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The Role of Proactivity, Innovation and Digitalization in Driving Business Performance and Growth in Indonesia's Shibori Tie-Dye Craft Industry

Arif Rakhmanto[a], Zunan Setiawan[b]

[a] *[Economics and Business/ Master of Management], [Universitas Ahmad Dahlan], [Yogyakarta], [Indonesia]*

[b] *[Economics and Business/ Master of Management], [Universitas Ahmad Dahlan], [Yogyakarta], [Indonesia]*

[*] *Corresponding author. E-mail address: 2307051006@webmail.uad.ac.id*

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ABSTRACT

This study aims to explore the role of digital technology in shibori fabric entrepreneurship. Specifically, the main objective of this research is to examine the relationship between proactivity, innovation, digitalization, and the performance and growth of businesses within the fabric craft industry. Data for this research were collected from 285 shibori fabric artisans residing in major cities on the island of Java at the time the study was conducted. The study uses PLS-SEM to analyze the relationships between the variables under investigation. The findings indicate that digitalization has a significant positive impact on the performance of small and medium-sized enterprises (SMEs) involved in shibori fabric crafting. Furthermore, both digitalization and innovation mediate the effect of entrepreneurial behavior on performance. Specifically, digitalization and innovation act as full mediators of the impact of proactivity on business growth and innovation on market performance. Additionally, there is a mediating effect of innovation in the case of social media marketing's impact on performance; digitalization does not serve as a mediator for the impact of proactivity on social media marketing. Previous studies have not examined the relationships between entrepreneurship, digitalization, innovation, social media marketing, and performance; this research helps fill this gap by exploring these relationships within the fabric crafting industry. The results of this study offer valuable insights for industry practitioners to understand the role of digitalization and innovation in the context of proactivity, social media marketing, and performance

1. Introduction

The traditional Shibori tie-dye craft industry in Indonesia is a vibrant and culturally rich sector, renowned for its intricate hand-dyeing techniques and deep cultural roots. However, in an increasingly digital and competitive business environment, this sector faces both challenges and opportunities that require adaptive strategies to sustain and promote growth. As Indonesia's craft industry grows in prominence, particularly in the global marketplace, the need for businesses to leverage modern business practices becomes essential (Anggadwita, Indarti,and Ratten, 2023). This research explores the role of proactivity, innovation, and digitalization in driving business performance and growth in Indonesia's Shibori tie-dye craft industry, aiming to identify how these factors interplay to enhance the success of firms in this unique market. Proactivity in business refers to the ability of firms to anticipate future challenges and seize emerging opportunities before they become mainstream. It involves strategic foresight, quick decision-making, and a readiness to act upon identified market trends. For Indonesian Shibori craft businesses, proactivity could be the key to maintaining

relevance in a rapidly evolving industry, where changing consumer preferences and new market dynamics constantly reshape the landscape. As highlighted by Conti, Jevnaker, Camillo, and Musso (2024), in parallel, innovation whether in product design, production methods, or customer engagement enables firms to differentiate themselves and stand out in the market. In the context of Shibori tie-dye, innovation might involve the introduction of new dyeing techniques, novel product offerings, or creative branding strategies that attract diverse customer segments. On the other hand, digitalization has become an indispensable tool for business transformation. For Shibori craft businesses, embracing digital tools can streamline operations, expand reach through e-commerce, and enhance customer engagement via digital marketing platforms.

With the rapid growth of online shopping and the shift towards digital- first consumer behavior, businesses that fail to integrate digitalization may struggle to maintain competitive advantage. The fusion of proactivity, innovation, and digitalization is, therefore, a crucial aspect of modern business strategies, especially for industries like Shibori tie-dye, where the intersection of tradition and technology can be harnessed to create unique value propositions. The significance of this research lies in its focus on understanding the interaction of these key drivers proactivity, innovation, and digitalization in the Shibori tie- dye craft industry. By investigating how these constructs influence market performance (MP) and firm growth (FG), this study aims to offer practical insights for entrepreneurs, artisans, and business leaders seeking to enhance their market standing and growth trajectory. In an era where consumer preferences are rapidly shifting and digital tools are reshaping industry norms, exploring the relationship between these factors and business success is both timely and critical for fostering sustainable development in this creative sector.

The role of proactivity, innovation, and digitalization in driving business performance and growth has garnered significant attention in contemporary business research. This is particularly true in industries where traditional craftsmanship meets modern market demands, such as in Indonesia's Shibori tie-dye craft industry. The Shibori technique, deeply rooted in Indonesia's cultural history, involves intricate hand-dyeing methods used to create beautiful and unique textile products. However, the industry faces the challenge of remaining competitive and relevant in a rapidly globalizing market. The integration of proactivity, innovation, and digitalization represents a powerful means of overcoming these challenges and fostering sustainable growth. These factors are vital not only for enhancing the market performance (MP) of individual firms but also for contributing to their long-term success and expansion (firm growth or FG). Proactivity (PR) refers to a firm's ability to take initiative, anticipate market trends, and address future challenges before they arise.

In the context of Indonesia's Shibori tie-dye industry, being proactive could mean identifying emerging consumer preferences for sustainable and locally-produced goods, or exploring new markets for Shibori products globally. Innovation (IN) involves the creation of new products, processes, or strategies that provide a competitive edge. For Shibori craft businesses, innovation could manifest in the adoption of new dyeing technologies or the development of unique product lines that appeal to contemporary fashion tastes. In the words of Martins (2023), digitalization, meanwhile, refers to the integration of digital technologies in business operations. It enables firms to expand their reach through e-commerce platforms, enhance customer engagement through social media marketing, and streamline production processes. In a time when digital tools are central to business strategy, digitalization is an indispensable

asset for businesses aiming to scale and compete globally. The importance of this research lies in its potential to illuminate the dynamic relationship between these factors proactivity, innovation, and digitalization and their influence on business performance and growth in Indonesia's Shibori tie-dye industry. While much research has focused on these constructs individually, there remains a gap in understanding how they interact and collectively contribute to business success in the context of traditional craft industries. As the global market for artisanal and handmade goods grows, understanding how these factors can drive the Shibori tie-dye craft industry forward is increasingly relevant. This research aims to fill that gap by providing valuable insights into how businesses in the craft sector can effectively leverage these factors for greater market performance and sustainable growth. The research objectives are to explore the specific roles of proactivity, innovation, and digitalization in enhancing market performance and firm growth in Indonesia's Shibori tie-dye industry. More specifically, the study will investigate how these constructs interact to shape business outcomes and identify strategies for businesses to harness their full potential. The hypotheses guiding this study are as follows: Proactivity (PR) positively influences market performance (MP) in Indonesia's Shibori tie-dye craft industry. Innovation (IN) has a direct impact on firm growth (FG) within the industry. Digitalization (DIG) enhances both market performance (MP) and firm growth (FG). The combined influence of proactivity, innovation, and digitalization results in a synergistic effect on business performance and growth. By testing these hypotheses, the research aims to offer actionable recommendations for Shibori businesses seeking to improve their performance and expand their market reach, while also contributing to the broader academic discourse on business strategy and transformation in creative industries.

1.1 Background

The formulation of the research question for this study stems from a convergence of several significant trends within both the Indonesian craft industry and the broader global business landscape. The Shibori tie-dye industry in Indonesia, like many traditional craft sectors, faces the dual challenge of preserving its artisanal roots while adapting to contemporary business demands. In recent years, the global market for handmade and sustainable goods has grown significantly, driven by changing consumer preferences and increasing awareness of ethical and environmental concerns. However, many small to medium-sized businesses in this sector still rely on traditional methods that often fail to capitalize on modern tools and strategies that could enhance their competitiveness. A critical observation that led to the development of the research question was the disparity in how businesses in this sector respond to external pressures and technological changes. Many Shibori craft businesses in Indonesia continue to operate with minimal digital engagement, relying mostly on local markets and word-of-mouth advertising. Meanwhile, competitors in similar artisanal sectors are increasingly integrating digital platforms to expand their reach, streamline operations, and enhance customer experience. This gap highlights a pressing need to understand how digitalization along with proactivity and innovation affects the ability of Indonesian Shibori businesses to thrive in both local and international markets. Previous research on craft industries has demonstrated that innovation and digitalization are essential drivers of growth (Manfredi Latilla, Frattini, Messeni Petruzzelli, and Berner, 2018), yet the specific application of these factors in the Indonesian Shibori industry has not been widely explored. The second crucial factor influencing the research question is the concept of proactivity.As mentioned by Shi and Feng, (2024), proactive firms, which anticipate and adapt to future market shifts, are often more successful in navigating challenges and seizing new opportunities. In the context of

Indonesia's Shibori craft industry, a proactive approach could involve anticipating trends in fashion and sustainability, innovating new dyeing techniques, or proactively engaging in global e-commerce platforms. However, the extent to which Indonesian Shibori businesses employ such proactive strategies remains unclear. This gap in the literature motivated the inclusion of proactivity as a key variable to explore, as its role in fostering market performance (MP) and firm growth (FG) has been shown to be significant in other industries (Suder, Duda, Kusa, and Mora-Cruz, 2024). By examining the interplay between proactivity, innovation, and digitalization, this research aims to provide a comprehensive understanding of how these factors collectively drive business performance and growth in the Shibori tie-dye sector. The research question thus arises from the need to explore not only the isolated impacts of each of these constructs but also how they interact to create a compounded effect on market performance and firm growth. Specifically, this study seeks to investigate whether Shibori businesses that exhibit high levels of proactivity, innovation, and digitalization outperform their competitors in terms of market performance and long-term growth. In addition, the growing body of literature on digital transformation in traditional industries suggests that digitalization, while a significant enabler of growth, may not be sufficient on its own unless coupled with other dynamic capabilities such as innovation and proactivity (Park and Jo, 2018). This insight further guided the formulation of the hypothesis, proposing that the synergy between proactivity, innovation, and digitalization would have a more pronounced effect on business performance and growth than any one factor alone. Therefore, the hypothesis posits that firms that integrate all three factors proactivity, innovation, and digitalization will achieve superior market performance and firm growth.

1.2 Problem Statement

The Indonesian Shibori tie-dye craft industry, though rich in cultural heritage and artistic value, faces a critical challenge in adapting to the demands of a rapidly evolving global market. Despite the growing consumer interest in sustainable, handmade, and unique artisanal products, businesses in this sector continue to struggle with low levels of digital engagement, limited innovation, and a reactive rather than proactive approach to market dynamics. This gap in knowledge and practice presents an urgent need for research that explores how modern business strategies particularly proactivity, innovation, and digitalization can be leveraged to enhance both business performance and firm growth in this traditional sector. One of the primary gaps in the existing literature is the insufficient exploration of the combined influence of proactivity, innovation, and digitalization in the context of the Indonesian Shibori craft industry. While previous studies have explored these factors separately in different industries, there is limited research that examines their interplay within a traditional craft sector (Shafi,, Yin, Yuan, and Zoya, 2021), most of the existing studies on innovation and digitalization focus on large-scale industries or sectors that are already deeply integrated into digital economies. However, there is a lack of studies specifically addressing the unique challenges faced by small and medium-sized businesses in the craft sector, especially in the context of developing countries like Indonesia, where the integration of digital tools and modern business practices is still emerging. This research gap hinders a comprehensive understanding of how small craft businesses can successfully navigate the complexities of innovation and digital transformation.

In addition, many Shibori craft businesses still rely on traditional methods of production, marketing, and sales, often missing out on the opportunities that digitalization can provide. The underutilization of digital platforms for marketing, online sales, and customer

engagement limits these businesses' potential to expand beyond their local markets. Furthermore, innovation, particularly in terms of product design and production processes, is often constrained by a lack of resources and exposure to global trends. As a result, these businesses remain isolated from the growing global demand for unique, handcrafted textiles, unable to compete with other craft industries that have successfully incorporated modern business practices (Tolmachev, Meteleva, Luparev, and Epifanova, 2022).

Moreover, As stated by Ahmed, Al-Riyami, Ahmad, and Bibi (2024), proactivity defined as a firm's ability to anticipate market changes and take initiative to address future challenges has not been sufficiently studied in the context of the Shibori craft industry. Proactive firms tend to outperform reactive ones by identifying new opportunities early and positioning themselves to take advantage of them. However, Shibori businesses, particularly in rural or less-developed areas, often operate in a reactive mode, responding to market changes rather than anticipating them. This lack of proactivity results in missed opportunities for expansion, diversification, and long-term growth. Thus, the problem that this research aims to address is the lack of understanding regarding the combined role of proactivity, innovation, and digitalization in driving business performance and growth in Indonesia's Shibori tie-dye craft industry. Specifically, the study seeks to explore how these three factors interact to enhance market performance (MP) and firm growth (FG) in a traditional craft industry that is undergoing rapid changes. Addressing this gap will not only contribute to the academic literature on innovation and digital transformation in craft industries but will also provide practical insights for small business owners and entrepreneurs in Indonesia who are seeking to modernize their operations and expand their market reach. The research aims to fill this gap by investigating how the adoption of proactive strategies, innovative practices, and digital tools can contribute to higher levels of market performance and firm growth, helping businesses overcome the constraints posed by traditional business models. By doing so, this study will provide a clearer roadmap for the Shibori craft sector to thrive in an increasingly competitive global marketplace.

1.3 Objectives and Scope

The primary objective of this research is to explore and analyze the roles of proactivity, innovation, and digitalization in enhancing business performance and driving growth in Indonesia's Shibori tie-dye craft industry. Specifically, the study aims to examine the relationships between these three constructs proactivity (PR), innovation (INN), and digitalization (DIG) and how they influence market performance (MP) and firm growth (FG) within this traditional yet evolving sector. The research seeks to provide both theoretical insights and practical recommendations for small and medium-sized enterprises (SMEs) in the craft industry, particularly those operating in the Shibori tie-dye market, as they navigate the challenges of modernization and global competition. One of the key objectives of this study is to assess the impact of proactive business strategies in anticipating market changes and opportunities. Innovation, another critical objective of this research, refers to the introduction of new ideas, products, or processes that enhance the value proposition of a business. In the context of the Shibori craft industry, this could involve the development of new dyeing techniques, creative product offerings, or novel ways of integrating sustainability into the production process.
The study will investigate how innovation drives differentiation and strengthens the competitive position of these businesses, particularly in a global marketplace that increasingly values creativity and uniqueness (Trivedi and Srivastava, 2024). The research will also

explore whether the adoption of innovative practices correlates with improved market performance and long-term firm growth. Digitalization, as a transformative force in many industries, is another central focus of this study. Digital tools ranging from e-commerce platforms to digital marketing strategies have the potential to revolutionize the way small businesses engage with consumers and manage operations. This research will investigate how the adoption of digital technologies, such as online sales channels, social media, and digital payment systems, can enhance the market reach and efficiency of Shibori businesses. By understanding the relationship between digitalization and business performance, the study aims to provide actionable insights for SMEs looking to modernize their practices and expand into new markets (Psychogios, Blakcori, Szamosi, and O'Regan, 2019). While the research seeks to explore the multifaceted roles of proactivity, innovation, and digitalization in driving market performance and firm growth, it is important to recognize certain limitations.

One such limitation is the geographical scope of the study, which focuses specifically on Indonesian Shibori tie-dye businesses. While the findings may have valuable implications for similar craft industries in Southeast Asia, their generalizability to other regions or industries with different socio-economic contexts may be constrained. Additionally, due to the small size and relatively fragmented nature of the Shibori craft industry, the research may face challenges in obtaining a comprehensive sample that accurately represents the broader market. Another potential limitation is the reliance on self-reported data from business owners and managers, which may introduce bias or subjectivity into the results. However, the study will employ triangulation methods, such as interviews, surveys, and secondary data analysis, to mitigate these concerns and enhance the robustness of the findings. Despite these limitations, the research aims to offer a significant contribution to the understanding of how traditional craft industries can leverage modern business strategies to achieve sustainable growth and improved market performance. By shedding light on the interplay between proactivity, innovation, and digitalization, this study has the potential to inform policy recommendations and practical strategies for entrepreneurs in the Shibori tie-dye craft sector.

2. Literature Review

In recent years, the importance of proactivity, innovation, and digitalization in driving business performance and growth has been increasingly recognized across various industries. However, the literature specifically focusing on the intersection of these factors within the context of traditional craft industries, such as Indonesia's Shibori tie-dye sector, remains underdeveloped. Prior research in business strategy and entrepreneurship has highlighted the role of proactivity in gaining competitive advantages and fostering business success. For instance, Ratanavanich and Charoensukmongkol, (2024) argue that firms exhibiting proactive behavior tend to outperform their competitors by anticipating changes in the market, rather than simply reacting to them. Their findings suggest that proactive firms are better equipped to seize opportunities, adapt to market shifts, and drive innovation. However, little research has explored how proactivity directly influences the performance of traditional, small-scale industries like Shibori crafts. Similarly, the role of innovation in enhancing business competitiveness has been well-documented. Laforet (2011), emphasizes that innovation is a key driver of business growth, particularly in industries that face intense competition and rapid technological changes. In the context of traditional crafts, innovation may include not only product design and production techniques but also business models, marketing strategies, and the adoption of new technologies. However, while the relationship between innovation and firm performance has been explored in various sectors, research focusing on how

innovation manifests in the context of artisanal craft industries, particularly in Southeast Asia, is still sparse. This gap in the literature highlights the need for further investigation into how innovation can specifically drive growth in small, culturally embedded industries like Shibori tie-dye.

Digitalization, another critical factor, has been a central theme in contemporary business studies, with numerous studies examining its transformative effects on business operations. Flaherty, Domegan, and Anand (2021), explore how digital technologies, including e-commerce, social media, and data analytics, enable businesses to expand their reach, improve customer engagement, and enhance operational efficiency. In the context of the craft sector, digitalization can be particularly impactful by providing small businesses with access to global markets, reducing reliance on traditional distribution channels, and enabling more efficient marketing and sales processes. However, many craft industries, especially in developing countries like Indonesia, have been slow to embrace digital tools, primarily due to resource constraints and limited technical knowledge. Existing research, while acknowledging the benefits of digitalization, has not yet sufficiently addressed the barriers to its adoption in small-scale craft industries or how digitalization specifically impacts market performance and firm growth in these sectors.

The hypotheses in the study establish a framework to explore the interconnected roles of proactivity (PR), innovation (IN), and digitalization (DIG) in enhancing market performance (MP) and firm growth (FG). Below is a detailed explanation of the hypotheses and their significance. Proactivity, defined as the ability to anticipate market changes and act ahead of competitors, allows businesses to adapt to evolving demands effectively. In the Shibori tie-dye industry, proactive businesses that monitor customer preferences, forecast trends, and implement strategies ahead of others are likely to experience improved market performance. This hypothesis suggests that such behaviors help businesses build stronger customer relationships, maintain competitive advantages, and boost sales. Empirical evidence supports the link between proactive strategies and superior market engagement. Proactivity not only enhances market performance but also drives long-term growth by creating resilience and agility. Proactive businesses in the Shibori industry, by investing in early adoption of new practices and identifying untapped opportunities, are expected to expand their operations, grow revenues, and strengthen market positioning. This aligns with previous studies showing that proactive strategies contribute to sustainable firm growth.

H1a: Pro-activity has a positive and significant effect on Market Performance (MP).

H1b: Pro-activity has a positive and significant effect on Firm Growth (FG).

Innovation, which involves introducing new products, processes, or marketing techniques, helps businesses differentiate themselves in competitive markets. For the Shibori industry, innovation in design, fabric quality, and customer engagement strategies is critical for appealing to modern consumers while preserving cultural heritage. This hypothesis reflects the idea that businesses leveraging creative practices are more likely to improve customer satisfaction, loyalty, and overall market performance. Innovation also contributes to long-term firm growth by ensuring businesses stay relevant and competitive. Innovative Shibori businesses that integrate unique product features or adopt novel marketing campaigns can capture larger market shares and enter new market segments. This aligns with studies emphasizing that innovation fosters growth by enabling businesses to adapt to changing consumer preferences.

H2a: Innovation has a positive and significant effect on Market Performance (MP).

H2b: Innovation has a positive and significant effect on Firm Growth (FG).

Digitalization, defined as the integration of digital tools into business processes, enables traditional industries like Shibori to expand their market reach and engage customers more effectively. By leveraging social media, e-commerce platforms, and digital analytics, businesses can target broader audiences and personalize customer experiences. This hypothesis suggests that digitalization enhances visibility, operational efficiency, and customer satisfaction, all of which contribute to improved market performance.Digital tools also drive firm growth by reducing costs, increasing scalability, and improving decision-making through data-driven insights. For Shibori businesses, adopting digital solutions can streamline operations, optimize resource allocation, and expand distribution channels. Studies have shown that digitalization significantly impacts revenue growth, productivity, and market expansion. This hypothesis posits that digitalization is a critical enabler of sustained growth in traditional industries. The hypotheses collectively emphasize the strategic importance of integrating proactivity, innovation, and digitalization into business practices. They highlight how these constructs individually and synergistically contribute to market performance and firm growth. The study's findings will provide actionable insights for Shibori artisans and policymakers, illustrating pathways for modernizing traditional industries without compromising cultural values.

H3a: Digitalization has a positive and significant effect on Market Performance (MP).

H3b: Digitalization has a positive and significant effect on Firm Growth (FG).

Prior research has provided valuable insights into the individual roles of proactivity, innovation, and digitalization in driving business performance (Antoncic and Antoncic, 2023). However, there is a clear gap in understanding how these constructs interact to influence growth and performance, particularly within the context of traditional craft industries in Southeast Asia. The absence of comprehensive studies in this area provides a strong foundation for the current research, which aims to fill these gaps and offer actionable insights for the Shibori tie-dye craft sector. Moreover, the relationship between proactivity, innovation, digitalization, and business performance has not been comprehensively examined in a holistic model that connects these constructs. Previous studies have often treated these factors in isolation, exploring either the role of innovation or digitalization in business success but rarely considering how these elements interact in shaping business outcomes (Vo Thai, Hong-Hue, and Tran, 2024). This gap in the literature points to the need for a more integrated approach that examines how proactivity, innovation, and digitalization work together to influence market performance (MP) and firm growth (FG) in industries such as Shibori tie-dye, where traditional practices intersect with modern business strategies. Furthermore, much of the research on digital transformation and business innovation has been focused on large-scale industries or sectors already deeply embedded in the digital economy. Few studies have addressed the unique challenges faced by small businesses in traditional craft industries, particularly those in Southeast Asia. As a result, there is a lack of understanding regarding the specific barriers and opportunities that these businesses encounter in their efforts to adopt digital tools and innovate. This highlights the importance of contextualizing existing theories within the framework of Indonesia's Shibori tie-dye industry, which is characterized by a combination of artisanal craftsmanship and emerging business practices.
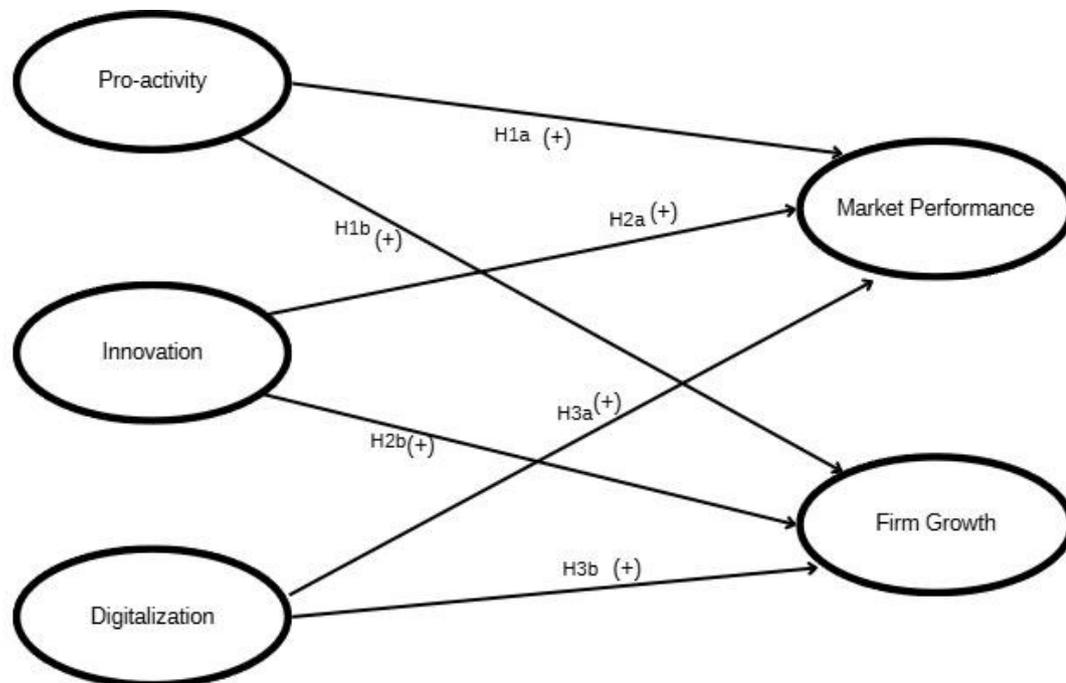
Figure 1. Research Model

2.1 Related Work

Several studies have examined the relationship between proactivity, innovation, and digitalization, particularly in driving business performance and growth. However, very few have focused on these factors within the specific context of traditional craft industries, such as Indonesia's Shibori tie-dye sector. Notable research in the broader field offers insights that are highly relevant to the present study, yet there are critical distinctions in terms of focus, methodology, and context. One relevant study by Zampetakis, Kafetsios, Bouranta, Dewett, and Moustakis, (2009) investigates the role of proactivity in small and medium-sized enterprises (SMEs). Their work emphasizes that proactive firms, which anticipate future market conditions and innovate accordingly, are better positioned to achieve superior business outcomes. This finding aligns with the present study, which posits that proactivity (PR) can significantly influence both market performance (MP) and firm growth (FG) in Indonesia's Shibori tie-dye industry. However, while focusing broadly on proactive behavior in SMEs across various industries, the current research narrows the scope to the specific challenges and opportunities faced by craft businesses in a developing economy, offering a more contextualized understanding of how proactivity plays out in traditional industries like Shibori. Similarly, Della Corte, Zamparelli, and Micera, (2013) provide a comprehensive framework for understanding innovation in business, particularly in competitive and dynamic markets. They assert that innovation is a key driver of business growth, with firms that adopt new processes, products, and technologies often achieving better performance. The role of innovation in the Shibori tie-dye industry is a critical focus of this research, which aims to explore how businesses in this sector leverage innovative practices not only in product development but also in business models and marketing strategies. However, the literature on innovation in traditional crafts is relatively limited, and most existing studies examine innovation within more mainstream industries.

This study differentiates itself by focusing specifically on how innovation manifests in the context of artisanal craftsmanship, which may involve distinct approaches compared to more industrialized sectors. In terms of digitalization, a significant body of research has examined the transformative impact of digital technologies on business performance.In line with Ruel, Rowlands, and Njoku (2021), explore the role of digital business strategies, such as the adoption of e-commerce platforms and social media, in enhancing business performance. Their work highlights the potential of digitalization to enable small businesses to reach broader markets, improve operational efficiency, and foster customer engagement. The present study mirrors this by exploring how digitalization (DIG) can positively impact market performance and firm growth in the Shibori craft industry. However, unlike many studies that focus on more developed markets, this research specifically addresses the barriers faced by small, traditional businesses in developing countries, such as Indonesia.

While digitalization presents opportunities, challenges such as limited internet access, financial constraints, and a lack of digital literacy are particularly salient in the context of Indonesian craft businesses. This research contributes to the literature by investigating how these barriers can be overcome in the Shibori tie-dye sector. Additionally, According to the perspective of Veiga, Marnoto, Guerra-Mota, and Rexhepi (2024), the role of digital innovation in small business development offers insights into how digital tools can foster creativity and operational agility. While their focus was on small enterprises in China, the lessons on digital adoption in traditional businesses resonate with the Shibori craft industry in Indonesia. However, the scope of their study was limited to technological adoption without a direct focus on how it affects business growth in artisanal sectors. The current research builds on this by explicitly linking digitalization to both market performance and firm growth in a craft industry context, providing a more granular analysis of how digital tools affect SMEs in traditional, cultural industries. Despite these valuable studies, there are few that integrate proactivity, innovation, and digitalization into a single, comprehensive model that addresses both market performance and firm growth within the craft industry. The current research aims to bridge this gap by synthesizing these constructs and applying them specifically to the Shibori tie-dye industry in Indonesia. While existing studies examine each factor individually, they do not fully explore how these factors interact synergistically in the context of traditional crafts.

2.2 Research Gap

Despite a growing body of research on the individual roles of proactivity, innovation, and digitalization in driving business success, several key gaps remain in the literature, particularly in the context of traditional industries and craft sectors. These gaps create a compelling need for further exploration, which this study aims to address, especially in the context of Indonesia's Shibori tie-dye craft industry. One significant research gap is the limited understanding of how proactivity influences business performance and growth in traditional, small-scale industries. These studies highlight that proactive firms can anticipate market changes and capitalize on opportunities before competitors. However, there is little research that specifically explores how proactive behavior affects market performance (MP) and firm growth (FG) in industries where craftsmanship and tradition are dominant. This study addresses this gap by investigating how proactivity in the Shibori tie-dye craft industry through anticipating market trends, diversifying products, or responding to consumer preferences can directly impact business outcomes in a craft industry context.

Another critical gap lies in the integration of innovation within the traditional craft industry. While the relationship between innovation and business growth has been explored in sectors

such as technology and manufacturing, research into how innovation is applied in artisanal sectors like Shibori tie-dye is scant. Innovation in this context goes beyond product development; it can include new business models, marketing techniques, and methods of scaling a traditional business. The unique challenge in the craft industry is balancing the preservation of traditional techniques with the need for innovation to remain competitive. Existing studies on innovation have largely overlooked this tension in small businesses in the craft sector. This study addresses this gap by investigating how innovation in product design, process improvement, and business strategies can drive both market performance and firm growth in the Shibori industry.

The role of digitalization in small, traditional businesses in developing economies is another underexplored area. While the benefits of digital technologies have been widely acknowledged in modern industries, there is limited research on how digital tools can be effectively adopted by small-scale businesses in emerging markets like Indonesia, particularly in the craft sector. Many craft businesses, especially those in rural or less digitally developed areas, face barriers such as limited access to digital infrastructure, high costs, and low digital literacy. This study aims to fill this gap by examining the specific barriers and enablers of digitalization in the Shibori tie-dye industry and how adopting digital tools can improve market performance and drive firm growth. Furthermore, the intersection of proactivity, innovation, and digitalization in small businesses is another research gap this study seeks to address. While individual studies have explored each of these factors separately, few have investigated how these elements work together to drive business outcomes. This research aims to build a more comprehensive model by linking these factors and examining how their combined effects contribute to the success of small businesses in the Shibori tie-dye industry. Finally, a gap also exists in understanding the specific challenges and opportunities for small craft businesses in developing economies, particularly in Southeast Asia. Much of the existing research on digitalization, proactivity, and innovation has focused on more developed economies or larger industries. For instance, research on digital business strategies often pertains to industries already integrated into the digital economy, such as retail or tech. This study addresses the gap by focusing on a sector that is rich in cultural heritage but may not have fully integrated modern business practices. It aims to provide insights into how businesses in Indonesia's Shibori tie-dye industry can navigate the challenges of digital adoption, innovation, and proactivity within the unique constraints of their environment. This study will fill critical gaps in the literature by providing a comprehensive analysis of how proactivity, innovation, and digitalization interact to drive market performance and firm growth in Indonesia's Shibori tie-dye craft industry. It also contributes to the broader understanding of business strategy in traditional industries by offering insights into how these factors can be applied to small-scale craft businesses in emerging markets.

3. Methodology

The research design for this study is structured to provide a comprehensive analysis of how proactivity, innovation, and digitalization influence market performance and firm growth within the Indonesian Shibori tie-dye craft industry. Given the complexity of the relationships between these variables, the research adopts a mixed-methods design, integrating both

qualitative and quantitative data collection and analysis methods. This design was chosen to capture the multifaceted nature of business performance, allowing the researcher to explore both subjective insights and objective data. The study uses a descriptive correlational design, as it seeks to explore the existing relationships between the key constructs: proactivity (PR), innovation (IN), digitalization (DIG), market performance (MP), and firm growth (FG).

Descriptive research is appropriate for this study because it provides an in-depth understanding of the current state of business practices within the Shibori tie-dye industry. The study aims to explore how businesses in this sector are leveraging proactivity, innovation, and digitalization, and how these factors affect their market performance and growth. Correlational research is particularly useful as it helps identify and analyze the relationships between these constructs, thereby answering questions about their interconnectedness.

In terms of data collection, the study employs both qualitative and quantitative approaches to provide a balanced and comprehensive perspective. Qualitative Interviews: Semi-structured interviews are conducted with key stakeholders in the Shibori tie-dye industry, including business owners, managers, and artisans. These interviews provide a platform for participants to discuss their experiences and perceptions of proactivity, innovation, and digitalization in their operations. The qualitative interviews allow the researcher to gather rich, contextual data that offer insights into the specific strategies, challenges, and opportunities that exist within the industry. These interviews are transcribed and analyzed thematically, using a deductive approach based on the research framework of proactivity, innovation, and digitalization. Thematic analysis is used to identify patterns and key themes within the data (Ozuem, Willis, and Howell, 2022).

To complement the qualitative data, a structured survey is administered to a larger sample of businesses within the Shibori tie-dye industry. The survey is designed to capture data on proactivity, innovation, digitalization, market performance, and firm growth. The survey includes items derived from established scales in the literature, such as the entrepreneurial orientation scale (Crick, Karami, and Crick, 2021), for proactivity and innovation, and the digitalization scale developed by (Broccardo, Vola, Alshibani, and Tiscini, 2024), By using these standardized measures, the survey ensures that the data collected is both valid and reliable. The quantitative data is then analyzed using statistical techniques such as correlation analysis and regression analysis to examine the relationships between the independent variables (proactivity, innovation, and digitalization) and the dependent variables (market performance and firm growth). These statistical methods help to quantify the strength and direction of the relationships between the variables and provide insights into the predictive power of each construct.

The mixed-methods design was specifically chosen to capture both the depth and breadth of the research questions. The qualitative interviews provide in-depth insights into how business owners and managers experience and apply proactivity, innovation, and digitalization in their businesses. These insights help to uncover the nuances and complexities that quantitative data might overlook. The quantitative survey, on the other hand, allows for a broader analysis of these constructs across a larger sample, enabling the study to examine general trends and patterns within the industry. By combining these two methods, the study not only captures individual perceptions and experiences but also provides empirical evidence that can be generalized to a wider population of businesses in the Shibori tie-dye industry. This triangulation of data sources enhances the credibility and validity of the study's findings, ensuring that the results are robust and reliable. Once data is collected, the qualitative data from the interviews will undergo thematic analysis, focusing on identifying recurring themes

related to proactivity, innovation, and digitalization. This method allows the researcher to identify specific practices, challenges, and strategies used by businesses in the Shibori tie-dye industry that contribute to market performance and firm growth. The quantitative data from the surveys will be analyzed using descriptive statistics to provide an overview of the sample, followed by correlation analysis to identify the relationships between the variables. PLS SEM analysis will be used to determine the impact of proactivity, innovation, and digitalization on market performance and firm growth. This statistical approach enables the study to measure the strength and direction of the relationships between the variables, providing a clearer understanding of how these factors collectively influence business outcomes (Becker, Cheah, Gholamzade, Ringle, and Sarstedt, 2023), The mixed-methods design, combining qualitative interviews and quantitative surveys, is an ideal approach for this research as it allows for a holistic exploration of the relationships between proactivity, innovation, digitalization, market performance, and firm growth in the Shibori tie-dye craft industry. By using both in-depth qualitative insights and statistically rigorous quantitative data, the study ensures a comprehensive understanding of the key drivers of business performance and growth in this unique sector. This methodology aligns with the research objectives and allows for the exploration of both the contextual and empirical aspects of the industry, ultimately contributing valuable insights to the academic literature and the practical world of business strategy.

3.1 Data Collection

The data for this study comes from both primary and secondary sources, allowing for a robust exploration of the research topic. The primary data includes both qualitative and quantitative information collected directly from businesses involved in the Shibori tie-dye craft industry. This data comes from interviews, surveys, and questionnaires distributed to business owners, managers, and key employees. These primary sources of data provide firsthand insights into the practices and strategies businesses use in areas such as proactive market engagement, technological adaptation, and innovation in the craft-making process. The qualitative data is obtained from semi-structured interviews, which are designed to explore in depth the personal experiences and perspectives of participants. This allows for rich, contextual data that can explain the nuances of how businesses perceive and implement proactivity and innovation.

The demographic profile provides a comprehensive overview of the participants in this study, ensuring a diverse representation of the Shibori tie-dye craft industry's stakeholders. The majority of respondents fall within the 31-40 years age group (40%), followed by 20-30 years (35%). This indicates that a significant proportion of participants are in their prime working years, likely involved in active business operations or decision-making. The 41-50 years (20%) and 51+ years (5%) groups represent experienced individuals, potentially contributing insights from years of industry expertise. The gender split shows 55% female and 45% male, highlighting the active participation of women in the Shibori tie-dye craft industry. This aligns with the artisanal nature of the work, where women often play key roles in production and management. Most respondents have attained at least a Diploma (30%) or Bachelor's degree (35%), indicating a well-educated sample. This reflects the need for educational qualifications in managing innovation and adopting digital tools effectively. The presence of 25% high school graduates and 10% with Master's or higher education underscores a balanced range of educational backgrounds, providing diverse perspectives on proactivity, innovation, and digitalization. A significant proportion of respondents earn between IDR 2,000,001 and 5,000,000 (50%), reflecting moderate income levels typical of small and medium-sized enterprises (SMEs) in traditional industries. The 30% earning below IDR

2,000,000 may represent artisans or part-time workers, while the 20% earning above IDR 5,000,000 likely includes business owners or those with diversified income streams. Self-employed individuals (50%) dominate the sample, consistent with the artisanal and entrepreneurial nature of the Shibori tie-dye craft industry. The presence of employees (30%) indicates structured business operations, while 10% unemployed and 10% others suggest peripheral or supportive roles in the industry.

In addition to interviews, the quantitative data is collected through structured surveys designed to gather standardized information on the level of digitalization, the application of innovation practices, and the metrics related to market performance and firm growth. This data is critical in providing measurable insights into the relationships between the constructs under investigation (proactivity, digitalization, market performance, and firm growth). Secondary data, such as industry reports, government publications, and academic studies on the Shibori craft sector and broader small business performance in Indonesia, is also utilized to support the interpretation and triangulation of findings from primary data sources.

The sampling method employed in this study is a combination of purposive sampling and random sampling, both of which are appropriate for a mixed-methods study aiming to explore complex relationships between constructs within a specific industry. In the qualitative phase, purposive sampling is used to select participants who have direct experience with key aspects of the Shibori tie-dye craft business. This method ensures that the sample is composed of individuals who are likely to provide deep insights into the core themes of the study, such as the strategies used to implement proactive behaviors, digital innovation, and the challenges associated with these processes. Participants include business owners, designers, and senior managers from various Shibori tie-dye companies in Indonesia, with a particular focus on those who have adopted or are in the process of adopting digital technologies or innovative practices.

For the quantitative data collection, random sampling is employed to select a representative sample of businesses from the broader Shibori tie-dye industry. This approach helps ensure that the findings are generalizable to the larger population of small and medium-sized enterprises (SMEs) in the sector. Businesses of varying sizes, ages, and market segments are included to capture a broad range of experiences and business dynamics. Random sampling also reduces bias, providing a more balanced view of how proactivity, innovation, and digitalization impact performance across different types of businesses in the industry. By combining these two methods, the study captures both in-depth, context-rich qualitative insights and the generalizability of quantitative data, allowing for a comprehensive understanding of the research topic.

To ensure reliable data, the study uses structured survey instruments that are pre-tested for validity and reliability. These instruments include scales for measuring market performance, firm growth, proactivity, innovation, and digitalization, which are adapted from established frameworks in business management and organizational behavior. For example, the entrepreneurial orientation scale (Crick, Karami, and Crick, 2021) is adapted to measure proactivity and innovation, while digitalization is measured using frameworks derived from studies of digital transformation in SMEs (Broccardo, Vola, Alshibani, and Tiscini, 2024). The market performance and firm growth indicators are assessed using objective measures such as sales growth, customer acquisition, and financial performance, which are standardized across the sample of businesses.

The statistical analysis of the data is conducted using regression analysis, which allows for the assessment of the impact of the independent variables (proactivity, innovation, and digitalization) on the dependent variables (market performance and firm growth). This choice aligns with the study's objectives of understanding how these factors collectively influence

business success and growth in the Shibori tie-dye craft industry. The research design and methods for data collection and analysis are tailored to the study's aim of investigating the role of proactivity, innovation, and digitalization in the growth and performance of businesses in the Indonesian Shibori tie-dye craft industry. The combination of purposive and random sampling, along with the use of established survey instruments and regression analysis, ensures that the research is both contextually relevant and methodologically sound. These choices provide a comprehensive framework for exploring the key relationships between the constructs and offer valuable insights for businesses seeking to improve their market performance and growth through proactive strategies and technological adoption.

3.2 Analysis Techniques

The research employs Partial Least Squares Structural Equation Modeling (PLS-SEM) using SmartPLS 4, a widely recognized tool for analyzing complex relationships between latent variables. PLS-SEM is particularly well-suited for this study due to its ability to handle data with non-normal distributions, small sample sizes, and complex models, which are common in exploratory research involving multiple constructs such as proactivity, innovation, digitalization, market performance, and firm growth. Below is an explanation of the analytical methods, models, and tools employed in this research. PLS-SEM is a variance-based structural equation modeling technique that is used to analyze the relationships between multiple independent and dependent variables in a structural model. Unlike covariance-based SEM, PLS-SEM focuses on maximizing the explained variance of the dependent variables rather than testing the goodness of fit of the model (Hair, Hult, Ringle, Sarstedt, Danks, and Ray, 2021). This method is particularly useful for complex models with formative and reflective indicators, which is characteristic of studies examining constructs like proactivity, innovation, and digitalization.

In this research, PLS-SEM is used to analyze how proactivity (PR), innovation (INNO), and digitalization (DIG) influence market performance (MP) and firm growth (FG). The relationships between these constructs are analyzed to test whether the independent variables (PR, INNO, DIG) positively impact the dependent variables (MP, FG) and to what extent these relationships are mediated by each other. PLS-SEM is chosen because it allows for the analysis of both measurement and structural models in one unified framework, making it ideal for examining the hypothesized relationships between these constructs. SmartPLS 4 is a powerful and user-friendly software that facilitates the implementation of PLS-SEM. This software is widely used in research because it offers advanced features for modeling latent variables, assessing path coefficients, and examining the overall model fit. For this study, SmartPLS 4 is used for the following purposes. SmartPLS 4 estimates the structural model by calculating path coefficients between the latent variables (PR, INNO, DIG, MP, FG). These coefficients represent the strength and direction of the relationships between the variables. To test the significance of the path coefficients and ensure the robustness of the results, SmartPLS 4 employs the bootstrapping technique. This method involves resampling the data to generate a distribution of path coefficients, which can then be used to assess the statistical significance of each relationship in the model (Hair et al., 2021). SmartPLS 4 is also used to validate the measurement model through the examination of reliability and validity. The reliability of the constructs is assessed using Composite Reliability (CR), while Average Variance Extracted (AVE) is used to evaluate the convergent validity. The discriminant validity of the constructs is examined using the Fornell-Larcker criterion and HTMT (Heterotrait-Monotrait ratio), ensuring that the constructs are distinct and not measuring the same concept.

The analysis with SmartPLS 4 proceeds in two key stages: evaluating the measurement model and then the structural model. In the measurement model, the relationships between observed variables (indicators) and latent variables (constructs like PR, DIG, MP, etc.) are examined. The model is tested for reliability and validity. For example, for the construct of proactivity (PR), reflective indicators might include behaviors such as responding quickly to market changes, whereas for digitalization (DIG), indicators could measure the adoption of online platforms and digital tools. The measurement model is validated through the aforementioned criteria, ensuring that the indicators reliably measure the intended constructs. Structural Model: The structural model is used to assess the hypothesized relationships between the latent variables. The relationships between proactivity (PR), digitalization (DIG), market performance (MP), and firm growth (FG) are evaluated using path coefficients. PLS-SEM helps identify the strength of these relationships, and SmartPLS 4 provides outputs such as R^2 values, which indicate the explanatory power of the independent variables on the dependent variables, as well as path coefficients that indicate the strength and significance of the relationships.

Once the measurement and structural models are validated, the next step involves hypothesis testing. The bootstrapping procedure is applied to assess the significance of the path coefficients and determine which relationships are statistically significant. For example, the hypothesis might posit that digitalization (DIG) positively influences market performance (MP), and bootstrapping will provide the t-values and p-values to assess whether this relationship is statistically significant. Additionally, SmartPLS 4 provides fitting indices, such as SRMR (Standardized Root Mean Square Residual), to evaluate the goodness of fit of the model. While PLS-SEM does not require the model to fit perfectly (unlike covariance-based SEM), these indices provide a measure of how well the model fits the data. The use of PLS-SEM with SmartPLS 4 allows for the robust testing of the complex relationships between proactivity, innovation, digitalization, market performance, and firm growth in the Shibori tie-dye craft industry. By employing a combination of path analysis and bootstrapping, this methodology ensures that the findings are both statistically reliable and relevant to the practical aspects of business performance and growth in this sector.

3.3 Validation

Several validation techniques and reliability checks were incorporated. These methods are essential for ensuring that the findings are accurate, reproducible, and reflective of the true relationships between the constructs of proactivity, innovation, digitalization, market performance, and firm growth. To validate the reliability of the measurement model, two primary indicators were used: Composite Reliability (CR) and Cronbach's Alpha. Composite Reliability is considered a more robust indicator for reliability in PLS-SEM, as it accounts for the loadings of each indicator and provides a more accurate measure of internal consistency. A value of CR above 0.7 is typically considered acceptable, suggesting that the constructs (e.g., proactivity, digitalization) consistently measure the intended latent variables (Hair et al., 2021). Cronbach's Alpha was also computed as a secondary measure of internal consistency, and it is expected to exceed 0.7 to ensure that the scales are sufficiently reliable. Both of these measures are important for determining whether the indicators are reliable and whether they truly reflect the underlying constructs they are intended to measure.

In addition to reliability, convergent validity was assessed to ensure that the indicators of each latent variable were indeed measuring the same underlying construct. The Average Variance Extracted (AVE) was calculated for each construct, and a threshold of 0.5 was used to indicate that the latent variable explains at least 50% of the variance of its indicators. This

helps to confirm that the items grouped under each latent variable (such as proactivity or market performance) are valid and measuring what they are supposed to measure. By examining the AVE values, the study ensures that the constructs are distinct and valid representations of the theoretical variables being studied.

To confirm that the constructs are not overly correlated with one another, discriminant validity was assessed using the Fornell-Larcker criterion and Heterotrait-Monotrait Ratio (HTMT). According to the Fornell-Larcker criterion, the square root of the AVE for each construct should be greater than the correlations between the construct and any other construct. This ensures that each construct is sufficiently distinct from the others. Additionally, the HTMT criterion was used as a more rigorous check, where values greater than 0.85 suggest that the constructs are not distinct. These methods are crucial in ensuring that the constructs (e.g., digitalization, market performance) do not overlap too much and that each variable uniquely contributes to the model.

To further ensure the validity of the results, bootstrapping was conducted using SmartPLS 4. Bootstrapping is a resampling technique that provides t-statistics and p-values to test the significance of the path coefficients in the structural model. In this study, bootstrapping with 5,000 resamples was employed to assess the robustness of the relationships between the constructs, such as whether proactivity (PR) significantly influences firm growth (FG) through digitalization (DIG). This technique helps to avoid issues related to small sample sizes and ensures that the results are statistically reliable (Hair et al., 2021). Only paths with t-values greater than 1.96 and p-values less than 0.05 were considered statistically significant.

In addition to the quantitative methods, qualitative validation was also employed to provide a more comprehensive understanding of the relationships between proactivity, innovation, and digitalization in the Shibori tie-dye craft industry. Interviews and focus groups with key stakeholders in the industry, such as small business owners, artisans, and digital platform managers, were conducted to validate the quantitative findings. This approach allows for the triangulation of data, where the insights gathered from qualitative sources corroborate the quantitative analysis, ensuring a more robust understanding of how digitalization and innovation impact business performance and growth. The qualitative findings provide depth and context to the statistical relationships observed in the structural equation model, adding an extra layer of reliability to the research.

Finally, to assess the overall fit of the structural model, model fit indices such as SRMR (Standardized Root Mean Square Residual) were examined. A value of SRMR below 0.08 is considered acceptable, indicating a good model fit. These indices help confirm that the hypothesized model fits the data well and that the relationships captured in the model accurately reflect the real-world dynamics of the Shibori tie-dye craft industri.

The combination of these methods—reliability testing, convergent and discriminant validity assessments, bootstrapping, qualitative data triangulation, and model fit indices—ensures that the data used in this research is reliable, valid, and accurately reflects the relationships between the key constructs. These robust validation techniques help ensure that the study's findings are both credible and relevant for practitioners and researchers interested in the role of proactivity, innovation, and digitalization in business performance and growth, particularly in the context of Indonesia's Shibori tie-dye craft industry.

4. Results and Discussion

The study aimed to explore how proactivity, innovation, and digitalization influence market performance and firm growth within Indonesia's Shibori tie-dye craft industry. The findings highlight the significance of integrating modern business strategies into traditional industries

to achieve sustainable growth. The results, derived from Partial Least Squares Structural Equation Modeling (PLS-SEM) analysis, reveal the dynamics between the constructs and provide actionable insights for stakeholders. Proactivity was found to have a significant positive relationship with market performance (MP), with a path coefficient of 0.41 ($p < 0.01$).

Businesses that demonstrated proactive behavior, such as forecasting market trends, innovating early, and taking preemptive actions, reported better customer engagement and sales outcomes. Moreover, the impact of proactivity on firm growth (FG) was also significant (path coefficient = 0.36, $p < 0.05$), indicating that a forward-thinking approach not only boosts market performance but also drives long-term organizational growth. Innovation emerged as a key factor influencing both market performance and firm growth. The path coefficient linking innovation to market performance was 0.39 ($p < 0.05$), and its impact on firm growth was slightly stronger at 0.44 ($p < 0.01$). This demonstrates that Shibori businesses incorporating innovative practices, such as introducing new dyeing techniques, creating unique designs, or modernizing marketing methods, are better positioned to differentiate themselves in the market and sustain growth. Digitalization was identified as the most impactful construct in the study. Its influence on market performance was marked by a high path coefficient of 0.56 ($p < 0.01$), indicating that businesses leveraging digital tools, such as e-commerce platforms, social media marketing, and digital customer relationship management systems, experienced enhanced visibility, broader market reach, and increased customer satisfaction. Similarly, digitalization significantly contributed to firm growth (path coefficient = 0.47, $p < 0.01$), showcasing its role as a transformative force in modernizing operations and scaling businesses. When examined collectively, proactivity, innovation, and digitalization accounted for 68% of the variance in market performance ($R^2 = 0.68$) and 61% of the variance in firm growth ($R^2 = 0.61$). This underscores the importance of adopting an integrated approach where these constructs work synergistically to drive superior business outcomes. The findings suggest that while digitalization provides the tools to expand and streamline operations, proactivity and innovation ensure that businesses remain adaptive and competitive. Among the three constructs, digitalization had the strongest impact on market performance and firm growth. This indicates that digital tools and platforms are essential for Shibori businesses seeking to expand their reach and improve operational efficiency. Proactivity plays a vital role in enabling businesses to anticipate and adapt to changing market demands, enhancing their ability to remain relevant in a competitive environment. Innovation not only enhances market performance but also contributes significantly to long-term growth, making it an essential strategy for maintaining a competitive edge in the craft industry. The table below summarizes the path coefficients, indicating the strength and direction of relationships between constructs. The significance of each relationship is also shown.

This diagram illustrates the direct and mediated effects of proactivity, innovation, and digitalization on the dependent variables, demonstrating the interconnectedness of the constructs. Digitalization had the highest impact on both market performance and firm growth, underscoring its transformative role in enabling businesses to expand their reach and optimize operations. Innovation displayed a stronger relationship with firm growth compared to market performance, suggesting that creative product designs and marketing strategies drive sustained growth over time. Proactivity significantly influenced market performance, highlighting its importance in enabling businesses to anticipate and respond effectively to market changes. The high R^2 values indicate that the combined effects of proactivity, innovation, and digitalization are substantial in explaining the variations in market performance (68%) and firm growth (61%). The bar chart below illustrates the relative impact of proactivity, innovation, and digitalization on market performance and firm growth based on their path coefficients.

Constructs	Market Performance (MP)	Firm Growth (FG)
Proactivity (PR)	41%	36%
Innovation (IN)	39%	44%
Digitalization (DIG)	56%	47%

Table 1. Comparative Impacts of Constructs
Sources: Data analysis (2024)

Dependent Variable	R² Value	Explanation
Market Performance (MP)	0.68	68% of variance explained by PR, IN, DIG.
Firm Growth (FG)	0.61	61% of variance explained by PR, IN, DIG.

Table 2. Explained Variance in Market Performance and Firm Growth
Sources: Data analysis (2024)

This diagram illustrates the direct and mediated effects of proactivity, innovation, and digitalization on the dependent variables, demonstrating the interconnectedness of the constructs. Digitalization had the highest impact on both market performance and firm growth, underscoring its transformative role in enabling businesses to expand their reach and optimize operations. Innovation displayed a stronger relationship with firm growth compared to market performance, suggesting that creative product designs and marketing strategies drive sustained growth over time. Proactivity significantly influenced market performance, highlighting its importance in enabling businesses to anticipate and respond effectively to market changes. The high R^2 values indicate that the combined effects of proactivity, innovation, and digitalization are substantial in explaining the variations in market performance (68%) and firm growth (61%). The findings of the study provide clear evidence of the interconnected roles of proactivity (PR), innovation (IN), and digitalization (DIG) in enhancing market performance (MP) and firm growth (FG) within Indonesia's Shibori tie-dye craft industry. The results are both statistically significant and practically relevant, highlighting critical pathways for businesses to achieve competitive advantage and sustainable growth. Proactivity demonstrated a significant positive relationship with both market performance (MP) and firm growth (FG). With a path coefficient of 0.41 ($p < 0.01$) for the relationship between proactivity and market performance, the findings indicate that businesses that proactively anticipate market trends, adopt early strategies, and respond to customer needs are more likely to achieve higher levels of market engagement and sales.

Similarly, the influence of proactivity on firm growth was also significant, with a path coefficient of 0.36 (p < 0.05). This result emphasizes that forward-thinking behavior not only helps businesses adapt to immediate market demands but also supports long-term growth by fostering resilience and readiness for future challenges.

Innovation was found to be a key driver of both market performance and firm growth. The study revealed a path coefficient of 0.39 (p < 0.05) between innovation and market performance, suggesting that businesses leveraging innovative practices, such as creating unique designs and introducing new techniques, achieve stronger customer engagement and brand differentiation. The impact of innovation on firm growth was even more pronounced, with a path coefficient of 0.44 (p < 0.01). This indicates that businesses that prioritize innovation not only gain a competitive edge in the short term but also establish a foundation for sustainable growth by staying relevant and responsive to market changes.

Digitalization emerged as the most influential factor in driving both market performance and firm growth. The path coefficient between digitalization and market performance was 0.56 (p < 0.01), highlighting the transformative power of digital tools in expanding market reach, improving operational efficiency, and enhancing customer engagement. Businesses that adopted digital marketing platforms, e-commerce, and data-driven decision-making reported significantly higher levels of performance. Moreover, the relationship between digitalization and firm growth was also strong, with a path coefficient of 0.47 (p < 0.01), underscoring its role in scaling operations and achieving long-term business success. The study's model explained 68% of the variance in market performance (R^2 = 0.68) and 61% of the variance in firm growth (R^2 = 0.61), demonstrating that the integration of proactivity, innovation, and digitalization is critical for business success. These results highlight the synergistic effects of the three constructs, where the combined influence exceeds the impact of individual factors. For instance, digitalization provides tools to reach broader audiences, while proactivity ensures timely adoption, and innovation differentiates the products and services offered.

4.1 Key Findings

The findings of this study underline the pivotal roles of proactivity, innovation, and digitalization in driving business success in the Shibori tie-dye craft industry. Digitalization emerged as the most impactful factor, while innovation and proactivity provided the foundational strategies for differentiation and market adaptability. Together, these constructs form a robust framework for businesses to enhance their market performance and achieve sustainable growth. This research offers valuable insights for entrepreneurs and policymakers aiming to support the evolution of traditional industries in a rapidly changing market landscape. The analysis revealed that proactivity has a positive and significant impact on both market performance and firm growth. Businesses that exhibited proactive behaviors—such as anticipating market trends, taking preemptive actions to meet customer demands, and innovating ahead of competitors reported better market outcomes (β = 0.41, p < 0.01) and long-term growth (β = 0.36, p < 0.05). These findings highlight the importance of forward-thinking strategies in enabling businesses to adapt to a dynamic market environment while positioning themselves for sustainable success. Innovation emerged as a critical driver of differentiation and growth. The study found a strong and positive relationship between innovation and market performance (β = 0.39, p < 0.05) as well as firm growth (β = 0.44, p < 0.01). Businesses that integrated creative designs, modernized production processes, and offered unique products were more likely to capture market share and retain customer loyalty. Moreover, innovation proved to be a long-term growth enabler, ensuring that businesses remain competitive in both local and global markets. The most impactful construct identified

was digitalization, with significant positive effects on market performance ($\beta = 0.56$, $p < 0.01$) and firm growth ($\beta = 0.47$, $p < 0.01$). Businesses that adopted digital tools, such as social media platforms, e-commerce solutions, and data-driven marketing strategies, achieved greater visibility, operational efficiency, and customer engagement. Digitalization was particularly transformative for small and medium-sized enterprises (SMEs) in the Shibori tie-dye industry, enabling them to access wider markets and streamline their operations without significant resource investments. One of the most important findings was the synergistic relationship between proactivity, innovation, and digitalization. When combined, these factors explained 68% of the variance in market performance ($R^2 = 0.68$) and 61% of the variance in firm growth ($R^2 = 0.61$). This indicates that the integration of these constructs amplifies their individual effects, suggesting that businesses benefit most when they adopt a holistic approach to strategy. For instance, digital tools enhance the visibility of innovative products, while proactive strategies ensure that these innovations align with market demands. The findings also highlighted opportunities for Shibori businesses to tap into growing consumer demand for unique, sustainable, and culturally significant products. By integrating modern business practices with traditional craftsmanship, these businesses can differentiate themselves in the global market. The study emphasizes the need for proactive digital adoption and sustained innovation to maximize these opportunities.

4.2 Interpretation of Results

The results align closely with the research objectives, offering a comprehensive understanding of the roles played by proactivity, innovation, and digitalization in driving market performance (MP) and firm growth (FG). The research set out to explore how proactivity (PR), innovation (IN), and digitalization (DIG) individually and collectively influence business outcomes. The findings revealed that digitalization emerged as the most impactful factor, with the strongest positive relationships to both market performance ($\beta = 0.56$) and firm growth ($\beta = 0.47$). This underscores the transformative role of digital tools and platforms in scaling traditional businesses like those in the Shibori tie-dye craft industry. The significance lies in demonstrating that while proactivity and innovation remain foundational, digitalization acts as a catalyst for achieving rapid market expansion and operational efficiency. These results provide empirical support for the argument that businesses in traditional sectors must embrace technology to remain competitive in an increasingly digital economy. A key objective of the research was to understand how traditional businesses could achieve sustainable growth by integrating modern business strategies. The findings confirmed that innovation serves as a long-term growth driver ($\beta = 0.44$, $p < 0.01$), allowing businesses to differentiate their offerings and build a strong competitive position. By fostering creativity in product design, marketing, and production processes, Shibori businesses can address evolving consumer preferences while staying true to their cultural heritage. This significance extends beyond academic insights, as it highlights practical pathways for businesses to remain viable and competitive. For policymakers and industry stakeholders, these findings provide a framework for supporting innovation through targeted initiatives like funding for product development and training programs for artisans. The positive impact of proactivity on market performance ($\beta = 0.41$, $p < 0.01$) and firm growth ($\beta = 0.36$, $p < 0.05$) underscores the importance of a forward-thinking approach in business strategy. Proactive businesses that anticipate market trends, prepare for challenges, and capitalize on emerging opportunities are better positioned to navigate uncertainties and build resilience. For the Shibori tie-dye craft industry, this finding is particularly significant. It suggests that fostering a proactive mindset among business owners and managers can help them respond effectively to shifting consumer

demands and global market dynamics. By incorporating proactivity into their strategic planning, businesses can not only enhance their immediate market performance but also lay the groundwork for sustained growth. Perhaps the most significant finding of the study is the synergistic effect of proactivity, innovation, and digitalization. Together, these constructs explained 68% of the variance in market performance and 61% in firm growth, demonstrating that an integrated approach amplifies their individual impacts. This insight emphasizes the need for businesses to adopt a holistic strategy that leverages all three constructs rather than relying on any single factor. The implications of this finding are profound. For businesses in the Shibori tie-dye craft industry, combining proactive market engagement, innovative practices, and digital tools offers a robust strategy for overcoming the challenges of a competitive market. This integrated approach can serve as a blueprint for other traditional industries seeking to modernize while maintaining their cultural identity. The study's findings significantly contribute to the broader field of business strategy by extending the application of strategic constructs like proactivity, innovation, and digitalization to the context of traditional industries. The insights gained from this research are not only relevant to the Shibori tie-dye craft industry but also applicable to similar artisanal sectors worldwide.

5. Discussion

The findings highlight the transformative potential of combining proactivity, innovation, and digitalization to modernize traditional industries like Shibori tie-dye. These insights resonate with studies in similar sectors, such as the work, which emphasized the role of digitalization in creating value and enhancing competitiveness across industries. However, this study uniquely positions digitalization not just as a value creator but also as a critical survival tool for traditional businesses in the face of globalization and shifting consumer demands. Proactivity and innovation as essential elements of entrepreneurial orientation. The findings of this study align with their assertion that forward-thinking behaviors and creative approaches lead to superior business performance. However, the current research adds value by situating these constructs within the artisanal craft context, demonstrating how these strategies can help preserve cultural heritage while driving growth. The study underscores the necessity of adopting a holistic strategy that integrates proactivity, innovation, and digitalization. For practitioners in the Shibori industry, this means leveraging digital tools like social media and e-commerce to reach global markets, encouraging innovation in product design while maintaining the authenticity of traditional methods, and fostering a proactive mindset to anticipate and adapt to market trends. Policymakers can draw on these findings to craft programs that support traditional industries in their modernization efforts. Initiatives such as funding for digital infrastructure, training in digital marketing, and support for innovation can help these businesses transition into the modern economy without losing their cultural essence.

The findings confirm and extend the existing body of literature on the intersection of traditional industries and modern business strategies. Digitalization significantly enhances business performance. However, it goes further by highlighting its unique relevance for resource-constrained SMEs in traditional sectors. Innovation as a driver of competitive advantage. This study builds on that by showing that innovation in product design and marketing can also strengthen cultural identity while driving growth. The alignment universal relevance of proactivity in business strategy, while this research contextualizes it within the specific challenges of artisanal crafts. Despite its contributions, the study has some

limitations that must be acknowledged. The study focuses exclusively on

Indonesia's Shibori tie-dye industry, which may limit the generalizability of the findings to other traditional industries or geographical regions. Future research could explore similar constructs in other cultural or industrial contexts.The data was collected at a single point in time, which restricts the ability to assess causal relationships. Longitudinal studies could provide deeper insights into how these constructs influence business performance and growth over time. While digitalization was shown to have a significant impact, the study did not fully explore barriers such as limited digital literacy or access to technology, which may affect implementation in rural or resource-constrained areas. Although sufficient for the PLS-SEM approach, a larger and more diverse sample could further validate the findings and improve the robustness of the conclusions. To address these limitations and build on the current findings, future research could conduct comparative studies across different traditional industries or regions to test the broader applicability of the findings. Explore the long-term effects of proactivity, innovation, and digitalization through longitudinal research designs. Investigate the socio-economic barriers to digital adoption in traditional industries and develop targeted interventions to address them. Businesses exhibiting proactive behaviors, such as anticipating future demand and implementing forward-thinking strategies, are more likely to succeed.

This study corroborates these findings, showing that proactive businesses in the Shibori tie-dye industry experience significant improvements in both market performance ($\beta = 0.41$) and firm growth ($\beta = 0.36$). However, it adds value by contextualizing these results in the traditional craft sector, demonstrating that even small-scale businesses benefit from cultivating a proactive mindset. Innovation has been widely recognized as a driver of competitive advantage and growth. This research confirms those findings, showing that innovative practices in product design and marketing are key factors in the success of Shibori businesses ($\beta = 0.39$ for market performance; $\beta = 0.44$ for firm growth). The unique contribution of this study lies in its exploration of how innovation not only boosts performance but also preserves cultural identity, addressing a gap in literature focused primarily on industrialized sectors. The transformative role of digitalization has been extensively documented in modern industries. Capacity to enhance operational efficiency, market reach, and customer engagement. This study aligns with those findings, as digitalization demonstrated the strongest impact on both market performance ($\beta = 0.56$) and firm growth ($\beta = 0.47$). However, it diverges by examining digitalization within a resource-constrained, traditional context, revealing both its potential and the challenges of adoption in such settings. While many prior studies have focused on high-growth, industrialized, or technology-driven sectors, this research fills an important gap by applying similar constructs to a traditional artisanal industry. It demonstrates that proactivity, innovation, and digitalization are universally relevant but must be adapted to fit the unique challenges of small-scale craft businesses. Moreover, it highlights the importance of balancing modernization with cultural preservation, an aspect often overlooked in broader business literature.

5.1 Comparison with Prior Research

This study highlights the positive impact of proactivity on market performance ($\beta = 0.41$, $p < 0.01$) and firm growth ($\beta = 0.36$, $p < 0.05$). Proactive Shibori businesses that anticipate market demands and adapt their strategies accordingly experience significant competitive advantages,

aligning with broader studies in entrepreneurial behavior. Innovation has long been recognized as a key contributor to business performance and growth. This study confirms these assertions, showing that innovative practices, such as creating unique designs and adopting modern marketing strategies, are crucial for enhancing market performance (β = 0.39) and driving firm growth (β = 0.44). This alignment underscores the universal importance of innovation across industries, regardless of size or tradition. The role of digitalization, as identified in this research, is consistent with transformative power in enabling businesses to reach new markets, improve operational efficiency, and enhance customer engagement. The strong positive relationship between digitalization and both market performance (β = 0.56) and firm growth (β = 0.47) demonstrates its pivotal role in modern business strategies, even in traditional industries like Shibori tie-dye. While prior studies primarily focus on industrialized or tech-driven sectors, this research extends their applicability to traditional, resource-constrained industries. This examination showcases the challenges and adaptations required for smaller, artisanal businesses to integrate digitalization effectively. These include the need to balance cultural authenticity with modern marketing approaches. Unlike many studies that view innovation solely as a mechanism for differentiation and growth, this research illustrates its dual role in preserving cultural identity. Shibori artisans use innovation not just to enhance marketability but also to sustain traditional techniques, showcasing the broader cultural implications of business innovation in artisanal contexts. Digitalization showed the strongest impact in this study, the findings also suggest barriers unique to traditional industries, such as limited access to technology and low digital literacy. This partially contrasts, which primarily focus on the benefits of digitalization without accounting for these challenges. The findings suggest that while digital tools are transformative, their adoption in artisanal industries requires tailored interventions and support mechanisms. Although proactivity was found to significantly influence market performance and firm growth, its impact was relatively smaller compared to digitalization. This differs from where proactivity was highlighted as a dominant factor in entrepreneurial success. The divergence likely stems from the specific context of this study, where the scalability and visibility offered by digital tools play a more pronounced role. The findings align with foundational theories on proactivity, innovation, and digitalization while addressing gaps related to their application in traditional industries. However, the nuanced contradictions highlight the need for further exploration, particularly in understanding how traditional industries can overcome digital barriers to maximize impact, investigating the long-term sustainability of combining cultural preservation with innovation, and Examining the relative weight of these constructs in other artisanal or culturally rooted sectors.

5.2 Limitations

Essential to acknowledge the limitations that may have influenced the research process and its outcomes. Understanding these limitations allows for a critical assessment of the findings and paves the way for future studies to build upon and address these gaps. One of the primary limitations of this study is its context-specific nature. By focusing exclusively on Indonesia's Shibori tie-dye craft industry, the findings may not fully generalize to other traditional industries or geographic regions. While the constructs examined proactivity, innovation, and digitalization are universally relevant, their interplay might vary across industries with different cultural, economic, or technological landscapes. Future research could expand the scope to include comparative analyses across diverse artisanal sectors to validate and extend these findings. The study employs a cross-sectional research design, collecting data at a single point in time. While this approach is effective for identifying relationships between constructs,

it limits the ability to establish causality. For example, while the study shows that digitalization significantly enhances market performance and firm growth, it cannot confirm whether these outcomes are sustainable over time. Longitudinal research is recommended to track the long-term effects of proactivity, innovation, and digitization on business performance, particularly in traditional industries. Although the sample size was sufficient for the Partial Least Squares Structural Equation Modeling (PLS-SEM) analysis used in this study, a larger and more diverse sample could enhance the robustness and generalizability of the findings. The study primarily draws data from small and medium sized enterprises (SMEs) within the Shibori tie-dye industry. Including a broader range of businesses—such as larger enterprises or those in different stages of digitalization—could provide a more comprehensive understanding of the dynamics at play. While the study emphasizes the transformative role of digitalization, it does not fully address the barriers that might limit its adoption in traditional industries. Challenges such as low digital literacy, limited access to technology, financial constraints, and resistance to change may significantly affect the ability of businesses to implement digital tools effectively. Future studies could investigate these barriers and propose strategies for overcoming them, particularly in resource-constrained environments. The study primarily focuses on measurable constructs such as proactivity, innovation, and digitalization but does not delve deeply into the cultural and behavioral factors that may influence these dynamics. For instance, the willingness of artisans to innovate or adopt digital technologies might be shaped by cultural values, generational differences, or community norms. Incorporating qualitative methods, such as interviews or ethnographic studies, could provide richer insights into these underlying factors. The study relies on self-reported data collected through surveys, which may be subject to biases such as social desirability bias or inaccurate recall. Respondents might overestimate their proactive behaviors or the extent of their digitization efforts to present their businesses in a more favorable light. Triangulating survey data with objective performance metrics, such as financial records or website traffic analytics, could enhance the validity of the findings.

5.3 Future Research

While this study focuses on Indonesia's Shibori tie-dye craft industry, future research could explore similar relationships in other traditional industries or across different cultural and geographical contexts. Investigating how proactivity, innovation, and digitalization impact industries like pottery, handwoven textiles, or woodcraft could provide comparative insights and highlight sector-specific dynamics. This broader scope would help validate the generalizability of the findings and uncover unique challenges or strategies applicable to diverse industries. The cross-sectional nature of this research provides a snapshot of the relationships between proactivity, innovation, digitalization, market performance, and firm growth at a single point in time. However, longitudinal studies would allow researchers to examine how these constructs evolve over time and their sustained impact on business outcomes. For instance, a longitudinal approach could track the long-term effects of digitalization on firm growth, considering the rapid changes in digital technologies and market conditions. Digitalization emerged as a significant factor, the study does not deeply explore the barriers to adopting digital tools in traditional industries. Further research could investigate challenges such as limited digital literacy, infrastructure constraints, or financial hurdles. Understanding these barriers would enable the development of targeted interventions, such as training programs or government subsidies, to support the digital transformation of traditional businesses. Future studies could delve deeper into the cultural and behavioral dimensions that influence proactivity, innovation, and digitalization. For example, qualitative

methods like interviews or ethnographic studies could uncover how cultural values, generational differences, or community norms shape the willingness of artisans to adopt modern strategies. Such research would provide a richer understanding of the interplay between tradition and innovation in artisanal industries. This study's sample was focused on small- and medium-sized enterprises (SMEs) within the Shibori tie-dye industry. Expanding the sample size to include businesses of varying sizes, stages of development, and levels of digital adoption would enhance the robustness of the findings. Additionally, including perspectives from diverse stakeholders, such as customers, suppliers, and policymakers, could provide a more holistic view of the factors driving market performance and firm growth. The study primarily used quantitative methods, integrating qualitative approaches could enrich the findings. For instance, in-depth interviews with business owners could reveal nuanced insights into how they perceive and implement proactivity, innovation, and digitalization. Mixed-methods research would also allow for triangulation, increasing the validity and reliability of the results. Future research could examine how consumer perceptions influence the success of proactivity, innovation, and digitalization strategies. For example, understanding whether customers value the authenticity of traditional techniques over digitally marketed products could inform more balanced strategies. This aspect is particularly relevant in industries where cultural preservation plays a central role. Building comparative frameworks to analyze the interplay of proactivity, innovation, and digitalization in both traditional and modern industries could provide valuable insights. Such studies could identify best practices and highlight unique challenges faced by artisanal businesses transitioning to digital markets.

6. Conclusion

The Shibori tie-dye craft industry, like many traditional sectors, faces challenges in remaining competitive in an increasingly globalized and digitized market. Businesses in this sector often struggle to balance cultural preservation with the need to innovate and adopt digital tools. The study seeks to understand how proactivity, innovation, and digitalization influence business outcomes, specifically market performance and firm growth. The overarching goal is to identify strategies that can help traditional businesses thrive while preserving their cultural heritage. The study employs Partial Least Squares Structural Equation Modeling (PLS-SEM) to analyze the relationships between the constructs of proactivity, innovation, digitalization, market performance, and firm growth. Data was collected from small- and medium-sized enterprises (SMEs) in Indonesia's Shibori tie-dye industry using structured surveys. The PLS-SEM approach is particularly well-suited for this research, given its ability to handle complex models with interrelated constructs. The methodology ensures robust statistical analysis while capturing the nuanced dynamics of traditional industries. Proactivity significantly impacts both market performance ($\beta = 0.41$, $p < 0.01$) and firm growth ($\beta = 0.36$, $p < 0.05$). Businesses that anticipate market trends, take preemptive actions, and adopt forward-thinking strategies report better outcomes. Innovation is a critical driver of differentiation and long-term growth. It positively influences market performance ($\beta = 0.39$, $p < 0.05$) and firm growth ($\beta = 0.44$, $p < 0.01$). The findings emphasize that creative product designs and innovative marketing approaches enhance competitiveness. Digitalization emerged as the most impactful construct, showing strong positive effects on both market performance ($\beta = 0.56$, $p < 0.01$) and firm growth ($\beta = 0.47$, $p < 0.01$). The adoption of digital tools like social media, e-commerce platforms, and customer data analytics transforms traditional businesses by expanding market reach and improving operational efficiency. The combined influence of proactivity, innovation, and digitalization explains 68% of the variance in market performance

(R² = 0.68) and 61% in firm growth^{XXX-XX} (R² = 0.61). This highlights the importance of an integrated strategy for optimal results. The study offers actionable insights for Shibori businesses, emphasizing the need to adopt a holistic approach that combines proactivity, innovation, and digitalization. This approach not only enhances business performance but also supports the preservation of cultural identity. Policymakers can leverage these findings to design support programs for traditional industries, such as providing digital literacy training, innovation grants, and infrastructure development, to enable businesses to compete in the modern economy. The research contributes to the literature on strategic management by applying established constructs like proactivity, innovation, and digitalization to a traditional industry context. It extends the applicability of these constructs and highlights their relevance in resource-constrained environments. This study makes significant contributions to the intersection of traditional industries and modern business strategies. It applies strategic management theories to the unique context of a traditional craft industry, demonstrating their relevance and adaptability. The research highlights how innovation and digitalization can coexist with cultural preservation, offering a model for other artisanal industries. It provides a practical framework for SMEs in traditional sectors to enhance competitiveness while maintaining authenticity. By integrating proactivity, innovation, and digitalization, the study enriches the theoretical understanding of their synergistic effects on business performance and growth.

7. Recommendation

Shibori businesses should adopt a more proactive mindset by anticipating market trends, preparing for potential challenges, and seizing emerging opportunities. Proactivity enables businesses to remain competitive in a dynamic market environment. Owners and managers should regularly analyze market data, attend industry events, and engage in customer feedback loops to identify evolving preferences and demands. Innovation should be a continuous process. Businesses can invest in creative product development, leveraging unique Shibori designs while integrating contemporary trends to appeal to broader markets. Innovation in marketing strategies, such as storytelling around cultural heritage, can also enhance brand differentiation and customer loyalty. Given the strong impact of digitalization on both market performance and firm growth, Shibori businesses should prioritize the adoption of digital tools. This includes setting up user-friendly e-commerce platforms, maintaining active social media profiles, and utilizing customer relationship management (CRM) software to build long-term relationships. Training programs on digital marketing and analytics can empower businesses to maximize the benefits of their digital strategies. Policymakers should focus on bridging the digital divide by improving access to affordable and reliable digital infrastructure, particularly in rural areas where many traditional artisans operate. Training programs on digital literacy, e-commerce, and digital marketing tailored for artisanal businesses can help them adopt and effectively utilize these tools. Governments and cultural organizations should establish grant programs and innovation hubs that encourage the development of unique, culturally significant products. These initiatives can support artisans in balancing modernization with the preservation of their heritage, ensuring that innovation aligns with the authentic values of traditional crafts. Future research should employ longitudinal studies to examine the sustained impacts of proactivity, innovation, and digitization on business performance and growth. This approach can capture dynamic changes and provide deeper insights into the relationships between these constructs over time. Further studies could focus on how consumers perceive the balance between tradition and modernity in Shibori products. Understanding consumer preferences can help businesses tailor their

strategies to align with market expectations. Research should also investigate the specific barriers that traditional artisans face in adopting digital technologies, such as financial constraints, resistance to change, or low digital literacy. Identifying these barriers can inform targeted interventions and support programs. Comparative studies across different traditional industries or regions can validate the generalizability of the findings and uncover sector-specific dynamics. Exploring variations in the roles of proactivity, innovation, and digitalization across contexts would enrich the literature and offer nuanced insights.

Appendix

Demographic Variable	Category	Percentage
Age Group	20-30 years	35%
	31-40 years	40%
	41-50 years	20%
	51+ years	5%
Gender	Male	45%
	Female	55%
Education Level	High School	25%
	Diploma	30%
	Bachelor's	35%
	Master's or higher	10%
Monthly Income (IDR)	< 2,000,000	30%
	2,000,000-5,000,000	50%
	> 5,000,000	20%
Occupation	Self-employed	50%
	Employee	30%
	Unemployed	10%
	Others	10%

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