Examining How Creativity, Risk-taking and Proactiveness as Entrepreneurial Ability Affecting Fintech Companies' Innovativeness

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Abstract. This study examines the critical link between the innovativeness of financial technology (fintech) companies and the development of entrepreneurial abilities. Innovation is critical for gaining a competitive advantage in a market characterized by rapid technological advancement and shifting customer demands. We identify the key entrepreneurial characteristics that drive innovation in fintech startups, including creativity, risk-taking, and proactivity. As a result, we investigate the relationship between innovativeness and entrepreneurial ability, focusing specifically on aspects of entrepreneurial ability such as creativity, risk-taking, and proactiveness. A structured questionnaire was distributed to the management of 144 fintech companies of various types as part of a quantitative data collection process. The study used SmartPLS (Partial Least Squares Structural Equation Modeling) to investigate how these entrepreneurs influence creative outcomes in businesses. The findings suggest that risk-taking is important, though the effects vary depending on the type of fintech. Proactiveness and creativity also significantly boost a company's innovativeness. This study contributes to the body of literature by providing empirical evidence of the specific entrepreneurial skills that drive innovation. It also provides useful advice for businesses looking to foster an innovative culture. The findings emphasize the importance of developing these entrepreneurial skills to foster an innovative culture within the fintech industry, which will eventually aid in long-term growth and successful navigation of today's fast-paced business world.

Keywords: Entrepreneurial ability, innovativeness, risk-taking, proactiveness, fintech firm.

1 Introduction

In today's rapidly changing business landscape, the ability of firms to innovate is a critical determinant of their competitiveness and long-term success. As industries evolve and consumer preferences shift, organizations are increasingly reliant on entrepreneurial leaders who possess the skills and traits necessary to navigate uncertainty and drive innovation (Funmilayo et al., 2022). Entrepreneurial ability encompasses a range of competencies, including creativity, risk-taking, and proactiveness, which

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enable leaders to identify opportunities and mobilize resources effectively (Fu et al., 2024).

Research has consistently highlighted the significance of entrepreneurial ability in fostering firm innovativeness. For instance, Ferreira et al. (2020) assert that entrepreneurs with high levels of creativity are more inclined to introduce novel products and processes, which can lead to enhanced competitive advantage. Similarly, Zighan et al. (2022) emphasizes that resilience—an essential entrepreneurial trait—enables leaders to overcome challenges and maintain a focus on innovation even in turbulent environments.

Entrepreneurial ability, which is also known as Entrepreneurial orientation (EO), defined as the skill set and traits that enable individuals to identify opportunities and mobilize resources effectively, plays a critical role in driving firm innovation (Scheu and Kuckertz, 2023). The urgency of entrepreneurial ability in fostering business innovativeness is underscored by the dynamic nature of modern markets, where adaptability and creativity are paramount. EO characterized by creativity, risk-taking, and proactiveness, is crucial for businesses aiming to thrive in competitive environments. Research indicates that a strong entrepreneurial orientation significantly enhances a firm's innovation performance, enabling it to identify and exploit new market opportunities effectively (Fu et al., 2024; Jalilvand et al., 2019; Funmilayo et al., 2022). This proactive approach not only cultivates a culture of creativity but also encourages experimentation, which is essential for innovation (Fu et al., 2024; Mukson et al., 2021).

In the context of fintech firms, Arslan et al. (2022), highlights a significant role in enhancing entrepreneurial ability and fostering sustainable economic growth. Fintech companies are increasingly recognized as vital players in promoting financial inclusion, which is crucial for empowering small and medium-sized enterprises (SMEs) and low-income households. For instance, studies indicate that fintech innovations facilitate access to financial services for previously underserved populations, thereby contributing to poverty alleviation and economic growth (Hua & Huang, 2021). This financial inclusion is essential for enabling entrepreneurs to take calculated risks, which is a critical component of entrepreneurial success (Konou, 2023).

Moreover, the relationship between fintech and traditional financial institutions is evolving. Fintech firms often collaborate with established banks to leverage existing infrastructures, enhancing their reach and effectiveness in delivering financial services (Lucky Bamidele Benjamin et al., 2024). This synergy not only broadens the customer base for fintechs but also allows traditional banks to innovate and adapt to changing market dynamics. The integration of fintech solutions has been shown to improve operational efficiency and reduce costs, which are vital for fostering a conducive environment for entrepreneurship (Dhanraj et al., 2024)

The entrepreneurial ecosystem surrounding fintech is characterized by interdependence among various actors, including startups, investors, and regulatory bodies. Research indicates that a supportive regulatory environment and access to finance are critical for the success of fintech startups (Rupeika-Apoga & Wendt, 2021; Avarmaa et al., 2022). In regions with strong entrepreneurial cultures and advanced technological infrastructures, the emergence of active fintech clusters has been observed, leading

to a proliferation of innovative startups (Avarmaa et al., 2022). This ecosystem not only nurtures new ventures but also encourages collaboration between established firms and startups, facilitating knowledge exchange and the development of innovative financial services (Elia et al., 2023).

Furthermore, the disruptive potential of fintech is underscored by its ability to unbundle traditional financial services, creating new business models and shifting power dynamics within the financial sector (Basole & Patel, 2018). As fintech continues to evolve, it is essential for stakeholders to monitor its impact on financial stability and the performance of traditional financial institutions (Haddad & Hornuf, 2021). The interplay between fintech and entrepreneurship is thus multifaceted, with fintech serving as both a catalyst for entrepreneurial activity and a transformative force within the broader financial ecosystem.

Despite the growing body of research on this topic, there remains a need for empirical studies that quantify the relationship between entrepreneurial ability and firm innovativeness across various fintech firms' type, in which recent research underscores the critical role of fintech in enhancing entrepreneurial ability through improved access to financial services, fostering collaboration within the financial ecosystem, and driving innovation. As firms grapple with the complexities of the modern marketplace, understanding the role of entrepreneurial ability in driving innovation is more critical than ever. This research not only contributes to theoretical literature but also provides practical insights for organizations seeking to enhance their innovative capabilities through effective leadership. The ongoing evolution of fintech presents both opportunities and challenges that require careful consideration by entrepreneurs, investors, and policymakers alike.

2 Literature Review

Recent literature has expanded our understanding of the mechanisms through which entrepreneurial ability influences firm innovativeness. The relationship between entrepreneurial ability and business model innovation is particularly significant. Studies show that entrepreneurial leaders with high cognitive abilities can better navigate complex environments, identify resource gaps, and leverage opportunities for innovation (Hou et al., 2022; Wang & Photchanachan, 2021). This cognitive capacity is complemented by entrepreneurial bricolage, which refers to the resourceful and innovative use of available resources to create new business models (Butt et al., 2021). The ability to adapt and innovate is further enhanced by an entrepreneurial mindset that encourages learning and curiosity, which are vital for developing new business models (Zou, 2022; L. Zhao et al., 2022).

Various studies have identified specific traits associated with successful entrepreneurs, such as risk tolerance, creativity, and proactiveness. For instance, W. Zhao et al. (2021), argue that high levels of creativity and a willingness to take risks correlate with a greater propensity to innovate within firms. Entrepreneurs who embrace uncertainty are more likely to experiment with novel ideas and implement innovative practices, thereby enhancing their firm's competitive edge (Diabate et al.,

2019). This insight aligns with the dynamic capabilities' framework proposed by (Teece et al., 1997), which posits that firms must continuously adapt and reconfigure resources to sustain innovation over time.

The entrepreneurial ecosystem itself plays a crucial role in shaping the traits of entrepreneurs and their innovative capacities. Studies have shown that ecosystems characterized by strong networks and collaboration among various stakeholders, including financial institutions and technology providers, significantly enhance the innovative potential of fintech firms (Avarmaa et al., 2022; Alaassar et al., 2022). For example, in regions with robust fintech ecosystems, entrepreneurs benefit from mentorship, access to funding, and a culture of innovation that collectively fosters a higher rate of new product development and market entry (Koroleva, 2022). Conversely, ecosystems that are overly dominated by established financial institutions can stifle innovation by limiting the strategic options available to startups (Sohns & Wójcik, 2020).

Entrepreneurs in fintech environments are often characterized by their ability to leverage new technologies to create unique value propositions, which is essential for maintaining competitive advantage in rapidly evolving markets (Hommel & Bican, 2020). This aligns with the Resource-Based Theory (RBT), which posits that firms can achieve heterogeneity and competitive advantage through the unique capabilities of their entrepreneurs (Cojoianu et al., 2021).

Moreover, the role of trust and knowledge creation has been emphasized as critical factors in the emergence and financing of fintech startups. Research indicates that entrepreneurs who can effectively coordinate disparate knowledge into innovative products and services are more likely to succeed in the fintech space (Cojoianu et al., 2021). This ability to synthesize knowledge not only enhances firm innovativeness but also contributes to the overall dynamism of the fintech ecosystem, as firms that innovate can attract further investment and support (Avarmaa et al., 2022; Alaassar et al., 2022).

Additionally, the psychological aspects of entrepreneurship, such as self-efficacy and resilience, are influenced by the fintech landscape. Entrepreneurs operating within supportive fintech ecosystems often exhibit higher levels of confidence in their ability to innovate and adapt to market changes (Festa et al., 2023). This is particularly relevant in the context of emerging markets, where fintech can provide critical resources and support that empower entrepreneurs to take calculated risks and pursue innovative ventures (Adbi & Natarajan, 2023).

In conclusion, the relationship between entrepreneurial traits and firm innovativeness in the fintech sector is characterized by a synergistic interaction between individual capabilities, organizational dynamics, and the broader ecosystem. Fintech not only provides the tools and resources necessary for innovation but also shapes the traits of entrepreneurs, fostering a culture of creativity and adaptability. As the fintech landscape continues to evolve, understanding these dynamics will be crucial to harness the full potential of this transformative sector.

2.1 Relationship of Creativity and Innovativeness

Creativity is widely recognized as a fundamental driver of innovation. Numerous studies have established a strong positive correlation between the two constructs, suggesting that creative processes are essential for generating innovative ideas and solutions. For instance, research indicates that creativity can lead to both exploratory and exploitative innovation, thereby completing the creativity-innovation cycle (Hong et al., 2018). This cycle is critical as it underscores the importance of fostering a creative environment within organizations to stimulate innovative outcomes (Kim Nam & Thi Hang Nga, 2024). Furthermore, the role of individual personality traits, such as openness to experience, has been shown to significantly influence both creativity and innovative work behavior, reinforcing the notion that personal characteristics are integral to the innovation process (Kim Nam & Thi Hang Nga, 2024).

The organizational climate also plays a crucial role in mediating the relationship between creativity and innovation. A supportive innovation climate encourages employees to engage in creative thinking and experimentation, which are vital for innovation (Du & Chang, 2023). For example, feedback-seeking behavior within organizations has been identified as a mechanism that enhances individual creativity, thereby facilitating innovative outcomes (Du & Chang, 2023).

Moreover, the interplay between creativity and innovation is further complicated by the presence of leadership styles within organizations. Transformational and entrepreneurial leadership have been linked to enhanced creative self-efficacy among employees, which in turn promotes innovative work behavior (Akbari et al., 2020; Khalili, 2018). Leaders who foster a culture of creativity and provide support for innovation can significantly influence their teams' ability to generate novel ideas and implement them effectively (Akbari et al., 2020). This relationship highlights the importance of leadership in shaping organizational dynamics that favor creativity and innovation.

In addition to individual and organizational factors, the context in which creativity and innovation occur is also critical. Research has shown that the competitive landscape and market orientation can impact how creativity translates into innovation. For instance, businesses that prioritize innovation as a strategic objective are more likely to leverage creative ideas to gain competitive advantages (Julyanthry et al., 2021; Sijabat et al., 2020). This is particularly relevant for small and medium-sized enterprises (SMEs), where creativity can serve as a key differentiator in crowded markets (Julyanthry et al., 2021).

Furthermore, the relationship between creativity and innovation is not merely linear; it can also be influenced by external factors such as economic conditions and technological advancements. For example, in times of crisis, organizations that emphasize creativity may be better positioned to adapt and innovate in response to changing market demands (Ceko, 2023). This adaptability underscores the necessity for firms to cultivate a creative workforce that can respond to external challenges with innovative solutions.

Based on the above literature review, this study concluded that there is a positive relationship between creativity and innovativeness of companies. Thus, we hypothesize:

H1: creativity has a significant impact to fintech company innovativeness

2.2 Relationship of Proactiveness and Innovativeness

Proactiveness is defined as the forward-looking perspective of entrepreneurs, characterized by the anticipation of future challenges and opportunities, while innovativeness refers to the ability to develop new ideas and implement them effectively. Donbesuur et al., (2020), emphasize that firms with a high entrepreneurial orientation are more likely to engage in proactive behaviors that enable them to identify and exploit market gaps, thereby driving new venture performance. This proactive stance not only allows firms to respond to changes in the market but also fosters an environment conducive to innovation, as proactive firms are often more willing to experiment and take risks.

The psychological underpinnings of proactiveness also play a crucial role in fostering innovation. Li (2022), emphasizes that proactive behavior is closely linked to innovation performance, suggesting that organizations can stimulate innovation by fostering a culture that encourages proactive attitudes among employees (Li, 2022). This aligns with the notion that when employees feel empowered and supported, they are more likely to take initiative and pursue innovative ideas. Furthermore, the presence of organizational support can enhance the effectiveness of proactive behaviors, creating a conducive environment for innovation (Li, 2022).

The interplay between proactiveness and innovativeness is further explored by Adam et al. (2022), who highlight that entrepreneurial orientation, which encompasses both proactiveness and innovativeness, serves as a vital strategy-making process that underpins business decisions and behaviors. Their findings suggest that organizations that actively cultivate these dimensions are better positioned to maintain competitive advantage and achieve superior performance. This is echoed by Al-Mamary and Alshallaqi, who found that proactiveness and innovativeness significantly influence students' intentions to start new ventures, indicating that these traits are foundational to entrepreneurial aspirations (Al-Mamary & Alshallaqi, 2022).

Moreover, the role of entrepreneurial orientation in enhancing organizational creativity and innovation is underscored by Thai & Mai (2024), who posits that a supportive entrepreneurial culture can stimulate new venture performance through increased innovation capabilities. This aligns with the findings of Wach et al. (2023), who investigate the interdependencies within entrepreneurial orientation, revealing that risk-taking and innovativeness positively influence proactiveness, thereby creating a synergistic effect that enhances overall entrepreneurial performance.

The importance of these dimensions is also reflected in the context of emerging markets, as evidenced by Okangi, (2019) on construction firms, which demonstrates that the dimensions of entrepreneurial orientation, including proactiveness and innovativeness, significantly impact profitability growth. This suggests that fostering these

traits is crucial for the success of firms operating in dynamic and competitive environments.

However, challenges remain in effectively leveraging proactiveness and innovativeness. For instance, Sarsah et al. (2020) highlight that while being innovative and proactive can enhance radical innovation performance among SMEs, firms must also develop absorptive capacity to effectively utilize external knowledge (Sarsah et al., 2020). This indicates that the relationship between proactiveness, innovativeness, and performance is not merely linear but is influenced by the firm's ability to integrate and apply new information.

Leadership styles within organizations significantly influence the relationship between proactiveness and innovativeness. Transformational leadership has been shown to encourage proactivity among employees, which in turn fosters a culture of innovation (Mere, 2023). Leaders who promote entrepreneurial orientation and encourage risk-taking behaviors create an environment where employees feel empowered to innovate. This relationship is crucial for startups and small businesses, where proactive and innovative behaviors can differentiate them from competitors and drive growth (Mere, 2023). Moreover, the context in which proactivity and innovation occur is essential. Proactive behaviors are often influenced by external market conditions and competitive pressures. For example, in the fintech sector, the rapid pace of technological advancement necessitates a proactive approach to innovation, as firms must continuously adapt to changing consumer needs and market dynamics (Mansurali et al., 2022). This proactive stance not only enhances a firm's ability to innovate but also positions it favorably in a competitive landscape.

As the literature suggests, this study concluded that there is a strong relationship between proactiveness and innovativeness in the entrepreneurial context. Thus, we hypothesize:

H2: proactiveness has a significant impact on fintech company innovativeness.

2.3 Relationship of Risk-taking and Innovativeness

Risk-taking is often viewed as a fundamental characteristic of entrepreneurial orientation, which encompasses innovativeness, proactiveness, and risk-taking (Lone & Baba, 2024). Previous studies indicate that a propensity for risk-taking is positively correlated with the ability to innovate, suggesting that individuals and organizations willing to embrace uncertainty are more likely to develop and implement novel ideas. Entrepreneurs who exhibit higher levels of risk tolerance are more inclined to pursue innovative projects, as they are less deterred by the potential for failure. For instance, Mandongwe and Jaravaza (2020) found that risk-taking significantly influences entrepreneurial intentions, paralleling the effects of innovativeness in subsistence marketplaces. This suggests that both traits are essential for fostering an entrepreneurial mindset, particularly in challenging environments.

The dual nature of innovative activity further elucidates the relationship between risk-taking and innovativeness. Pérez-Luño et al., (2011) demonstrated that in dynamic environments, the positive impact of risk-taking on innovation generation is significantly stronger than in stable contexts. Organizations that encourage risk-taking

behaviors among their employees are likely to see enhanced innovative outputs, as these employees feel empowered to explore new ideas without the fear of negative repercussions (Giaccone & Magnusson, 2022).

Moreover, the role of leadership in fostering a culture of risk-taking and innovation cannot be understated. Strong leadership support is crucial in creating an environment where employees feel safe to take risks and experiment with new ideas (Knezović & Drkić, 2020). Leaders who model risk-taking behavior and encourage their teams to embrace uncertainty can significantly enhance their organizations' innovative capabilities. This aligns with findings of Al-Mamary & Alshallaqi (2022), who noted that entrepreneurs with high levels of risk-taking and innovativeness tend to have more successful ventures, as they are better equipped to navigate the uncertainties of the market (Al-Mamary & Alshallaqi, 2022).

Additionally, the context in which risk-taking occurs influences its relationship with innovativeness. In sectors characterized by rapid technological advancements, such as fintech, the ability to take calculated risks is essential for innovation (Zhang & Aumeboonsuke, 2022). Firms that actively engage in risk-taking are often at the forefront of technological innovations, as they are more willing to invest in unproven ideas and explore new market opportunities. This proactive approach to risk-taking not only fosters innovation but also positions firms competitively within their industries (Nawaz et al., 2024).

In conclusion, the relationship between risk-taking and innovativeness is characterized by a positive correlation, where a higher propensity for risk-taking enhances the likelihood of innovative outcomes. This relationship is influenced by individual traits, organizational culture, leadership styles, and the external environment. Organizations that cultivate a culture of risk-taking are better positioned to innovate and adapt to changing market conditions, ultimately leading to greater entrepreneurial success. Thus, we hypothesize:

H3: Risk-taking has a significant impact to fintech company innovativeness

Based on the literature and previous study, we constructed the study's conceptual framework, which are displayed in Figure 1,

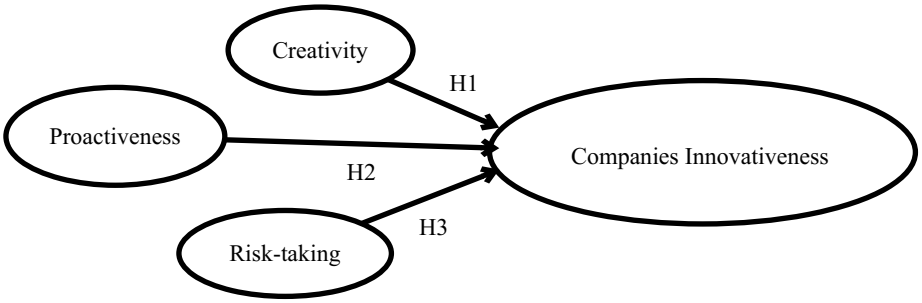

Fig. 1. Conceptual Framework and hypothesis of the study. Source: Author elaboration, 2024.

3 Methodology

3.1 Research Design

This study employs quantitative research design to examine the relationship between creativity, risk taking and proactiveness which is perceived as entrepreneurial ability construct and fintech companies' innovativeness. A structured survey was developed to collect data from various fintech companies, enabling the analysis of these constructs through statistical methods.

The study targeted a sample of 144 fintech companies operating in diverse fintech types in Indonesia to ensure a comprehensive representation of the population. As sample selection, A non-probability sampling technique, specifically purposive sampling, was employed to select firms that meet specific criteria related to entrepreneurial activity and innovative practices. The criteria included: fintech types diversity, to capture a broad range of innovative practices across different sectors, companies from industries such as P2P lending, crowdfunding, digital banking, and kind of digital finance innovation were included; company size which a mix of small, medium, and large enterprises was targeted to understand how entrepreneurial ability and firm innovativeness vary by size; and, operational status which only fintech firms that had been in operation for at least three years were considered, ensuring they had enough experience to reflect on their entrepreneurial practices and innovative outputs.

3.2 Data Collection and Analysis

Data were collected through an online survey distributed to key stakeholders within the selected companies, including owners in which act as founders, CEO, managers, and innovation officers. The company type consists of 42 P2P Lending, 96 Digital Finance Innovation which is digital banking were included, and crowdfunding of 6 companies. The survey instrument comprised two main sections: 1). Entrepreneurial Ability: This section included items measuring traits such as risk-taking, creativity, and proactiveness, adapted from Fan et al., (2021); Rametse et al., (2018); Monteiro et al. (2019); Makhloufi et al. (2021); Park & Xiao (2020); Dias et al., (2021); and Ciampi et al. (2021) established scales; 2). Firm Innovativeness: Items assessing various dimensions of innovation, including product, process, and business model innovation, were included. These items were based on validated measures from Mbugua (2021); Domi et al. (2019); Yang & Tsai, (2019); Shashi et al. (2019); and Anees-ur-Rehman et al. (2018). The survey utilized a Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree) to facilitate respondents' evaluation of each statement.

Data were analyzed using SmartPLS to test the proposed relationships between creativity, proactiveness and risk-taking (as entrepreneurial ability construct) toward fintech companies' innovativeness. The analysis involved measurement model assessment, structural model assessment, and bootstrapping procedure steps. The reliability and validity of the measurement model were evaluated as measurement model assessment. This included examining internal consistency (Cronbach's alpha and Composite Reliability), convergent validity (Average Variance Extracted), and discriminant va-

lidity (Fornell-Larcker criterion). Then structural model was analyzed to test the hypotheses regarding the relationships between creativity, proactiveness and risk-taking as entrepreneurial ability toward firm innovativeness. Key metrics such as path coefficients, R^2 values, and effect sizes (f^2) were calculated to assess the strength and significance of these relationships. Thus, finally a bootstrapping procedure with 5,000 resamples was performed to obtain robust standard errors and confidence intervals for the estimated parameters, allowing for hypothesis testing.

As ethical considerations, the study adhered to ethical guidelines, ensuring that participants were informed about the purpose of the research and their rights to confidentiality and voluntary participation. Informed consent was obtained prior to data collection. While this study provides valuable insights into the relationship between entrepreneurial ability and firm innovativeness, certain limitations should be noted. The non-probability sampling method may limit the generalizability of the findings, and self-reported data may be subject to biases as limitations.

4 Results and Discussion

4.1 Results

The analysis conducted revealed several significant relationships between creativity, proactiveness and risk-taking as entrepreneurial ability construct and innovativeness among the 144 surveyed fintech companies. Table 1 shows that the measurement model exhibited good reliability, with Cronbach's alpha values exceeding the threshold of 0.70 for all constructs, indicating satisfactory internal consistency (Hair et al., 2021). The following Error: Reference source not found gives a summary of Measurement Model Assessment.

Table 1. Measurement Model Assessment

Variable	Cronbach's alpha	Composite Reliability (rho_a)	Composite Reliability(rho_c)	Average Variance Extracted (AVE)	Factor loading range
Innovativeness	0.968	0.972	0.791	0.574	0.537 – 0.876
Creativity	0.762	0.827	0.891	0.803	0.859 – 0.932
Proactiveness	0.728	0.769	0.844	0.644	0.729 – 0.866
Risk Taking	0.798	0.811	0.868	0.622	0.766 – 0.853

Source: Author elaboration, 2024.

Construct validity was measured using both convergent and discriminant validity. Convergent validity investigates the degree to which items in a construct are correlated. As shown in Table 1, the Average Variance Extracted (AVE) values and factor loadings (indicator reliability) are all greater than 0.5, indicating the presence of convergent validity. Specifically, the AVE for all variables is greater than 0.5, indicating that the indicators are reliable and consistently measure their respective constructs. Furthermore, the Cronbach's alpha and Composite Reliability (CR) values, which are also shown in Table 1, are all greater than 0.6, confirming the reliability and validity

of the variables and items used in this study. Thus, all measurement criteria for validity and reliability are satisfied.

The structural model assessment output describes a comprehensive interpretation of the relationship between the fintech company's creativity, proactiveness, and risk-taking in terms of innovativeness. The path analysis revealed a significant positive correlation ($\beta = 0.213$, $p < 0.01$) between creativity and innovativeness in fintech companies. This suggests that organizations that foster a creative environment are more likely to innovate.

The path analysis revealed that proactiveness had a positive and significant effect on the innovativeness of the fintech company ($\beta = 0.319$, $p < 0.00$). This implies that proactive people are more likely to engage in creative problem-solving and seek out opportunities for innovation, contributing to their organizations' overall innovative output.

A significant positive correlation between risk-taking and fintech company innovation ($\beta = 0.307$, $p < 0.00$) also indicated at the path analysis. This finding emphasizes that being willing to take risks is not only beneficial but also necessary for innovation, especially when market conditions are volatile and require quick adaptation.

These findings indicate that companies led by entrepreneurs who are skilled at risk-taking, creativity, and resilience are more likely to engage in innovative practices. The following Error: Reference source not found2 gives a summary of Structural Model Assessment (Path coefficient).

Table 1. Structural Model Assessment (Path coefficient)

Hypotheses	Relationship	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
H1	Creativity -> Innovativeness	0.213	0.211	0.064	3.344	0.001
H2	Proactiveness -> Innovativeness	0.319	0.325	0.085	3.747	0.000
H3	Risk Taking -> Innovativeness	0.307	0.310	0.077	3.967	0.000

Source: Author elaboration, 2024.

Furthermore, the R^2 value for innovativeness was 0.49, indicating that approximately 49% of the variance in innovativeness of the fintech company can be explained by creativity, proactiveness and risk-taking as entrepreneurial ability construct. This result underscores the importance of entrepreneurial characteristics in driving innovation within fintech firms.

4.2 Discussion

The findings of this study align with Anjum et al. (2021) that emphasizes the critical role of entrepreneurial ability in fostering innovation. For instance, Kier & McMullen (2020) highlight that entrepreneurs with high creativity are more likely to introduce novel ideas and solutions, which is reflected in our results. The significant

positive relationship found in this study reinforces the idea that entrepreneurial traits directly contribute to a firm's innovative capabilities.

Moreover, the results are consistent with the work of Pilav – Velic et al., (2024), who assert that entrepreneurial resilience allows leaders to navigate challenges and uncertainties, ultimately fostering an environment conducive to innovation. The ability to adapt and persist in the face of adversity not only enhances the likelihood of developing new products and services but also encourages a culture of continuous improvement within the organization.

Additionally, our findings resonate with the concept of dynamic capabilities discussed by Ferreira et al. (2020), which posits that firms must possess the ability to reconfigure resources and adapt to changing environments to innovate effectively. Entrepreneurs who exhibit strong abilities in identifying and leveraging resources are crucial in facilitating this dynamic capability. Firms that exhibit high levels of both traits are better equipped to navigate market uncertainties, capitalize on opportunities, and achieve sustainable performance.

Recent literature also highlights the role of social networks in enhancing entrepreneurial ability and, consequently, firm innovativeness. Shi and Weber (2021) emphasize that entrepreneurs who actively engage in networking can access diverse knowledge and resources, thus fostering greater innovation. Furthermore, the impact of fintech on firm innovativeness is not uniform across different demographics. For instance, gender dynamics within the fintech sector reveal that while fintech can enhance opportunities for female entrepreneurs, challenges such as risk aversion and concerns about data security still persist (Fox-Robertson, 2024). Addressing these barriers is essential for unlocking the full innovative potential of diverse entrepreneurial talent within the fintech ecosystem (Fox-Robertson, 2024).

5 Conclusion

5.1 Conclusion and Implications for Practice

These findings have important implications for practitioners and policymakers. Organizations should focus on developing and nurturing entrepreneurial abilities within their leadership teams, as this can significantly enhance their innovative output. Training programs that emphasize creativity, risk management, and resilience may be beneficial for cultivating these essential skills.

Additionally, fostering a supportive organizational culture that encourages experimentation and tolerates failure can further leverage the entrepreneurial abilities of leaders. By creating an environment that values innovative thinking and collaborative problem-solving, firms can enhance their overall performance and adaptability in the marketplace.

In summary, the urgency of entrepreneurial ability in driving business innovativeness cannot be overstated. It is essential for firms to cultivate an entrepreneurial orientation, leverage cognitive abilities for strategic decision-making, and foster a culture of innovation through education and experiential learning. These elements collec-

tively enhance a firm's capacity to innovate and adapt in an ever-evolving fintech market landscape.

5.2 Limitations and Future Research

While this study provides valuable insights, it is important to acknowledge certain limitations. The reliance on self-reported data may introduce bias, and the cross-sectional design limits causal inferences. Future research could employ longitudinal designs to better understand the dynamic nature of entrepreneurial ability and firm innovativeness over time.

Moreover, expanding the sample to include a broader geographic scope or different industries could enhance the generalizability of the findings. Investigating additional factors, such as the impact of organizational structure or external market conditions on the relationship between entrepreneurial ability and innovativeness, could also provide deeper insights. As the entrepreneurial landscape continues to evolve, understanding the dynamics of these dimensions will be essential for fostering innovation and enhancing the competitiveness of new ventures. This suggests that future research could further explore how entrepreneurial networks interact with individual traits to enhance firm innovativeness.

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