

A Financial Documentation Compliance Model for Improving Credit Access Among Underreported Small and Medium Enterprises

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Abstract- Small and Medium Enterprises (SMEs) are critical drivers of economic growth, innovation, and employment, particularly in developing economies. However, a significant proportion of underreported SMEs those lacking formal financial documentation or adequate record-keeping remain excluded from traditional credit systems, thus hindering their expansion potential. This study proposes a Financial Documentation Compliance Model (FDCM) designed to enhance credit access among underreported SMEs by promoting standardized financial reporting, regulatory alignment, and digital record integration. The model incorporates a multi-phase approach: diagnostic assessment of existing SME financial behavior, capacity-building interventions, adoption of simplified bookkeeping tools, and alignment with financial institution documentation requirements. By integrating digital financial tools, such as mobile accounting apps and cloud-based reporting systems, the model enables SMEs to generate verifiable financial histories, thereby increasing transparency and lender confidence. This conceptual framework draws on empirical studies and stakeholder consultations to identify the primary bottlenecks in SME credit access, including informal cash flow patterns, inconsistent income reporting, and limited understanding of credit scoring mechanisms. The FDCM is anchored on compliance incentives, such as access to financial advisory services, tax benefits, and eligibility for grant-based technical assistance, which collectively promote a culture of financial accountability among SMEs. Moreover, the model proposes a tiered documentation standard tailored to different SME maturity levels, allowing informal businesses to gradually transition into formal credit ecosystems without being overwhelmed by complex

compliance requirements. Preliminary validation through expert interviews and pilot program analyses suggests that structured financial documentation not only improves access to credit but also strengthens SME resilience, strategic planning, and investor readiness. The paper concludes that widespread adoption of the FDCM could bridge the credit inclusion gap, stimulate local enterprise development, and support inclusive economic growth. The model is particularly relevant for policy stakeholders, development finance institutions, and commercial banks seeking to de-risk SME lending while fostering sustainable financial ecosystems.

Indexed Terms- Financial documentation, credit access, underreported SMEs, compliance model, financial inclusion, SME financing, bookkeeping tools, credit readiness, informal economy, SME formalization.

I. INTRODUCTION

Small and Medium Enterprises (SMEs) are widely recognized as vital engines of economic growth, job creation, innovation, and poverty alleviation, particularly in emerging and developing economies. They account for a significant share of employment and contribute to the diversification and resilience of national economies. Despite their importance, many SMEs especially underreported or informally operating ones remain excluded from formal financial systems due to their limited ability to meet the stringent documentation and compliance requirements imposed by traditional lenders and regulatory bodies. These underreported SMEs typically lack formal bookkeeping systems, audited financial statements,

and reliable cash flow records, making it difficult for financial institutions to assess their creditworthiness (Altamuro & Beatty, 2010, Laatikainen, 2018). Consequently, they face significant barriers to accessing essential credit for expansion, modernization, or working capital, thereby stifling their growth potential and limiting their contributions to national economic development (Otokiti, 2012, Sharma, et al., 2019).

The inability of these enterprises to provide sufficient financial documentation not only increases perceived lending risk but also restricts their participation in government support programs, tax incentives, and structured markets. Informal operational models, inconsistent revenue reporting, poor record-keeping, and limited financial literacy are common challenges that hinder their progression into the formal financial ecosystem. In an increasingly data-driven and compliance-oriented global financial environment, addressing the documentation gaps faced by underreported SMEs has become a critical priority for inclusive economic advancement (Altman, Sabato & Wilson, 2010, Lee & Shin, 2018).

To address these challenges, this paper proposes a Financial Documentation Compliance Model (FDCM) aimed at improving credit access for underreported SMEs. The FDCM integrates diagnostic financial assessments, simplified reporting tools, regulatory alignment strategies, and digital record-keeping systems to facilitate the transition of informal and semi-formal enterprises into the formal credit economy (Mislick & Nussbaum, 2015, Montgomery, Jennings & Kulahci, 2015). By equipping SMEs with practical and scalable tools for generating verifiable financial data, the model enables lenders to make informed credit decisions while encouraging compliance and transparency among borrowers. The significance of this model lies in its potential to bridge the documentation gap, enhance financial inclusion, de-risk SME lending, and stimulate broad-based economic growth in underbanked and underserved business communities (Anagnostopoulos, 2018, McLean, 2015).

2.1. Literature Review

The financing of Small and Medium Enterprises (SMEs) has remained a persistent challenge across both developed and developing economies. Globally, SMEs account for over 90% of businesses and more than 50% of employment according to the World Bank, yet they face significant constraints in accessing formal credit. The International Finance Corporation (IFC) estimates that the global SME financing gap stands at over \$5.2 trillion annually, with emerging markets bearing the brunt of this shortfall. Locally, in many African, Asian, and Latin American countries, this problem is exacerbated by institutional inefficiencies, informal business practices, and underdeveloped financial infrastructures (Arner, Barberis & Buckley, 2016, Mojžiš, 2018). Despite their potential to drive economic transformation, many SMEs are unable to secure loans, overdrafts, or investment capital due to a variety of structural and operational barriers, most notably the lack of adequate and credible financial documentation. These challenges disproportionately affect underreported SMEs those that operate informally, do not maintain standardized records, or fall below the regulatory radar rendering them invisible to formal lenders and policy interventions (Millett, 2011, Williams & Calabrese, 2016).

Existing financial documentation practices among SMEs are often rudimentary and inconsistent, particularly in developing economies. Many SMEs rely on manual bookkeeping, incomplete financial records, or undocumented cash transactions, which undermine their ability to present accurate and verifiable business performance metrics. In contexts where tax avoidance and informal economic activities are prevalent, financial documentation is seen more as a risk than an asset (Bardolet, Fox & Lovullo, 2011, Rachmad, 2013). Moreover, the limited adoption of digital tools such as accounting software, point-of-sale systems, or cloud-based financial management platforms means that recordkeeping remains vulnerable to error, manipulation, and loss. In cases where SMEs attempt to formalize their reporting, they often face resource constraints, such as the inability to afford professional accountants or auditors, or lack of understanding of financial standards and terminologies. These shortcomings weaken the

capacity of SMEs to build credible financial histories and interact effectively with lenders, investors, or regulatory authorities (Mutanov, 2015, Zeller &

Metzger, 2013). Figure 1 shows financing framework for SME's access to external finance presented by Bamata, Govender & Fields, 2019.



Figure 1: Financing framework for SME's access to external finance (Bamata, Govender & Fields, 2019).

The impact of poor financial documentation on creditworthiness is profound and multifaceted. From the lender's perspective, a lack of reliable documentation increases the perceived credit risk, making it difficult to assess the borrower's repayment capacity, financial stability, and business viability. Traditional credit scoring systems rely heavily on historical financial data, tax records, and bank statements none of which are readily available or trustworthy when dealing with underreported SMEs (Bodie, Kane & Marcus, 2013, Sackey, 2018). As a result, lenders either deny credit outright or impose prohibitively high interest rates and collateral

requirements, effectively excluding these enterprises from formal financial markets. Moreover, the absence of documentation affects more than just access to credit; it limits opportunities for public procurement, export licensing, business partnerships, and participation in development programs. Poor documentation also impairs SMEs' ability to forecast, plan, and make data-informed business decisions, thereby reducing their competitiveness and growth potential (Fitzpatrick, et al., 2019, Passoja, 2015).

Several initiatives have attempted to bridge this gap, yet many existing models and frameworks fall short of

comprehensively addressing the unique barriers facing underreported SMEs. Traditional financial inclusion programs have largely focused on increasing the supply of credit through microfinance, government-backed loans, or interest rate subsidies without adequately addressing the demand-side constraints related to documentation and compliance (Buttle & Maklan, 2019, D'Alfonso, et al., 2017, Marin Bustamante, 2019). While fintech platforms have introduced innovative tools such as alternative credit scoring using mobile money or social media data, these solutions are often fragmented and fail to promote long-term financial discipline or documentation culture (Brito, JShadab & Castillo,

2014, Schramade, 2017). Other models emphasize capacity-building through financial literacy and business development services, but these programs often suffer from limited scalability, high cost, and poor integration with financial institutions' lending criteria. Furthermore, regulatory reforms aimed at easing SME formalization have not always translated into improved credit access due to low awareness, distrust in formal systems, and administrative bottlenecks. Figure 2 shows schematic diagram of the conceptual framework of SME funding issues and policy response in Malaysia presented by Ramlee & Berma, 2013.

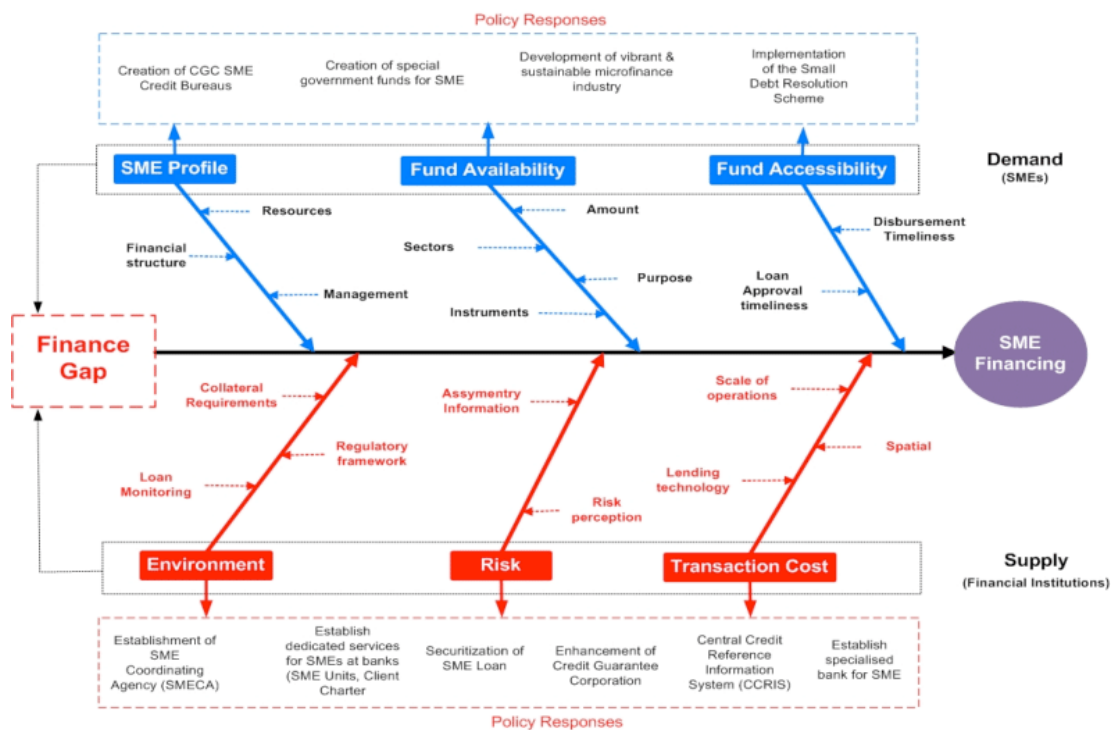


Figure 2: Schematic diagram of the conceptual framework of SME funding issues and policy response in Malaysia (Ramlee & Berma, 2013).

A critical gap in current frameworks is the absence of a structured, scalable, and sector-neutral model that empowers SMEs to gradually adopt standardized financial documentation practices while aligning with the compliance expectations of lenders and regulators. Many existing interventions treat financial documentation as a technical issue rather than a behavioral and systemic challenge that requires

coordinated action across multiple stakeholders. Additionally, few models integrate digital solutions in a way that is accessible to resource-constrained SMEs operating in low-trust environments (Celestin, 2018, Leo, Sharma & Maddulety, 2019). This has led to a fragmentation of efforts, where SMEs may adopt one aspect of financial documentation (e.g., electronic invoicing) without addressing others (e.g., expense

tracking, tax filing), thereby perpetuating an incomplete and ineffective reporting culture.

The literature also points to the lack of adaptive frameworks that take into account the heterogeneity of SMEs in terms of size, sector, operational maturity, and regional context. For instance, financial documentation needs and capacities differ significantly between a sole proprietorship in informal retail and a growing agribusiness with seasonal revenues (Otokiti, 2018). Existing models rarely accommodate such variations, instead promoting a one-size-fits-all approach that imposes unrealistic compliance expectations on smaller or less structured enterprises. Without appropriate tiering, many underreported SMEs are either overwhelmed by documentation requirements or fail to see the value in adopting them (Chishti & Barberis, 2016, Rachmad, 2013).

To address these challenges, a more comprehensive, inclusive, and adaptive model is needed one that combines behavioral incentives, digital innovation, and regulatory alignment to help underreported SMEs develop verifiable financial histories and build credit readiness. Such a model must recognize the importance of building trust and gradual compliance rather than enforcing rigid standards upfront (Marston, et al., 2011, Taherkordi, et al., 2018). It must also bridge the gap between informal financial behavior and formal sector requirements by offering simplified tools and templates, integrating financial education, and leveraging community networks and trusted intermediaries. Furthermore, collaboration among banks, government agencies, development partners, and technology providers is essential to ensure that financial documentation is not only created but also recognized and rewarded by credit markets (Davies & Green, 2013, Mason, 2019).

In conclusion, the literature underscores a pressing need for an integrated Financial Documentation Compliance Model (FDCM) that addresses the root causes of underreporting, promotes financial inclusion, and enables SMEs to become viable participants in formal credit ecosystems. By focusing on both the technical and behavioral dimensions of documentation, such a model could transform how

SMEs interact with financial institutions, unlock new sources of capital, and contribute more fully to national and global economic development (Riikkinen, et al., 2018, Speziali & Campagnoli, 2017, Zhang, Cheng & Boutaba, 2010). This study builds upon these insights to propose a robust FDCM framework tailored to the realities of underreported SMEs, aiming to reduce documentation-related exclusion and catalyze sustainable business growth.

2.2. Methodology

The methodology for this research employs a mixed-method approach integrating both qualitative insights and quantitative analysis to design a robust compliance framework. The study begins with an extensive literature review to synthesize prior findings on SME performance, credit challenges, and the role of financial documentation, drawing heavily from foundational works such as those by Ajonbadi et al. (2014, 2015, 2016) on organizational performance and financial control. Based on insights from these and complementary sources in fintech, regtech, and risk management (e.g., Altman et al., 2010; Anagnostopoulos, 2018), a conceptual model is developed to align SME financial behavior with formal credit requirements.

The data collection phase involves purposive sampling of underreported SMEs using structured interviews, survey instruments, and documentary analysis. Particular attention is paid to factors like social interaction and informal practices that impact financial behavior, as emphasized by Ajonbadi et al. The goal is to identify behavioral patterns and documentation gaps that hinder creditworthiness.

Data analysis is conducted using thematic analysis for qualitative input, and regression and pattern recognition techniques for quantitative responses, in line with Altamuro & Beatty's (2010) internal control theories. Predictive modeling techniques and rule-based algorithms, supported by tools from ERP and cloud-finance platforms (Bahssas et al., 2015), are applied to simulate potential credit scores with and without documentation improvements.

The model is prototyped and tested using real-world SME cases in partnership with financial institutions and fintech providers. These iterations are refined through stakeholder workshops to assess usability, compliance metrics, and potential for integration into credit assessment systems. Ethical and regulatory considerations are grounded in frameworks outlined by Arner et al. (2016) and Rachmad (2013).

The final model is validated and refined through stakeholder feedback, focusing on its adaptability to local contexts and scalability. The resulting framework aims to not only increase credit access for SMEs but also to serve as a policy recommendation tool for financial regulators and SME development agencies.

The flowchart in figure 3 visually represents the process flow of this methodology from literature review to final deployment.

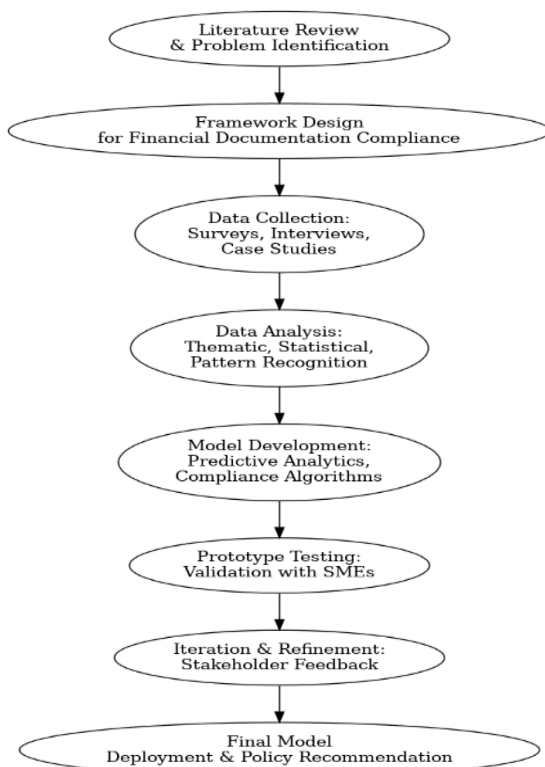


Figure 3: Flowchart of the study methodology

2.3. Problem Diagnosis

Underreported Small and Medium Enterprises (SMEs) constitute a substantial portion of the business ecosystem in many developing and emerging economies. These enterprises typically operate at the periphery of formal regulatory and financial systems, making them difficult to track, support, or integrate into structured economic programs. Understanding their operational characteristics and the root causes of their credit exclusion is vital for designing an effective Financial Documentation Compliance Model (FDCM) (Eggers, 2012, Kose, Prasad & Taylor, 2011). A thorough diagnosis of the underlying problems reveals a complex intersection of informal business practices, inadequate documentation, risk-averse financial institutions, and ineffective regulatory mechanisms.

Underreported SMEs share several common traits that distinguish them from their formalized counterparts. One of the most dominant features is their cash-based nature of operations. These businesses typically conduct most of their transactions in cash, avoiding electronic banking systems that could leave behind traceable financial records. This behavior is often driven by a desire to remain under the tax radar, as well as by low levels of trust in formal institutions. Many such SMEs also function informally without proper business registration, licenses, or adherence to labor and health standards (Fabozzi & Markowitz, 2011, Rachmad, 2012). They are usually sole proprietorships or family-owned ventures with minimal separation between business and personal finances. The absence of a formal structure translates into poor financial management systems, limited access to advisory services, and inadequate exposure to modern recordkeeping practices. These traits render underreported SMEs almost invisible in national databases and financial markets, posing a challenge for any institution trying to assess their viability or extend credit facilities (Muntjir & Siddiqui, 2016, Prause, 2016, Sackey, 2018).

At the heart of the problem lies the issue of deficient financial documentation. Many underreported SMEs do not maintain systematic financial records such as profit and loss statements, balance sheets, or cash flow statements. Instead, they rely on manual logs, personal

memory, or improvised ledgers that are often inaccurate or incomplete. This lack of records results in difficulty tracking expenses, managing working capital, or forecasting revenues. In addition to the absence of core financial records, these enterprises frequently operate outside of formal tax frameworks. Noncompliance with tax laws is common, either due to lack of knowledge or an intentional effort to avoid tax obligations (Frost, et al., 2019, Purcell, 2014). Tax evasion is facilitated by undocumented transactions and the absence of official invoices, receipts, or bank statements that could otherwise serve as proof of business activity. This behavior undermines the enterprise's ability to engage with credit providers who rely on such documentation to assess creditworthiness and regulatory compliance (Otokiti & Akorede, 2018).

From the perspective of financial institutions, underreported SMEs represent a high-risk borrower group. The lack of formal records and transparency makes it difficult for lenders to assess the borrower's financial health, revenue stability, and capacity to repay loans. Banks and microfinance institutions depend heavily on historical data and standardized documentation to process loan applications and determine appropriate risk premiums (Garg, 2019, Jiang, Malek & El-Safty, 2011). When dealing with underreported SMEs, they are often forced to make credit decisions in an environment of informational asymmetry, where the borrower knows more about the business than the lender does. This lack of reliable data leads to adverse selection and moral hazard concerns, where the lender may either reject the loan application outright or approve it under stringent conditions, such as high interest rates or excessive collateral requirements (Laatikainen, 2018, Yang, 2018). In many cases, financial institutions are bound by internal credit policies and regulatory capital adequacy frameworks that prevent them from engaging with undocumented businesses, no matter how promising they may be from an operational standpoint. Consequently, a substantial number of underreported SMEs are excluded from formal credit channels, pushing them toward informal moneylenders who charge exorbitant rates and offer little financial oversight or development support.

The problem is further compounded by regulatory barriers and systemic inefficiencies that make it difficult for underreported SMEs to transition into the formal sector. The process of formalizing a business through registration, licensing, tax identification, and compliance reporting is often cumbersome, costly, and riddled with bureaucratic hurdles. In many developing countries, regulatory environments are characterized by fragmented oversight, inconsistent enforcement, and duplicative procedures across multiple agencies (Gendron, 2014, Nader-Rezvani, Nader-Rezvani & McDermott, 2019). These inefficiencies discourage informal SMEs from engaging with regulatory institutions and increase the perceived cost of compliance. Additionally, many jurisdictions lack simplified regulatory frameworks tailored to the realities of micro and small businesses. Instead of promoting gradual compliance, existing systems often impose rigid documentation standards that informal enterprises are ill-equipped to meet. This all-or-nothing approach effectively alienates a large segment of the business population and reinforces the cycle of informality and credit exclusion. Figure 4 shows Hierarchy for Pecking order Theory presented by Waheed & Siddiqui, 2019.

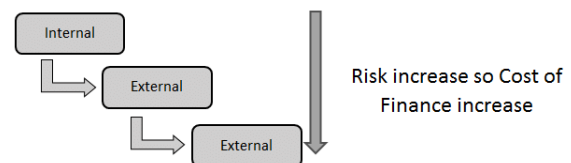


Figure 4: Hierarchy for Pecking order Theory (Waheed & Siddiqui, 2019).

Another layer of systemic inefficiency lies in the disconnect between regulatory agencies and financial institutions. Although both sets of stakeholders rely on financial documentation to perform their respective functions regulators to ensure tax compliance and legal operation, and banks to assess credit risk there is often little coordination or data sharing between them. As a result, SMEs that do make efforts to comply with one agency may not necessarily benefit from recognition or credit scoring improvements in the eyes of financial institutions. This lack of integration creates duplication of effort, inconsistency in compliance requirements, and missed opportunities to build a unified data-driven ecosystem that supports

SME growth (Gennaioli, Martin & Rossi, 2014, Pasham, 2017).

In addition to structural barriers, there is also a behavioral and cultural dimension to the documentation compliance gap. Many underreported SME owners lack trust in formal institutions, often due to past experiences of inefficiency, corruption, or perceived discrimination. They may also lack the financial literacy required to understand the importance of documentation in securing loans, optimizing operations, or scaling their businesses (Ghosh & Mitra, 2017, Nordlund, 2010). Without targeted educational interventions and community-based outreach programs, these entrepreneurs remain unaware of how financial documentation can transform their engagement with the broader economy. This lack of awareness reinforces informal behaviors and creates resistance to change, even when compliance tools are available.

In summary, the diagnosis of the challenges faced by underreported SMEs reveals a multifaceted problem that combines informal business traits, critical documentation gaps, skeptical financial institutions, and regulatory inefficiencies. Addressing this issue requires more than just digitizing recordkeeping or offering loan products. It demands a structured, behaviorally informed, and systemically aligned model that supports gradual adoption of documentation practices, bridges the trust gap between SMEs and formal institutions, and harmonizes compliance incentives across regulatory and financial domains. The proposed Financial Documentation Compliance Model must be designed to operate at this intersection where informal meets formal, analog meets digital, and exclusion turns into inclusion enabling underreported SMEs to build verifiable financial histories and participate more meaningfully in the financial systems that drive inclusive economic growth (Bahssas, AlBar & Hoque, 2015, Kavis, 2014, Seethamraju, 2015).

2.4. The Proposed Financial Documentation Compliance Model (FDCM)

The Financial Documentation Compliance Model (FDCM) is a strategic and adaptive framework

designed to improve credit access among underreported Small and Medium Enterprises (SMEs) by systematically transforming their financial documentation practices. It responds to the complex, layered challenges faced by these enterprises particularly those operating informally or at the margins of regulatory systems by creating a pathway that encourages gradual formalization, builds financial credibility, and aligns with institutional credit standards (AdeniyiAjonbadi, AboabaMojeed-Sanni & Otokiti, 2015). The model's architecture is anchored on inclusivity, behavioral realism, digital scalability, and regulatory alignment. Its core principles include simplicity, affordability, accessibility, and trust-building, ensuring that even the most resource-constrained SMEs can begin the journey toward documentation compliance and financial inclusion.

At its foundation, the FDCM recognizes that underreported SMEs are not a homogenous group. Hence, the first phase of the model is financial behavior assessment and segmentation. This involves conducting diagnostic evaluations of SME financial habits, documentation awareness, business structures, and operational maturity. Enterprises are grouped based on their current documentation practices, cash flow consistency, size, sector, and digital readiness. This segmentation enables the tailoring of interventions to match the specific needs and capacities of different SME categories (Gomber, et al., 2018, Njenge, 2015). For instance, a home-based retail business that records sales in a notebook would require a different compliance approach from a mobile-based food delivery SME that already uses a digital payment platform. Behavioral indicators, such as willingness to adopt new tools, openness to training, and trust in financial institutions, are also factored into the segmentation to determine the most effective engagement strategies.

The second phase of the FDCM is focused on the adoption of digital record-keeping and accounting tools. This phase introduces user-friendly, low-cost digital solutions tailored to the technical literacy of target SMEs. Tools may include mobile apps for daily expense tracking, point-of-sale systems, cloud-based invoicing, or basic accounting software with multilingual interfaces and offline functionalities. Training modules and peer mentoring networks are

integrated to support the onboarding process, emphasizing practical, scenario-based learning over theoretical instruction (Guttmann, 2018, Nguyen Thi Thanh, 2018). The goal is to empower SMEs to begin documenting income, expenses, inventory, and cash flow in ways that are consistent, retrievable, and compatible with institutional requirements. Importantly, the digital tools recommended under this phase are interoperable with banking systems and regulatory platforms, allowing for seamless migration and scalability as businesses grow.

In the third phase, the model introduces simplified reporting templates and documentation tiers to accommodate the varying degrees of sophistication among SMEs. Rather than imposing complex financial statement requirements from the outset, the FDCM promotes a tiered system that allows enterprises to demonstrate compliance in progressive stages. At the entry level, SMEs may be required to submit basic monthly sales summaries, expense logs, and cash inflow-outflow statements using standardized templates (Ajonbadi, et al., 2014, Lawal, Ajonbadi & Otokiti, 2014). As they advance, they graduate to mid-tier documentation, including simple income statements, balance sheets, and bank reconciliation reports. At the highest level, fully formalized SMEs adopt comprehensive financial reporting in accordance with national or international accounting standards. This tiered approach reduces the psychological and operational burden of compliance and incentivizes continuous improvement in financial recordkeeping (Hickey, 2019, Nath, Nachiappan & Ramanathan, 2010). It also provides financial institutions with a clear roadmap for assessing SME documentation maturity and assigning appropriate credit products and conditions.

The fourth phase of the FDCM integrates compliance incentives and institutional support systems to encourage sustained participation and reward documentation progress. Recognizing that many underreported SMEs lack immediate motivation to formalize, the model offers tangible and phased incentives. These may include access to micro-loans, subsidized interest rates, business development services, tax rebates, or eligibility for public procurement opportunities. Government agencies and development partners are engaged to underwrite the

cost of compliance tools and training, making adoption economically viable for low-income enterprises (Hickey, 2020, Kashyap, Stein & Hanson, 2010). In addition, the model proposes the creation of a decentralized network of compliance facilitators trained professionals or SME champions who provide continuous support, troubleshoot implementation challenges, and act as bridges between SMEs and financial institutions. These facilitators help build trust, promote peer learning, and ensure that the transition to documentation compliance is not isolated or overwhelming.

Crucially, the Financial Documentation Compliance Model does not operate in isolation from the broader financial system. Its final component ensures deep integration with credit scoring and banking systems. Through standardized documentation templates, digital data interfaces, and verification protocols, the information generated by SMEs is made compatible with the evaluation frameworks used by banks and non-bank financial institutions. The model encourages financial institutions to incorporate non-traditional indicators such as digital transaction history, behavioral data, and gradual documentation progress into their credit scoring algorithms (Iqbal & Mirakhor, 2011, Klingebiel & Rammer, 2014). This shift allows for the development of dynamic, risk-adjusted lending models that reflect the real-world characteristics of transitioning SMEs. Additionally, data collected through FDCM tools can be aggregated and anonymized to support sector-wide risk analytics, policy planning, and SME development strategies. The interoperability with credit bureaus and regulatory bodies ensures that SMEs benefit from increased visibility and credibility, facilitating long-term access to credit and capital markets.

Overall, the Financial Documentation Compliance Model provides a pragmatic, scalable, and impactful solution to one of the most persistent barriers to SME growth limited access to finance due to poor documentation. By acknowledging the structural and behavioral constraints facing underreported SMEs and designing a progressive pathway toward compliance, the FDCM represents a paradigm shift in how financial institutions, governments, and development actors engage with the informal economy (Shapiro & Hanouna, 2019, Telukdarie, et al., 2018). It promotes

not only access to credit but also the broader financial resilience and sustainability of SMEs. Through targeted interventions at each phase assessment, digital adoption, tiered reporting, incentive structuring, and systemic integration the model seeks to transform documentation from a barrier into a bridge, unlocking opportunities for inclusive economic participation and growth.

2.5. Implementation Strategy

The successful implementation of the Financial Documentation Compliance Model (FDCM) for improving credit access among underreported Small and Medium Enterprises (SMEs) requires a carefully coordinated, multi-stakeholder approach that addresses systemic, technological, and behavioral barriers. The implementation strategy is grounded in the understanding that no single entity can independently solve the deeply embedded challenges of underreporting and financial exclusion (Akpe, et al., 2020, Lawal, et al., 2020). Therefore, the model proposes a collaborative ecosystem involving the government, financial institutions, technology providers, SME associations, and development partners, each playing a critical and interdependent role in facilitating adoption, ensuring sustainability, and promoting scale-up.

Government institutions are central to driving the enabling environment for FDCM implementation. Their role includes developing and enforcing simplified business registration processes, streamlining tax reporting requirements for SMEs, and creating legal recognition for digital records and alternative documentation formats. Governments can also provide financial incentives such as tax credits, compliance subsidies, and access to government-backed loan programs to encourage underreported SMEs to formalize their documentation practices. Importantly, national and subnational agencies can establish regulatory sandboxes and innovation hubs that allow for the pilot testing of FDCM tools and practices without exposing participants to regulatory penalties during early stages of compliance (Soekarno & Damayanti, 2012, Tsiamis, 2019). By enacting pro-SME policies and fostering public-private partnerships, governments ensure that the FDCM

becomes part of broader financial inclusion and economic development strategies.

Financial institutions, including commercial banks, microfinance institutions, credit unions, and fintech lenders, serve as both the primary beneficiaries and enablers of improved SME documentation. They are responsible for recalibrating their credit assessment frameworks to accept tiered documentation and incorporate non-traditional financial data into risk analysis models. These institutions must be willing to develop and offer adaptive credit products that align with the progressive nature of FDCM compliance (Vidhyalakshmi & Kumar, 2017, Walsh, et al., 2019). For implementation to be effective, banks should also participate in awareness campaigns, data validation partnerships, and capacity-building initiatives aimed at bridging the knowledge gap between financial institutions and SME clients. Additionally, financial institutions can act as data anchors in the compliance ecosystem, linking verified financial records generated by SMEs to national credit bureaus and payment registries, thereby strengthening the overall financial infrastructure.

Technology providers play a critical role in delivering the digital backbone of the FDCM. They are tasked with designing and deploying affordable, user-friendly, and secure mobile and cloud-based tools that enable SMEs to document their financial activities in real time. These tools must be localized in terms of language, interface design, and connectivity requirements to suit low-literacy users and rural business environments. For instance, mobile bookkeeping apps should be compatible with feature phones and offer offline capabilities to account for poor internet penetration in remote areas (Shapiro & Hanouna, 2019, Wadhwa & Salkever, 2017). Cloud-based platforms must include automated backups, encryption protocols, and integration features with banking and tax platforms. Technology providers must also ensure interoperability of their tools with existing systems, such as POS devices, mobile wallets, and accounting software, to enable seamless data flow and multi-platform usage. In the context of implementation, public-private partnerships with tech firms can facilitate subsidized access to digital tools, while innovation challenges and incubation programs can attract new startups to build tailored solutions for

underserved SME segments (Akinbola & Otokiti, 2012, Lawal, Ajonbadi & Otokiti, 2014)).

SME associations, cooperatives, chambers of commerce, and local business networks are uniquely positioned to drive grassroots implementation by serving as trust brokers and capacity-building intermediaries. Their direct relationships with underreported SMEs make them effective conduits for delivering financial literacy training, onboarding support for digital tools, and peer mentoring programs. Associations can also help segment their members based on documentation maturity and coordinate targeted interventions, such as training workshops, compliance bootcamps, and sector-specific guidance (Delmond, et al., 2016, Garbuio & Lin, 2019). Moreover, these organizations can advocate for their members' needs in policy dialogues, engage in feedback loops with regulators and financial institutions, and promote success stories to encourage wider adoption. Their participation ensures that the FDCM remains demand-driven and sensitive to the operational realities of the SME community.

An essential pillar of the implementation strategy is robust capacity building and financial literacy training, which targets both SME operators and support actors. Training programs should be modular, multilingual, and practical, using real-life scenarios to demonstrate the benefits of recordkeeping, cash flow management, and tax compliance. Digital financial literacy should include hands-on instruction in the use of mobile apps, cloud platforms, and online banking services, demystifying the tools provided through the FDCM (Albuquerque, 2016, Kulawiak, Dawidowicz & Pacholczyk, 2019, Sotola, 2011). These training sessions can be delivered through partnerships with local universities, vocational centers, NGOs, and SME hubs. For broader impact, governments and development organizations can fund nationwide campaigns via radio, television, social media, and community events, emphasizing the value of financial documentation in accessing credit and growing sustainable businesses. Moreover, training should not be limited to SMEs alone; financial institution staff and loan officers must be trained on how to assess FDCM-compliant documents and use alternative credit evaluation frameworks effectively.

The use of mobile technology and cloud platforms is a cornerstone of the FDCM's scalability and accessibility. Mobile penetration in developing countries is significantly higher than internet penetration, making mobile-based tools the most viable solution for reaching underreported SMEs in rural and informal settings. These tools should enable real-time expense tracking, digital invoicing, sales recording, and receipt generation all stored securely on cloud platforms. Cloud technology ensures data durability, facilitates remote audits, and supports integration with financial service providers (Castro-Leon & Harmon, 2016, Koivisto, 2011). These platforms should also include dashboards for SME owners to visualize their financial health and generate auto-formatted compliance reports. Additionally, governments and regulators can utilize aggregated, anonymized data from cloud platforms to monitor sectoral trends, detect financial distress, and design targeted interventions. The ability to scale the FDCM rapidly across regions hinges on its digital infrastructure, hence the need for continuous technological innovation and supportive telecommunications policies (Ajonbadi, Otokiti & Adebayo, 2016, Lawal & Afolabi, 2015).

To ensure widespread adoption and sustained impact, a set of policy recommendations must accompany the implementation of the FDCM. First, policymakers should recognize digital records and simplified reports as legitimate documentation for credit evaluation, tax filing, and public procurement. This requires updating financial regulations and aligning compliance standards with the realities of SMEs at various maturity levels. Second, national development plans should incorporate the FDCM into SME development frameworks, allocating budgetary resources for digital tool distribution, training, and institutional support systems (Churakova, Mikhramova & Gielen, 2010, Orue-Echevarría Arrieta, 2016). Third, regulatory bodies should offer tiered compliance benchmarks that incentivize gradual adoption and reduce the penalty burden on transitioning enterprises. Fourth, policymakers should promote interoperability between financial and regulatory databases to ensure that SME documentation progress is rewarded across multiple systems, such as tax, banking, and social protection schemes. Lastly, donor agencies and multilateral development banks should prioritize

funding for FDCM pilots, monitoring and evaluation activities, and research on impact metrics (Ajonbadi, Mojeed-Sanni & Otokiti, 2015).

In conclusion, the implementation of the Financial Documentation Compliance Model requires a holistic and collaborative approach that leverages the strengths of governments, financial institutions, technology providers, and SME support organizations. By investing in digital infrastructure, tailored training, regulatory reform, and inclusive stakeholder engagement, the FDCM can transform the financial landscape for underreported SMEs. Through this coordinated strategy, documentation compliance becomes not merely a regulatory obligation but a strategic tool for unlocking credit access, enhancing business resilience, and fostering inclusive economic growth (Amos, Adeniyi & Oluwatosin, 2014, Ezekiel, et al., 2016).

2.6. Expected Outcomes and Benefits

The implementation of a Financial Documentation Compliance Model (FDCM) for underreported Small and Medium Enterprises (SMEs) holds significant promise in addressing the persistent challenges of limited credit access, informality, and financial exclusion. By strategically integrating behavior-based assessments, digital recordkeeping tools, tiered reporting templates, and compliance incentives, the model is positioned to deliver transformative outcomes across multiple levels of the SME financing ecosystem. These outcomes extend not only to individual SMEs and lenders but also to the broader financial system and national economic development agenda.

One of the most immediate and tangible outcomes of the FDCM is the improvement in the creditworthiness of previously underreported SMEs. Traditionally, SMEs have been sidelined from accessing formal financing due to their inability to provide the documentation required by financial institutions to assess credit risk. With the adoption of the FDCM, SMEs will be equipped with standardized, consistent, and verifiable financial records generated through user-friendly digital tools and simplified templates (Giessmann & Legner, 2016, Strømmen-Bakhtiar &

Razavi, 2011). These records ranging from sales logs and expense summaries to basic financial statements form the foundation of a credible financial history that banks and microfinance institutions can evaluate with greater confidence. Over time, as SMEs transition through the FDCM's documentation tiers and build a trackable record of financial activity and compliance, their eligibility for various financing instruments such as working capital loans, asset financing, credit lines, and invoice discounting significantly increases. Financial institutions will also be able to better segment SME borrowers by risk profile and offer more tailored and competitively priced credit products, thereby enhancing overall market efficiency.

Beyond individual financing, the FDCM promotes increased transparency and accelerates the formalization of informal businesses. Many underreported SMEs operate outside regulatory visibility, avoiding taxes, licenses, and statutory obligations. This lack of transparency hampers their participation in structured supply chains, limits their access to public contracts, and restricts their ability to scale operations (Oestreich, 2016, Parenteau, et al., 2016). Through structured compliance phases, the FDCM encourages SMEs to gradually adopt formal practices, including tax registration, invoicing standards, and banking relationships, without overwhelming them with upfront legal obligations. The ability to demonstrate financial discipline through digital records creates a new form of trust between the enterprise and the regulatory system. Moreover, by leveraging incentives such as access to credit, tax waivers, or business development support, the FDCM transforms compliance into a value-generating process rather than a punitive burden. This shift has far-reaching implications for national economies where the informal sector dominates employment and production, as it enables governments to capture data, expand the tax base, and design more responsive support programs for small businesses.

Another critical benefit of the FDCM is the reduction in lender risk and the strengthening of relationships between SMEs and financial institutions. One of the key obstacles for lenders in extending credit to SMEs is the asymmetry of information where the business owner knows far more about the business than the lender, who must rely on incomplete or unverifiable

records to make lending decisions. The documentation and data streams produced by FDCM-compliant SMEs bridge this information gap, enabling banks to make more accurate assessments of repayment capacity, cash flow consistency, and financial behavior. This not only reduces the perceived risk of default but also decreases the operational cost of loan processing, credit scoring, and monitoring (Bonfiglio, Alon & Pono, 2017, Levinter, 2019). Lenders can redirect resources toward designing innovative products, offering advisory services, and building long-term relationships with SMEs. Moreover, the availability of structured data enhances the ability of financial institutions to participate in credit guarantee schemes, securitize SME loans, or report accurately to regulators and investors, thereby strengthening the overall financial sector. Over time, as more SMEs demonstrate consistent compliance, the data generated through the FDCM can feed into national credit registries and support the development of alternative credit scoring models that are more inclusive of non-traditional borrowers.

At a macro level, the adoption of the FDCM contributes significantly to financial inclusion and economic resilience. Financial inclusion is not merely about opening bank accounts; it involves the ability of individuals and businesses to access and effectively use financial services to manage risk, invest in growth, and improve livelihoods. By creating a structured pathway for SMEs to become credit-ready through practical and scalable documentation practices, the FDCM expands the base of financially active businesses (Losbichler & Schatz, 2019, McGuire, 2015). This has a multiplier effect on job creation, income generation, and community-level development, particularly in rural and underserved areas where underreported SMEs are often concentrated. Furthermore, by enabling SMEs to access formal financing, the model reduces reliance on informal credit sources that often operate under predatory terms and offer little to no consumer protection.

Economic resilience the capacity of a system to absorb shocks and sustain growth is also enhanced when SMEs are embedded in a formal, data-driven financial ecosystem. During economic disruptions such as pandemics, natural disasters, or inflationary cycles,

documented SMEs are more likely to access relief financing, qualify for government stimulus packages, and maintain cash flow stability. Financial institutions, in turn, are better positioned to implement targeted interventions, monitor risk exposure, and adjust lending strategies based on real-time data. For governments and policymakers, the increased visibility of SME operations enables more accurate macroeconomic forecasting, better-informed policy decisions, and more efficient allocation of development resources (Stanley & Briscoe, 2010, Mertz, 2013, Temaj, 2014, Keskar, 2019).

In addition to its economic and institutional impacts, the FDCM also has important social benefits. It democratizes access to financial services by recognizing the diversity and complexity of SME operations and allowing for gradual, customized compliance. It empowers women-owned businesses, youth-led enterprises, and micro-entrepreneurs who have historically been excluded from formal markets due to documentation and literacy barriers. By integrating financial literacy training and peer-support mechanisms, the model builds entrepreneurial capacity and promotes a culture of accountability and continuous improvement (Mehta, Steinman & Murphy, 2016, Shahandashti & Ashuri, 2016). This social inclusion reinforces broader development goals, including poverty reduction, gender equity, and community empowerment.

In summary, the Financial Documentation Compliance Model is more than a technical framework it is a systemic enabler of trust, inclusion, and transformation in the SME ecosystem. Its implementation has the potential to improve creditworthiness and financing access for underreported SMEs by equipping them with tools and structures for reliable financial reporting (Kim & Reinschmidt, 2011, Lorain, et al., 2015). It encourages transparency and formalization, unlocking new markets and regulatory recognition for previously hidden enterprises. It reduces lender risk and fosters data-driven relationships between SMEs and financial institutions, leading to more dynamic and resilient financial systems. Most importantly, it advances financial inclusion and economic resilience at a national level by converting informal economic activity into measurable, bankable, and investable

value. Through these outcomes, the FDCM stands as a strategic catalyst for inclusive economic growth, aligning the interests of entrepreneurs, institutions, and society at large.

2.7. Conclusion, Challenges and Limitations

The Financial Documentation Compliance Model (FDCM) presents a transformative framework aimed at addressing the longstanding challenges faced by underreported Small and Medium Enterprises (SMEs) in accessing formal credit. By introducing a structured, phased, and technology-driven approach to financial documentation, the model offers a practical pathway for informal and semi-formal enterprises to build verifiable financial histories, meet regulatory expectations, and improve their creditworthiness. Through digital tools, simplified templates, compliance incentives, and stakeholder collaboration, the FDCM promises to bridge the trust and information gap between SMEs and financial institutions. It not only enables lenders to make more informed credit decisions but also empowers SMEs to formalize gradually, scale sustainably, and contribute more meaningfully to national and regional economic growth.

Despite its promise, the implementation of the FDCM is not without challenges and limitations. One of the most significant barriers to adoption is the cost associated with transitioning from informal to structured documentation practices. For many micro and small enterprises operating on thin margins, the purchase of digital tools, access to smartphones or internet connectivity, and participation in training programs may present a financial burden. In addition, digital literacy remains a key constraint, particularly in regions where SME owners have limited education or exposure to technology. Without targeted education, training, and ongoing support, even the most well-designed tools and templates may go unused or misapplied, undermining the effectiveness of the model. Trust also presents a critical hurdle many informal operators harbor deep skepticism toward financial institutions, regulatory bodies, and government programs, often due to past experiences with punitive enforcement, perceived discrimination, or corruption. Convincing such businesses to engage

with the FDCM will require culturally sensitive outreach, community-based facilitation, and visible, short-term benefits.

Scalability poses another challenge, especially in rural and underserved areas where infrastructure limitations, network coverage issues, and fragmented support ecosystems make widespread deployment of digital tools and training difficult. The success of the model in urban or peri-urban centers may not automatically translate into effectiveness in more remote regions without significant adaptation and logistical planning. Moreover, resistance to formalization by informal operators remains a deeply rooted behavioral and economic barrier. Many SMEs choose to remain unregistered and undocumented not out of ignorance but as a strategic response to high tax burdens, cumbersome bureaucracy, or fear of exposure. For the FDCM to succeed, it must address these concerns through phased compliance, protective regulations, and tangible incentives that outweigh the perceived costs of formalization.

Nevertheless, the potential impact of the FDCM is profound. If effectively implemented, the model can unlock credit access for millions of SMEs that have been excluded from formal financial systems, thereby fueling entrepreneurship, job creation, and local economic development. It can transform the risk landscape for financial institutions by providing reliable data for credit assessment, improving loan performance, and supporting product innovation. It also enhances regulatory visibility, enabling governments to better monitor economic activity, expand the tax base, and design responsive support programs for SMEs. The model contributes to broader goals of financial inclusion, digital transformation, and economic resilience, aligning with national development plans and global frameworks such as the Sustainable Development Goals (SDGs).

Realizing these benefits, however, requires a collective effort. Governments must play a leading role in simplifying regulatory frameworks, funding capacity-building initiatives, and integrating the FDCM into national financial inclusion strategies. Financial institutions must adopt flexible credit evaluation models and actively engage with SMEs as

partners rather than risks. Technology providers must design inclusive and interoperable solutions that meet the needs of low-resource enterprises. SME associations, civil society organizations, and development partners must act as facilitators, educators, and advocates. Only through sustained, multisector collaboration can the FDCM reach its full potential and reshape the SME financing landscape.

Future research is needed to refine and validate the FDCM in diverse contexts. Empirical testing through pilot programs in different countries and sectors will help assess the model's real-world applicability, identify areas for improvement, and build an evidence base for scale-up. Comparative studies can explore how cultural, regulatory, and economic variables affect adoption and outcomes, while policy integration research can examine how the FDCM fits within existing national development frameworks. Additionally, further exploration into cross-country adaptation will ensure that the model is not only scalable within regions but also transferable across different institutional and market environments.

In conclusion, the Financial Documentation Compliance Model represents a bold and necessary step toward bridging the divide between informal enterprises and formal credit systems. While challenges in adoption, scalability, and behavioral change remain, the model's potential to catalyze inclusive economic growth and financial empowerment is undeniable. With the right blend of innovation, policy support, and stakeholder engagement, the FDCM can become a cornerstone of sustainable SME development in the decades to come.

REFERENCES

- [1] AdeniyiAjonbadi, H., AboabaMojeed-Sanni, B., & Otokiti, B. O. (2015). Sustaining competitive advantage in medium-sized enterprises (MEs) through employee social interaction and helping behaviours. *Journal of Small Business and Entrepreneurship*, 3(2), 1-16.
- [2] AdeniyiAjonbadi, H., AboabaMojeed-Sanni, B., & Otokiti, B. O. (2015). Sustaining competitive advantage in medium-sized enterprises (MEs) through employee social interaction and helping behaviours. *Journal of Small Business and Entrepreneurship*, 3(2), 1-16.
- [3] Ajonbadi, H. A., & Mojeed-Sanni, B. A & Otokiti, BO (2015). 'Sustaining Competitive Advantage in Medium-sized Enterprises (MEs) through Employee Social Interaction and Helping Behaviours.'. *Journal of Small Business and Entrepreneurship Development*, 3(2), 89-112.
- [4] Ajonbadi, H. A., Lawal, A. A., Badmus, D. A., & Otokiti, B. O. (2014). Financial control and organisational performance of the Nigerian small and medium enterprises (SMEs): A catalyst for economic growth. *American Journal of Business, Economics and Management*, 2(2), 135-143.
- [5] Ajonbadi, H. A., Otokiti, B. O., & Adebayo, P. (2016). The efficacy of planning on organisational performance in the Nigeria SMEs. *European Journal of Business and Management*, 24(3), 25-47.
- [6] Akinbola, O. A., & Otokiti, B. O. (2012). Effects of lease options as a source of finance on profitability performance of small and medium enterprises (SMEs) in Lagos State, Nigeria. *International Journal of Economic Development Research and Investment*, 3(3), 70-76.
- [7] Albuquerque, A. B. (2016). *How to handle a changing market environment with adaptation of its current business model?* (Doctoral dissertation, NOVA-School of Business and Economics).
- [8] Altamuro, J., & Beatty, A. (2010). How does internal control regulation affect financial reporting? *Journal of accounting and Economics*, 49(1-2), 58-74.
- [9] Altman, E. I., Sabato, G., & Wilson, N. (2010). The value of non-financial information in SME risk management. *Journal of Credit Risk*, 6(2), 95-127.
- [10] Amos, A. O., Adeniyi, A. O., & Oluwatosin, O. B. (2014). Market based capabilities and results: inference for telecommunication service businesses in Nigeria. *European Scientific Journal*, 10(7).

- [11] Anagnostopoulos, I. (2018). Fintech and regtech: Impact on regulators and banks. *Journal of economics and business*, 100, 7-25.
- [12] Arner, D. W., Barberis, J., & Buckley, R. P. (2016). FinTech, RegTech, and the reconceptualization of financial regulation. *Nw. J. Int'l L. & Bus.*, 37, 371.
- [13] Bahssas, D. M., AlBar, A. M., & Hoque, R. (2015). Enterprise resource planning (ERP) systems: design, trends and deployment. *The International Technology Management Review*, 5(2), 72-81.
- [14] Bamata, H., Govender, K. K., & Fields, Z. (2019). An empirical study of optimal access to external finance by small and medium enterprise start-ups. Problems and Perspectives in Management, 17(3), 242-258.
- [15] Bardolet, D., Fox, C. R., & Lovallo, D. (2011). Corporate capital allocation: A behavioral perspective. *Strategic Management Journal*, 32(13), 1465-1483.
- [16] Bodie, Z., Kane, A., & Marcus, A. (2013). *Ebook: Essentials of investments: Global edition*. McGraw Hill.
- [17] Bonfiglio, N., Alon, M., & Pono, M. (2017). Mastering Product Experience In SaaS. *Recuperado de <https://www.gainsight.com/product-experience>*.
- [18] Brito, J., Shadab, H., & Castillo, A. (2014). Bitcoin financial regulation: Securities, derivatives, prediction markets, and gambling. *Colum. Sci. & Tech. L. Rev.*, 16, 144.
- [19] Buttle, F., & Maklan, S. (2019). *Customer relationship management: concepts and technologies*. Routledge.
- [20] Castro-Leon, E., & Harmon, R. (2016). *Cloud as a service: understanding the service innovation ecosystem*. Apress.
- [21] Celestin, M. (2018). Predictive analytics in strategic cost management: How companies use data to optimize pricing and operational efficiency. *Brainae Journal of Business, Sciences and Technology (BJBST)*, 2(6), 706-717.
- [22] Chishti, S., & Barberis, J. (2016). *The Fintech book: The financial technology handbook for investors, entrepreneurs and visionaries*. John Wiley & Sons.
- [23] Churakova, I., Mikhramova, R., & Gielen, I. F. (2010). Software as a service: Study and analysis of saas business model and innovation ecosystems. *Universiteit Gent*, 103.
- [24] D'Alfonso, A., Delivorias, A., Milotay, N., & Sapala, M. (2017). EPRS| European Parliamentary Research Service. *Economic and budgetary outlook for the European Union 2017*.
- [25] Davies, H., & Green, D. (2013). *Global financial regulation: The essential guide (Now with a Revised Introduction)*. John Wiley & Sons.
- [26] Delmond, M. H., Coelho, F., Keravel, A., & Mahl, R. (2016). How information systems enable digital transformation: a focus on business models and value Co-production.
- [27] Eggers, J. P. (2012). All experience is not created equal: Learning, adapting, and focusing in product portfolio management. *Strategic management journal*, 33(3), 315-335.
- [28] Ezekiel, C. N., Sulyok, M., Somorin, Y., Odutayo, F. I., Nwabekee, S. U., Balogun, A. T., & Krska, R. (2016). Mould and mycotoxin exposure assessment of melon and bush mango seeds, two common soup thickeners consumed in Nigeria. *International Journal of Food Microbiology*, 237, 83-91.
- [29] Fabozzi, F. J., & Markowitz, H. M. (Eds.). (2011). *The theory and practice of investment management: Asset allocation, valuation, portfolio construction, and strategies* (Vol. 198). John Wiley & Sons.
- [30] Fitzpatrick, M. C., Bauch, C. T., Townsend, J. P., & Galvani, A. P. (2019). Modelling microbial infection to address global health challenges. *Nature microbiology*, 4(10), 1612-1619.
- [31] Frost, J., Gambacorta, L., Huang, Y., Shin, H. S., & Zbinden, P. (2019). BigTech and the changing structure of financial intermediation. *Economic policy*, 34(100), 761-799.
- [32] Garbuio, M., & Lin, N. (2019). Artificial intelligence as a growth engine for health care startups: Emerging business

- models. *California Management Review*, 61(2), 59-83.
- [33] Garg, S. (2019). AI/ML Driven Proactive Performance Monitoring, Resource Allocation and Effective Cost Management an SAAS Operations.
- [34] Gendron, M. S. (2014). *Business intelligence and the cloud: strategic implementation guide*. John Wiley & Sons.
- [35] Gennaioli, N., Martin, A., & Rossi, S. (2014). Sovereign default, domestic banks, and financial institutions. *The Journal of Finance*, 69(2), 819-866.
- [36] Ghosh, S., & Mitra, I. (2017). Message from PwC. *Mansfield, Wooster, & Marion (2016), Staffing decisions: Artificial intelligence and human resources*.
- [37] Giessmann, A., & Legner, C. (2016). Designing business models for cloud platforms. *Information Systems Journal*, 26(5), 551-579.
- [38] Gomber, P., Kauffman, R. J., Parker, C., & Weber, B. W. (2018). On the fintech revolution: Interpreting the forces of innovation, disruption, and transformation in financial services. *Journal of management information systems*, 35(1), 220-265.
- [39] Guttmann, R. (2018). Sustainable Development and Eco-Capitalism. In *Eco-Capitalism: Carbon Money, Climate Finance, and Sustainable Development* (pp. 251-291). Cham: Springer International Publishing.
- [40] Hickey, W. (2019). The Sovereignty Game.
- [41] Hickey, W. (2020). *The sovereignty game: neo-colonialism and the Westphalian system*. Springer Nature.
- [42] Iqbal, Z., & Mirakhor, A. (2011). *An introduction to Islamic finance: Theory and practice* (Vol. 687). John Wiley & Sons.
- [43] Jiang, A., Malek, M., & El-Safty, A. (2011). Business strategy and capital allocation optimization model for practitioners. *Journal of Management in Engineering*, 27(1), 58-63.
- [44] Kashyap, A. K., Stein, J. C., & Hanson, S. (2010). An analysis of the impact of 'substantially heightened' capital requirements on large financial institutions. *Booth School of Business, University of Chicago, mimeo*, 2, 1-47.
- [45] Kavis, M. (2014). *Architecting the cloud: design decisions for cloud computing service models (SaaS, PaaS, and IaaS)*. John Wiley & Sons, Inc., Hoboken, New Jersey.
- [46] Keskar, A. (2019). Exploring business models for software-defined vehicles: Subscriptionbased paradigms and their impact on automotive innovation and consumer adoption. *World Journal of Advanced Research and Reviews*, 1(2), 61-77.
- [47] Kim, B. C., & Reinschmidt, K. F. (2011). Combination of project cost forecasts in earned value management. *Journal of Construction Engineering and Management*, 137(11), 958-966.
- [48] Klingebiel, R., & Rammer, C. (2014). Resource allocation strategy for innovation portfolio management. *Strategic management journal*, 35(2), 246-268.
- [49] Koivisto, R. (2011). Business Models of Social Software Platforms in Business-to-Business Context 2011.
- [50] Kose, M. A., Prasad, E. S., & Taylor, A. D. (2011). Thresholds in the process of international financial integration. *Journal of International Money and Finance*, 30(1), 147-179.
- [51] Kulawiak, M., Dawidowicz, A., & Pacholczyk, M. E. (2019). Analysis of server-side and client-side Web-GIS data processing methods on the example of JTS and JSTS using open data from OSM and geoportal. *Computers & Geosciences*, 129, 26-37.
- [52] Laatikainen, G. (2018). Financial aspects of business models: reducing costs and increasing revenues in a cloud context. *Jyväskylä studies in computing*, (278).
- [53] Laatikainen, G. (2018). Financial aspects of business models: reducing costs and increasing revenues in a cloud context. *Jyväskylä studies in computing*, (278).
- [54] Lawal, A. A., Ajonbadi, H. A., & Otokiti, B. O. (2014). Leadership and organisational performance in the Nigeria small and medium enterprises (SMEs). *American Journal of Business, Economics and Management*, 2(5), 121.
- [55] Lawal, A. A., Ajonbadi, H. A., & Otokiti, B. O. (2014). Strategic importance of the Nigerian

- small and medium enterprises (SMES): Myth or reality. *American Journal of Business, Economics and Management*, 2(4), 94-104.
- [56] Lawal, C. I., & Afolabi, A. A. (2015). Perception and practice of HR managers toward talent philosophies and its effect on the recruitment process in both private and public sectors in two major cities in Nigeria. *Perception*, 10(2).
- [57] Lee, I., & Shin, Y. J. (2018). Fintech: Ecosystem, business models, investment decisions, and challenges. *Business horizons*, 61(1), 35-46.
- [58] Leo, M., Sharma, S., & Maddulety, K. (2019). Machine learning in banking risk management: A literature review. *Risks*, 7(1), 29.
- [59] Levinter, A. (2019). *The subscription boom: why an old business model is the future of commerce*. Figure 1 Publishing.
- [60] Lorain, M. A. F. G., García Domonte, A., & Sastre Peláez, F. (2015). Traditional budgeting during financial crisis.
- [61] Losbichler, A., & Schatz, A. (2019). Usage-The Holy Grail of Digital Services: An Exploration of Factors influencing B2B Customers' Usage of Digital Services.
- [62] Marin Bustamante, D. F. (2019). The role of new technologies in international business in the context of Covid-19: A literature review.
- [63] Marston, S., Li, Z., Bandyopadhyay, S., Zhang, J., & Ghalsasi, A. (2011). Cloud computing The business perspective. *Decision support systems*, 51(1), 176-189.
- [64] Mason, P. (2019). *Clear bright future: A radical defence of the human being*. Penguin UK.
- [65] McGuire, K. A. (2015). *Hotel pricing in a social world: driving value in the digital economy*. John Wiley & Sons.
- [66] McLean, C. A. (2015). The Employment-Impact of Automation in Canada.
- [67] Mehta, N., Steinman, D., & Murphy, L. (2016). *Customer success: How innovative companies are reducing churn and growing recurring revenue*. John Wiley & Sons.
- [68] Mertz, S. A. (2013). *The effect of firm strategy and corporate performance on software market growth in emerging regions*. Southern New Hampshire University.
- [69] Millett, S. M. (2011). *Managing the future: A guide to forecasting and strategic planning in the 21st century*. Triarchy Press.
- [70] Mislick, G. K., & Nussbaum, D. A. (2015). *Cost estimation: Methods and tools*. John Wiley & Sons.
- [71] Mojžiš, B. R. (2018). The Digital Economy, Industry 4.0 and digital payment systems: impacts on international organizations.
- [72] Montgomery, D. C., Jennings, C. L., & Kulahci, M. (2015). *Introduction to time series analysis and forecasting*. John Wiley & Sons.
- [73] Muntjir, M., & Siddiqui, A. T. (2016). E-Commerce framework based on evaluation of data mining and cloud computing. *International Journal of Computer Science and Information Security*, 14(4), 286.
- [74] Mutanov, G. (2015). *Mathematical methods and models in economic planning, management and budgeting*. Springer-Verlag Berlin Heidelberg.
- [75] Nader-Rezvani, N., Nader-Rezvani, & McDermott. (2019). *An Executive's Guide to Software Quality in an Agile Organization*. Apress.
- [76] Nath, P., Nachiappan, S., & Ramanathan, R. (2010). The impact of marketing capability, operations capability and diversification strategy on performance: A resource-based view. *Industrial Marketing Management*, 39(2), 317-329.
- [77] Nguyen Thi Thanh, N. (2018). Preparation of the budgeting tool and different analyses. Commissioning company: Lumoa. me Oy.
- [78] Njenge, Y. L. (2015). *Information technology governance implementation in a South African public sector agency: institutional influences and outcomes*. University of the Witwatersrand, Johannesburg (South Africa).
- [79] Nordlund, C. (2010). A software platform for automating revenue forecasting and billing execution of Software Delivered as a Service (SaaS).
- [80] Oestreich, T. W. (2016). Magic quadrant for business intelligence and analytics platforms. *Analyst (s)*, 501, G00275847.
- [81] Orue-Echevarria Arrieta, L. (2016). From software as a good to software as a service (SAAS): a methodology to define the

- transformation towards the SAAS business model.
- [82] Otokiti, B. O. (2012). Mode of entry of multinational corporation and their performance in the Nigeria market (Doctoral dissertation, Covenant University).
- [83] Otokiti, B. O. (2018). Business regulation and control in Nigeria. Book of readings in honour of Professor SO Otokiti, 1(2), 201-215.
- [84] Otokiti, B. O., & Akorede, A. F. (2018). Advancing sustainability through change and innovation: A co-evolutionary perspective. Innovation: Taking creativity to the market. Book of Readings in Honour of Professor SO Otokiti, 1(1), 161-167.
- [85] Parenteau, J., Sallam, R. L., Howson, C., Tapadinhas, J., Schlegel, K., & Oestreich, T. W. (2016). Magic quadrant for business intelligence and analytics platforms. *Recuperado de* <https://www.gartner.com/doc/reprints>.
- [86] Pasham, S. D. (2017). AI-Driven Cloud Cost Optimization for Small and Medium Enterprises (SMEs). *The Computertech*, 1-24.
- [87] Passoja, P. (2015). Budgeting and forecasting application development: an evaluation.
- [88] Prause, L. (2016). *Software vendors' service infusion: a generic value network of cloud-based enterprise software* (Master's thesis, University of Twente).
- [89] Purcell, J. (2014). The impact of corporate strategy on human resource management. In *New Perspectives on Human Resource Management (Routledge Revivals)* (pp. 67-91). Routledge.
- [90] Rachmad, Y. E. (2012). *Financial Risk Management: Techniques for Stability and Growth*. The United Nations and The Education Training Centre.
- [91] Rachmad, Y. E. (2013). *International Banking and Financial Law: Compliance and Regulation*. The United Nations and The Education Training Centre.
- [92] Rachmad, Y. E. (2013). *Legal Management in Banking and Financial Regulation*. The United Nations and The Education Training Centre.
- [93] Ramlee, S., & Berma, B. (2013). Financing gap in Malaysian small-medium enterprises: A supply-side perspective. South African Journal of Economic and Management Sciences, 16(5), 115-126.
- [94] Riikinen, M., Saarijärvi, H., Sarlin, P., & Lähtenmäki, I. (2018). Using artificial intelligence to create value in insurance. *International Journal of Bank Marketing*, 36(6), 1145-1168.
- [95] Sackey, F. N. A. (2018). *Strategies to manage cloud computing operational costs* (Doctoral dissertation, Walden University).
- [96] Sackey, F. N. A. (2018). *Strategies to manage cloud computing operational costs* (Doctoral dissertation, Walden University).
- [97] Schramade, W. (2017). Investing in the UN sustainable development goals: opportunities for companies and investors. *Journal of Applied Corporate Finance*, 29(2), 87-99.
- [98] Seethamraju, R. (2015). Adoption of software as a service (SaaS) enterprise resource planning (ERP) systems in small and medium sized enterprises (SMEs). *Information systems frontiers*, 17(3), 475-492.
- [99] Shahandashti, S. M., & Ashuri, B. (2016). Highway construction cost forecasting using vector error correction models. *Journal of management in engineering*, 32(2), 04015040.
- [100] Shapiro, A. C., & Hanouna, P. (2019). *Multinational financial management*. John Wiley & Sons.
- [101] Sharma, A., Adekunle, B. I., Ogeawuchi, J. C., Abayomi, A. A., & Onifade, O. (2019). IoT-enabled Predictive Maintenance for Mechanical Systems: Innovations in Real-time Monitoring and Operational Excellence.
- [102] Soekarno, S., & Damayanti, S. M. (2012). Asset allocation based investment strategy to improve profitability and sustainability of the smes. *Procedia Economics and Finance*, 4, 177-192.
- [103] Sotola, R. (2011). Billing in the cloud: The missing link for cloud providers. *Journal of Telecommunications management*, 3(4).
- [104] Speziali, V., & Campagnoli, A. (2017). SaaS adoption in business contest: evaluation of Oracle true Cloud method.
- [105] Stanley, J., & Briscoe, G. (2010). The ABC of digital business ecosystems. *arXiv preprint arXiv:1005.1899*.

- [106] Strømmen-Bakhtiar, A., & Razavi, A. R. (2011). Cloud computing business models. In *Cloud Computing for Enterprise Architectures* (pp. 43-60). London: Springer London.
- [107] Taherkordi, A., Zahid, F., Verginadis, Y., & Horn, G. (2018). Future cloud systems design: challenges and research directions. *IEEE Access*, 6, 74120-74150.
- [108] Telukdarie, A., Buhulaiga, E., Bag, S., Gupta, S., & Luo, Z. (2018). Industry 4.0 implementation for multinationals. *Process Safety and Environmental Protection*, 118, 316-329.
- [109] Temaj, G. (2014). A study of effectiveness of agile methodologies in managing software projects within SaaS. *Master's Thesis*.
- [110] Tsiamis, A. (2019). Developing a financial forecasting tool for a pre-revenue B2B SaaS early stage startup company.
- [111] Vidhyalakshmi, R., & Kumar, V. (2017). CORE framework for evaluating the reliability of SaaS products. *Future Generation Computer Systems*, 72, 23-36.
- [112] Wadhwa, V., & Salkever, A. (2017). *The driver in the driverless car: how our technology choices will create the future*. Berrett-Koehler Publishers.
- [113] Waheed, W., & Siddiqui, D. A. (2019). The profiling of awareness of access and use of finance: A case study of SMEs in Karachi. Available at SSRN 3397486.
- [114] Walsh, T., Miller, K., Goldenfein, J., Chen, F., Zhou, J., Nock, R., ... & Jackson, M. (2019). *Closer to the machine: Technical, social and legal aspects of AI*. Swinburne.
- [115] Williams, D. W., & Calabrese, T. D. (2016). The status of budget forecasting. *Journal of Public and Nonprofit Affairs*, 2(2), 127-160.
- [116] Yang, H. (2018). *In A Quest to Solve Information System Agility Problems: A SaaS Experience* (Doctoral dissertation, Open Access Te Herenga Waka-Victoria University of Wellington).
- [117] Zeller, T. L., & Metzger, L. M. (2013). Good Bye Traditional Budgeting, Hello Rolling Forecast: Has the Time Come?. *American Journal of Business Education*, 6(3), 299-310.
- [118] Zhang, Q., Cheng, L., & Boutaba, R. (2010). Cloud computing: state-of-the-art and research challenges. *Journal of internet services and applications*, 1(1), 7-18.