pecking order, signaling, and agency theories to accommodate the distinctive principal-agent dynamics of crowd-based financing. For policymakers and platform designers, the evidence underscores that regulatory calibration of investor control rights, credit limits, and post-financing disclosure

constitutes a prerequisite for translating alternative financing from capital access into sustainable financial outcomes.

LIMITATION

Four limitations of the synthesized evidence base warrant acknowledgment. First, all 13 included studies are exclusively quantitative, creating a methodological blind spot regarding the processual dimensions of the identified mechanisms; future research employing qualitative or mixed-methods designs could illuminate the "how" and "why" questions that quantitative approaches cannot fully address. Second, no study in the corpus directly compared ECF and P2P lending on a comparable sample, so the cross-instrument comparisons in this review represent between-study inferences rather than within-study evidence, limiting causal attributions about instrument-specific effects. Third, the geographic concentration on the United Kingdom (six studies) constrains the generalizability of findings to regions where financing gaps are most acute, particularly Sub-Saharan Africa, South Asia, and the Middle East. Fourth, financial sustainability measurement across studies relied predominantly on single-dimension proxies (ROA, failure rate, or default rate); no study employed a comprehensive sustainability index integrating profitability, solvency, and survival simultaneously, though credit risk shapes ROA in related Indonesian contexts (Wahab et al., 2026). Future research should prioritize prospective longitudinal cohort designs with multi-dimensional sustainability measures, direct ECF–P2P comparative analyses within unified samples, and expanded geographic coverage encompassing emerging markets where the MSME financing gap is most concentrated.

ACKNOWLEDGMENT

The authors would like to express their sincere gratitude to the Faculty of Economics and Business Education (FPEB), Universitas Pendidikan Indonesia (UPI), for the academic support and institutional environment provided throughout the doctoral study. The authors also gratefully acknowledge the support and guidance of the doctoral program, academic supervisors, and all parties who contributed to the completion of this research and the publication of this article. This publication in a SINTA 2 accredited journal constitutes an important part of the academic requirements for completing the Doctoral Program at FPEB, Universitas Pendidikan Indonesia. The authors sincerely appreciate all support, guidance, and encouragement received throughout the research and publication process.

DECLARATION OF CONFLICTING INTERESTS

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

REFERENCES

- Agustin, G. (2023). The rise of financial technology and its credit risk in Indonesia. *International Journal of Accounting and Finance in Asia Pacific*, 6(2), 228–239. <https://doi.org/10.32535/ijafap.v6i2.2318>
- Akerlof, G. A. (1970). The market for "lemons": Quality uncertainty and the market mechanism. *Quarterly Journal of Economics*, 84(3), 488–500. <https://doi.org/10.2307/1879431>
- Cicchello, A. F., Pietronudo, M. C., Leone, D., & Caporuscio, A. (2021). Entrepreneurial dynamics and investor-oriented approaches for regulating equity-based crowdfunding. *Journal of Entrepreneurship and Public Policy*, 10(2), 235–260. <https://doi.org/10.1108/JEPP-05-2020-0027>

- Connelly, B. L., Certo, S. T., Ireland, R. D., & Reutzel, C. R. (2011). Signaling theory: A review and assessment. *Journal of Management*, 37(1), 39–67. <https://doi.org/10.1177/0149206310388419>
- Cummins, M., Lynn, T., Mac an Bhaird, C., & Rosati, P. (2018). Addressing information asymmetries in online peer-to-peer lending. In *Disrupting Finance: FinTech and Strategy in the 21st Century* (pp. 15–31). Springer International Publishing. https://doi.org/10.1007/978-3-030-02330-0_2
- Denyer, D., & Tranfield, D. (2009). Producing a systematic review. In D. A. Buchanan & A. Bryman (Eds.), *The SAGE handbook of organizational research methods* (pp. 671–689). SAGE Publications. <https://psycnet.apa.org/record/2010-00924-039>
- Djabang, P., Shubita, M., & Konstantopoulou, A. (2025). Pecking order theory's impact on the financing of small- and medium-sized enterprises (SMEs) in the UK. *International Journal of Organizational Analysis*, 33(2), 354–374. <https://doi.org/10.1108/IJOA-04-2024-4426>
- Do, T. N. H., Cheema, M. A., & Vanacker, T. (2026). Mixed blessings? Venture capitalists, angels, and the performance of equity crowdfunded firms. *Small Business Economics*, 66, 531–550. <https://doi.org/10.1007/s11187-025-01113-3>
- Eldridge, D., Nisar, T. M., & Torchia, M. (2021). What impact does equity crowdfunding have on SME innovation and growth? An empirical study. *Small Business Economics*, 57(2), 765–781. <https://doi.org/10.1007/s11187-019-00210-4>
- Fasano, F., La Rocca, M., Sánchez-Vidal, F. J., & Boutouar, Y. (2025). Why SMEs go to crowdfunding? The role of financial constraints and agency issues. *Small Business Economics*, 65, 1183–1207. <https://doi.org/10.1007/s11187-025-01046-x>
- Felipe, I. J. dos S., Oliveira, A. M. B. de, & Carvalho, G. B. de (2025). A taxonomy of equity crowdfunding startups in Brazil. *BAR – Brazilian Administration Review*, 22(3), Article e240093. <https://doi.org/10.1590/1807-7692bar2025240093>
- Galema, R. (2020). Credit rationing in P2P lending to SMEs: Do lender-borrower relationships matter? *Journal of Corporate Finance*, 65, 101742. <https://doi.org/10.1016/j.jcorpfin.2020.101742>
- Gupta, P., Singh, S., Ghosh, R., Shukla, B., & Jain, C. (2024). Regulatory framework on governing equity crowdfunding: A systematic literature review and future directions. *Journal of Financial Regulation and Compliance*, 32(5), 630–648. <https://doi.org/10.1108/JFRC-06-2024-0099>
- Hasanudin, H., & Panigfat, F. (2024). Unlocking MSME performance: The interplay of financial literacy, financial inclusion, and financial technology lending with venture capital mediation. *Shirkah: Journal of Economics and Business*, 9(2), 137–148. <https://doi.org/10.22515/shirkah.v9i2.657>
- Heliani, H., & Iskandar, Y. (2024). MSMEs financial sustainability model in Indonesia: Policy, capital, literacy, structure. *Jurnal Reviu Akuntansi dan Keuangan*, 14(1), 258–280. <https://doi.org/10.22219/jrak.v14i1.29716>
- Hornuf, L., Schmitt, M., & Stenzhorn, E. (2018). Equity crowdfunding in Germany and the United Kingdom: Follow-up funding and firm failure. *Corporate Governance: An International Review*, 26(5), 331–354. <https://doi.org/10.1111/corg.12260>
- International Finance Corporation (IFC). (2025). *MSME finance gap: An updated estimation and evolution of the gap*. IFC. https://www.smefinanceforum.org/sites/default/files/Data%20Sites%20downloads/IFC%20Report_MAIN%20Final%203%2025.pdf
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305–360. [https://doi.org/10.1016/0304-405X\(76\)90026-X](https://doi.org/10.1016/0304-405X(76)90026-X)
- Junarsin, E., Pelawi, R. Y., Kristanto, J., Marcelin, I., & Pelawi, J. B. (2023). Does fintech lending expansion disturb financial system stability? Evidence from Indonesia. *Heliyon*, 9(9), Article e18384. <https://doi.org/10.1016/j.heliyon.2023.e18384>

- Kassim, S. F. M., Zain, S. N. M., Zainon, S., & Bawono, A. D. B. (2024). Impacts of financial management on equity-crowdfunded firms' performance. *Journal of Sustainability Science and Management*, 19(11), 153–176. <https://doi.org/10.46754/jssm.2024.11.010>
- Kgoroadira, R., Burke, A., Di Pietro, F., & van Stel, A. (2023). Determinants of firms' default on unsecured loans in the P2P crowdfunding market. *Journal of International Financial Markets, Institutions and Money*, 89, 101882. <https://doi.org/10.1016/j.intfin.2023.101882>
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. W. (1998). Law and finance. *Journal of Political Economy*, 106(6), 1113–1155. <https://doi.org/10.1086/250042>
- Li, X., & Tian, X. (2022). Research on SMEs' reputation mechanism and default risk based on investors' financial participation. *Sustainability*, 14(21), Article 14329. <https://doi.org/10.3390/su142114329>
- Myers, S. C., & Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics*, 13(2), 187–221. [https://doi.org/10.1016/0304-405X\(84\)90023-0](https://doi.org/10.1016/0304-405X(84)90023-0)
- Nasoha, M., Ngarbingan, H. K., Ginting, G., Maria, M., & Zulfahmi, Z. (2024). Optimizing the use of social crowdfunding in SMEs to encourage the implementation of Circular Economy (CE) practices. *International Journal of Applied Business and International Management*, 9(2), 164–181. <https://doi.org/10.32535/ijabim.v9i2.3401>
- Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., ..., & Moher, D. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *BMJ*, 372, Article n71. <https://doi.org/10.1136/bmj.n71>
- Sabato, G., Altman, E. I., & Andreeva, G. (2021). Small and medium-sized enterprises that borrow from “alternative” lenders in the United Kingdom: Who are they? *Journal of Credit Risk*, 17(2), 1–24. <https://doi.org/10.21314/JCR.2021.002>
- Spence, M. (1973). Job market signaling. *Quarterly Journal of Economics*, 87(3), 355–374. <https://doi.org/10.2307/1882010>
- Stiglitz, J. E., & Weiss, A. (1981). Credit rationing in markets with imperfect information. *American Economic Review*, 71(3), 393–410. <https://www.jstor.org/stable/1802787>
- Vismara, S., & Wirtz, P. (2025). Fundraising, governance and environmental ethics: Evidence from equity crowdfunding. *Journal of Business Ethics*, 200, 841–865. <https://doi.org/10.1007/s10551-024-05917-3>
- Wahab, Z. W. A., Jannah, M., Mawaddah, N., Puspita, D., & Yunita, A. (2026). Determinants of financial performance in the Indonesian banking sector. *International Journal of Accounting and Finance in Asia Pacific*, 9(1), 369–388. <https://doi.org/10.32535/ijafap.v9i1.4619>
- Walthoff-Borm, X., Vanacker, T., & Collewaert, V. (2018). Equity crowdfunding, shareholder structures, and firm performance. *Corporate Governance: An International Review*, 26(5), 314–330. <https://doi.org/10.1111/corg.12259>
- Ziegler, T., Shneor, R., Wenzlaff, K., Wang, B., Kim, J., Paes, F. F. D. A., ..., & Rowan, P. (2021). *The 2nd global alternative finance market benchmarking report*. Cambridge Centre for Alternative Finance, Cambridge Judge Business School, University of Cambridge. <https://www.jbs.cam.ac.uk/faculty-research/centres/alternative-finance/publications/the-2nd-global-alternative-finance-market-benchmarking-report/>

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