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Review

The Role of Business Angels in the Early-Stage Financing of Startups: A Systematic Literature Review

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Abstract: Funding is an essential factor for the viability and growth of startups. As a result, business angels play a crucial role in providing financial support to these business companies, particularly those that are innovative and have significant potential for growth. This study sought to determine the role business angels play in the early-stage financing of startups. Specifically, the study looked at the value-added services provided by business angels, business angel funding impact on startup survival rates, the effectiveness of business angel networks' impact on facilitating startup funding, and business angels' contribution to the development of entrepreneurial ecosystems beyond financial investment for startups. This study adopted a systematic literature review methodology, employing key theoretical methods such as analysis, synthesis, comparison, and induction to assess the role business angels play in the early-stage financing of startups. The findings show that business angels' expertise, networks, and mentorship emerge as critical value-added startup services. Similarly, it was found that business angel funding positively influences startup survival; however, other factors also influence this impact. Moreover, the results show that business angel networks play a significant role in facilitating startup funding. Furthermore, beyond financial investment for startups, it was found that business angels contribute significantly to the development of entrepreneurial ecosystems, including prioritizing the contributions of ecosystem builders in startup screening, access to mentoring, and entrepreneurial education. The study concluded that business angels play a positive role in the early-stage financing of startups.

Keywords: business angels; early-stage financing; startup; startup funding; venture capital

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1. Introduction

Funding is an essential factor for the viability and growth of startups. Business angels, as private investors, play a crucial role in providing not only financial support but also strategic guidance, networks, and mentorship, particularly to innovative startups with significant growth potential (Ramadani 2009). According to Granz et al. (2019), business angels bridge the funding gap between founders' networks and institutional venture capital, providing vital early-stage capital. The concept of business angels originated from Broadway, where affluent individuals supported theatrical productions (Vizjak and Vizjak 2015). Over time, this concept has evolved into a cornerstone of early-stage financing for startups.

Business angels are not only financial investors but also contributors of non-financial value, often providing mentorship, networks, and strategic guidance to startups (Mason et al. 2019). Their role in mitigating financial constraints faced by startups, especially those with innovative business models, is critical to overcoming challenges that limit startup growth and survival (Otabek 2020). Research by Bessière et al. (2020) further emphasizes the added value of business angels, particularly in sectors where venture capital may be scarce.

Despite extensive research on venture capital, comparatively less attention has been given to the unique contributions of business angels. In particular, the literature has not sufficiently explored the ways business angels contribute to entrepreneurial ecosystems beyond financial investment. This study aims to fill this gap by investigating the value-added services business angels provide, their impact on startup survival, the role of their networks in facilitating funding, and their broader contribution to entrepreneurial ecosystems.

Thus, the primary objective of this study is to assess the role of business angels in the early-stage financing of startups. Specifically, this research seeks to answer the following key research questions:

What are the value-added services provided by business angels?

How does business angel funding impact startup survival rates?

How effective are business angel networks in facilitating startup funding?

How do business angels contribute to developing entrepreneurial ecosystems beyond financial investment?

2. Historical Overview of Business Angels and Startup Financing

Funding is an essential factor for the viability and growth of startups. As a result, business angels play a crucial role in providing financial support to these business companies, particularly those that are innovative and have significant potential for growth (Ramadani 2009). According to Granz et al. (2019), business angels serve as an intermediary source of finance, bridging the gap between family, friends, and founders on one side and institutional venture capital funds on the other. The term 'business angels' originates from Broadway (Vizjak and Vizjak 2015). In the late 19th century, affluent investors started offering financial support to directors to fund the production of new plays and musicals. In addition to the monetary benefits, their motives stemmed from their passion for the theatre and the chance to interact and socialize with renowned actors, producers, and writers. These financiers secured funding with a high degree of risk and were driven by a motivation that extended beyond financial gain (Vizjak and Vizjak 2015).

Many definitions of 'business angels' appear in academic works, and they are all very comparable. According to Otabek (2020), angel investors are wealthy individuals willing to invest their money in emerging enterprises. Business angels play a crucial role in fostering economic growth and mitigating the unemployment rate. Angels represent a significant portion of investment for new ventures, second only to family and friends (Mason et al. 2019). Business angels are widely recognized as crucial contributors of risk capital and business expertise to startup business companies, enhancing their survival and growth prospects (Bessière et al. 2020). Similar to 'knowledge angels' who foster innovation in knowledge-intensive business services, business angels also contribute creatively to startups by offering strategic guidance and innovative solutions that go beyond financial investment (Muller et al. 2012). According to Ramadani (2009), despite the diversity throughout the population of business angels, their profile can be easily described. Practically all studies have been carried out on business. Crick and Crick (2018) argue that business angels must manage multiple risks from the potential for opportunistic behavior resulting from unequal access to information or the moral hazard of actors putting less effort than intended into the economic costs incurred by entrepreneurs who take on more significant risks by utilizing other people's funds (Otabek 2020). However, business angels have devised a variety of approaches to handle such risks effectively. Some examples of effective compensation strategies include basing compensation on achieving specific milestones, closely monitoring investments by directly participating in ventures, creating incentives to encourage desired behavior, requiring agents to invest their funds as a demonstration of their commitment, adjusting projected returns based on project risks, and explicitly outlining one's rights and responsibilities in contracts (Otabek 2020).

According to Steve Blank, a renowned serial entrepreneur from Silicon Valley, a startup is an organization specifically designed to explore and establish a business model that can be replicated and scaled. Accordingly, the European Startup Monitor exclusively categorizes

enterprises that possess the following characteristics as startups: less than ten years old, incorporates innovative technologies and business concepts that are highly inventive, and seeks to achieve substantial expansion in both employee count and sales numbers (Kollmann et al. 2015). Ehsan (2021) outlines four interrelated factors employed to delineate a startup: the time of establishment, level of novelty, degree of risk, and growth potential. In this context, innovation has been recognized as an essential attribute that differentiates a startup from others. Additionally, growth and risk are considered as the resulting factors, while the age at which an entity is incorporated serves as the defining point for what qualifies as a startup. Worldmetrics reports that about 100 million startups are founded annually. It is estimated that 90% of these startups fail, with most failures occurring within the first year. Around 70% of tech startups fail approximately 20 months after securing their first financing round. Furthermore, nearly 70% of startups initially operate from a home setting before starting their path to success (Eser 2024). According to Maurya (2022), the success of a startup's initial processes and its ultimate success are contingent upon the conception of a product, its prompt creation, evaluation of the response from the possible consumer base, assessment of its quality that draws inferences to optimize the product, and transitioning into the subsequent phase of development. This maxim applies to both the initial phase and all subsequent stages of startups' life cycles. This iterative process enables startups to quickly determine a viable strategy for achieving market/product fit and to enhance further and perfect the business model once the initial product/market fit has been achieved (Bocken and Snihur 2020). Accordingly, Guimtrandy and Burger-Helmchen (2022) posit that trust plays a major role in financing. Specifically, investors seek out particular entrepreneurial characteristics that include purpose and passion, perspective and resilience, and the ability to attract skilled individuals to enhance performance more rapidly than competitors (Guimtrandy and Burger-Helmchen 2022).

According to Croce et al. (2016), given the challenges that startups commonly encounter when securing funding from more conventional sources like banks or stock markets, informal capital is often seen as a primary source of external funding for these businesses, as depicted in Figure 1. Most notably, the global scale of seed and angel venture capital agreements has grown substantially over the previous two years, notwithstanding the epidemic. The peak value of seed and angel deals recorded was 10.3 billion USD in the first quarter of 2022 (Statista 2024). The informal capital market comprises wealthy individuals with extensive business expertise, often called business angels. Gregušová et al. (2016) emphasize the importance of legal safeguards in financial obligations, illustrating how securities can be used to secure business transactions, which is particularly relevant in the context of early-stage startup financing. These individuals allocate a portion of their wealth to high-return, high-risk startup investments, explicitly focusing on ventures with capital needs below the threshold typically required by venture capitalists (Croce et al. 2016). According to Leach and Melicher (2012), various financing sources are available for startups at different stages of the business company's life cycle, and these financing types are determined by the extent of growth in the startups across the various stages of the business company's life cycle, as well as their growth and production scale. Peráček (2021) explores the (im)perfection of the term 'securities', highlighting the evolving legal framework and its implications for startups that utilize such instruments for securing funding. As the business progresses through different stages of its life cycle, the type of finance it requires may change.

According to Capizzi and Carluccio (2016), startups often follow a four-stage growth pattern in the company's life cycle approach. The initial phase is the seed stage, wherein the entrepreneur possesses an innovative concept that needs to be transformed into a profitable business. During this stage, the idea remains conceptual, and the practicality of the product or service needs to be assessed using a specific prototype. Subsequently, the startup phase lasts less than one year. The concept is transformed into a well-defined project or service during this phase.

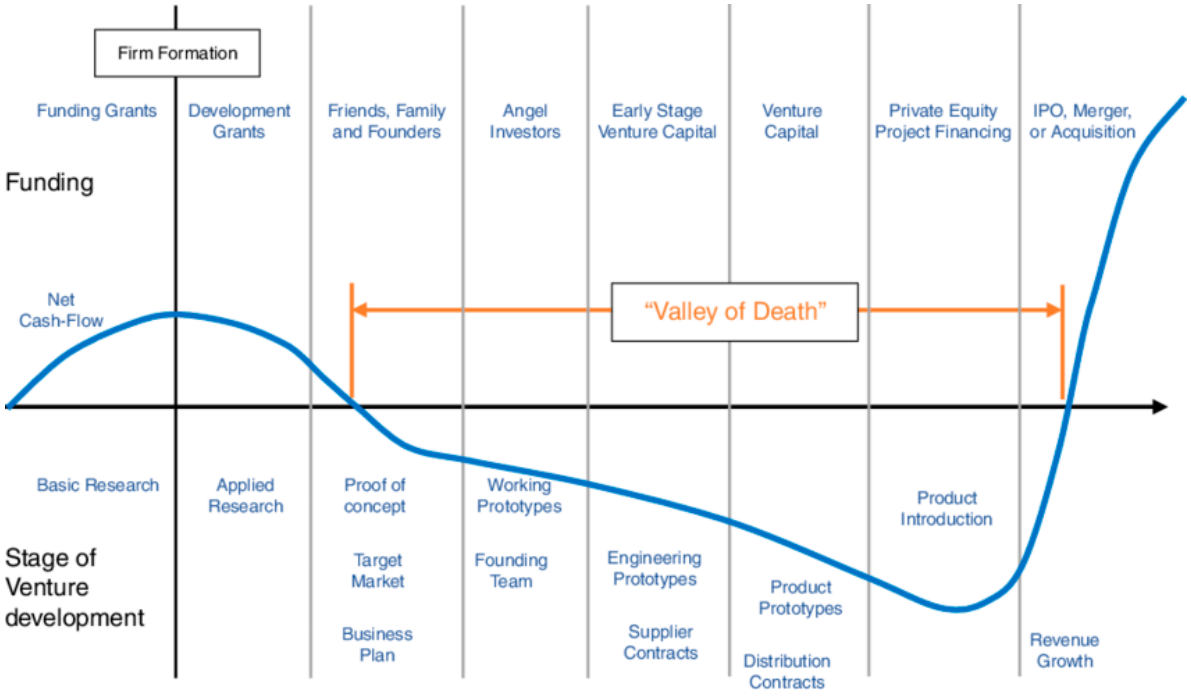

Figure 1. Multiplicity of actors in innovation financing (Stefani et al. 2019).

Furthermore, the entrepreneur has conducted trials on the innovation; the only aspect that must be addressed is its successful marketing to a target audience. In the early stage, which is the third phase, the potential profitability of the business still needs to be determined. The early stage lasts 2 to 5 years. Over this period, consumers can purchase the innovative product and may provide feedback following their initial usage. In the later stage, early adopters' feedback is valuable for modifying products or services to meet market demands. Once the company can fully realize its potential within a specific timeframe, it can sustain itself through ongoing growth and substantial earnings (Capizzi and Carluccio 2016).

Early-stage startups require funding to develop and assess their concepts, resulting in many startups failing at this stage. According to Zhou's (2022) analysis, the failure rate of startups exceeds 90%. More than 90% of startups fail, with approximately 20% failing during the first year of business. Specifically, 38% of the businesses fail due to a shortage of financial resources, highlighting that the primary obstacle faced by startups is inadequate funding to sustain their operations. Additionally, more government and ecosystem support is needed to mobilize investment capital. Consequently, it is essential to provide a favorable environment that facilitates these enterprises' access to financial capital (Nguyen 2020). According to Nguyen (2020), government support is crucial for establishing and promoting a favorable business environment. The industry environment's macro characteristics significantly influence the financing of startups, as observed in several studies. Investors demand that startups facilitate expansion in fast-growing industries to increase the likelihood of achieving a higher return on investment. Therefore, entrepreneurs should consider the prevailing conditions of the industry while commencing a business (Kaplan and Strömberg 2000). According to Thanapongporn et al. (2021), an early-stage startup is commonly characterized by successfully securing its initial round of venture capital financing. Success in this phase can only be achieved if the business has developed a minimum viable product, built a substantial client base, and established a consistent revenue stream (Thanapongporn et al. 2021). Accordingly, an early-stage startup typically refers to the seed stage, where the company tests their product in the market to validate its feasibility. This stage usually lasts for around 1–2 years and involves doing market surveys. The funding for this stage is usually below USD 1 million. While at the series

A stage, they evaluate whether the market truly appreciates their products, with a budget ranging from USD 1 to 3 million and a specific concentration on marketing efforts (Thanapongporn et al. 2021).

Several investigations have demonstrated the significance of angel funding in nations with the most pronounced and pronounced 'equity gap' (Croce et al. 2016; Grilli 2018; Bilau and Sarkar 2015). Angel funding, although crucial, remains a neglected aspect of entrepreneurial finance in the early stages of startup development and has received significantly less attention compared to venture capital financing, up to this point. Little is understood about the relationship between value-added services provided by BAs, the survival rates of startups, the influence of their networks on the facilitation of startup funding, and their role in fostering entrepreneurial ecosystems beyond financial investment for startups. As a result, the current study on the role of business angels in early-stage startup financing is significant as it addresses critical gaps in understanding alternative informal funding sources for startups. By examining the value-added services business angels provide compared to traditional venture capital businesses, this study provides insights into the unique contributions these investors make beyond mere financial support. Similarly, assessing the impact of business angel funding on startup survival rates is crucial for entrepreneurs and policymakers, potentially informing strategies to enhance the sustainability of new ventures. Likewise, evaluating the effectiveness of business angel networks in facilitating startup funding sheds light on the importance of social capital and interconnectedness in the entrepreneurial ecosystem. Moreover, exploring the various investment instruments that business angels use contributes to a more nuanced understanding of early-stage financing structures and their implications for startup growth trajectories. This comprehensive approach enhances the theoretical knowledge of entrepreneurial finance. It provides practical implications for startups seeking funding, investors looking to optimize their strategies, and policymakers aiming to foster innovation and economic growth.

3. Literature Review

This section provides the current state of the research on the role of business angels in the early-stage financing of startups in line with the research questions. Many current academics take an active role in exploring alternative means of financing for startups. Lose and Tengeh (2016) assert that financial constraints pose a major challenge during the early stages of a startup establishment. They emphasize that financial service providers are hesitant to extend loans to startups due to their high level of risk.

3.1. Value-Added Services Provided by Business Angels to Startups

According to Politis (2008), business angels are commonly assumed to be investors who provide financial resources and contribute to the growth of new businesses through their expertise and personal abilities. This is mainly because most business angels have a history in the enterprise, typically involving management and entrepreneurial experience. Numerous investigations have indicated that business angels had a legitimate entrepreneurial career history, frequently accumulating their wealth by divesting from their prior companies (Mason et al. 2016). Halstead and Landgren (2015) aimed to analyze the impact of value added by business angels on the performance of startups in Sweden. Their research revealed a significant relationship among the performances of startups. The data offer corroborating evidence on the positive impact of the sounding board and strategic function, along with the role of the acquisition of resources on performance.

Conversely, supervising and monitoring were discovered to hurt the ventures' performance, while mentoring did not significantly influence either a positive or negative direction. Kelly (2007) defines angel money as 'smart money' due to the valuable contributions made by business angels, such as sharing their entrepreneurial network and management knowledge. Accordingly, Tyebjee and Bruno (1984) pioneered business administration literature, introducing the concept of value-addition activities. They defined these activities as actions not directly tied to providing personal financial capital. Subsequent

efforts have been made to define and evaluate the effects of value-added activities on the performance of startups. While challenges like small and unrepresentative samples have hindered past research, more recent studies have employed larger datasets and analytical approaches (Cao et al. 2021).

Croce et al. (2016) examined the factors influencing the success of high-tech startups receiving angel financing. They specifically focused on business angels' capabilities, such as experience and investing behavior. They utilized a newly acquired dataset from Crunchbase, comprising 1933 high-tech startups that had received funding from a business angel in at least one funding round. The findings indicate that the expertise of business angels in early-stage investments leads to an increased likelihood of receiving subsequent rounds of funding and additional capital infusions from venture capitalists. Similarly, in their study, Siefkes et al. (2023) examined how business angels (BAs) contribute to the sustainability of green startups. They specifically focused on how these contributions are influenced by the business angels' sustainability traits, including their investment motivation, competence in sustainability, and level of activity as sustainability investors. The study employed a qualitative approach, conducting interviews with 14 business angels from the Nordics and Germany. The interview data show that various business angels invest in environmentally friendly startup companies. These groups include dedicated environmental investors (green angels) and those with a lesser focus on environmental issues (light green angels). Similarly, the research showed that green angels offer activities designed to improve the sustainability performance of the companies they invest in.

Granz et al. (2021) employ resource dependence theory to examine how various forms of value-added services affect entrepreneurs' selection of venture capitalists. The study employed a mixed-method approach, using a choice experiment involving 3172 decisions from 122 businesses in Germany, Switzerland, and Austria. Additionally, semi-structured interviews were conducted with the participant entrepreneurs. Their findings demonstrate that entrepreneurs prioritize the selection of venture capitalists who function as scouts instead of coaches. Scouting activities, including expanding the operational network and providing support throughout the exit process, are crucial for entrepreneurs when choosing options. On the other hand, coaching activities, consisting of offering strategic guidance and assisting with internal business development, are not equally essential. Moreover, entrepreneurs view value-added services as a proactive means of managing resources, leveraging the interconnections between their resources and those of the venture capitalist rather than solely addressing their resource deficiencies. Accordingly, Collewaert and Manigart (2015) investigated the impact of angel investors' human capital on the valuation of their portfolio companies by analyzing the pre-money valuation of 123 financing rounds in 58 Belgian companies. They contend that angel investors possessing greater levels of human capital will perceive a heightened potential for creating value in entrepreneurship possibilities due to their capacity to identify a broader range of value-generating options, a more significant potential for value addition after investing, and an augmented level of legitimacy bestowed upon the venture. They found that angel investors with more significant human capital, such as longer study duration, a business degree, and entrepreneurial expertise, tend to negotiate higher valuations.

Sørheim (2005) aimed to enhance understanding of the value-added contributions made by business angels, mainly their function as facilitators for further financing. This was achieved through in-depth case studies of five seasoned business angels. The study collected data by applying a loosely organized interview guide specifically targeting the investing process. The empirical results of this study demonstrate that seasoned business angels have a crucial role in facilitating additional financing. Moreover, they argue that it is essential for entrepreneurs to consider that the past performance of the business angel significantly impacts their ability to provide additional financial support and in what manner. Consequently, they established that active business angels are often considered integral members of the entrepreneurial team, thereby mitigating the challenges associated with the early stages of a startup. Likewise, Naulin and Moritz (2022) examined the impact

of the value addition provided by the accelerator on the value-added outputs of businesses by employing a multiple case study procedure; it was found that accelerators contribute value to startups by offering them eight distinct categories of inputs that enhance their value. These inputs subsequently result in positive outcomes for the individual entrepreneur and the organization.

A comprehensive analysis conducted by Sørheim (2005) on four business angels in Norway found that business angels, as highlighted in existing research, provide significant value-added contributions. In addition, the study showed that experienced business angels can also serve as facilitators for securing additional financial resources. Their earlier experience as creators of entrepreneurial enterprises significantly and directly affected this skill. The link between additional financing and business angels is demonstrated in the study by Madill et al. (2005). They found that Canadian technology-oriented companies that received investments from business angels were able to prepare themselves to receive subsequent rounds of funding from venture capitalists. The latter was achieved by actively participating in value-added activities, like networking opportunities, providing practical support, including legal and accounting guidance, and supplying business and marketing insights. The active participation of business angels lent legitimacy to the enterprises they invested in and enhanced their appeal to institutional venture capitalists. Accordingly, Amatucci and Sohl (2004) conducted a comprehensive investigation of four female entrepreneurs in the United States who successfully secured business angel finance. The study reveals that the business angels acted as mentors and had a significant role in operational and strategic activities.

Macht and Robinson (2009) sought to present a framework that aims to fully understand the advantages that business angels can provide to the businesses where they make an investment. The study conducted semi-structured telephone interviews from the perspective of the investee. The top managers of nine companies that received funding from angel investors were purposively determined, and their interviews were recorded and analyzed using standard qualitative analytic techniques. The study revealed that business angels offer advantages in each of the four domains of the proposed framework. Specifically, business angels play a crucial role in addressing capital gaps and bridging knowledge and experience gaps by offering their expertise and active involvement. They also provide access to a diverse network of contacts and can secure additional investment, such as their follow-on financing. Similarly, in their study, Schmidt et al. (2017) examined how the decision-making style of angel investors impacts the value of the businesses they invest in, namely during the early stages after the investment. In their study, Schmidt et al. (2017) argue that business angels offer financial resources to new initiatives and play various value-added roles, hence providing significant non-financial value to the businesses they invest in after the initial investment. This study establishes an association between the decision-making styles of angels and the values of their enterprises during the time between their initial financial investment and their first external follow-up commitment to a business they have invested in. The study analyzed a sample of 73 business angel investments and found that informal investors can substantially boost the value of their investments by prioritizing the effectual concept of means-orientation in how they make decisions.

3.2. Business Angel Funding on Startup Survival Rates

In their study, Croce et al. (2016) examined the factors influencing the success of high-tech startups receiving angel financing. They specifically focused on business angels' capabilities, such as experience and investing behavior. The researchers utilized a dataset from Crunchbase, comprising 1933 high-tech startups that had received funding from a business angel in at least one fundraising round. The findings suggest that the expertise of business angels in initial investments is correlated with an increased likelihood of receiving subsequent rounds of funding and additional capital injections from venture capitalists. More excellent experience in later stages is correlated with higher success rates for startups, such as being listed or acquired. However, it also decreases the need for new

venture capitalists to participate in the startup. In addition, the study discovered evidence indicating that startups that receive funds from business angels and venture capitalists tend to receive more significant sums of funding, attract additional venture capitalist financing, and have a higher probability of success.

Grant et al. (2019) analyzed the survival rate of startups in Canada that angel investors financially supported. They obtained data from the National Angel Capital Organization (NACO), which included information on 775 startups that obtained financing from NACO members between 2010 and 2016. The information regarding these startups was provided directly to NACO by its members through a comprehensive yearly survey. The study found that the startups examined in this sample had a survival rate of 79% after one year, notably lower than the average one-year survival rate of 98% reported by Industry Canada between 2002 and 2011. Similarly, the analysis revealed that the startups in this sample experienced a three-year survival rate of 78% and a five-year survival rate of 54%, which unexpectedly deviated from the trend observed in previous years. Keogh and Johnson (2021) conducted a study on the survival of funded startups, explicitly focusing on the lifespan and success of these businesses using econometric analysis. The study employed a Cox proportional hazard model to determine the lifespan of startups, augmenting it with maximum likelihood estimation of two indicators of success: revenue and employment. Within each model, the study specifically examined interactions between terms. The findings demonstrated that the financing approach has a crucial role in determining a startup's success, particularly when combined with the founders' unique human and social capital traits.

Levratto et al. (2017) aimed to evaluate the influence of angel investors on the performance of companies. They presented evidence from a distinctive dataset comprising 432 French companies that received angel funding. These companies were compared to two control groups: one selected randomly and a second group comprising similar enterprises. This dual comparison procedure allowed the study to eliminate any potential influence of structure and effectively illustrate the significance of the methodology in producing the sample. The study findings indicate that the positive effect of angels is contingent upon the state of the comparison being made.

Similarly, the findings show that angel-backed businesses are more likely to demonstrate excellent performance when compared to a random sample. However, their performance is either the same or worse than a sample of similar enterprises. Furthermore, this study, employing a quantile regression method, allowed the study to separate the effect of business angels according to the distribution in the growth rate's value.

In their study, Singh and Mungila Hillemane (2023) investigated how financing affects the performance of tech startups at a specific stage in their development. They collected primary data by administering questionnaires and interviewing 93 tech startups in Bangalore. The data were then analyzed using the multiple linear regression and boosting algorithms. The results demonstrated the significance of funding at a particular stage and revealed that the impact of different funding sources varied. Similarly, in their study, Herck Giaquinto and Bortoluzzo (2020) analyzed the disparity between FinTech companies that obtained private equity and venture capital investments compared to those that did not. The researchers conducted a study by examining 2524 businesses from 76 different countries from 2008 to 2018. Their research reveals a direct correlation between receiving angel and seed funding and subsequent follow-on investment. Conversely, there is an inverse correlation between having a sole founder and the possible impact on their survival.

In a study conducted by Karema (2015), the researcher investigated the influence of investments made by angel investors on technology-related startups in Kenya. The study used primary data from technology startup founders who received investments from angel investors between 2012 and 2014. The results indicate a rise in the availability of funding from angel investors. This investment addressed the primary issues faced by startup founders, particularly in terms of securing funding and enhancing the skills of the innovators and their teams. It was established that angel investors are primarily motivated by the potential for social impact and significant financial gains in the event

of commercial success. Furthermore, it was found that technology startups that receive angel financing will maintain their position as leaders in the technology industry, as they have a greater likelihood of survival. In their study, Lee and Zhang (2011) examined the influence of financial capital on the longevity of startups. An examination of 5000 startups using data from a company survey of Kauffman Business revealed that controlling for human capital, any form of financial capital, enhances the likelihood of survival, thereby providing evidence for liquidity limitations. Remarkably, the study found that the impact of different sources of financing is not consistent: obtaining loans is linked to a greater chance of survival, whereas receiving equity investments reduces the lifespan of startups. Furthermore, the study found that the inverse probability treatment weighted (IPTW) estimation method was used to account for the endogeneity in financing, demonstrating that the negative impact of equity capital is primarily caused by selection.

3.3. Effectiveness of Business Angel Networks in Facilitating Startup Funding

Werth and Boeert (2013) conducted a study using a comprehensive dataset of U.S. tech startups to examine the influence of business angel networks. Their findings revealed that startups backed by well-connected angel investors are likelier to secure follow-up funding from venture capitalists. Additionally, these startups are more likely to achieve successful exits with the support of business angels. Similarly, the study established that angel investors mainly depend on their connections, while their network position and ability to serve as information intermediaries have a lesser impact. Accordingly, Sørheim (2005) conducted a study to examine the value-added contributions of business angels and their function as facilitators. The study involved in-depth case studies involving five accomplished business angels. Data were acquired using a structured interview guide specifically targeting the investing process. The empirical results of this study show that experienced business angels have a crucial role in facilitating additional financing. Moreover, the study found it essential for entrepreneurs to consider that the business angel's past performance significantly impacts their ability to provide additional funding.

Sørheim (2003) analyzed the pre-investment actions of seasoned business angels in Norway. The empirical results of this study indicate that an investor's past performance significantly influences their ability to participate in the informal venture capital market. It is logical for people who have gained most of their experience in a particular place to allocate most of their investments to that region. Their strong performance in the local market offers them a competitive edge in the informal venture capital industry. This logic also appears to apply to persons with expertise in a particular area, where the local performance history is substituted with an industry-specific track record. In addition, these investors who specialize in specialized industries personally handle the initial screening process.

In contrast, regional investors, primarily generalists, depend more on information from their regional networks. The business angels in this survey prioritize establishing mutual understanding with entrepreneurs and possible co-investors. The development of common ground is essential for building long-term trustworthy connections.

Heuven and Groen (2012) examined how networks play a role in identifying and accessing financial resource providers for technology-based companies. The study examined the function of networks by considering various specifications. They conducted case studies in four technology-based companies to investigate the function of networks in financing. Their research indicates that new businesses benefit from a positioning network containing many structural holes, as this facilitates the identification of cash opportunities and resource providers. From a relational perspective, new businesses that directly connect with financial resource suppliers tend to be more effective when they have limited network connections. The effectiveness of referrals for new businesses in accessing financial resources is highest when the referrals come from sources with a solid connection to the venture. Moreover, their findings demonstrate that contingencies heavily influence the efficacy of specific network positions and relationships.

Bilau and Sarkar (2015) evaluated the value added by angel networks. An aggregate of 88 valid responses were received and analyzed using non-parametric statistical methods. The study presents evidence of the beneficial impact of business angel networks in facilitating the connection between investors and entrepreneurs needing financial support. Similarly, Bilau and Sarkar (2015) posit that business angel networks have significantly contributed to funding innovative startups, including those in outlying regions. Accordingly, Deffains-Crapsky and Klein (2016) assert that entrepreneurs in the United States and Europe increasingly seek seed funding from business angels and business angel networks. The researchers examined the functions of business angels and business angel networks in both regions, drawing on social network theory and entrepreneurship theory. The business angel networks demonstrate how they enhance relationships between enterprises and private investors in precarious circumstances.

Lahti and Keinonen (2016) contend that BANs have been created to enhance efficiency and transparency in the BA market. These networks facilitate communication between entrepreneurs seeking funding and business angels. Additionally, BANs allow business angels to access information about investment opportunities without revealing their identity if they choose to do so. The writers delineate the progression of BAN activities throughout various nations and assess their advantages and disadvantages. Implementing BANs has valuable benefits and detrimental consequences for investment activity. Therefore, it is difficult to determine if public sector actions are necessary to assist the development and operation of BANs. Bonini et al. (2018) present preliminary findings about the impact of joining a business angel network (BAN) on the investment choices made by its members. The researchers utilized a dataset that included quantitative and qualitative data on 810 investments made by 330 individual business angels or angel groups in 619 companies between 2008 and 2014. They found that being a member of a business angel network has significant benefits, including access to valuable information, networking opportunities, monitoring capabilities, and reduced risk. These benefits ultimately influence the amount of personal wealth each angel investor commits to investment and the equity stake they hold in the company they invest in.

Grilli (2018) examined the potential of business angels to address the funding needs of innovative startups in places with limited access to loans from banks and venture capital investments. The research study on a sample of 2000 Italian businesses shows that innovative startups in underdeveloped local financial ecosystems are less likely to secure business angel financing. Accordingly, in these regions, angel investing is not a feasible and efficient informal solution to address the regional funding gaps for innovative startups that more established financial institutions have neglected. Similarly, Durda and Ključnikov (2019) conducted a study to investigate the impact of social networking on the growth of startup companies in the Czech Republic. The objective was to identify the vital groups that assist startups in their establishment and development, determine the specific areas where startups receive support via the social networks belonging to their founders or key members, and evaluate the correlation between the help provided and types of contacts. The findings highlighted the utilization of solid and faint relationships in the initiation and progression of a startup enterprise. The main categories consist of friends and business partners, who are significant in terms of their usage rates, their crucial role, and the level of support they offer.

Additionally, business angels are essential for funding and providing guidance in marketing and technology. Additionally, it was found that the significance of certain weak connections does not align with their utilization, both in a positive and negative sense. The survey results revealed the conflicting functions of incubators and accelerators. Furthermore, the study revealed that 63% of startups sought assistance from business incubators. However, the importance of these incubators in facilitating the establishment of networks and connections with the external environment is undervalued.

Aliaga-Isla (2014) investigated the influence of informal networks on startup entrepreneurs in Spain, such as personal connections with other entrepreneurs and access to

business angel investors. A pseudo-panel methodology was employed using microdata obtained from the Spanish Global Monitor Entrepreneurship survey, which focused on the adult population during the years 2006–2009. This method addressed the restrictions that arise when using cross-sectional data. Furthermore, a brief literature review utilizing cross-sectional data was provided to ascertain how these data were employed. The study findings indicate that informal networks play a crucial role in the success of startup founders. Specifically, the findings show that having connections with other entrepreneurs and being able to access angel investors positively affect startup founders.

Furthermore, research indicates that startup entrepreneurs from age cohorts 49 to 58 and 59 to 64 exhibit superior performance compared to their younger counterparts. Accordingly, Brown et al. (2019) present the results of a comprehensive interview-based study on startups in the UK that successfully secured equity crowdfunding. This study employed a novel integrative methodology to analyze entrepreneurial networks. The study focused on personal and commercial networks participating in equity crowdfunding. From a processual standpoint, the empirical evidence demonstrates that networks and social capital have a vital effect on the crowdfunding process. Similarly, it was found that startups utilize, construct, and rely on an elaborate range of network participants and connections as they progress through various phases of their crowdfunding process.

3.4. Business Angels Contribute to Developing Entrepreneurial Ecosystems beyond Financial Investment for Startups

In their study, Frimanslund and Nath (2024) investigated how various conditional factors, such as startup culture, regional industries, non-financial investor resources, and ecosystem collaboration, affect the perceived access to startup capital. The study surveyed 131 businesses and their founders who are part of the entrepreneurial ecosystems in Norway's rural and urban areas. These startups were at different development stages, ranging from initial through well established. Structural equation modeling was employed to analyze the data. The study reveals two key findings: firstly, startups that allow external participation in the early stages have a favorable view of their access to financial resources; secondly, unconnected enterprises in homogeneous industrial locations face more significant challenges in attracting funding.

Nevertheless, the study discovered a limited and indirect impact of ecosystem collaboration on the perception of financing availability. The availability of non-financial resources influenced this impact. This study is a valuable empirical addition to the existing literature on entrepreneurial ecosystems. The findings offer empirical evidence to validate the previously proposed feedback loops in ecosystems. Singh and Mungila Hillemane (2023) conducted a study to investigate the influence of finance on the performance of technology startups at a particular stage in their development. The researchers utilized both primary and secondary data for their analysis. The primary data collected from 93 IT startups in Bangalore were analyzed using boosting algorithms and multiple linear regression. The findings validate the importance of funding at a specific period but also uncover that the origins of financial injection have different impacts. Comparably, Singh and Mungila Hillemane (2023) argue that improving the availability of financial resources for technology businesses, especially in their early phases, promotes a solid and thriving startup ecosystem.

Zaidi et al. (2021) examined the factors influencing the growth of startups and the extent to which the entrepreneurship ecosystem contributes to this phenomenon. Data collection from various startup founders operating throughout Pakistan was conducted using a quantitative methodology. The study employed a cross-sectional descriptive design to examine the causal effect of factors at a specific point in time. The researchers employed a non-probability convenient sampling method to choose businesses readily accessible from the incubation facilities. The regression analysis findings based on 165 submissions from incubation centers and entrepreneurs indicate that the primary elements influencing startup development, in descending order, are access to funding; support from the government; problems with marketing, technology, education; and managerial abilities. Accordingly,

the entrepreneurship ecosystem was demonstrated to have a highly beneficial influence on the correlation between these parameters and the growth of startups.

In their 2017 study, Grilo et al. (2017) aimed to analyze the perceptions of investor groups regarding ecosystem developers within European startup ecosystems. The study focused on the contributions of ecosystem builders to startups and the level of cooperation between investor groups and ecosystem builders. This study was conducted through a comprehensive literature analysis on ecosystem actors and startup ecosystems and an empirical study on investor groups' views of this topic. The study collected empirical data by administering an online questionnaire to investor groups based in the UK, Portugal, and Germany. The study's findings indicate that investor groups highly prioritize the contributions of ecosystem builders in three key areas: startup screening, access to mentoring, and entrepreneurial education. The results indicate potential growth in the collaboration between investor groups and ecosystem builders, particularly in communication and information sharing.

In their study, Gebczynska and Kwiotkowska (2019) investigated the influence of accelerators on the creation and growth of an entrepreneurial ecosystem within the context of a regional economic development plan. Their qualitative research method was guided by interviews conducted with 61 ecosystem actors and a range of published sources. The study examined the characteristics of accelerator competence and its impact on commitment to the local entrepreneurial ecosystem. The study found that accelerators within the Silesian Metropolis are, among other aspects, akin to startups, encountering identical challenges as other startups. Their findings indicate that when these accelerators enhance their knowledge and actively participate in the process of ecosystem development, they gain more advantages from the emerging expertise inside the ecosystem. In their study, Cavallo et al. (2019) examined the impact of angel groups and venture capital funds on the growth of new digital enterprises during their early stages and expansion phases. In order to achieve this objective, this study examined 372 instances of investment in 256 newly established businesses based in Italy. The study found that venture capital funding positively impacts the growth of digital startups. Similarly, digital scaleups, similar to the total group of digital startups, have a direct pattern of expansion that is directly linked to venture capital funding. Furthermore, there is an inverse U-shaped relationship between the amount of capital acquired and the growth of digital startups. In addition, the study found no evidence indicating that angel groups contribute to the growth of digital startups in both scaleup and startup phases.

4. Results

4.1. Value-Added Services Provided by Business Angels to Startups

The systematic literature review demonstrates that business angels provide significant value-added contributions beyond financial investment. Their expertise, networks, and mentoring play crucial roles in the success and growth of startups. Accordingly, business angels are commonly perceived as investors who provide financial resources and contribute significantly to the growth of new businesses through their expertise and personal abilities (Politis 2008). Given their entrepreneurial backgrounds, which often involve management and entrepreneurial experience, they frequently accumulate wealth by divesting from their own previous companies (Mason et al. 2016). Research indicates that business angels' value-added contributions positively impact startup performance, particularly in areas like providing strategic guidance, expanding networks, and acquiring resources (Halstead and Landgren 2015). However, their supervisory and monitoring roles can negatively affect performance (Halstead and Landgren 2015). Kelly (2007) aptly terms angel money as 'smart money' due to the invaluable contributions of business angels, including sharing their entrepreneurial networks and management knowledge. Building upon the concept of value-added activities introduced by Tyebjee and Bruno (1984), subsequent studies have explored their impact on startup performance. While challenges like small and

unrepresentative samples have hindered past research, more recent studies have employed larger datasets and analytical approaches (Cao et al. 2021).

Croce et al. (2016) examined factors influencing the success of high-tech startups receiving angel financing, focusing on business angels' capabilities and investing behavior. Their findings reveal that business angel expertise in early-stage investments increases the likelihood of securing subsequent funding rounds and additional capital from venture capitalists. Similarly, Siefkes et al. (2023) explored business angel contributions to the sustainability of green startups, identifying two categories: green angels and light green angels. Green angels actively support the sustainability performance of their investee companies. Granz et al. (2021) investigated how different value-added services influence entrepreneurs' selection of venture capitalists. Their research indicates that entrepreneurs prioritize venture capitalists who act as scouts, expanding networks and providing exit support over those who function as coaches, offering strategic guidance and internal business development assistance. Entrepreneurs view value-added services as a proactive resource management strategy, leveraging interconnected resources rather than solely addressing deficiencies.

Collewaert and Manigart (2015) explored the impact of angel investors' human capital on the valuation of their portfolio companies. Their findings suggest that angel investors with higher levels of human capital, such as more extended education, business degrees, and entrepreneurial expertise, tend to negotiate higher valuations. Sørheim (2005) focused on business angels as facilitators for further financing, finding that seasoned business angels play a crucial role in securing additional funding. Their past entrepreneurial experience significantly impacts their ability to provide financial support. Active business angels are often seen as integral entrepreneurial team members, mitigating early-stage challenges. Naulin and Moritz (2022) examined the value-added contributions of accelerators to startups, identifying eight categories of inputs that enhance value and lead to positive outcomes for entrepreneurs and organizations. Sørheim (2005) also found that experienced business angels can facilitate securing additional financial resources, building on their entrepreneurial experience. Madill et al. (2005) demonstrated that Canadian technology companies receiving business angel investments were better prepared for subsequent venture capital funding due to the angels' active participation in value-added activities, including networking, practical support, and business insights. Amatucci and Sohl (2004) highlighted the mentoring role of business angels in operational and strategic activities for female entrepreneurs. Macht and Robinson (2009) developed a framework to understand the advantages offered by business angels, including addressing capital gaps, bridging knowledge and experience gaps, providing network access, and securing additional investment. Schmidt et al. (2017) explored the impact of angel investors' decision-making styles on business value, finding that a means-oriented approach can significantly boost investment value.

4.2. Business Angel Funding on Startup Survival Rates

The results show that business angel funding positively impacts startup survival. However, its effectiveness depends on various factors, including angel expertise, funding stage, and the specific characteristics of the startup and its founders. Specifically, Croce et al. (2016) found that business angel expertise positively correlates with securing subsequent funding rounds and increased startup success, measured by listing or acquisition. However, their involvement can reduce the need for venture capital participation. Moreover, startups combining angel and venture capital funding often receive more significant investments and have higher success probabilities. Grant et al. (2019) analyzed Canadian startups funded by angel investors and found lower survival rates than the national average. Keogh and Johnson (2021) emphasized the role of financing approaches in startup success, particularly when combined with founders' unique human and social capital. Levratto et al. (2017) compared angel-backed French companies to control groups, finding that their performance varied depending on the comparison group. The study

also highlighted the importance of quantile regression in analyzing the impact of business angels across different growth rate distributions. Singh and Mungila Hillemane (2023) emphasized the significance of the funding stage for tech startups, with varying impacts from different funding sources. Herck Giaquinto and Bortoluzzo (2020) found a positive correlation between angel and seed funding and subsequent follow-on investments in FinTech companies. Karema (2015) investigated the influence of angel investment on Kenyan technology startups, finding increased funding availability and addressing key startup challenges. Angel investment was linked to maintaining a leadership position in the technology industry. Lee and Zhang (2011) examined the impact of financial capital on startup longevity, finding that while financing increases survival chances, loans are more beneficial than equity investments. The study attributed the negative impact of equity capital to selection bias.

4.3. Effectiveness of Business Angels' Networks in Facilitating Startup Funding

Accordingly, the literature review demonstrated that business angel networks significantly facilitate startup funding. While personal connections remain crucial, angel networks offer additional advantages, including access to information, resources, and reduced risk. Werth and Boeert (2013) found that startups backed by well-connected angel investors are more likely to secure follow-up funding and achieve successful exits. However, angel investors primarily rely on personal connections rather than network positions or information intermediation. Sørheim (2005) emphasized the crucial role of experienced business angels in facilitating additional financing, highlighting the importance of their past performance. Similarly, building on this, Sørheim (2003) revealed that an investor's past performance significantly influences their participation in the informal venture capital market. Geographical and industry-specific expertise often shapes investment decisions. Business angels prioritize establishing mutual understanding with entrepreneurs and potential co-investors for long-term relationships. Heuven and Groen (2012) explored the role of networks in identifying financial resource providers for technology-based companies. Their research indicated that new businesses benefit from diverse network connections, while direct connections with financial suppliers are more effective with limited network ties. Accordingly, Bilau and Sarkar (2015) and Deffains-Crapsky and Klein (2016) concurred on the positive impact of business angel networks in connecting investors and entrepreneurs, particularly in supporting innovative startups in outlying regions. Lahti and Keinonen (2016) highlighted the role of business angel networks (BANs) in enhancing efficiency and transparency in the angel investment market. Bonini et al. (2018) further emphasized the benefits of BAN membership, including access to information, networking opportunities, and reduced risk. Moreover, while business angels can address funding gaps in regions with limited access to traditional financing, as Grilli (2018) observed, the effectiveness can vary. Durda and Ključnikov (2019) emphasized the importance of strong and weak ties in startup development, with business angels playing a crucial role in funding and providing guidance. However, the study also highlighted the conflicting roles of incubators and accelerators. Aliaga-Isla (2014) underscored the influence of informal networks, including personal connections and access to angel investors, on startup success. Brown et al. (2019) further emphasized the importance of networks and social capital in the equity crowdfunding process.

4.4. Business Angels' Contribution to the Development of Entrepreneurial Ecosystems, beyond Financial Investment for Startups

Beyond financial investment, business angels contribute significantly to the development of entrepreneurial ecosystems. Frimanslund and Nath (2024) highlighted the importance of startup culture and ecosystem collaboration in facilitating access to startup capital. Their study revealed that startups with open cultures and those embedded in diverse industrial regions have better access to funding. However, the impact of ecosystem collaboration could have been more extensive and indirect, influenced by the availability

of non-financial resources. Similarly, Singh and Mungila Hillemane (2023) emphasized the importance of timely financing for technology startups but highlighted the varying impact of different funding sources. They argued for increased financial resources to foster a thriving startup ecosystem, especially in the early stages. Zaidi et al. (2021) identified access to funding, government support, marketing, technology, education, and managerial abilities as critical factors influencing startup growth. Their study demonstrated the positive impact of the entrepreneurship ecosystem on these factors. Grilo et al. (2017) focused on the role of ecosystem builders in supporting startups. Investor groups prioritized contributions in startup screening, mentoring, and entrepreneurial education. The study emphasized the potential for increased collaboration between investor groups and ecosystem builders. Gebczynska and Kwiotkowska (2019) investigated the role of accelerators in ecosystem development. They found that while facing challenges, accelerators can contribute significantly to ecosystem growth by actively participating in its development. Cavallo et al. (2019) examined the impact of angel groups and venture capital funds on digital startups. While venture capital funding positively impacted growth, more evidence was needed for the contribution of angel groups to startup or scaleup growth. In addition to business angels, knowledge angels also play a significant role in the development of entrepreneurial ecosystems beyond financial investment for startups. A study by Muller et al. (2012) in five countries revealed that knowledge angels also play a pivotal role by leveraging their knowledge, ideas, and vision (and to a lesser extent, business experience) to fuel their quest for freedom and self-realization, while simultaneously 'testing' new ideas and demonstrating a willingness to support co-workers, thereby initiating novel knowledge creation processes and situations that contribute to the organization's growth and innovation.

5. Material and Methods

This study utilizes a range of scientific research methods, including analysis, synthesis, comparison, induction, and description, to examine the role of business angels in the early-stage financing of startups. These methods are essential for gaining a comprehensive understanding of how non-financial contributions, such as mentorship and strategic guidance, impact the success of startups. Analysis is employed to break down and examine the key factors contributing to startup survival rates, particularly in relation to business angel funding. Synthesis is used to integrate the findings from various studies to identify broader trends and commonalities in business angel behavior. Comparison is a crucial method for evaluating different sources of startup financing and their relative impacts on survival rates. Induction allows the study to generate general principles from specific observations, while description provides a clear and detailed account of the mechanisms by which business angels influence entrepreneurial ecosystems. These methods are not only critical for understanding the role of business angels in startup financing, but also form the foundation for legal and managerial research. As Peráček and Kaššaj (2023) demonstrate in their critical analysis of the rights and obligations of managers in limited liability companies, methods such as analysis and comparison are crucial to understanding complex legal relationships. Similarly, Tranfield et al. (2003) emphasize the importance of synthesis in building a comprehensive understanding of multi-faceted research topics, which is essential for integrating findings across various studies on business angel financing. Synthesis and comparison have also been applied to technological studies, as seen in Kaššaj and Peráček (2024), who explored the synergies between Industry 4.0 and automated vehicles in smart city infrastructure. Their work demonstrates how these methods are not only applicable in financial and legal studies, but also in analyzing technological innovations that impact entrepreneurial ecosystems. Mason and Harrison (2015) similarly employed comparison and analysis to study how business angel investment behaviors evolved during financial crises, highlighting the adaptability of investors to fluctuating economic conditions. In addition, Daft (2007) emphasizes the role of these methods in organizational studies, suggesting that comparison and analysis are crucial to understanding

the relationships between business structures and their external environments. This study draws on these methodologies to assess how business angels interact with startups and the broader entrepreneurial ecosystem. By combining these research methods, this study aims to provide a comprehensive, multidisciplinary examination of how business angels influence startup success, building upon the existing body of research in both legal and technological contexts.

This section provides the study methodology. Conducting a systematic literature analysis requires following a methodical, precise, and repeatable methodology. This study adopted a systematic literature review based on the standards established by mboxciteauthorB67-admsci-3162688 (2003). Previously published 'best practices' of other researchers, as documented by Bouncken et al. (2015) and Mochkabadi and Volkmann (2018), have been included in the approach and work process. According to Gupta et al. (2018), systematic review methodology provides an overview of existing literature in a specific scientific research field, helping to facilitate identification of the gaps in the current research, and consequently allowing suggestions for future research areas. To guarantee a methodical and replicable procedure, the analysis is divided into the five fundamental steps:

Step One: Framing the research question

The systematic literature review was guided by the following research question: To what extent does current scientific evidence support or refute the role business angels play in the early-stage financing of startups?

The article derives further several objectives from this research question, as indicated below:

1. Conduct a comprehensive review and critical analysis of the relevant scientific literature.
2. Evaluate and categorize the research methodologies employed across the identified scientific studies.
3. Catalog and assess the key theories and conceptual frameworks utilized in the reviewed research.
4. Synthesize and critically examine the primary findings and conclusions of the selected studies.
5. Discern emerging research trends and future directions suggested by the current literature.
6. Extract and classify the central themes and topics addressed in the analyzed articles.
7. Determine the origin of the authors.

Step Two: Studies identification and retrieval

The articles search approach fixated on searching SpringerLink, Taylor & Francis, Emerald, Science Direct, Wiley Online Library, Scopus, EconLit (EBSCOhost), BASE, and Google Scholar search engines. This choice was justified by the fact that SpringerLink, Taylor & Francis, Emerald, Science Direct, Wiley Online Library, Scopus, EconLit (EBSCOhost), BASE, and Google Scholar search engines online databases host nearly all the important research papers. The research papers were filtered considering the field of study, language of study, and the date of publication (between 2000 and 2024).

Step Three: Searching and identifying relevant studies

The article excluded the off-topic papers and duplicates while limiting the search to keywords around the concepts of business angel, business angel financing, startup survival rates, value-added services, traditional venture capital businesses, business angel networks, startup funding or business angel funding on startup, types of investment instruments, and early-stage financing of startups published in English. The searches resulted in 62 articles as it can be seen in Table 1.

Table 1. Hits according to search criteria.

Database/Platform	String	Hits
Scopus, SpringerLink, Taylor & Francis, Emerald, Science Direct, Wiley Online Library, EconLit (EBSCOhost), BASE, and Google scholar.	business angel, business angel financing, startup survival rates, value-added services, traditional venture capital business companies, business angel networks, startup funding or business angel funding on startup, types of investment instruments, and early-stage financing of startups	62

Step Four: Selection of studies meeting the inclusion criteria

Before the literature search, inclusion and exclusion criteria were established to determine which articles could provide credible answers to the research questions (Tranfield et al. 2003). Subsequently, only literature articles that met the inclusion criteria were included in the literature analysis. The literature included met the conditions indicated below.

1. Written in the English language;
2. Published between 2000 and 2024;
3. Only publications that were published in scientific journals, underwent peer review, and received a grade of at least one in the ABS-Journal Ranking 2018;
4. Focus on the description of the role of business angels in the early-stage financing of startups and in line with research questions.

Step Five: Extraction and analysis of relevant data

The literature search was conducted using keywords. The foundation of this approach relied on identifying topic-specific keywords present in the title, summary, or keywords of the articles. The resulting strings were a result of the thematic nature of the paper and the emphasis on the role of business angels in early-stage financing of startups: business angel, business angel financing, startup survival rates, value-added services, traditional venture capital business companies, business angel networks, startup funding or business angel funding on startup, types of investment instruments, and early-stage financing of startups. The search strings were subsequently generated by combining terms from both sets using wildcard symbols to minimize the total number of search strings. The keywords were subsequently utilized in the Google Scholar search engine. This was undertaken to ensure the accuracy and completeness of the recorded data.

6. Discussion and Conclusions

The current study sought to determine the role business angels play in the early-stage financing of startups. Specifically, the study sought to answer four research questions touching on the value-added services provided by business angels, the impact of business angel funding on startup survival rates, the effectiveness of business angel networks in facilitating startup funding, and business angels' contribution to the development of entrepreneurial ecosystems beyond financial investment for startups.

On value-added services provided by business angels, the findings from the systematic literature review show that business angel expertise, networks, and mentorship emerge as critical value-added services to startups. Specifically, previous research, such as Tyebjee and Bruno (1984) work, established the foundation for understanding value-added activities. Subsequent studies have delved deeper, examining the specific contributions of business angels. For instance, Croce et al. (2016) emphasize the impact of angel expertise on securing further funding, while Siefkes et al. (2023) introduce the concept of 'green angels' who prioritize sustainability. Similarly, Granz et al. (2021) shed light on entrepreneurs' preferences for value-added services, revealing a preference for network expansion and exit support.

Consequently, these studies underscore the heterogeneity of business angels and the diverse nature of their contributions. While some excel as mentors and coaches, others

are more adept at network building or financial facilitation. The findings also emphasize the importance of angel human capital, with experienced angels often securing better valuations and facilitating subsequent funding rounds. Thus, this evidence supports the idea that business angels provide significant value-added services beyond financial capital. Their contributions are essential for startup success, particularly in the early stages.

Similarly, concerning the second research question—the impact of business angel funding on startup survival rates—the findings show that business angel funding positively influences startup survival. However, it was found that other factors influence this impact. Specifically, Croce et al. (2016) state that startups that receive funds from both business angels and venture capitalists tend to receive larger sums of funding, attract additional venture capitalist financing, and have a higher probability of success. Similarly, Grant et al. (2019) demonstrated that the financing approach has a crucial role in determining the success of startups, particularly when combined with unique human and social capital traits possessed by the founders. Moreover, Karema (2015) contends that technology startups that receive angel financing will maintain their position as leaders in the technology industry, as they have a greater likelihood of survival. Based on the evidence that business angel funding positively influences startup survival, this study concludes that business angel funding is a valuable and necessary resource for startup survival.

Moreover, the study established that business angel networks play a significant role in facilitating startup funding based on the effectiveness of business angel networks' impact on facilitating startup funding. This is supported by the findings of Werth and Boeert (2013), who found that startups backed by well-connected angel investors have a higher probability of securing follow-up funding from venture capitalists and are also more likely to achieve successful exits with the support of business angels. Heuven and Groen (2012) contend that new startups benefit from having a positioning network that contains many structural holes, as this facilitates the identification of cash opportunities and resource providers. This was also evident in a study by Lahti and Keinonen (2016), who found that these networks facilitate communication between entrepreneurs seeking funding and business angels. Additionally, BANs allow business angels to access information about investment opportunities without revealing their identity if they choose to do so. In light of the study's findings, it is concluded that business angel networks significantly contribute to startup funding success and leverage the collective expertise and resources of experienced investors, enhancing the likelihood of securing follow-on funding and achieving successful exits.

In addition, concerning business angels' contribution to the development of entrepreneurial ecosystems, beyond the financial investment for startups, it was found that business angels contribute significantly to the development of entrepreneurial ecosystems, including prioritizing the contributions of ecosystem builders in startup screening, access to mentoring, and entrepreneurial education. Mainly, Frimanslund and Nath (2024) and Singh and Mungila Hillemane (2023) highlight the significance of a supportive ecosystem for startup success. They emphasize the importance of open startup cultures, diverse industrial environments, and timely access to funding, particularly in the early stages. These factors contribute to a thriving ecosystem that fosters innovation and growth. Similarly, the role of ecosystem builders, such as investor groups, is explored by Grilo et al. (2017). Their research highlights the potential benefits of collaboration between investor groups and ecosystem builders. Similarly, Gebczynska and Kwiotkowska (2019) investigate the role of accelerators in fostering ecosystem development. Their findings suggest that despite facing challenges, accelerators can play a crucial role in ecosystem growth through active participation. Thus, business angels contribute to the development of entrepreneurial ecosystems.

One significant limitation of this study is the potential for selection bias in the literature, considering it was based on a systematic literature review as its methodology. Given the nature of early-stage financing and the often private nature of business angel investments, there may be a tendency for published research to focus on successful cases or more visible transactions. This could have led to an overrepresentation of positive

outcomes and an underrepresentation of failed investments or less successful startups in the reviewed literature. As a result, the study might present an overly optimistic view of the role and impact of business angels. A second limitation relates to the rapidly evolving startup ecosystem and financing landscape. Early-stage financing is dynamic, with new investment models, technologies, and regulatory changes constantly emerging. A systematic literature review, by its nature, may include several years of studies, considering the study focused on literature published between 2000 and 2024, potentially missing the most recent developments or trends in business angel investing. This time lag could result in conclusions that only partially reflect the field's current state. Consequently, future research could explore the long-term impact of business angel involvement on startup performance beyond survival rates, including metrics like revenue growth and market expansion, also the effectiveness of different types of value-added services provided by business angels and their relative importance to startup success in various industries.

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