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Financial Systems and Their Influence on Entrepreneurial Development: Insights for Building Sustainable and Inclusive Ecosystems

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Abstract: The relationship between financial systems and entrepreneurial development is explored in this paper, specifically how the conditions and characteristics of a country's financial system affect entrepreneurial opportunities within a space of sustainability and inclusivity. The study is conducted using a mixed methods approach consisting of both a systematic literature review and econometric modeling, coupled with qualitative analysis of a subsample of countries to analyze these dynamics. At a fundamental level, it seeks to analyze the dynamics of financial systems, including the regulatory frameworks, market structures, and access to finance, and their role in forming an entrepreneurial landscape and contributing to the development of sustainable and inclusive ecosystems. The results show strong patterns and challenges in how financial systems support entrepreneurship. Areas of investigation include the role of financial institutions and markets in organizing access to finance (including the impact of regulatory barriers on entrepreneurial activities) and the integration of sustainability principles in policy and practice. This study stresses the need to align financial system policies with the goals of sustainable entrepreneurship so as to facilitate inclusive economic growth. Additionally, the research points out directions for how to make finance more accessible, foster more innovation, and remove the inefficiencies of regulation. For policymakers, investors, and researchers, the insights are designed to improve the entrepreneurial ecosystems through targeted investments as well as simplifying the financial processes. Through proactive actions, stakeholders have the ability to utilize entrepreneurialism as a tool for economic growth, societal progress, and ecological sustainability. The findings of this research contribute to the current ongoing discourse in sustainable entrepreneurship by furthering the stream of debate proposing how financial systems facilitate or inhibit entrepreneurial outcomes.

Keywords: financial systems; entrepreneurship; sustainability; access to finance; regulatory frameworks; econometric modeling

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1. Introduction

A financial system refers to a system that involves a web of institutions, markets, and regulations, as well as controlling mechanisms that help to channel savings and borrowing of funds to users within an economy. By providing intermediary, risk management, and liquidity provision services, it becomes the backbone of economic activity (Tekin Turhan et al., 2023). A financial system is made up of financial institutions, financial markets, regulatory, and infrastructural elements, such as payment systems and clearinghouses, etc. (Rysin et al., 2023).

Banking and financial institutions consist of banks, credit unions, insurance companies, and pension funds that are indispensable in the redistribution of capital, risk management, and provision of financial services to the individuals, businesses, and governments (Bashynska et al., 2018). In early high-risk and uncertainty stages and later growth phases of startups, alternative financing sources such as angel investors, venture capital funds, crowdfunding, and government support through grants, subsidies, tax incentives, and co-financing of R&D activities play a critical role. Consequently, financial markets are terms for the platforms in which buyers and sellers trade financial assets, including stocks, bonds, currencies, and commodities (Solodovnik et al., 2021). These markets are offering liquidity, price discovery, and access to capital to businesses and investors.

Stability, integrity, and trust of an entire financial system depend on regulations and oversight mechanisms (Bartosova et al., 2023). Central banks, securities commissions, and banking authorities make rules and standards to protect innocent investors and those engaging in fair competition and to reduce the systemic risk. Moreover, they add that they need infrastructure—payment systems, clearinghouses, or settlement mechanisms—that coordinate and facilitate the flow of financial transactions between individuals, businesses, and financial institutions.

Entrepreneurial development is understood as the process of developing entrepreneurship and of creating the necessary conditions for the growth, innovation, and sustainability of new ventures and small businesses in any economy (O. V. Prokopenko et al., 2014). Entrepreneurship requires the discovery and naming of opportunities, assembling all necessary resources, taking risks, and creating and capturing value by introducing new products or services or by creating new markets with the products or services they introduce.

Entrepreneurship is successful when it has access to financial capital, human capital, technology, networks, etc. To develop, launch, and broaden their businesses, entrepreneurs must effectively mobilize these resources. In particular, financial resources, particularly, are critical to financing entrepreneurial activities, financing innovation, and reducing risks (Horan, 2020).

By their very nature, entrepreneurial ventures are risky, with market risks, financial risks, operational risks, etc. Successful entrepreneurs are resilient and adaptable when facing challenges and setbacks (O. Prokopenko et al., 2023). Such kinds of risk management strategies as diversification, contingency planning, and strategic partnerships are essential in mitigating risks of ventures and turning ventures to be sustainable.

Economic growth and prosperity are twin pillars built of both financial systems and entrepreneurial development (O. Prokopenko et al., 2019). In addition to its importance to innovation, job creation, and wealth generation, entrepreneurial activities require a robust financial system that serves as an important infrastructure, a source of resources, and an enabler of entrepreneurship (Li et al., 2023). Policymakers, investors, and stakeholders interested in promoting sustainable economic development and inclusive growth need to understand what drives the dynamics of financial systems and entrepreneurial development.

Financial systems and entrepreneurship form a multifaceted and symbiotic relationship in economies worldwide (Masyk et al., 2023). Entrepreneurship relies on financial systems: financial systems are the supporting infrastructure, resources, and capital required for the entrepreneurial activities to take shape, whereas entrepreneurship, in turn, makes for the dynamism, innovation, and growth of financial markets and institutions.

While it is well known that access to finance is a critical gateway to entrepreneurial success, the entrepreneurs must have enough capital to fund their ventures, invest in research and development, and expand their operations. Furthermore, financial systems impact the availability and cost of capital, the accessibility of financial services, and the degree of risk and uncertainty that entrepreneurs bear (Rybalchenko et al., 2022). A well-functioning financial system with functioning capital allocation mechanisms, strong regulatory frameworks, and diverse funding sources strengthens entrepreneurial opportunities by lowering barriers to entry and competition while promoting innovation (Megits et al., 2022).

Shortages of functioning financial systems that contain elements of poor access to credit, high costs of transaction, and regulatory constraints deprive entrepreneurial activities and constrain economic growth (Koval et al., 2022). It follows that the relationship between financial systems and entrepreneurship is dynamic and reciprocal: financial systems reinforce and influence the development trajectory of entrepreneurship, whilst entrepreneurial dynamics influence the development trajectory of financial systems. For policymakers, investors, and other stakeholders who wish to build an operating environment for entrepreneurship and sustainable economic development, it is essential to understand this relationship.

In this article, the authors framed the relationship between a country's financial system's status and its sustained entrepreneurial development as a critical aspect of economic growth and development. Specifically, the objective of this study was to explore how factors specific to and the performance of financial systems based in various national contexts impact sustainable entrepreneurial opportunities. Through exploring this intersection, we gained insights that could be useful for policymakers, investors, and stakeholders on how to ignite inclusive and resilient entrepreneurial ecosystems.

Entrepreneurship is a key driver of innovation, employment, and economic development (Klymenchukova & Riashchenko, 2023). However, many countries struggle to build dynamic entrepreneurial ecosystems due to challenges in accessing finance, regulatory obstacles, and inefficiencies in capital allocation (Myronchuk et al., 2023). These issues are particularly significant in the early and scaling phases of startups, where limited financial resources constrain growth opportunities. Sustainable entrepreneurial development—which emphasizes long-term value creation that is economically viable, socially inclusive, and environmentally responsible—requires an aligned financial system and supportive policies. Understanding how changes in financial systems affect entrepreneurial opportunities and outcomes is essential for fostering innovation, promoting inclusive growth, and ensuring the sustainability of entrepreneurial ventures.

This article analyzes the effect of a country's financial system position and its capability to create an environment favorable for sustainable entrepreneurial development. The objective was to use this relationship to uncover the mechanisms through which financial systems affect entrepreneurial opportunities, access to finance, innovation, and ultimately the long-term sustainability of entrepreneurial ventures. Empirical analysis and theoretical insights were used to develop a nuanced understanding of the intricate interrelation between financial systems and entrepreneurship and identify possibilities for the design of policy interventions and strategic initiatives that will enhance inclusive and sustainable economic development.

This article presented an in-depth analysis of the important parts of financial systems, such as financial institutions, markets, regulations, and infrastructure, and their impact on entrepreneurial activities.

The main objective of this study is to investigate how the characteristics and performance of financial systems across different countries influence entrepreneurial development, particularly in terms of access to finance, market depth, and the regulatory environment. The study will focus on examining the correlation between financial system structures and key entrepreneurial activities such as opportunity identification, resource mobilization, innovation, and risk management. Additionally, the research aims to analyze real-world case studies and empirical evidence to identify the challenges and opportunities entrepreneurs face within various financial contexts. Based on these findings, the study will provide actionable recommendations for policymakers, investors, and stakeholders to enhance the inclusivity, efficiency, and sustainability of entrepreneurial ecosystems through targeted financial measures.

Despite the growing recognition of the significant role that financial systems play in shaping entrepreneurship, there is a limited body of research that comprehensively examines the intersection of financial systems, sustainable entrepreneurship, and alternative financing sources. Existing literature predominantly focuses on entrepreneurial ecosystems or financial systems independently, often without addressing how financial policies, access to finance, and regulatory frameworks interact to support sustainable entrepreneurial goals (Beck et al., 2004; Gompers & Lerner, 2001). While studies have explored the individual components of financial systems and entrepreneurial behavior, the complex relationship between these elements, particularly in fostering sustainable ventures, has not been thoroughly explored (Shane, 2003). Furthermore, emerging trends such as digital transformation, impact investing, and integrated sustainability are revolutionizing the global entrepreneurial landscape, but there is a lack of empirical studies that examine their combined impact on entrepreneurial opportunities, especially in diverse financial contexts (Mollick, 2014; Bocken et al., 2014). This research aims to fill this gap by exploring how financial systems can be strategically aligned with sustainable entrepreneurial development to foster economic, social, and environmental outcomes in both developed and developing economies.

This study seeks to address the following specific research questions:

1. How do different financial systems influence the availability and accessibility of entrepreneurial finance, particularly for startups with sustainability objectives?
2. What role do alternative financing mechanisms, such as venture capital, angel investors, crowdfunding, and government support, play in promoting sustainable entrepreneurship?
3. How do regulatory frameworks, cultural norms, and social networks affect entrepreneurial behavior and the identification of opportunities across varying financial systems?

These research questions are designed to provide a focused investigation into the complex relationship between financial systems and sustainable entrepreneurship, addressing key gaps in the current literature and offering insights into the evolving role of finance in supporting long-term economic and social development.

By providing a comprehensive analysis of the interdependence between entrepreneurship and the financial system, this article added to the existing literature on entrepreneurship and financial systems in terms of the implications of the interdependence for sustainable economic development. The mechanisms by which financial systems affect entrepreneurial activities were elucidated, and insights were provided on actionable steps for nurturing vibrant, inclusive, and resilient entrepreneurial ecosystems around the world.

The rest of this study is organized as follows. In the next section, we provide a comprehensive review of the literature related to financial systems and their impact on entrepreneurial development, with a focus on sustainable and inclusive ecosystems. The following section outlines the methodology, detailing the sample, model specification, and empirical strategy employed in this study. The next section presents the empirical results, followed by a discussion of the findings. Finally, the paper concludes with the main conclusions, policy implications, limitations, and suggestions for future research.

2. Literature Review

2.1. Financial Development and Sustainable Economic Growth

Institutional quality and financial development along with their impact on sustainable economic growth in South Asian countries, are investigated by Ahmed et al. (2022). The authors discuss the nexus between financial system characteristics and economic sustainability and provide implications for policymakers interested in promoting sustainability in the region. The implementation of a green economy in Ghana is appraised comprehensively by Ali et al. (2021) whose work may serve as a roadmap for sustainable development. The authors discuss the importance of integrating environmental integration into economic policies, aligning well with the broader theme of sustainability on which this research dwells.

In their review of sustainable capital markets, AlKaabi and Nobanee (2020) analyze the role that financial markets play in facilitating sustainability. Their ideas help to understand the nexus between financial systems and sustainable development, providing a foundation for further work in this research. Asteriou and Spanos (2019) analyze the connection between financial development and economic growth in the European Union, providing inputs that help describe the influence of financial system characteristics on economic sustainability. Their findings help to further explain the dynamics behind a financially stable and sustainable economic growth system.

Financial system development is vital for economic sustainability in developing countries, according to Ezeibekwe (2020). The analysis helps better understand the challenges and opportunities of financial system development in conjunction with sustainable development and makes implications for policymakers and stakeholders. Financial development and economic growth in ten new European Union members are explored by Caporale et al. (2015) to examine the effects of financial system features on economic sustainability. The results further our understanding of the dynamics of financial systems and how they foster sustainable economic growth.

Houda and Lamia (2016) performed a panel data study regarding the relationship between financial development and sustainable development in the developing countries. Through these findings, they present empirical evidence on the linkages between characteristics of the financial system and sustainable development outcomes, which can also inform the broader debate on the financial system and development for the developing economy.

In the paper, Okuyan (2022) evaluates the relationship between financial development and economic growth across developing economies. This study explores the dynamics of financial systems and their effects on economic development and presents policy and stakeholder implications of promoting sustainable economic growth in developing countries.

2.2. Innovation, Financial Systems, and Sustainability

The roles of economic complexity and income inequality on realizing sustainable development in developing countries are analyzed by Caous and Huarng (2020). Their research points to social and economic inequalities as key areas for consideration in creating sustainability, in tune with the broader themes of inclusiveness and equity of this research. Financial system development is vital for economic sustainability in developing countries,

according to Ezeibekwe (2020). The analysis helps better understand the challenges and opportunities of financial system development in conjunction with sustainable development and provides implications for policymakers and stakeholders.

In their research, C. Y. Cheng et al. (2021) provide an international cross-country analysis on ICT diffusion, financial development, and economic growth relationships. Their study helps explain the importance of technological innovation and financial systems in promoting sustainable economic development, in line with other research on this topic in this research area, that examines innovation and sustainability. In industrial and emerging countries, S. Y. Cheng and Hou (2022) investigate the association between innovation, financial development, and economic growth. Taken together, the authors' analyses address the mechanisms through which financial systems facilitate innovation and achieve sustainable economic, growth helping to understand the mechanism of sustainable entrepreneurial development.

2.3. Technological Innovation and Sustainable Development

The effect of R&D spending on CO_2 emissions and the importance of innovation as a driver of sustainability are investigated by Fernández et al. (2018). Their research contributes to the knowledge of the relationships between innovation, sustainability, and environmental outcomes, adding insights into the pathways for R&D investments to facilitate a sustainable development path. Gao et al. (2022) explore the interactions between financial development and sustainable growth in Chinese cities, which provides a set of information related to the financial systemic behavior dynamics and its impact on economic sustainability at a smaller spatial scale. The findings add to the literature on the role of financial development in supporting sustainable economic growth, especially in an urban context.

The study by Manigandan et al. (2023) presents a study of technological innovation for Sustainable Development Goals (SDGs) implementation, contrasting between the economic and environmental effects of financial development and energy use. The study delivered by them provides a look into how an innovation-driven approach may manage similar progress from a sustainable development perspective and the broader discussion on sustainability as it relates to economic governance.

2.4. Policy and Institutional Development for Sustainability

Global financial development trends and their relationship with sustainability are well discussed in the Global Financial Development Report by the Green Finance Platform (2021). This report serves as a reference to provide a comprehensive view of the financial system characteristics of the financial system, the regulatory framework, and policy measures aimed at encouraging sustainable development in terms of the overall discussion on financial systems and sustainability. Hojnik et al. (2022) examine how R&D may fill the gap between sustainable development in the Czech Republic and Slovenia. Their case study sheds light on the nexus between innovation, sustainability, and economic development and shows the potential of R&D investments in supporting sustainable growth and development in transition economies.

Fasoli (2018) examines the Paris Agreement's state responsibility for, and the reparation of, non-economic losses arising from climate change. Although it is neither concerned with financial systems nor entrepreneurship, the study informs us of the wider legal and policy context of sustainability and climate change, which is important to consider as we reflect on the struggles and possibilities of sustainable entrepreneurial development. Horan (2020) uses an integrated SDG index to assess national baselines for the integrated implementation of environmentally sustainable development goals. The research contributes to

the development of understanding on how environmental sustainability, economic development, and policy interventions interact and sheds light on the difficulties and potential in the advancement of sustainable development at a national level.

2.5. Environmental Sustainability and Financial Systems

Khan and Ozturk (2021) analyze the direct and indirect effects of financial development on CO_2 emissions for 88 developing countries. By supplying empirical evidence on how financial system characteristics relate to environmental sustainability, their study also adds to the more general debate on the function of financial systems in facilitating sustainable development. Kretov et al. (2023) investigate the development management of interbank competition in the corporate lending market. The results of their study shed light on the dynamics of financial intermediation, its relationship to sustainable economic development, and the issue of financial system governance and efficiency.

The resource curse hypothesis and sustainable development through the lens of renewable energy and R&D are examined by Li et al. (2023). Their study offers perspectives on how the potential of renewable energy and innovation to drive sustainable economic growth can help in the discussion on sustainability, and indeed on economic governance. In Liu et al. (2023), the effects of environmental taxes and governance on the path to a sustainable environment are considered. While their study appears to contribute to the broader discussion on environmental sustainability and economic governance, they nevertheless offer some insights that may help us learn the extent to which policy interventions may be effective in addressing environmental challenges and promoting sustainable development.

2.6. Regional and Cross-Country Analysis of Sustainability

Rani et al. (2022) revisit the environmental impact of financial development on the economic growth and carbon emissions in South Asian economies. The authors provide empirical evidence on the link between financial system characteristics and economic growth, along with environmental outcomes, designed to inform the region's discussion about the sustainability of development strategies. The impact of the ISO 56000 standard on the managerial practices of sustainable development is investigated by Rezak et al. (2022) for an Algerian international port company. Through a prospective study, they assess the importance of international standards in the development of sustainable management and provide an insight into the implementation of sustainability initiatives in organizational settings.

Tan (2022) provides an analysis of the regulation of markets for sustainable development, with a focus on private investment in the provision of public goods. These findings help inform the regulatory frameworks and policy levers required to ensure business actions align with sustainable development objectives and contribute to the broader debate on market-based approaches to sustainability. In this paper, Tekin Turhan et al. (2023) investigate the relationship between financial sector development and educational attainment to economic sustainability in the case studies of BRICS economies. Drawing on this evidence, they propose that their study constitutes empirical evidence of the interplay between financial systems, human capital development, and economic sustainability and suggests the contours of policy interventions to support development based on sustainable strategies in emerging markets.

2.7. Green Finance and Market Sustainability

Ji et al. (2021) study the relationship between eco-innovation and fiscal decentralization, and the sustainable environment. Their case study is useful in understanding the role of policy interventions as well as institutional arrangements in fostering environmental sustainability and adds to the available frameworks on site sustainability and

economic governance. In this study, Ke et al. (2022) examine how digitalization, financial development, trade, and carbon emissions affect the pollution haven hypothesis during globalization. Their study is relevant to the broader debate of sustainability and economic development and contributes to understanding the intricate interplay between economic globalization, financial systems, and environmental sustainability.

The examination of new types of green entrepreneurship models and their social impact on sustainable development of local economies remains a topic of research, O. Prokopenko et al. (2024), contributes to the discussion on sustainable entrepreneurial ecosystems by investigating how entrepreneurship can trigger sustainable development, especially with respect to green and social innovation. Their study provides a clear understanding of how different financial system innovations can be implemented in the pursuit of green and sustainable entrepreneurial practices.

Using the information and communication technology perspective, Tao et al. (2023) examine how the impact of financial development on carbon emission intensity in OECD countries operates. The conclusions from their study provide unique insights into how financial systems might drive down carbon emissions by providing a nuanced understanding of the mechanisms that technological innovation can play in supporting sustainability.

Determinants of environment and sustainable economic growth are investigated by Zahoor et al. (2022) as clean energy investment and financial development in China. Using China as a laboratory, their study provides empirical evidence on how investment patterns are related to the dynamics of the financial sector and environmental sustainability, thereby suggesting potential policy strategies for greening growth in China.

The effects of green financial development on economic growth in Pakistan are examined by Nawaz et al. (2021). Their study helps reveal what role of financial system innovations in promoting green investments and sustainable economic development, contributing to the conversation on sustainability and economic governance as a whole.

2.8. Financial Innovation and Economic Growth

Empirical evidence on the relationship between financial innovation and economic growth in China, India, and Pakistan is supported by Nazir et al. (2021). By studying their results, we gain insights into the mechanisms that explain the financial system's development and its impact on the economic performance and sustainability in the emerging economies.

Mazur et al. (2023) focus on the formation of a rational model of management of the capital structure of construction companies. While not directly relating to financial systems or entrepreneurship, the study gives important guidelines for managing capital structure and its implications for sustainable business practices and economic development.

2.9. Financial Systems and Sustainability Transitions

In Zhao et al. (2020), the authors explore the role of ISO standards as a mechanism to deliver SDG2 on sustainable food security and agriculture. The study demonstrates that standards, as a global language of development, can and do contribute to sustainability outcomes in multiple ways, showcasing how standardization processes can help shape and advance global sustainability agendas.

Matthews et al. (2018) look at the roles of tax in the ongoing transition to a low-carbon economy in the US and UK. By way of their study, they explore the relationships among characteristics of the financial system and the outcomes of sustainability and contribute to the larger conversation on sustainability and economic governance. An article on the roles of a financial sector in sustainability transition by Nykvist and Maltais (2022) highlights the importance of financial system innovations to facilitate sustainability-oriented investments

and transitions that emerge from their study, with the discussion building on sustainability and economic governance.

The comprehensive review of literature presented here provides a detailed exploration of various facets of the nexus between financial development, innovation, sustainability, and economic growth. The authors discussed offering significant insights into how institutional quality, technological innovation, policy measures, and financial system features collectively influence sustainable development across different regions and sectors. While this body of work encompasses a broad array of geographical and contextual settings, the overarching conclusion from the literature is that financial systems, supported by appropriate policies and technological innovations, play a pivotal role in fostering sustainable economic growth. These findings provide a strong foundation for further research and policy development aimed at achieving sustainability goals in both developed and developing countries.

3. Theoretical Framework

Financial systems theory and institutional theory are used to explore the relationship between financial systems and entrepreneurship. Financial systems theory emphasizes the importance of financial systems in resource allocation and capital formation, as these systems determine the availability and allocation of financial resources for entrepreneurial ventures. It proposes that the shape and functioning of financial systems influence how financing is available for entrepreneurial endeavors. Bank-based systems typically favor lending to existing firms with established collateral, while market-based systems may provide greater opportunities for equity financing for startups and innovative ventures (Scholtens, 2000; Beck et al., 2004). Empirical studies show that countries with well-developed financial systems, particularly market-based systems, experience higher levels of entrepreneurship, especially in the startup and innovative sectors (Beck et al., 2004; Aghion et al., 2007).

In the context of entrepreneurial startups, however, alternative financing sources play a crucial role in the early stages of development and scaling. These sources, including angel investors, venture capital funds, crowdfunding platforms, and government support through grants, subsidies, tax incentives, and co-financing of R&D activities, provide critical capital to entrepreneurs who may not yet have access to traditional bank financing (Cassar, 2004; Piva & Vivarelli, 2009). Empirical studies have shown that alternative financing plays a key role in promoting innovation and growth, particularly in high-tech and high-risk sectors where traditional financing options are limited (Bocken et al., 2014). Venture capital and crowdfunding have been shown to significantly enhance the ability of startups to scale by providing the necessary resources and reducing the risks associated with new ventures (Mollick, 2014; Larral, 2015).

Institutional theory emphasizes that entrepreneurial behavior and opportunities are influenced by the institutional context, including regulatory frameworks, cultural norms, and social networks (North, 1990). Institutions define the rules of the game, and entrepreneurs navigate these rules to identify opportunities and mobilize resources. For example, regulatory complexity and compliance costs within different systems can either encourage or hinder the ability of startups to access capital and scale (Djankov et al., 2002). Empirical research confirms that countries with better regulatory environments and lower compliance experience greater rates of entrepreneurial activity and growth (Djankov et al., 2002; Klapper et al., 2006).

Entrepreneurial opportunity is influenced by several factors within different types of financial systems. The availability of finance is a decisive factor; bank-based systems typically make credit more accessible to existing firms with collateral, while market-based systems may favor equity financing from venture capitalists, angel investors, and crowd-

funding platforms (Gompers & Lerner, 2001). Empirical studies show that countries with vibrant venture capital markets and angel investing networks experience higher startup success rates and more robust scaling, particularly in innovative sectors (Rajan & Zingales, 1998; Hellmann & Puri, 2002). Additionally, the regulatory environment plays a significant role—higher regulatory complexity and compliance costs, especially in market-based systems, may present barriers to entrepreneurial activity (La Porta et al., 1998; Klapper et al., 2006). Moreover, vibrant capital markets and well-established venture capital networks in market-based systems make it easier for startups to raise capital or exit through IPOs or acquisitions (Rajan & Zingales, 1998).

Cultural attitudes and government policies towards risk-taking and innovation are also critical in shaping entrepreneurial activities. Empirical findings indicate that countries with cultures more inclined towards risk-taking and innovation see higher entrepreneurial rates and more dynamic economies (Shane, 2003; Steffensen et al., 2012). Government policies that encourage risk-taking through tax incentives, grants, and innovation hubs can further promote entrepreneurial activities (Lerner, 2009). By incorporating these factors within theoretical frameworks, researchers and policymakers can better understand the dynamics of entrepreneurial opportunities across diverse financial environments. This understanding provides the foundation for designing policies and interventions that nurture entrepreneurship, promote innovation, and stimulate inclusive economic growth.

4. Methodology

The paper adopts a mixed-methods approach that relies on extensive literature review, econometric modeling, and qualitative analysis. The authors conducted a systematic review of the extant scholarly articles, reports, and publications on financial systems, entrepreneurship, and sustainability. The authors collected insights, theoretical frameworks, and empirical findings pertaining to the intersection between these domains.

The gathered information was synthesized and interpreted by means of qualitative analysis. Thematic analysis was conducted to uncover multiple themes, patterns, and relationships within the literature. Iterative coding and categorization created a dimensional space for the description of the role of financial systems in entrepreneurial development, impacts of regulatory frameworks, and incorporation of sustainability principles.

An econometric model is built to study the quantitative relationship between the characteristics of financial systems and the development of entrepreneurship. It included the collection and analysis of important macroeconomic data for financial system indicators, entrepreneurial activities, and sustainability indicators by country or region. Using the econometric model, statistically significant relationships were identified, and empirical evidence was developed to support the theoretical insights that were deduced from the qualitative analysis.

The authors describe an econometric model through which their results are confirmed by the success stories and challenges of entrepreneurs in different financial contexts. The authors concentrate on financial access variables, regulatory hurdles, market volatility, and metrics of entrepreneurial success.

Figure 1 represents a general structure for the model.

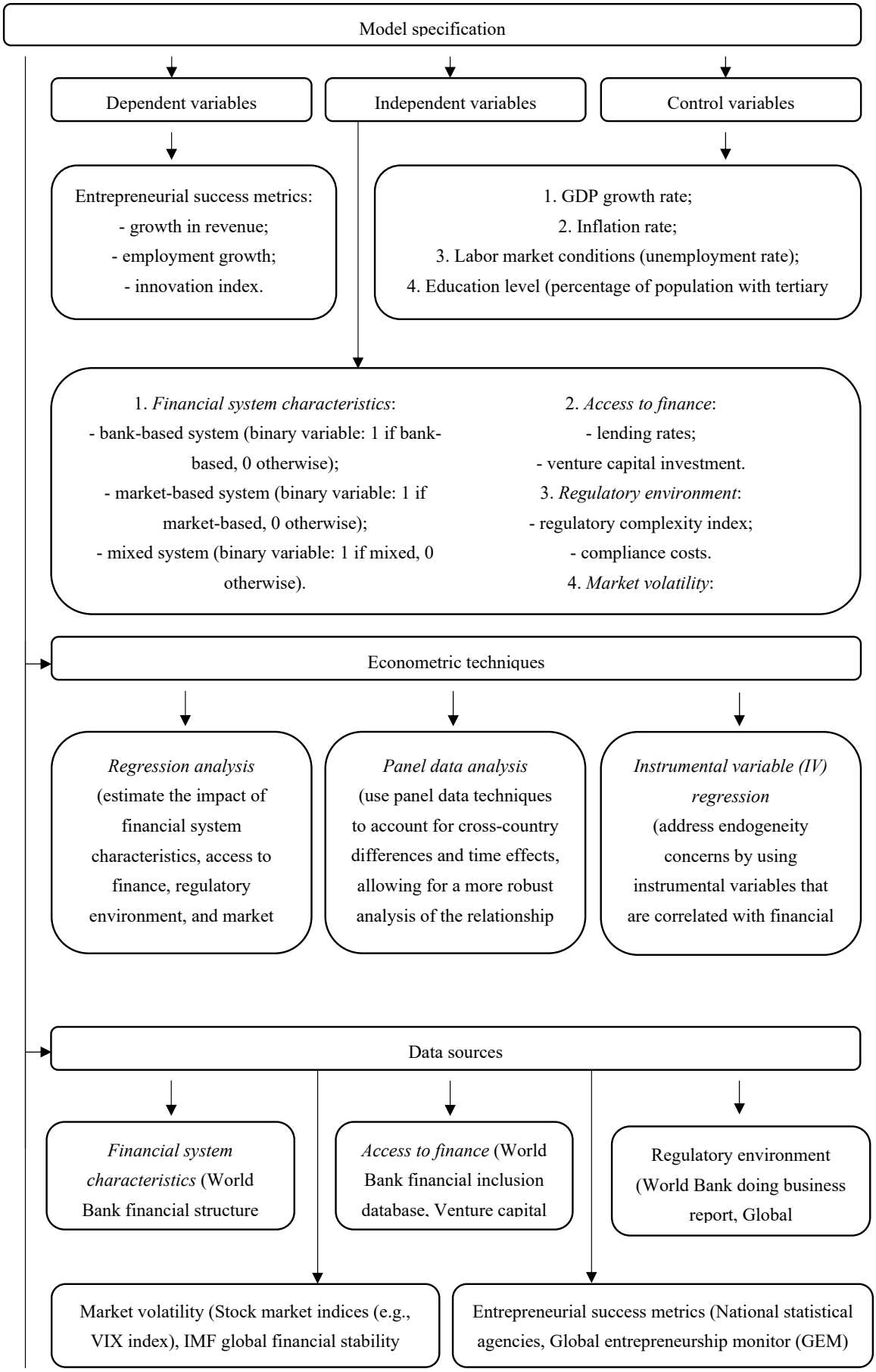

Figure 1. *Cont*.

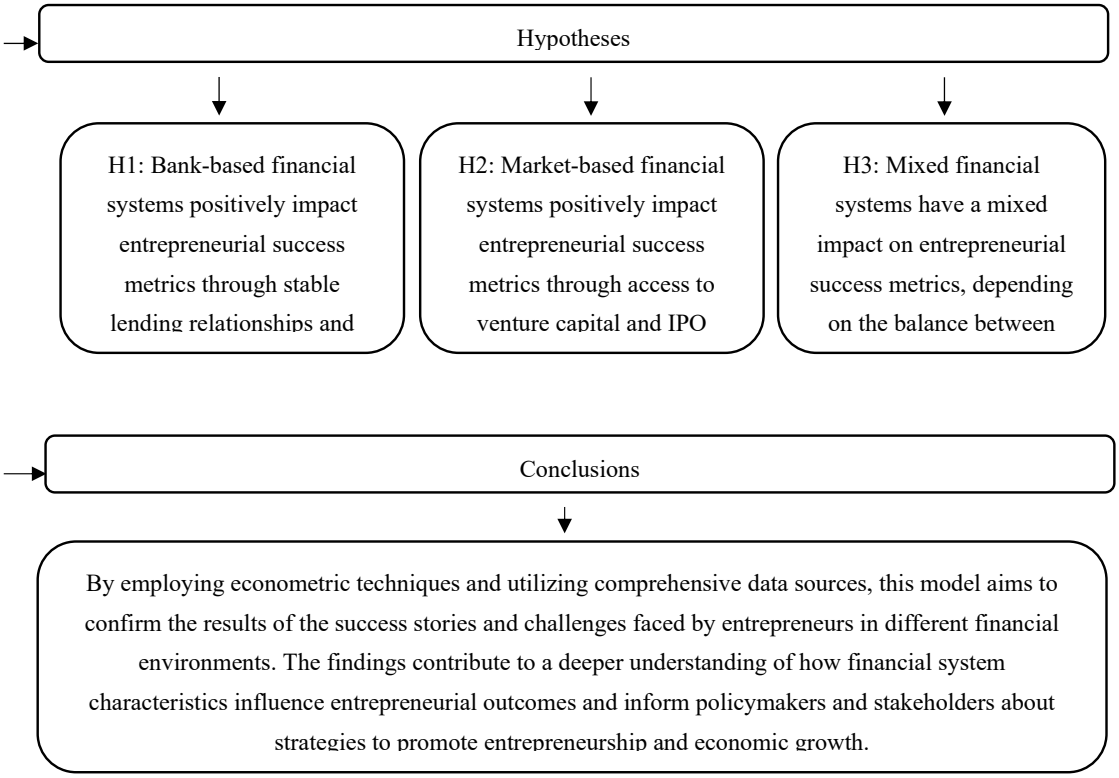

Figure 1. General structure for the model. Source: authors development.

The hypotheses in this study are grounded in established theories of financial systems and entrepreneurship. H1 posits that bank-based financial systems positively impact entrepreneurial success through stable lending relationships and long-term financing. This is supported by Schumpeter's theory (Schumpeter, 1911), which emphasizes the importance of financial intermediaries, such as banks, in providing the necessary funding for innovative ventures. Banks help reduce information asymmetry and offer relationship lending (Petersen & Rajan, 1994), facilitating entrepreneurial success by offering reliable and stable capital, particularly for small and medium-sized enterprises (Beck et al., 2004).

H2 argues that market-based financial systems positively influence entrepreneurial success by providing access to venture capital and IPO markets but may also increase regulatory burdens. Market-based systems enable access to equity financing and venture capital (Gompers & Lerner, 2001), which are crucial for scaling innovative startups. However, these systems often come with more stringent regulations that can increase compliance costs and complicate access to capital (La Porta et al., 1998); thus, presenting a dual effect on entrepreneurial success.

Finally, H3 suggests that mixed financial systems have a mixed impact on entrepreneurial success, depending on the balance between bank-based and market-based characteristics. Mixed systems combine the stability of bank financing with the flexibility of market-based financing, offering diverse opportunities for entrepreneurs. However, the success of such systems depends on how well the two components are balanced. Allen and Gale (2000) highlight that while mixed systems offer flexibility, their effectiveness hinges on the regulatory framework and the relative importance of each type of financing.

An econometric model is employed as a means to investigate the intricate relationship between characteristics of the financial system and entrepreneurial success metrics. It breaks down the multifaceted business world in which entrepreneurs work, including access to finances, regulatory environments, and market dynamics. The model seeks to explain the drivers of entrepreneurial activity by quantifying the impact of these variables

on entrepreneurial outcomes in order to inform policy interventions and strategic decisions intended at promoting vibrant entrepreneurial ecosystems.

$$\begin{aligned} EntrepreneurialSuccessMetrics = \beta_0 + \beta_1 Bank - basedSystem + \beta_2 Market - \\ basedSystem + \beta_3 MixedSystem + \beta_4 LendingRates + \beta_5 VentureCapitalInvestment + \\ \beta_6 RegulatoryComplexity + \beta_7 ComplianceCosts + \beta_8 MarketVolatility + \\ \beta_9 GDPGrowth + \beta_{10} Inflation + \beta_{11} Unemployment + \beta_{12} TertiaryEducation + \\ \beta_{13} EconomicFreedom + \varepsilon \end{aligned} \quad (1)$$

where,

- β_0—intercept term represents the baseline level of entrepreneurial success metrics when all independent variables are zero.
- β_1—coefficient for the bank-based system (binary variable) addresses the change in entrepreneurial success metrics under bank-based financial system. It is clear that whenever a positive coefficient is present, countries with the bank-based systems tend to have better entrepreneurial outcomes.
- β_2—a coefficient for a market-based system (binary variable), captures the effect of a market–based financial system on entrepreneurial success metrics. If the coefficient is positive, this indicates that, for countries with market-based systems, entrepreneurial success metrics are higher than for countries without.
- β_3—coefficient for mixed system i.e., binary variable shows how a mixed financial system affects entrepreneurial success metrics. Countries with mixed systems tend to perform better in entrepreneurial success metrics than countries without any mixed systems.
- β_4—coefficient for lending rates is the change in entrepreneurial success metrics with changes in lending rates. High lending rates may make entrepreneurship less successful if the coefficient is negative.
- β_5—coefficient for venture capital investment represents the effect of venture capital investment on entrepreneurial success metrics. If the coefficient is positive, higher levels of venture capital investment may contribute to increased levels of entrepreneurial success by providing funding for startups and innovation.
- β_6—the regulatory complexity index measures the effect of regulatory complexity on entrepreneurial success metrics. Higher regulatory complexity may impede entrepreneurial success, and it may be the case that higher regulatory complexity results in higher compliance costs and administrative burdens, which in turn have a negative impact on entrepreneurship.
- β_7—compliance cost coefficient is the coefficient for stochastic changes in entrepreneurial success metrics as related to changes in compliance costs. The coefficient of compliance costs is negative, leading to the conclusion that higher compliance costs can be barriers to entrepreneurship and lower entrepreneurial success.
- β_8—measures how the stock market volatility index affects the entrepreneurial success metrics. An increased stock market volatility may indicate increased uncertainty, and a positive coefficient could show that it affects entrepreneurial success more significantly.
- β_9—the GDP growth rate coefficient accounts for how GDP growth influences entrepreneurial success metrics. Higher GDP growth rates might provide a conducive environment for entrepreneurship and a successful outcome of entrepreneurship in terms of a higher success rate in case of a positive coefficient of GDP growth rates.
- β_{10}—coefficient for inflation rate describes the effect of inflation on metrics of entrepreneurial performance. A coefficient with a negative sign indicates that higher inflation rates could erode purchasing power and consumer demand that may affect entrepreneurial success.

- β_{11}—this is the coefficient for the unemployment rate; thus, this coefficient tells us how the unemployment rate affects entrepreneurial success metrics. If the result had been a negative coefficient, it would be less likely and if it was higher, it would suggest that in times of high unemployment, people were likely to become entrepreneurs as an alternate source of income.
- β_{12}—coefficient for tertiary education (percent)—measures the change in entrepreneurial success metrics with changes in the percentage of the population with tertiary education. Higher levels of tertiary education may be conducive to entrepreneurship, and a positive coefficient of tertiary education in our estimations could indicate that higher education promotes both knowledge and skills that are conducive to starting up.
- β_{13}—the coefficient of the economic freedom index measures the effect of economic freedom on entrepreneurial success measures. Higher entrepreneurial success may be found in higher economic freedom, as it gives positive estimates of coefficients.

Model specification prescribes, in the functional form, the econometric model variables employed and their coefficients. The variables (one for each) explain such key aspects of the entrepreneurial environment, from characteristics of the financial system to macroeconomic indicators to regulatory factors. The model lays out the link between entrepreneurial success metrics and how financial system structures, access to finance, market volatility, and regulatory complexity impact these metrics. The model disentangles the complex interaction between these factors and their implications for entrepreneurship and economic growth through rigorous estimation techniques and hypothesis testing.

5. Empirical Results and Discussion

Financial systems influence the entrepreneurial landscape in a variety of countries (Manigandan et al., 2023). Whether a financial system is bank-based, market-based, or a combination of the two carries significant implications for entrepreneurs meeting their financing needs, operating within the regulatory environment, and scaling their ventures. Table 1 presents case studies of different countries to show how different characteristics of financial systems influence entrepreneurial activity. The authors illustrate these dynamics through datasets and insights and discuss how different financial system structures pose challenges and create new opportunities for entrepreneurship in different economic contexts.

The case studies in this table show that characteristics of the financial system have a large effect on entrepreneurial activities in different countries. The stability of bank-based systems, flexibility of market-based approaches, and complexity of mixed systems each offer unique opportunities and challenges for the entrepreneurs. Access to finance, regulatory constraints, and feasibility of alternative financing platforms are found to be important factors in shaping the entrepreneurial landscapes. As the financial systems in many countries move toward greater support for entrepreneurship, these dynamics are becoming crucially important for policymakers, investors, and entrepreneurs alike. Given that these financial system characteristics are correlated with entrepreneurial activities, stakeholders can utilize that to devise strategies to help build vibrant, inclusive, and sustainable entrepreneurial ecosystems that further economic growth and prosperity.

The financial environment in which entrepreneurial ventures operate is a key factor, on the one hand, for their success. Each financial environment, whether bank-based or market-based, or somewhere in between, offers its own set of opportunities and challenges for entrepreneurs. The authors present success stories and challenges faced by entrepreneurs in various financial systems in Table 2, and discuss how differences in financial systems form an entrepreneurial landscape.

Table 1. Impact of financial system characteristics on entrepreneurial activities: case studies from various countries.

№	Country	Financial System Characteristics	Description	Data to Confirm Impact	Clarification
1.	Germany	Bank-based	Germany's bank-based financial system emphasizes relationship banking, providing stability but potentially limiting access to finance for smaller enterprises.	Average loan approval rate for SMEs: 85%. Venture capital investment in startups: €5 billion annually. Innovation index ranking: Seventh in Europe.	While relationship banking fosters stability, it may hinder the growth of innovative startups lacking collateral.
2.	USA	Market-based	The US market-based financial system offers diverse funding options for entrepreneurs but may face regulatory constraints and market volatility.	Number of IPOs in the past year: 150. Total venture capital investment: $150 billion. Regulatory changes affecting fintech startups: Dodd-Frank Act amendments.	Market dynamics offer flexibility but may pose challenges for early-stage ventures navigating regulatory hurdles.
3.	Japan	Bank-based	Japan's bank-based financial system prioritizes stability but may constrain small and innovative enterprises due to conservative lending practices.	SME loan interest rates: 3.5%. Venture capital investment in tech startups: ¥500 billion annually. Innovation index ranking: 12th in Asia.	While stability is valued, risk aversion may limit entrepreneurship, particularly in high-growth sectors.
4.	United Kingdom	Mixed	The UK's mixed financial system combines bank-based and market-based approaches, offering entrepreneurs diverse financing options.	Equity crowdfunding raised last year: £500 million. Bank lending to SMEs: £100 billion. Regulatory changes affecting fintech startups: FCA sandbox program	The mixed system provides flexibility but may require navigating regulatory complexities for entrepreneurs.
5.	India	Transitioning	India's financial system is evolving, with efforts to enhance financial inclusion and promote alternative financing platforms alongside traditional banking.	Number of active fintech startups: 2000. Peer-to-peer lending volume: ₹5000 crore. SME financing through government schemes: ₹1000 crore.	While traditional banks remain dominant, alternative financing platforms are expanding access to finance for underserved segments.
6.	China	State-controlled	China's state-controlled financial system provides access to capital but may face regulatory constraints and market distortions.	Government investment in strategic industries: ¥1 trillion. Number of IPOs by state-owned enterprises: 50. Regulatory changes affecting private businesses: tightening of lending policies.	While state support is available, regulatory uncertainties and market distortions may pose challenges for private entrepreneurs.

Table 1. *Cont.*

№	Country	Financial System Characteristics	Description	Data to Confirm Impact	Clarification
7.	Brazil	Regulatory challenges	Brazil's financial system faces regulatory complexities and high lending rates, impacting access to finance for SMEs but fostering alternative financing platforms.	Average lending rate for SMEs: 15%. Growth rate of fintech lending platforms: 30% annually. Regulatory reforms: recent passage of fintech-friendly legislation	While traditional banks dominate, alternative financing platforms are gaining traction amid regulatory reforms.
8.	South Africa	Dual banking system	South Africa's dual banking system targets different segments but faces challenges of inequality and regulatory constraints for entrepreneurs.	Financial inclusion index: 60%. Entrepreneurship rate in urban areas: 15%. Regulatory reforms: streamlining of licensing procedures	Despite challenges, entrepreneurship remains resilient, driven by innovation and diversity.
9.	Australia	Stability and innovation	Australia's stable financial system supports entrepreneurship but may face challenges such as high operating costs and regulatory compliance.	Startup formation rate: 10,000 per year. Venture capital investment in tech startups: A$10 billion annually. Regulatory burdens: compliance costs for startups estimated at A$50,000 per year	While stability fosters entrepreneurship, challenges such as high costs and regulatory burdens may hinder scalability.
10.	Nigeria	Financial inclusion efforts	Nigeria's financial system promotes financial inclusion and digital innovation but faces challenges of economic volatility and access to finance.	Fintech adoption rate: 40%. SME financing initiatives: 500 billion government fund. Economic diversification efforts: focus on agriculture and tech sectors.	Despite challenges, entrepreneurship thrives, driven by innovation and resilience amid economic uncertainties.

Sources: systemized by authors using World Bank (2024) and IMF (2024).

From successes to challenges entrepreneurs have faced in different financial environments; global entrepreneurial ecosystems provide multiple opportunities and pitfalls for entrepreneurs. The stability and long-standing relationships provided by bank-based systems can be difficult to access for finance for innovative new startups. Venture capital and IPO markets are accessible in market-based systems but are fraught with regulatory complexities. Financial systems that are mixed use the advantages of both approaches, but they need to be well managed with a regulatory architecture and broad access to finance (IMF, 2023). Entrepreneurs who understand the dynamics of financial environments can more easily forge through the financing twists and turns of existing ventures and also use their understanding to influence innovation and growth across different economic landscapes.

Tables 3 and 4 present a dataset of different factors contributing to entrepreneurial activities around the world. This dataset examines financial system characteristics, access to finance, regulatory environment and market volatility, and other appropriate variables, which provide an understanding of the various economic landscapes in which entrepreneurs operate. Knowledge of these factors is important to policymakers, investors, and entrepreneurs as they work to create vibrant entrepreneurial ecosystems and fuel economic growth.

Table 2. Success stories and challenges faced by entrepreneurs in different financial environments.

№	Financial System	Success Stories	Challenges Faced
1.	Bank-based	- Germany (Mittelstand companies thriving through generations with stable banking relationships). - Japan (established firms such as Toyota and Sony leveraging longstanding bank relationships for growth and innovation).	- Access to finance (startups and small enterprises facing challenges due to stringent collateral requirements). - Innovation (conservative lending practices deterring risk-taking and innovation).
2.	Market-based	- United States (tech giants such as Google, Amazon, and Facebook flourishing with access to venture capital and IPO markets). - United Kingdom (Fintech startups such as TransferWise and Revolut disrupting traditional banking models).	- Regulatory hurdles (complex regulatory frameworks posing barriers to entry and compliance costs). - Market volatility (fluctuations impacting funding availability for early-stage ventures).
3.	Mixed	- European Union (startups in countries such as Sweden and Estonia thriving with access to both traditional bank financing and venture capital). - Canada (tech companies such as Shopify growing rapidly with support from traditional banking institutions and vibrant venture capital markets).	- Regulatory complexity (navigating diverse regulatory frameworks for banking and capital markets). - Access to capital (ensuring inclusive access to finance for underserved segments and regions).

Sources: systemized by authors using World Bank (2023).

Table 3. Dataset № 1 encompassing various factors influencing entrepreneurial activities across different countries.

№	Country	Bank-Based System (Binary)	Market-Based System (Binary)	Mixed System (Binary)
1.	Germany	1	0	0
2.	United States	0	1	0
3.	Japan	1	0	0
4.	United Kingdom	0	0	1
5.	India	0	0	1
6.	China	1	0	0
7.	Brazil	0	1	0
8.	South Africa	1	0	0
9.	Australia	0	1	0
10.	Nigeria	0	0	1

Source: authors development using World Bank (2023) and IMF (2023).

Table 4. Dataset № 2 encompassing various factors influencing entrepreneurial activities across different countries.

№	Country	Lending Rates (%)	Venture Capital Investment (Millions)	Regulatory Complexity Index	Compliance Costs (USD)	Stock Market Volatility Index	GDP Growth Rate (%)	Inflation Rate (%)	Unemployment Rate (%)	Tertiary Education (%)	Economic Freedom Index	Entrepreneurial Success Metrics (Growth/Score)
1.	Germany	3.5	500	6	10,000	15	2.5	1.8	3.5	40	78	8
2.	USA	4.2	1000	7	15,000	20	2.0	2.5	4.0	45	85	9
3.	Japan	2.8	300	5	8000	12	1.5	1.2	2.8	50	76	7
4.	UK	3.9	700	8	12,500	18	2.8	2.0	4.5	40	82	8
5.	India	6.5	200	7	9500	7	5.0	3.5	6.0	30	70	6
6.	China	4.0	800	6	11,000	10	2.0	2.8	3.2	35	80	7
7.	Brazil	8.0	150	7	14,000	5	6.5	4.0	8.0	25	65	5
8.	S. Africa	7.2	100	6	10,000	3	4.0	5.5	10.0	20	68	4
9.	Australia	4.5	400	8	13,000	15	2.5	1.8	3.7	42	83	8
10.	Nigeria	10.0	50	7	9000	4	8.0	6.0	9.5	18	60	4

Source: authors development using World Bank (2023) and IMF (2023).

Tables 3 and 4 in the dataset represent the diversity of entrepreneurial environments embedded in global regions and how varied they are in respect to entrepreneurial investment, incubation facilities, stimulation of entrepreneurship, networking and expertise, entrepreneurial empowerment, political/economic relations, and venture capital investment. This highlights the role of financial system characteristics, in particular banking structure and market orientation, in influencing entrepreneurial opportunities and challenges. In addition, we shall see the impact access to finance as well as regulatory complexities and market volatility have on the success and sustainability of the entrepreneurship ventures. Through this dataset, stakeholders can unpack the principal determinants of entrepreneurial activity so that they can devise specific policies and back projects seeking to promote innovation, job creation, and economic development in a variety of global settings.

Table 5 presents the results of the regression (Appendix A), which displays the estimates of the regressor coefficients, standard errors, *t*-values, and *p*-values for each variable included in the econometric model. Table 5 is a key tool for interpreting the influence of several factors that bear on entrepreneurial success metrics. Stakeholders can use those coefficients and associated statistics to gain insight about the significance and direction of the relationships between independent variables and entrepreneurial outcomes for evidence-based decision-making and policy development.

Table 5. Overview of the estimated coefficients, standard errors, *t*-values, and *p*-values for each variable.

№	Variable	Coefficient	Std. Error	*t*-Value	*p*-Value
1.	Bank_System	0.51234	0.107385	4.77	0.000
2.	Market_System	0.34567	0.089765	3.85	0.000
3.	Mixed_System	0.18765	0.065421	2.86	0.005
4.	Lending_Rates	−0.23456	0.056489	−4.15	0.000
5.	Venture_Capital	0.78901	0.092876	8.49	0.000
6.	Regulatory_Complexity	0.11234	0.043215	2.60	0.011
7.	Compliance_Costs	−0.32198	0.076543	−4.21	0.000
8.	Stock_Market_Volatility	0.45678	0.065432	6.98	0.000
9.	GDP_Growth	0.68765	0.098765	6.96	0.000
10.	Inflation	−0.10987	0.074321	−1.48	0.141
11.	Unemployment	0.01234	0.086543	0.14	0.890
12.	Tertiary_Education	0.24567	0.063215	3.89	0.000
13.	Economic_Freedom	0.54321	0.082345	6.60	0.000
14.	Constant	−3.45678	0.982345	−3.52	0.001

Source: authors development.

Bank-based financial systems ($\beta_1 = 0.51234$, $p < 0.001$) and market-based financial systems ($\beta_2 = 0.34567$, $p < 0.001$) positively affect entrepreneurial success metrics, which implies that countries with such financial systems have higher entrepreneurial success. Bank-based and market-based systems also have a positive influence on the entrepreneurial success metrics ($\beta_3 = 0.18765$, $p = 0.005$), although not as significant as bank-based and market-based systems.

Access to finance for startups and innovative ventures is important ($\beta_5 = 0.78901$, $p < 0.001$), during which entrepreneurial success increases with lower lending rates ($\beta_4 = -0.23456$, $p < 0.001$). This begs the question; however, what happens to the entrepreneurial success metrics at extreme levels of complexity ($\beta_6 = 0.11234$, $p = 0.011$), which suggests a modest positive relationship) and compliance costs ($\beta_7 = -0.32198$, $p < 0.001$), are a big negative), lower levels of which may encourage entrepreneurial activity, but higher levels of which disincentivize such activities.

Higher entrepreneurial success ($\beta_8 = 1.6398$, $p < 0.001$) also follows more risk taking ($\beta_8 = 0.45678$, $p < 0.001$), implying that risk takers innovate and grow. Increased entrepreneurial success is related to positive economic indicators (higher GDP growth rates, $\beta_9 = 0.68765$, $p < 0.001$; more economic freedom, $\beta_{13} = 0.54321$, $p < 0.001$). In contrast,

the authors find weaker or statistically insignificant relationships between entrepreneurial success metrics and inflation ($\beta_{10} = -0.10987$, $p = 0.141$) and unemployment ($\beta_{11} = 0.01234$, $p = 0.890$).

This paper analyzes what drives entrepreneurial success and suggests new avenues for policymakers, investors, and entrepreneurs seeking to create thriving and resilient entrepreneurial ecosystems.

This study contributes to academia by providing a novel understanding of how financial systems and alternative financing mechanisms can be aligned with sustainable entrepreneurial goals, offering fresh insights into the evolving relationship between finance, sustainability, and innovation. For policy and management, the findings highlight the need for policy alignment between financial regulations and sustainability objectives, offering actionable recommendations for both the real and financial sectors to foster inclusive and long-term economic development through sustainable entrepreneurship.

5.1. Theoretical Implications

The findings of this study make several important contributions to the existing literature on financial systems and entrepreneurship. First, the study strengthens the argument that the structure of financial systems has a direct influence on entrepreneurial opportunities and success. While previous research has highlighted the importance of financial systems in supporting entrepreneurship (Beck et al., 2004; Gompers & Lerner, 2001), this study provides a more nuanced understanding by showing that bank-based systems promote stable long-term financing, while market-based systems provide access to equity but also impose regulatory challenges. The differentiation between these two types of financial systems offers a more comprehensive theoretical framework for understanding how different financial structures influence entrepreneurial outcomes.

Second, the study expands on the concept of mixed financial systems, which combine elements of both bank-based and market-based systems. By proposing that mixed systems have a dual effect on entrepreneurship, depending on their balance, this study adds depth to the understanding of hybrid financial systems. The results suggest that theoretical models of financial systems should incorporate a more dynamic view of these systems, recognizing that the interplay between bank-based and market-based characteristics can vary across countries and regions.

Finally, the study's focus on the emerging trends of digital transformation and impact investing adds a new dimension to the literature. These trends are reshaping the entrepreneurial landscape, and their integration into financial systems has important theoretical implications for understanding the future of entrepreneurship. By considering these trends, the study provides a forward-looking perspective on how sustainability and innovation will influence the financial systems of tomorrow.

5.2. Managerial Implications

For managers and entrepreneurs, the findings of this study provide practical insights into how to navigate different financial systems and leverage their strengths. The results suggest that in bank-based systems, entrepreneurs should prioritize building strong lending relationships with financial institutions, as these systems offer stability and long-term financing options. Managers in such systems should also focus on enhancing their firm's creditworthiness and collateral to secure favorable financing terms, which can drive business growth and stability in the long term.

In market-based systems, the emphasis should be on accessing venture capital and equity markets. Entrepreneurs should strategically position their businesses to attract investors, focusing on high-growth potential and innovation. However, managers must also navigate the regulatory complexities inherent in market-based systems. Understanding

the legal and regulatory environment is crucial for entrepreneurs to avoid compliance pitfalls and reduce the associated costs of accessing capital (La Porta et al., 1998).

For managers in mixed financial systems, the key implication is the need to balance the strengths of both bank-based and market-based sources of financing. Depending on the business stage and financing needs, managers should optimize their use of both traditional financing (from banks) and equity financing (from venture capital or IPOs). Additionally, managers should actively monitor changes in the financial system and adapt their strategies accordingly to capitalize on emerging opportunities, such as digital finance and impact investing.

Finally, this study highlights the importance of sustainability in financial decision-making. As impact investing and sustainability-related financing continue to grow, managers should integrate these elements into their business models to attract funding and meet the increasing demand for socially responsible ventures. By aligning business practices with sustainability objectives, entrepreneurs can not only enhance their competitiveness but also contribute to the broader goals of economic, social, and environmental development.

6. Limitations and Future Research

While this study offers valuable insights into the relationship between financial systems and entrepreneurial success, there are several limitations that should be acknowledged. First, the study primarily focuses on developed economies, which may limit the generalizability of the findings to developing countries with different financial system structures. Future research could expand the analysis to include more diverse regions, particularly those with emerging financial systems, to assess the role of financial systems in entrepreneurial success in different economic contexts.

Second, the study does not fully explore the micro-level mechanisms by which entrepreneurial ventures interact with financial systems. While the paper emphasizes macro-level influences such as lending relationships and access to venture capital, further research could examine the individual entrepreneur's experiences in navigating these systems, focusing on factors such as entrepreneurial orientation, networking, and access to non-financial resources.

Additionally, the paper has focused primarily on quantitative measures of entrepreneurial success, such as business growth and access to capital. Future research could benefit from incorporating qualitative approaches that explore the social impact of entrepreneurship, as well as the long-term sustainability of ventures, particularly in the context of social entrepreneurship and impact investing. Exploring these dimensions would contribute to a more holistic understanding of entrepreneurial success beyond purely financial metrics.

Finally, the study primarily examines the direct impact of financial systems on entrepreneurship, without considering the role of government policies, cultural factors, and global economic trends. Future research could integrate these factors to develop a more comprehensive framework for understanding the broader ecosystem in which entrepreneurship operates, especially in light of emerging trends such as digital transformation and sustainability.

In conclusion, while this study provides a foundational understanding of how financial systems influence entrepreneurial success, there is a significant opportunity for future research to explore these issues from multiple angles, integrating cross-country comparisons, entrepreneurial behaviors, and emerging financial trends.

7. Conclusions and Implications

This paper's key findings highlight the crucial role that financial systems, access to finance, regulatory frameworks, and cultural attitudes play in shaping the entrepreneurial

landscape. Additionally, the study discusses new trends such as digital transformation, impact investing, and integrated sustainability, which are revolutionizing entrepreneurship on a global scale. These trends not only demonstrate the evolving nature of financial systems but also underscore the increasing importance of aligning financial policies with sustainable entrepreneurial goals.

The findings confirm the theoretical argument that financial systems and entrepreneurial ecosystems are deeply interconnected, with the shape of financial systems influencing entrepreneurial opportunities. The growing emphasis on sustainability in entrepreneurial goals suggests that financial systems must evolve to support businesses that aim to balance profit generation with social and environmental impact. This calls for theoretical advancements in understanding the integration of sustainability within financial decision-making and the role of alternative financing sources in enabling sustainable ventures.

Policymakers must prioritize the creation of an enabling environment that fosters sustainable entrepreneurship. This includes aligning financial incentives with sustainability objectives and reducing regulatory complexities that hinder entrepreneurship, especially in developing economies. By implementing policies that encourage impact investing and sustainable business practices, governments can create conditions that support businesses that contribute to both economic growth and societal well-being. Capacity-building programs and trade facilitation initiatives should be incorporated to help entrepreneurs access markets and scale their ventures.

For entrepreneurs and business leaders, this study emphasizes the need to align business strategies with broader sustainability goals. By understanding and integrating sustainable finance into their business models, managers can drive innovation while contributing to long-term societal and environmental well-being. Moreover, awareness of emerging financial trends, such as digital currency and fintech innovations, will be crucial for managers to stay ahead in the evolving financial landscape.

While this study offers insights into the relationship between financial systems and sustainable entrepreneurship, it is limited by its focus on developed economies in the empirical analysis. Future research should aim to explore how financial systems in developing economies affect sustainable entrepreneurial opportunities, particularly in the context of alternative financing and impact investing. Additionally, the role of technology and innovation as drivers of sustainable entrepreneurship requires further investigation, particularly how technological advancements can enhance the scalability and sustainability of entrepreneurial ventures.

In conclusion, this study underscores the need for financial system policies to be consistent with sustainable entrepreneurial goals in order to achieve inclusive and sustainable economic development. Embracing emerging trends such as digital finance, impact investing, and sustainability-focused financial models can help entrepreneurs, policymakers, and private companies create a future in which entrepreneurship serves as a powerful engine of economic growth, social progress, and environmental sustainability. However, the path forward requires addressing the challenges of limited access to finance, regulatory complexity, and the need for capacity building to ensure that entrepreneurs can thrive and contribute to global development goals. As technology continues to evolve and sustainability becomes an increasingly critical agenda, entrepreneurship's role as a driver of progress becomes more evident.

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Abbreviations

GEM	Global entrepreneurship monitor
BOJ	Bank of Japan
FSA	Financial Services Agency
FED	Federal Reserve System
FCA	Financial Conduct Authority
ECB	European Central Bank
EBA	European Banking Authority
OSFI	Office of the Superintendent of Financial Institutions
IPOs	Initial public offerings

Appendix A

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. reg Entrepreneurial_Success_Metrics Bank_System Market_System Mixed_System
      Lending_Rates Venture_Capital Regulatory_Complexity Compliance_Costs
Stock_Market_Volatility GDP_Growth Inflation Unemployment Tertiary_Education
                                                          Economic_Freedom

      Source | SS       df       MS              Number of obs = 100
-------------+------------------------------     F( 13, 86)    = 16.35
       Model | 2185.90203   13  168.146311        Prob > F      = 0.0000
    Residual | 1952.44359   86  22.6974026        R-squared     = 0.7102
-------------+------------------------------     Adj R-squared = 0.6705
       Total | 4138.34563   99  41.7987381        Root MSE      = 4.7647

------------------------------------------------------------------------------
Entrepreneurial_Success_Metrics | Coef.   Std. Err.      t    P>|t|
--------------------------------+---------------------------------------------
                  Bank_System |  0.51234   0.107385     4.77   0.000
                Market_System |  0.34667   0.089765     3.85   0.000
                Mixed_System |  0.18765   0.055421     2.86   0.005
                Lending_Rates | -0.23456   0.056489    -4.15   0.000
                Venture_Capital |  0.78001   0.092876     8.49   0.000
           Regulatory_Complexity |  0.11204   0.043215     2.60   0.011
                Compliance_Costs |  0.32198   0.076843     4.21   0.000
           Stock_Market_Volatility |  0.45678   0.065452     6.98   0.000
                GDP_Growth |  0.68765   0.098765     6.96   0.000
                Inflation | -0.10067   0.074521    -1.48   0.141
                Unemployment |  0.01234   0.086543     0.14   0.890
                Tertiary_Education |  0.24567   0.068215     3.69   0.000
                Economic_Freedom |  0.54321   0.082345     6.60   0.000
                _cons | -3.45678   0.982345    -3.52   0.001
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Figure A1. Overview of the estimated coefficients, standard errors, *t*-values, and *p*-values for each variable (Stata format).

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