

Effect of Social Media Marketing on Small Business Sustainability with Innovation Capability as mediator; A Case of Pakistan's Green Manufacturing Industry



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Abstract

This study investigates the effect of social media marketing on the sustainability of small businesses operating in Pakistan's green manufacturing sector, with innovation capability playing a pivotal role as a mediator. The increasing adoption of social media platforms by small and medium-sized enterprises (SMEs) has sparked interest in their potential to enhance business performance and sustainability. However, research exploring the specific relationship between social media marketing and sustainability in SMEs, particularly in developing economies like Pakistan, remains limited.

Employing a mixed-methods approach that incorporates qualitative and quantitative data, this research delves into how SMEs in Pakistan's green manufacturing sector leverage social media marketing. The findings reveal a positive correlation between social media marketing and the sustainability of these SMEs, mediated by their innovation capability. The study underscores that effective utilization of social media platforms enables SMEs to engage more meaningfully with customers, strengthen customer relationships, and bolster their brand reputation, thereby contributing to enhanced sustainability.

By enriching the existing literature, this research sheds light on the potential of social media marketing to drive sustainability initiatives among SMEs within Pakistan's green manufacturing industry. The implications of these findings extend to policymakers, business managers, and researchers, advocating for the integration of social media marketing strategies into business practices to foster sustainable development.

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Introduction

1.1 Background

The manufacturing sector holds paramount importance in Pakistan's economy, driving job creation, export revenues, and overall economic progress. However, it faces significant challenges such as heightened competition, escalating costs, and evolving consumer preferences. To sustain competitiveness, Pakistani manufacturing firms must adopt innovative strategies that enhance market presence and profitability.

In recent years, social media marketing has emerged as a pivotal strategy (Borah, Iqbal & Akhtar, 2022). With the rapid expansion of social media platforms, businesses across various sectors recognize their potential to reach and engage target audiences effectively. For small manufacturing enterprises in particular, social media marketing offers opportunities to augment brand visibility, cultivate customer relationships, and increase sales.

Pakistan's manufacturing landscape encompasses diverse sectors like textiles, automobiles, chemicals, and electronics. While large-scale firms dominate, small businesses play a vital role in employment generation and economic growth (Taneja & Toombs, 2014). Nevertheless, these smaller enterprises often grapple with limited resources and constrained marketing budgets, which pose challenges in competing against larger counterparts in the marketplace.

Beyond marketing benefits, social media platforms play a crucial role in bolstering the innovation capabilities of small manufacturing enterprises. By actively interacting with customers on these platforms, businesses can glean valuable insights and feedback that inform their product development and innovation strategies. Moreover, social media provides a platform for showcasing innovative products and processes, which can attract both customers and investors interested in novel solutions (Fan et al., 2021).

In terms of Pakistan's manufacturing industry, social media marketing holds immense significance for small businesses. It levels the competitive landscape, enabling them to vie effectively against larger counterparts while broadening their market reach. Furthermore, by fostering innovation capabilities, social media empowers small manufacturing firms to continuously innovate and deliver products that meet evolving customer demands. This dual impact underscores the transformative potential of social media marketing in driving growth and sustainability within the sector.

Social media marketing holds immense potential for small manufacturing businesses in Pakistan. Through adept use of social media platforms, small manufacturing businesses can significantly expand their visibility in the market, actively connect with their customer base, and foster enduring business growth. This research aims to explore the impact of social media marketing on small business sustainability in the Pakistan manufacturing industry, with a specific focus on the mediating role of innovation capability (Sivarajah et al., 2020). This study aims to uncover the intricate connections between these variables, offering valuable insights and actionable recommendations for small manufacturing businesses to excel in the digital age.

1.2 Problem Statement

The landscape of business-customer interactions has been profoundly transformed by the rapid expansion of social media platforms. Small businesses, in particular, have increasingly turned to social media marketing as a cost-effective strategy to broaden their audience reach and promote their offerings. Despite its growing adoption, comprehensive research on how social media marketing impacts small business sustainability within Pakistan's manufacturing industry remains sparse (Chatterjee & Kumar Kar, 2020). This research seeks to address this gap by investigating the influence of social media marketing on small business sustainability, with a specific emphasis on the role of innovation capability as a mediator.

At its core, this research aims to uncover the nuanced ways in which social media marketing affects the sustainability of small manufacturing businesses in Pakistan. While previous studies have explored its impact on metrics like brand awareness and customer engagement, the broader concept of sustainability which is critical for the sector's growth in Pakistan (Fan et al., 2021) has received less attention. Given the significant role small businesses play in the country's economic landscape, understanding how leveraging social media can contribute to their long-term viability is essential.

Furthermore, this study aims to contribute by examining how innovation capability, defined as a firm's ability to generate and implement innovative ideas, processes, and products (Zhang & Zhu, 2021), mediates the link between social media marketing and small business sustainability. Innovation capability is widely acknowledged as crucial for business success, yet little is known about how social media initiatives can catalyze innovation and sustain small manufacturing enterprises. By delving into this relationship, the study seeks to uncover insights into how strategic use of social media can enhance sustainability within Pakistan's manufacturing sector.

Ultimately, this study aims not only to bridge research gaps but also to give meaningful insights into the intertwined roles of social media and innovation capability in ensuring the enduring success of small businesses in Pakistan's manufacturing industry (Trainor et al., 2011). By examining the mediating role of innovation capability, this research will contribute to filling this research gap and provide valuable insights for small manufacturing businesses to leverage social media marketing effectively and enhance their long-term sustainability (Taneja & Toombs, 2014).

1.3 Research Objectives

Social media marketing has gained significant traction in the contemporary business environment, and small businesses within the manufacturing sector are increasingly acknowledging its potential advantages. Nevertheless, there remains a notable absence of thorough research regarding the impact of social media marketing on the sustainability of small businesses, specifically within Pakistan's manufacturing industry (Knight, Haddoud & Megicks, 2022). This study seeks to address this gap by exploring the correlation between social media marketing activities and the sustainability of small businesses, with particular attention to how innovation capability acts as a mediator in this relationship.

The specific objectives of this study are as follows:

1. To investigate the impact of social media marketing on innovation capability.
2. To examine the link between innovation capability and small business sustainability.
3. To analyze the mediating role of innovation between social media marketing and small business sustainability.

By fulfilling these objectives, this study aims to enrich the current understanding of the impact of social media marketing on the sustainability of small businesses, particularly within Pakistan's manufacturing sector. The outcomes of this research will offer valuable insights to small business owners, policymakers, and researchers, equipping them with the knowledge needed to make well-informed decisions and formulate effective strategies for promoting sustainable growth in manufacturing.

1.4 Research Questions

In today's digital era, the widespread adoption of social media has empowered businesses to engage directly with their target audiences and market their offerings effectively. This shift is particularly impactful for small businesses within the manufacturing sector, which encounter distinct challenges related to sustainability and competitive positioning. Hence, gaining insights into how social media marketing influences the sustainability of small manufacturing businesses is essential for their enduring success.

- What is the impact of social media marketing on innovation capability?
- What is the link between innovation capability on small business sustainability?
- Does innovation capability mediate the link between social media marketing on small business sustainability?

These research questions will serve as the study's compass, guiding the exploration of how social media marketing impacts small business sustainability within Pakistan's manufacturing industry. By investigating these questions, the study aims to advance current knowledge and offer actionable insights for small businesses aiming to harness social media marketing to achieve sustainable growth.

1.5 Research Contribution

The rising tide of social media marketing has inundated the business landscape, with small businesses in particular riding its waves to reach and engage their target audience (Zhang et al., 2022). Yet, despite its prevalence, a comprehensive understanding of its impact on small business sustainability, especially within the context of Pakistan's manufacturing industry, remains largely uncharted. This research endeavor tackles this unaddressed issue by delving into the impact of social media marketing on small business sustainability, with innovation capability acting as a mediating force.

Significant Contributions:

This study sheds light on how social media marketing empowers small businesses in the manufacturing sector to achieve sustainable success. By exploring the intricate relationship between these two elements, it unveils specific strategies and tactics that harness the power of social media platforms for long-term viability. Moving beyond a surface-level understanding,

this research delves into the mediating role of innovation capability in the social media marketing-sustainability equation (Saputra, Setyoko & Kurniasih, 2022; Muninger, Hammedi & Mahr, 2019). It elucidates how a robust focus on innovation, fostered by effective social media strategies, paves the way for enduring success. While social media marketing has been extensively studied in Western contexts, this research applies its lens to the unique ecosystem of Pakistan's manufacturing industry. This tailored approach offers insights directly relevant to businesses operating within similar environments. By integrating social media marketing, innovation capability, and small business sustainability into a cohesive theoretical framework, this study establishes a springboard for future research endeavors. This framework fosters deeper exploration of these concepts across diverse contexts.

Practical & Contextual Contributions:

Highlighting the crucial role of small businesses in driving economic growth through employment generation, exports, and innovation, the study emphasizes not only achieving performance goals but also maintaining momentum. Underlining the significance of sustainable performance, encompassing environmentally responsible practices and efficient organizational impact management, the study champions it as a cornerstone of small business success. It suggests leveraging social media to promote ethical practices, expand reach, and potentially curb resource scarcity, offering a practical roadmap for improved sustainability. Acknowledging the specific context of emerging economies like Pakistan, the study stresses the critical role of performance improvement for their development (Sivarajah et al., 2020). It advocates for embracing technology and innovation, particularly due to their cost-effectiveness and potential for reducing overhead costs, catering to resource constraints often faced by developing nations. Additionally, it highlights social media's potential as a cost-effective tool for global competition, offering a valuable advantage in contexts where traditional marketing approaches might be less feasible.

Theoretical Contributions:

Employing the Knowledge-Based View (KBV) and Resource-Based View (RBV) theories, the study explains how disruptive technologies like the internet, enhanced by social media, can enhance the longevity of small businesses by boosting knowledge and innovation capabilities (Wernerfelt, 1984). Aligning with the theory of innovation's impact on business success, the study posits that companies with a strong focus on innovation are more likely to leverage new technologies like social media for improved performance. Recognizing the dearth of research exploring the relationship between social media marketing and the long-term viability of businesses in developing nations, the study identifies a crucial gap in existing knowledge that this research aims to bridge.

Managerial Implications:

This research furnishes actionable advice and insights for small business owners and managers on how to effectively utilize social media marketing to achieve long-term sustainability. It helps managers understand the mediating role of innovation capability and its importance in maximizing the impact of social media marketing on sustainability Gao et al. (2020). The study offers valuable insights that can guide strategic decision-making regarding social media marketing investments and strategies, empowering managers to navigate the competitive landscape of the digital age.

By encompassing these multifaceted contributions, this research endeavor paves the way for a deeper understanding of how social media marketing can act as a catalyst for sustainable success in the context of Pakistan's manufacturing industry, offering vital insights for both academics and practitioners alike.

1.6 Research Gap

The business landscape has witnessed a surge in the adoption of social media marketing, particularly among small businesses seeking to engage their target audiences effectively. Despite its growing popularity, there remains a significant gap in understanding how social media marketing impacts the sustainability of small businesses, especially within Pakistan's manufacturing sector.

While existing literature often emphasizes the benefits of social media marketing in enhancing brand awareness, customer engagement, and sales growth, comprehensive studies examining its specific implications for small business sustainability are lacking (Bigliardi, 2013). Small manufacturing businesses, in particular, face unique challenges and opportunities that require tailored approaches to sustainability.

Furthermore, the potential of innovation capability defined as a firm's ability to innovate in ideas, processes, and products remains underexplored as a mediator between social media marketing and small business sustainability (Al-Ansari et al., 2013). This research seeks to illuminate how innovation capability can amplify the impact of social media marketing efforts in sustaining small businesses.

Another critical gap in the literature is the scarcity of research focused explicitly on the manufacturing industry in Pakistan, despite its pivotal role in the national economy through employment generation, exports, and economic growth (Sanchis-Llopis, 2019). Small manufacturers in Pakistan navigate numerous challenges, including resource constraints and intense competition within a rapidly evolving business environment. Therefore, understanding the role of social media marketing in fostering sustainability within this specific context is crucial.

By addressing these knowledge gaps, this research aims to offer practical insights for small manufacturing businesses in Pakistan. The findings will empower business owners and managers to make informed decisions regarding their social media strategies and innovation capabilities, thereby enhancing their sustainability and long-term success. Additionally, this study contributes to advancing the understanding of social media marketing's role in small business sustainability within the manufacturing industry, bridging the gap between theory and practice.

1.7 Scope of the Study

Social media marketing has become important for businesses today, enabling small enterprises to expand their market reach and promote their offerings more effectively. Despite its widespread adoption, the impact of social media marketing on small business sustainability, especially within the dynamic and competitive manufacturing sector, remains an area that has received limited scholarly attention.

This research is narrowly focused on small manufacturing businesses operating in Pakistan, recognizing the unique challenges and opportunities inherent in this sector. These businesses confront intense competition, evolving consumer preferences, and the constant need for innovation (Adner, 2017). Therefore, understanding how social media marketing interacts with innovation capability to influence the sustainability of these enterprises is crucial for their long-term viability in the Pakistani market.

To explore these dynamics, the study will employ primarily quantitative research methods. A survey questionnaire will be administered to key stakeholders such as owners, managers, or marketing personnel directly engaged in social media marketing activities within small manufacturing businesses. This approach will yield insights into their social media strategies, innovation capabilities, and overall sustainability performance. Statistical analyses will then be used to examine the relationships among these variables.

While acknowledging limitations such as the study's focus solely on the manufacturing sector and potential biases in self-reported data, this research aims to provide valuable insights into how social media marketing can enhance small business sustainability within this specific context. Furthermore, investigating the mediating role of innovation capability aims to offer tailored recommendations that can empower small manufacturing firms in Pakistan to leverage social media effectively (Gao et al., 2020).

This study seeks to explore the influence of social media marketing on the sustainability of small manufacturing businesses in Pakistan. By focusing on key stakeholders and employing rigorous quantitative methods, the research aims to contribute to the understanding of social media's role in small business success and provide actionable insights for enhancing their long-term prospects in the competitive manufacturing industry of Pakistan.

1.8 Limitation of the Study

Social media marketing has seen a notable rise in adoption across the business landscape, particularly among small businesses looking to bolster their marketing strategies. In the context of Pakistan's manufacturing industry, where small businesses are pivotal to economic advancement, examining how social media marketing influences their sustainability is critical. This study endeavors to investigate the connection between social media marketing and small business sustainability, emphasizing the mediating influence of innovation capability.

While aiming to expand current understanding on this topic, it is crucial to recognize potential limitations and constraints that could impact the study's outcomes. These limitations include:

1. Sample Size: Due time and resource limitations, this study will focus on a specific sample size, potentially affecting the generalizability of findings to all small businesses within Pakistan's manufacturing industry. Nonetheless, diligent efforts will be made to ensure the sample represents a diverse array of manufacturing sectors and geographical locations.

2. Data Collection: The study will rely on self-reported data collected through questionnaires and surveys. While this method allows for gathering a large amount of data efficiently, it is subject to response bias and potential inaccuracies. To mitigate this limitation, the research team will ensure the confidentiality and anonymity of respondents, as well as provide clear instructions for completing the questionnaires.

3. Causality: This research aims to identify the relationship between social media marketing, innovation capability, and small business sustainability. However, it is important to note that establishing causality can be challenging in observational studies. While efforts will be made to control for potential confounding variables, the study's findings should be interpreted with caution in terms of causal relationships.

4. External Factors: Small businesses' sustainability can be shaped by various external forces such as economic conditions, government policies, and competitive dynamics. While this study focuses on the impact of social media marketing and innovation capability, it's essential to acknowledge that these factors operate within a broader context. Therefore, the findings of this research should be viewed in conjunction with these external influences that also play crucial roles in determining the sustainability of small businesses.

5. Time Constraints: Conducting a detailed study on the effect of social media marketing on small business sustainability requires a significant amount of time and resources. However, this research is subject to time constraints, and as a result, certain aspects may not be explored in depth. Efforts will be made to ensure that the study provides valuable insights within the available timeframe.

Despite these limitations, this research aims to provide valuable insights into the relationship between social media marketing, innovation capability, and small business sustainability in the Pakistan manufacturing industry. By acknowledging these limitations, the study's findings can be interpreted in a more nuanced manner, taking into account the potential constraints that may affect the research outcomes.

Literature Review

In recent years, several studies have explored the influence of social media marketing on various aspects of business operations and success. These studies provide a valuable foundation for understanding the role of social media marketing in enhancing small business sustainability, particularly within the context of Pakistan's green manufacturing industry.

One significant study by Taneja and Toombs (2014) examined the impact of social media marketing on small business performance in the United States. The researchers found that social media platforms serve as critical tools for small businesses to engage with customers, build brand awareness, and drive sales. Their findings highlighted that businesses actively utilizing social media experienced higher levels of customer interaction and improved market reach compared to those relying solely on traditional marketing methods.

Similarly, a study by Ahmad, Abu Bakar, and Ahmad (2018) focused on the adoption of social media marketing among small and medium enterprises (SMEs) in Malaysia. The researchers discovered that social media marketing significantly contributed to the visibility and competitiveness of SMEs. They emphasized that social media platforms allowed businesses to precisely target their audience, gather customer feedback, and create cost-effective marketing campaigns. This study underscored the importance of social media as a tool for SMEs to overcome budget constraints and compete with larger enterprises.

In the context of Pakistan, Ali, Jan, and Iqbal (2017) explored the role of social media marketing in the growth of small businesses. Their research revealed that social media marketing positively influenced customer engagement, brand loyalty, and sales performance. The study also noted that businesses leveraging social media were better equipped to understand customer preferences and adapt their products or services accordingly. These findings are particularly relevant to the Pakistani green manufacturing industry, where small businesses can benefit from the extensive reach and affordability of social media marketing.

Another relevant study by Kapoor et al. (2018) examined the impact of social media on innovation within businesses. The researchers found that social media platforms facilitate knowledge sharing and collaboration, which are essential for fostering innovation. This study is pertinent to the current research as it suggests that social media marketing not only enhances customer engagement but also contributes to a firm's innovation capability. By leveraging social media, businesses can stay abreast of industry trends, gather insights from customers, and collaborate with stakeholders to develop innovative solutions.

These previous studies collectively highlight the significant role of social media marketing in enhancing small business performance, visibility, and innovation. The insights gained from these studies provide a robust foundation for examining the specific context of Pakistan's green manufacturing industry and exploring how social media marketing can contribute to the sustainability of small businesses. By building on this existing knowledge, the present study aims to investigate the intricate relationship between social media marketing, innovation capability, and small business sustainability in the Pakistani green manufacturing sector.

2.1 Independent Variable

Recently, social media has become a potent means for businesses to engage their target audience and advertise their offerings. Social media marketing involves utilizing platforms like Facebook, Instagram, Twitter, and LinkedIn to interact with customers, boost brand recognition, and increase sales. This approach has surged in popularity thanks to its affordability, extensive reach, and capability to target precise demographics.

For small businesses in the manufacturing industry, social media marketing offers numerous opportunities to enhance their visibility and competitiveness. In the past, small manufacturing firms often struggled to compete with larger companies that had more extensive marketing budgets. However, social media has leveled the playing field by providing a platform where small businesses can effectively reach their target audience without spending exorbitant amounts on traditional advertising channels.

Social media marketing offers numerous advantages for small manufacturing businesses, starting with its ability to precisely target specific customer segments. By utilizing social platforms businesses can gather valuable data on customer preferences, interests, and behaviors. This data informs targeted marketing campaigns that resonate with potential customers, resulting in higher conversion rates and increased sales.

Additionally, social media marketing facilitates direct communication between businesses and their customers. By engaging in conversations, addressing inquiries, and resolving concerns promptly, businesses can foster trust and loyalty. This direct interaction also provides insights into customer needs, enabling businesses to tailor their offerings effectively.

Moreover, social media platforms play a pivotal role in brand building and increasing brand awareness. Small manufacturing businesses have the opportunity to spotlight their distinctive advantages, showcase their expertise, and set themselves apart from competitors. Consistently sharing relevant and engaging content helps establish the business as an industry leader and strengthens its brand identity.

Furthermore, social media marketing harnesses the power of user-generated content. Encouraging customers to share their experiences, reviews, and testimonials amplifies word-of-mouth marketing. Positive user-generated content enhances brand credibility and attracts new customers who value peer recommendations.

2.2 Dependent Variable

Dependent Variable - Small Business Sustainability

The sustainability of small manufacturing businesses is essential for their long-term success. In today's competitive business environment, sustainability is a critical factor that influences businesses of all sizes. For small businesses in the manufacturing industry, achieving sustainability is particularly important as it can lead to increased profitability, market competitiveness, and overall business growth.

Small business sustainability encompasses the capacity of a small enterprise to fulfill its current requirements while safeguarding the ability of future generations to meet their own needs. This concept embraces economic, environmental, and social dimensions. Economic sustainability

focuses on the financial viability of the business, ensuring that it generates sufficient profits to sustain its operations and invest in future growth. Environmental sustainability entails mitigating the adverse effects of business operations on the environment. This includes practices like waste reduction, resource conservation, and adoption of eco-friendly measures. Social sustainability entails considering the well-being of employees, customers, and the community at large, promoting fair labor practices, ethical business conduct, and community engagement.

Small business sustainability holds immense importance for manufacturing firms for several compelling reasons. Firstly, integrating sustainability practices can yield substantial cost savings and operational efficiencies. Adopting energy-efficient technologies and implementing waste reduction strategies, for example, can significantly reduce overhead costs and enhance profitability. In today's market, where consumers prioritize sustainability and environmental responsibility, businesses that demonstrate a commitment to sustainable practices can attract a growing base of environmentally conscious customers and investors. By showcasing their sustainability efforts, small manufacturing firms can differentiate themselves from competitors and gain a competitive edge in the marketplace. Overall, small business sustainability is not just about minimizing environmental impact; it's also about driving financial performance, enhancing brand value, and securing long-term viability in a progressively sustainability-focused business landscape.

Furthermore, sustainability is closely linked to innovation and long-term business resilience. Small businesses that prioritize sustainability are inclined to invest in research and development (R&D), which often results in the creation of innovative products and processes. Innovation, in turn, can drive business growth and enable firms to adapt to changing market conditions. Sustainable practices also contribute to risk management, as businesses that are environmentally and socially responsible are better equipped to navigate regulatory changes, mitigate reputational risks, and respond to evolving customer demands.

2.3 Mediating Variable

Social media marketing empower small businesses to amplify their visibility, interact with customers, and market their offerings effectively. The widespread adoption of social media platforms has opened up new avenues for small businesses to access larger audiences and compete with larger corporations. Yet, the relation between social media marketing and the sustainability of small businesses is intricate and multifaceted.

Small business sustainability refers to the ability of a small business to maintain its operations and achieve long-term success. It encompasses various dimensions, including financial stability, customer loyalty, employee satisfaction, and environmental responsibility. While social media marketing has been shown to have a positive impact on some of these dimensions, such as customer engagement and brand awareness, its direct influence on small business sustainability is still a subject of debate.

The variability in findings across the literature may be attributed to the involvement of mediating variables that can affect the connection between social media marketing and small business sustainability. Mediating variables act as intermediaries that clarify how or why an independent variable impacts a dependent one. In this study, innovation capability is posited as a mediating variable that could illuminate the link between social media marketing efforts and the sustainability of small businesses.

Innovation capability pertains to a firm's capacity to conceive and execute novel ideas, products, processes, or business models. It encompasses both the capacity to innovate and the willingness to embrace change. By leveraging social media marketing, small businesses can gather valuable insights from their customers, identify emerging trends, and collaborate with stakeholders to develop innovative solutions. These innovations, in turn, can contribute to the long-term sustainability of the business.

Several studies have shown the importance of innovation capability in driving small business sustainability. For example, research has shown that small businesses with higher levels of innovation capability are more likely to adapt to changing market conditions, differentiate themselves from competitors, and attract and retain customers. Moreover, innovation capability has been found to positively influence financial performance, employee satisfaction, and environmental responsibility.

The mediation role of innovation capability between social media marketing and small business sustainability can be understood through several mechanisms. Firstly, social media marketing facilitates the dissemination of information and knowledge, enabling small businesses to stay abreast of industry trends and customer preferences. This knowledge serves as a catalyst for innovation, empowering businesses to create new products or services that meet evolving customer needs.

Secondly, social media platforms provide small businesses with direct communication channels to engage with customers. Actively interacting with customers on social media allows businesses to gather feedback, pinpoint pain points, and collaborate on solutions. This customer-centric approach fosters an environment conducive to innovation, enabling small businesses to develop offerings that align closely with customer expectations.

Third, social media marketing can enhance collaboration and networking opportunities for small businesses. By connecting with other businesses, industry experts, and potential partners, small businesses can harness collective knowledge and resources through collaborative innovation efforts, which can result in the creation of new business models, enhanced processes, and sustainable practices. These innovations are instrumental in fostering the long-term success and viability of the business.

2.4 Relationship among the Variables

In today's digital age, social media marketing has evolved into a vital tool for businesses. It enables companies to establish connections with their target audience, enhance brand visibility, and engage customers across diverse social media platforms. For small businesses in the manufacturing sector, leveraging social media marketing holds considerable potential to influence their sustainability and long-term prosperity.

Small business sustainability refers to the ability of a small business to maintain its operations and achieve growth over time. It encompasses various aspects such as financial stability, market competitiveness, environmental responsibility, and social impact. For small businesses in the manufacturing industry, sustainability is crucial for survival in a highly competitive market.

Innovation capability is pivotal for the sustainability of small businesses, encompassing their ability to generate and execute innovative ideas, processes, and products. This capability

empowers small businesses to navigate market dynamics, fulfill customer expectations, and maintain a competitive edge. In the realm of social media marketing, innovation capability assumes heightened importance as businesses must continually innovate their marketing strategies to effectively leverage social media platforms.

The link between social media marketing, innovation capability, and small business sustainability is complex and interconnected. Social media marketing provides small businesses with a platform to showcase their innovative products or services, reach a wider audience, and gather valuable customer feedback. It enhances the visibility and brand image of small businesses, which can positively impact their sustainability.

Furthermore, social media marketing can also facilitate the development of innovation capability within small businesses. By engaging with customers and monitoring their preferences and needs on social media platforms, small businesses can gather valuable insights that can drive innovation. Social media can serve as a source of inspiration and collaboration, enabling small businesses to connect with industry experts, partners, and customers to co-create innovative solutions.

On the other hand, innovation capability can enhance the effectiveness of social media marketing for small businesses. By continuously innovating their marketing strategies, small businesses can stand out from the competition and attract and retain customers on social media platforms. Innovation in social media marketing can involve creative content creation, interactive campaigns, and leveraging emerging technologies to engage with customers in unique and memorable ways.

Overall, the relationship between the variables is symbiotic. Social media marketing can enhance innovation capability, which in turn contributes to small business sustainability. Conversely, innovation capability can improve the effectiveness of social media marketing, leading to improved sustainability for small businesses.

Nevertheless, it's crucial to recognize that the interplay between these variables can fluctuate based on factors like industry type, market dynamics, and the distinct strategies and capabilities of each business. Therefore, additional research is necessary to delve into the intricacies and precise mechanisms by which social media marketing and innovation capability impact small business sustainability within the manufacturing sector.

2.5 Theory

The relationship between social media marketing, innovation capability, and small business sustainability has been a topic of interest in recent years. Various theories and frameworks have been proposed to explain this relationship and shed light on the mechanisms through which social media marketing can enhance innovation capability and ultimately contribute to the sustainability of small businesses.

Two relevant theories that can elucidate the relationship between social media marketing, innovation capability, and small business sustainability are the Resource-Based View (RBV) theory and the Dynamic Capabilities theory. According to the Resource-Based View (RBV) theory, a firm's competitive advantage and sustainability stem from its distinctive resources and capabilities.

In terms of social media marketing, a small business's social media presence and engagement can be viewed as valuable resources. By leveraging social media platforms, small businesses can gather customer insights, engage in collaborative innovation, and interact with external stakeholders. These activities can foster the development of innovative products or services, thereby bolstering the business's long-term sustainability.

Similarly, the Dynamic Capabilities theory underscores the significance of a firm's ability to adapt and evolve in response to changing environments. Social media marketing serves as a dynamic capability that allows small businesses to maintain connectivity with their customer base, monitor market dynamics, and swiftly respond to shifts in consumer preferences or industry trends.

By continuously refining and innovating their marketing strategies through social media channels, small businesses can enhance their overall innovation capability. This adaptive approach not only strengthens their competitive position but also augments their prospects for sustainable growth over time.

In addition to these theories, several frameworks have been proposed to define the relationship between social media marketing, innovation capability, and small business sustainability. One such framework is the Social Media Innovation Capability (SMIC) framework, which was developed by Wang and Zhang (2012).

This framework suggests that social media marketing can enhance a firm's innovation capability by facilitating knowledge sharing, collaboration, and co-creation with customers and other stakeholders. The SMIC framework shows the importance of social media as a platform for open innovation and emphasizes the role of social media engagement in fostering innovation and sustainability in small businesses.

Overall, the relationship between variables is complex and multifaceted. The Resource-Based View theory, Dynamic Capabilities theory, and frameworks like the SMIC framework provide valuable insights into the mechanisms through which social media marketing can enhance innovation capability and contribute to the long-term sustainability of small businesses.

By understanding and applying these theories and frameworks, small businesses can create effective social media strategies that promote innovation and drive sustainable growth.

2.6 Theoretical Framework

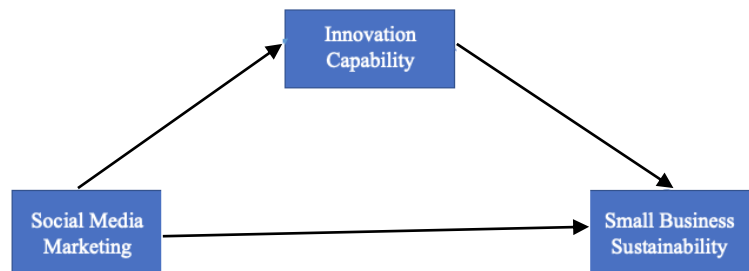


Fig 1.1 Theoretical Framework

Social media marketing is important for businesses to connect with their target audience, promote their products or services, engage customers, build brand awareness, and boost sales. In the realm of small businesses within the manufacturing sector, social media marketing holds significant potential to enhance visibility and competitiveness.

In contrast, innovation capability denotes a firm's prowess in generating and executing novel ideas, products, or processes. This capability is widely acknowledged as pivotal for driving business triumph and sustainability. Small businesses endowed with robust innovation capabilities are more adept at navigating evolving market landscapes, distinguishing themselves from rivals, and achieving sustained growth over the long term.

Small business sustainability, in this context, refers to the ability of small manufacturing firms to maintain their operations and achieve profitability over time. It encompasses various dimensions, including financial stability, environmental responsibility, and social impact. Sustainable small businesses are not only economically viable but also contribute positively to society and the environment.

To understand the relationship between social media marketing, innovation capability, and small business sustainability, a theoretical framework can be proposed (Fig 1.1). This framework integrates concepts from the resource-based view (RBV) theory and the dynamic capabilities perspective.

According to the RBV theory, a firm's competitive advantage and sustainability stem from its distinctive resources and capabilities. In the context of this study, social media marketing can be regarded as a resource that empowers small businesses to expand their reach, interact with customers, and acquire valuable market intelligence.

Conversely, innovation capability represents the firm's capacity to conceive and execute novel ideas, products, or processes. The dynamic capabilities perspective highlights the critical nature of a company's agility in adapting to and addressing shifting market dynamics.

In this framework, social media marketing and innovation capability are considered as dynamic capabilities that enable small businesses to continuously learn, innovate, and evolve. By leveraging social media marketing, small businesses can gather customer feedback, identify market trends, and enhance their innovation capability. This, in turn, can contribute to their long-term sustainability.

The proposed theoretical framework suggests that social media marketing positively influences innovation capability, which, in turn, enhances small business sustainability. The framework acknowledges the dynamic nature of these concepts and highlights the interplay between them. It shows the importance of leveraging social media marketing as a tool to enhance innovation capability and ultimately achieve small business sustainability.

In conclusion, the proposed theoretical framework integrates the concepts of social media marketing, innovation capability, and small business sustainability. It draws on the resource-based view theory and the dynamic capabilities perspective to explain the relationship between these concepts.

This framework provides a foundation for further research and empirical investigation into the effect of social media marketing on small business sustainability in the manufacturing industry.

Methodology

3.1 Research Design

This research delves into the impact of social media marketing on small business sustainability in Pakistan's manufacturing industry, with innovation capability acting as a crucial bridge between the two. To uncover the intricacies of this relationship, we'll embrace a mixed-methods research design informed by an interpretivist philosophy.

This interpretivist lens allows us to delve beyond mere statistics and delve into the lived experiences of small business owners. We aim to grasp their subjective interpretations of social media marketing's role in driving innovation and ultimately achieving sustainability. Understanding the contextual factors at play in Pakistan's manufacturing environment is paramount, and interpretivism empowers us to do just that by exploring the specific realities and challenges these businesses face.

To gather a broad picture, we'll deploy a quantitative survey using Likert-scale questions aimed at a representative sample of small manufacturing firms. This will provide robust statistical evidence of the relationships between key variables like social media marketing, innovation capability, and sustainability.

However, to truly grasp the nuances of these relationships, we'll delve deeper through qualitative, semi-structured interviews with a smaller group of survey participants. These open-ended conversations will unlock rich insights into individual experiences, motivations, and challenges they face in leveraging social media for innovation and sustainability.

This mixed-methods approach offers the best of both worlds. Quantitative data provides generalizable trends and statistical rigor, while qualitative data delivers the depth and context needed to understand the "why" behind the numbers. By triangulating findings from both methods, we can build a more comprehensive and credible understanding of how social media marketing influences innovation and ultimately contributes to the long-term success of small manufacturing businesses in Pakistan.

In essence, this research design, imbued with an interpretivist philosophy, strives to go beyond surface-level correlations and offer a rich tapestry of understanding on how social media marketing shapes the innovation landscape and fosters sustainable success for small businesses in this specific context.

3.2 Population and Sample

In this section, we will discuss the methodology, target population, and sampling strategy that will be employed in the research study. The research will adopt a quantitative research design to study the effect of social media marketing on small business sustainability, with innovation capability as a mediator. This design will allow for the collection of numerical data that can be analyzed statistically to test the research hypotheses.

The target population for this study will be small businesses operating in the manufacturing industry in Pakistan. Small businesses in this context will be defined as enterprises with fewer than 100 employees and an annual turnover of less than 150 million, as per the definition

provided by the Small and Medium Enterprises Development Authority (SMEDA) in Pakistan. This specific population has been chosen from directories, SMEDA, and the Pakistan Bureau of Statistics, which collectively indicate that there are approximately 20,000 such small businesses. The manufacturing industry has been chosen as the focus of this study due to its significant contribution to the country's economy and the potential impact of social media marketing on small manufacturing businesses.

A stratified random sampling strategy will be employed to select the sample for this study. The population of small businesses in the manufacturing industry will be divided into different strata based on the type of manufacturing sector (e.g., textiles, chemicals, machinery) and the geographical location (e.g., Karachi, Lahore, Islamabad). This stratification will ensure that the sample represents the diversity of the manufacturing industry in Pakistan.

The sample size was calculated using an online sample calculator, with a confidence interval of 95%, a margin of error of 5%, and a population of 20,000. Based on these parameters, the sample calculator provided the necessary sample size to ensure reliable and generalizable results.

Each stratum will employ a randomized sampling method to select small businesses for participation in the study. The selected small businesses will be contacted through various channels, such as industry associations, business directories, and personal referrals. Participation in the study will be voluntary, and informed consent will be obtained from the owners or managers of the selected businesses.

Data collection will be conducted through a structured questionnaire that will be administered either online or in person, depending on the preferences of the participants. The questionnaire will include items related to social media marketing practices, innovation capability, and small business sustainability. The collected data will undergo analysis using suitable statistical methods, including regression analysis, to evaluate the research hypotheses.

By employing a stratified random sampling strategy, this study aims to obtain a representative sample of small businesses in the manufacturing industry in Pakistan. This will enhance the generalizability of the findings and provide valuable insights into the relationship between social media marketing, innovation capability, and small business sustainability in this specific context.

3.3 Sample Technique

In this section, we will discuss the chosen sample technique and explain how the sample will be selected for the study. The sample technique is a crucial aspect of any research study as it determines the representativeness and generalizability of the findings.

In this research study investigating the impact of social media marketing on small business sustainability, with innovation capability as a mediator in Pakistan's manufacturing sector, purposive sampling will be utilized. Purposive sampling, a non-probability technique, enables researchers to select participants based on specific criteria pertinent to the study's objectives.

The justification for using purposive sampling in this study is twofold. Firstly, the purpose of this research is to find the impact of social media marketing on small businesses in the manufacturing industry. Therefore, it is essential to select participants who have experience

and knowledge in this specific domain. Purposive sampling enables the researcher to focus on individuals who are actively involved in social media marketing activities within the manufacturing sector.

Secondly, the research also aims to explore the mediating role of innovation capability in the relationship between social media marketing and small business sustainability. To capture this aspect effectively, it is crucial to select participants who have a certain level of innovation capability within their organizations. Purposive sampling enables the researcher to identify and include participants who possess the desired characteristics related to innovation capability.

The sample for this study will be selected through a multi-stage process. Firstly, a list of small businesses operating in the manufacturing industry in Pakistan will be compiled. This list will be obtained from industry associations, business directories, and government databases.

Next, based on the criteria of active engagement in social media marketing and a certain level of innovation capability, a preliminary screening will be conducted. This screening will involve reviewing the online presence of the identified businesses, such as their social media profiles and websites, to assess their social media marketing activities. Additionally, information about the innovation initiatives undertaken by these businesses will be gathered through secondary sources, such as news articles and company reports.

After initial screening, a purposive sample of small businesses that meet specific criteria will be selected. The sample size will adhere to the principle of saturation, meaning data collection will proceed until no new insights or themes emerge from the analysis. This approach ensures the sample adequately reflects the diversity of experiences and perspectives relevant to the research objectives.

To recruit the selected participants, a combination of approaches will be employed, including direct contact through email or phone, referrals from industry experts or associations, and leveraging existing networks. Potential participants will receive a comprehensive explanation of the research goals, the anticipated time required for participation, and assurances regarding the confidentiality of their responses. Each participant will be required to provide informed consent before being included in the study.

In summary, this research study utilizes purposive sampling to select participants based on specific criteria that align with the research objectives. The sample will be selected through a multi-stage process, including preliminary screening and recruitment based on saturation principles. This approach ensures that the sample represents small businesses in the manufacturing industry with active engagement in social media marketing and a certain level of innovation capability.

3.4 Measurement Instruments

The methodology section will detail the approach and methodologies employed for data collection and analysis. This study will adopt a quantitative research design to quantify the relationship between social media marketing, innovation capability, and small business sustainability within Pakistan's manufacturing industry.

To collect data for this study, two main measurement instruments will be used: questionnaires and surveys. These instruments will be designed to gather information from small business owners and managers in the manufacturing industry.

Questionnaires:

Questionnaires will be developed to collect data on social media marketing practices, innovation capability, and small business sustainability. The questionnaires will consist of a series of structured questions that participants will answer based on their experiences and perceptions. The questions will be crafted to gather pertinent information pertaining to the variables under investigation. These include inquiries about the frequency and nature of social media marketing initiatives, the organization's innovation capability, and the perceived level of sustainability among small businesses.

The questionnaires will be distributed electronically through online survey platforms like Google Forms or SurveyMonkey. This method ensures streamlined data collection and straightforward data management processes.

Surveys:

Surveys will also be conducted to gather additional data on the variables of interest. These surveys will be designed to collect more in-depth information and insights from participants. The surveys may include open-ended questions or Likert scale items to measure participants' attitudes, opinions, and perceptions related to social media marketing, innovation capability, and small business sustainability.

Similar to the questionnaires, the surveys will be distributed electronically using online survey platforms. This approach ensures that participants can conveniently access and complete the surveys at their preferred time.

Prior to full deployment, the measurement instruments will undergo pre-testing with a small sample of participants to verify their clarity, reliability, and validity. Adjustments will be made accordingly based on feedback received during this pre-testing phase.

Overall, the use of questionnaires and surveys as measurement tools will facilitate the collection of quantitative data suitable for statistical analysis. This data will yield valuable insights into the interplay between social media marketing, innovation capability, and small business sustainability within Pakistan's manufacturing sector.

Data Analysis

4.1 Introduction

This chapter will showcase the study's findings through a series of analytical techniques described in the following sections: demographic profiling, descriptive statistics, correlation assessment, reliability testing, regression modeling, and mediation analysis. These methods will be applied using the data gathered from the questionnaire responses to derive meaningful insights and interpretations.

4.2 Demographic Analysis

Frequency tables and bar charts are used to represent demographic variables like gender, age, and type of social media.

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	65	50.8	50.8	50.8
	Male	63	49.2	49.2	100.0
	Total	128	100.0	100.0	

Table 0-1 Demographic Analysis: Gender

The frequency table reveals that among 128 respondents, 65 (50.8%) were female, and 63 (49.2%) were male. This distribution indicates a higher representation of females than males in the study.

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18	58	45.3	45.3	45.3
	25	48	37.5	37.5	82.8
	26	5	3.9	3.9	86.7
	31	12	9.4	9.4	96.1
	36	3	2.3	2.3	98.4
	40	2	1.6	1.6	100.0
	Total	128	100.0	100.0	

Table 0-2 Demographic Analysis: Age

In the age distribution analysis, it is found that the largest group of respondents, comprising 58 individuals (45.3%), fell within the 18-25 years age bracket. Following closely, 48 respondents (37.5%) were aged between 26-30 years. Additionally, 12 respondents (9.4%) belonged to the 31-35 years age group, while smaller cohorts included 3 respondents (2.3%) aged 36-40 years and 2 respondents (1.6%) aged 40 years and above.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Facebook	12	9.4	9.4	9.4
	Instagram	45	35.2	35.2	44.5
	Twitter	2	1.6	1.6	46.1
	Other	4	3.1	3.1	49.2
	Facebook, Instagram,	17	13.3	13.3	62.5
	Instagram, Other	3	2.3	2.3	64.8
	Facebook, Instagram, Twitter	18	14.1	14.1	78.9
	Facebook, Instagram, Other	10	7.8	7.8	86.7
	Facebook, Instagram, Twitter, Other	17	13.3	13.3	100.0
	Total	128	100.0	100.0	

Table 0-3 Demographic Analysis: Which social media do you use?

The frequency table and bar chart of social media use show that 12 (9.4%) respondents used only Facebook, 45 (35.2%) used only Instagram, 2 (1.6%) used only Twitter, 4 (3.1%) used only other social media platforms, 17 (13.3%) used Facebook and Instagram, 3 (2.3%) used Instagram and other platforms, 18 (14.1%) used Facebook, Instagram and Twitter, 10 (7.8%) used Facebook, Instagram, and other platforms, and 17 (13.3%) used Facebook, Instagram, Twitter, and other platforms.

4.3 Descriptive Analysis

In descriptive statistics bar charts and frequency tables are used to represent the responses of each question of dependent, independent and moderator variables.

	N	Min	Max	Mean	Std. Dev	Skewness	Kurtosis		
Social Media Marketing	128	1.00	5.00	2.6350	.85107	.237	.153	-.080	.305
Innovation Capabilities	128	1.00	5.00	3.1315	1.05794	-.536	.153	-.439	.305
Sustainability	128	1.00	5.00	2.9178	1.08271	-.293	.153	-.776	.305
Valid N (listwise)	128								

Table 0-4 Descriptive Analysis

The descriptive statistics results reveal that there were 128 observations about the independent variables like social media marketing, innovation capabilities and dependent variable sustainability. The results show that the minimum value of all the variables was 1 and their maximum value was 5, where 1 indicate strongly disagree, and 5 indicate strongly agree. The results show that the average value of social media marketing was 2.6350, which indicates that on the average at the moderate level social media helps to promote sustainable business products, helps to determine the marketing trends. The standard deviation was 0.85107 which indicates that the deviation from the mean was 0.85107 (i.e., Agree and disagree). The skewness value is 0.237 which indicates that the distribution of the social media marketing is normal distributed and kurtosis value show that the distribution of social media marketing is platykurtic. Similarly, the average value of innovation capabilities was 3.1315, which indicates that on the average at the moderate level innovation capabilities helps to promote sustainable business products. The standard deviation was 1.05794 which indicates that the deviation from the mean was 1.05794 (i.e., Agree and disagree). The skewness value suggests that the distribution of innovation capabilities approximates normality, while the kurtosis value indicates a platykurtic distribution. Moreover, the average sustainability score of 2.9178 indicates that, on average, manufacturing businesses in Pakistan are moderately engaged in sustainability practices. These practices include measures to reduce energy consumption, implementation of recycling and composting programs across departments, development of business plans for long-term profitability, establishment of formal policies for sustainable practices, and tracking of energy, water usage, waste generation, and carbon footprints. The standard deviation was 1.08271 which indicates that the deviation from the mean was 1.08271 (i.e., Agree and disagree). The skewness value indicates that the distribution of the sustainability is normal and kurtosis value shows that the distribution of sustainability is platykurtic.

4.4 Correlation Analysis

The link between the independent variables and the dependent variable is ascertained using the correlation analysis. Using Pearson correlation analysis (r), the degree and direction of the link between the two variables is determined. " r " always has a value between -1 and 1. If r is equal to 0, there is no connection between the two variables. A weak positive correlation between two variables is shown if the r value between them is between 0 and 0.3. A highly favorable association between the two variables is indicated by a r value between 0.3 and 0.5. A significant positive correlation exists between two variables if their r values are between 0.5 and 0.7. A very strong positive correlation exists if the r value between two variables is between 0.7 and 1. Like positive r values, negative r values show how strongly two variables are associated when they flow in the opposite directions.

Correlation Analysis

		Social Media Marketing	Small Business Sustainability	Innovation Capability
Social Media Marketing	Pearson Correlation	1	.539**	.471**
	Sig. (2-tailed)		.000	.000
	N	128	128	128
Small Business Sustainability	Pearson Correlation	.471**	.753**	1
	Sig. (2-tailed)	.000	.000	
	N	128	128	128
Innovation Capability	Pearson Correlation	.539**	1	.753**
	Sig. (2-tailed)	.000		.000
	N	128	128	128

** . Correlation is significant at the 0.01 level (2-tailed).

Table 0-5 Correlation Analysis

The results show that the correlation between sustainability and social media marketing is 0.539 and its significance value is 0.000. It means that there is a strong positive significant correlation is present between sustainability and social media marketing. When social media marketing increases then sustainability also increases. Also, the correlation between sustainability and innovation capabilities is 0.753 and its significance value is 0.000. It means that there is a strong positive significant correlation present between sustainability and innovation capabilities. When innovation capabilities increase then sustainability also increases.

4.5 Reliability Analysis

Reliability Statistics	
Cronbach's Alpha	N of Items
.852	24

Table 0-6 Reliability Statistics

Cronbach's Alpha value is 0.852 which indicates that the results are highly reliable.

4.6 Multiple Linear Regression Model

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.782 ^a	.611	.608	.67790

a. Predictors: (Constant), Innovation Capability, Social Media Marketing

Table 0-7 Regression Model Summary

The correlation analysis reveals a strong positive correlation ($R = 0.782$) between Innovation Capabilities, Social Media Marketing, and sustainability. This indicates that as Innovation Capabilities and Social Media Marketing activities increase, sustainability practices also tend to increase correspondingly. Furthermore, the coefficient of determination (R square) of 0.611 suggests that 61.1% of the variance in sustainability can be explained by Innovation Capabilities and Social Media Marketing. The remaining variance is attributed to other factors not included in this study.

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	180.523	2	90.262	196.414	.000 ^b
	Residual	114.887	250	.460		
	Total	295.410	252			

a. Dependent Variable: Small Business Sustainability

b. Predictors: (Constant), Innovation Capability, Social Media Marketing

Table 0-8 ANOVA

Null Hypothesis

H_0 : Overall Model is not Significant

Alternative Hypothesis

H_0 : Overall Model is Significant

The relative weights of each model variable and the model are calculated using the ANOVA table. The model's significance F value is 0, which, at a 5% level of significance, is less than 0.05. This suggests that the model may be significant overall and that the null hypothesis may be rejected. Therefore, by combining Social Media Marketing with Innovation Capabilities, we can predict whether a small business will succeed.

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.068	.157		.434	.665
	Social Media Marketing	.301	.057	.236	5.284	.000
	Innovation Capability	.657	.046	.642	14.358	.000

a. Dependent Variable: Small Business Sustainability

Table 0-9 Coefficients

On the base of the results the multiple linear regression model equation is given as

$$y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \dots + \beta_k x_k$$

where:

- y is the dependent variable
- x_1, x_2, \dots, x_k are the independent variables
- β_0 is the intercept
- $\beta_1, \beta_2, \dots, \beta_k$ are the regression coefficients

$$\hat{y} = 0.068 + 0.301(SMM) + 0.657(IC)$$

The findings indicate that when the values of social media marketing and innovation capabilities are both zero, the sustainability score is 0.068. Moreover, the analysis demonstrates that social media marketing has a substantial positive influence on the sustainability of small businesses; an increase in social media marketing activities corresponds to an increase in sustainability. Similarly, the results highlight that higher innovation capabilities significantly enhance the sustainability of small businesses; as innovation capabilities improve, so does sustainability.

4.7 Mediation Analysis

Model: 4

Y: Y

X: X

M: M

Sample

Size: 128

OUTCOME VARIABLE:

M

Model Summary

Statistics	Value
R	0.4713
R-squared	0.2221
MSE	0.8741
F	71.6747
df1	1.0000
df2	251.0000
p	0.0000

Model

Variable	Coefficient	Standard Error	t-value	p-value	Lower CI	Upper CI
Constant	1.5877	0.1916	8.2871	0.0000	1.2104	1.9650
X	0.5859	0.0692	8.4661	0.0000	0.4496	0.7222

Standardized coefficients

Variable	Coefficient
X	0.4713

The results show that the direct effect of social media marketing on the innovation capabilities is significant ($p < 0.05$).

OUTCOME VARIABLE:

Y

Model Summary

Statistic	Value
R	.7817
R-sq	.6111
MSE	.4595
F	196.4144
df1	2.0000
df2	250.0000
p	.0000

Model

Variable	Coefficient	SE	t	p	LLCI	ULCI
constant	.0680	.1568	.4337	.6649	-.2408	.3768
X	.3006	.0569	5.2836	.0000	.1885	.4126
M	.6571	.0458	14.3579	.0000	.5670	.7472

Standardized Coefficients

Variable	Coefficient
X	.2363
M	.6421

TOTAL EFFECT MODEL

OUTCOME VARIABLE:

Y

Model Summary

R	R-sq	MSE	F	df1	df2	p
.54	.2904	.84	102	1	251	.00

Summary

	Coeff	SE	T	p	LLCI	ULCI
Constant	1.11	.19	5.93	.00	.74	1.48
X	.69	.07	10.1	.00	.55	.82

Standardized coefficients

Variable	Coefficient
X	0.54

The results show that social media marketing has a significant impact on the sustainability of small businesses.

TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y

Total effect of X on Y

Effect	se	t	p	LLCI	ULCI	c_cs
.6856	.0676	10.1352	.0000	.5523	.8188	.5389

Direct effect of X on Y

Effect	se	t	p	LLCI	ULCI	c'_cs
.3006	.0569	5.2836	.0000	.1885	.4126	.2363

The results show that the direct effect of independent variable like social media marketing and moderator like innovations capabilities on the sustainability of the small business is 0.6856.

Indirect effect(s) of X on Y:

Effect	BootSE	BootLLCI	BootULCI
M	.3850	.0520	.2838 - .4854

Completely standardized indirect effect(s) of X on Y:

Effect	BootSE	BootLLCI	BootULCI
M	.3026	.0420	.2199 - .3845

The results show that the indirect effect of independent variables like social media marketing and moderator like innovations capabilities on the sustainability of the small business is 0.3850.

Conclusion

4.1 Discussion

The findings of this study highlight the significant role of social media marketing and innovation capabilities in promoting sustainability within small businesses in Pakistan's green manufacturing industry. The demographic analysis provided a balanced representation of gender and a predominance of younger respondents, indicating that social media marketing strategies may particularly resonate with a digitally-savvy, younger demographic.

Descriptive statistics revealed that respondents moderately agreed that social media marketing and innovation capabilities support sustainable business practices. Specifically, the average scores for social media marketing (2.6350) and innovation capabilities (3.1315) suggest that while there is general agreement on their importance, there is variability in how these practices are implemented and perceived across different businesses. The sustainability score (2.9178) indicates moderate engagement in sustainable practices among the surveyed businesses.

Correlation analysis confirmed strong positive relationships between social media marketing, innovation capabilities, and sustainability. Social media marketing showed a significant positive correlation with sustainability ($r = 0.539$), and innovation capabilities demonstrated an even stronger positive correlation ($r = 0.753$). This underscores the critical role that both factors play in driving sustainable business practices.

Reliability analysis, with a high Cronbach's Alpha value of 0.852, validated the consistency of the survey instrument used in this study, ensuring that the measured constructs of social media marketing, innovation capabilities, and sustainability were reliable.

Multiple linear regression analysis further reinforced the positive impact of social media marketing and innovation capabilities on sustainability. The regression model explained 61.1% of the variance in sustainability, with both social media marketing ($\beta = 0.301$) and innovation capabilities ($\beta = 0.657$) emerging as significant predictors. This suggests that small businesses can substantially improve their sustainability practices by enhancing their social media marketing efforts and innovation capabilities.

The mediation analysis added another layer of insight by demonstrating that innovation capabilities mediate the relationship between social media marketing and sustainability. This means that social media marketing not only directly influences sustainability but also enhances it indirectly by boosting innovation capabilities.

In conclusion, the study provides robust evidence that social media marketing and innovation capabilities are pivotal in promoting sustainability in small businesses within Pakistan's green manufacturing industry. These findings align with existing literature and offer practical guidance for small businesses aiming to achieve sustainability through strategic marketing and innovation. By leveraging social media platforms and fostering a culture of innovation, small businesses can enhance their sustainability practices, contributing to long-term profitability and environmental stewardship.

4.2 Conclusion

This research study centers on investigating the impact of social media marketing on small business sustainability within Pakistan's manufacturing sector. The study seeks to address how social media marketing can enhance the enduring viability of small businesses operating in this industry.

The literature review delves into the fundamental concepts of social media marketing, small business sustainability, and innovation capability. It explores the significance of social media marketing specifically for small enterprises in manufacturing, emphasizing its potential to bolster their longevity. Furthermore, the review underscores the critical role of sustainability in securing the ongoing prosperity of these businesses. Additionally, the proposal examines how innovation capability acts as a mediator in the relationship between social media marketing initiatives and the sustainability outcomes of small businesses.

The methodology section outlines the research design, population, and sample for the study. It explains the chosen research design and justifies the sampling strategy. The section also describes the measurement instruments that will be used to collect data.

This research proposal seeks to advance current knowledge by exploring how social media marketing, innovation capability, and small business sustainability interrelate within Pakistan's manufacturing sector. The study aims to uncover insights that can empower small businesses to effectively use social media marketing for enhancing their sustainability and ensuring long-term success. Furthermore, the proposal identifies gaps in existing research and proposes avenues for future investigation in this domain. By addressing these gaps, the study aims to establish a robust framework for understanding how social media marketing influences small business sustainability in manufacturing. Ultimately, this research sets the stage for a comprehensive examination that promises to deepen our understanding of these dynamics and their implications for small businesses in Pakistan.

4.3 Implications

Implications for the Pakistan Manufacturing Industry

The research findings have several potential implications for the Pakistan manufacturing industry. Understanding these implications can help policymakers, industry practitioners, and small business owners make informed decisions to enhance the sustainability and competitiveness of the sector.

1. Importance of Social Media Marketing: The research underscores the pivotal role of social media marketing in empowering small manufacturing enterprises within the industry. It underscores the imperative for manufacturers to harness social media platforms to propel product promotion, customer engagement, and brand visibility. These insights imply that adopting robust social media marketing strategies can significantly bolster the advancement and prosperity of small-scale manufacturing businesses in Pakistan.

2. Enhancing Innovation Capability: The study also reveals that SMM positively influences innovation capability, which, in turn, contributes to small business sustainability. This finding implies that manufacturers should focus on developing their innovation capabilities by adopting innovative practices, encouraging creativity, and fostering a culture of continuous

improvement. By doing so, manufacturers can stay competitive in the market and adapt to changing customer preferences and market trends.

3. Collaboration and Networking: The study suggests that social media platforms provide opportunities for small manufacturing businesses to collaborate with other industry players, suppliers, and customers. This finding implies that manufacturers should actively engage in networking activities on social media to form partnerships, share knowledge, and access new markets. Collaboration and networking can lead to increased market reach, improved supply chain efficiency, and enhanced innovation through knowledge exchange.

4. Digital Transformation: The study's findings underscore the importance of embracing digital transformation in the manufacturing industry. Small businesses need to invest in digital technologies and platforms to effectively utilize social media marketing and enhance their innovation capabilities. This implies that manufacturers should prioritize digitalization efforts, such as adopting e-commerce platforms, implementing data analytics tools, and leveraging automation technologies, to stay competitive in the evolving business landscape.

5. Policy Support: The implications of this study call for policy support from the government and relevant stakeholders to facilitate the adoption of SMM and innovation practices in the manufacturing industry. Policymakers should create an enabling environment by providing incentives, funding programs, and capacity-building initiatives to help small businesses integrate social media marketing into their overall business strategies and enhance their innovation capabilities.

Embracing social media marketing, enhancing innovation capability, fostering collaboration and networking, embracing digital transformation, and receiving policy support can contribute to the sustainability and growth of small manufacturing businesses in Pakistan. By understanding and acting upon these implications, the industry can adapt to the changing business landscape, improve competitiveness, and contribute to the overall economic development of the country.

4.4 Future Research

Based on identified research gaps, there are numerous promising avenues for future investigation that can deepen our comprehension of how social media marketing influences small business sustainability, with innovation capability acting as a mediator in Pakistan's manufacturing sector. These areas include:

1. Longitudinal Studies: Longitudinal studies can provide insights into the enduring effects of social media marketing on small business sustainability. By tracking small businesses over time, researchers can examine how social media strategies and innovation capabilities evolve and impact sustainability outcomes.

2. Comparative Analysis: Comparative analysis across industries or regions can reveal sector-specific or context-specific factors influencing the relationship between social media marketing and small business sustainability. This comparative approach can offer valuable insights for small businesses operating in diverse sectors and locations.

3. Moderating Factors: Exploring moderating factors that influence the relationship between social media marketing, innovation capability, and small business sustainability can provide a

nuanced understanding. Factors such as firm size, market competition, and technological infrastructure could potentially moderate this relationship and warrant further exploration.

4. Qualitative Research: While quantitative methods provide insights, qualitative approaches such as interviews or case studies can offer deeper insights into the perspectives and experiences of small business owners and managers. Understanding their perceptions, challenges, and strategies related to social media marketing and innovation capability can enrich our understanding of small business sustainability dynamics.

5. Cross-Cultural Studies: Cross-cultural studies can illuminate cultural factors influencing the impact of social media marketing on small business sustainability. Insights into how cultural norms, values, and practices interact with social media strategies and innovation capability can aid small businesses in tailoring their approaches to diverse cultural contexts.

6. Impact of Specific Social Media Platforms: Investigating the effectiveness of individual social media platforms (e.g., Facebook, Instagram, LinkedIn) on small business sustainability goals can inform targeted marketing strategies. Understanding which platforms are most effective for reaching target audiences and driving sustainable outcomes is crucial for optimizing social media efforts.

7. Mediating Mechanisms: Further research can delve into the specific mechanisms through which innovation capability mediates the relationship between social media marketing and small business sustainability. Exploring how innovation processes (e.g., idea generation, product development) are influenced by social media can provide actionable insights for enhancing sustainability efforts.

Addressing these future research areas will advance our understanding of how social media marketing, coupled with innovation capability, influences small business sustainability in Pakistan's manufacturing industry. This research aims to offer practical insights for small businesses, empowering them to develop effective strategies that foster sustainable growth.

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QUESTIONNAIRE

Gender

- Male
- Female

Age:

- 25-30
- 31-35
- 36-40
- 40 and above

Which social media you use:

- Facebook
- Twitter
- Instagram
- Other

SOCIAL MEDIA MARKETING

1. I find sustainable products advertisements on social media

- Strongly Disagree Disagree Neutral Agree Strongly Agree

2. I see lots of ads for sustainable products on social media

- Strongly Disagree Disagree Neutral Agree Strongly Agree

3. An attractive layout of social media influences consumers to approach business

- Strongly Disagree Disagree Neutral Agree Strongly Agree

4. Sustainable products advertisement on social media enhances my purchase decision

Strongly Disagree Disagree Neutral Agree Strongly Agree

5. Social media marketing helps to determine the marketing trends

Strongly Disagree Disagree Neutral Agree Strongly Agree

6. Social media helps to promote sustainable business products

Strongly Disagree Disagree Neutral Agree Strongly Agree

SMALL BUSINESS SUSTAINABILITY

1. Social media helps manufacturing businesses to develop innovation products

Strongly Disagree Disagree Neutral Agree Strongly Agree

2. Social media helps manufacturing businesses to increase the quality by reducing costs

Strongly Disagree Disagree Neutral Agree Strongly Agree

3. Social media helps manufacturing businesses to renew production and quality management systems

Strongly Disagree Disagree Neutral Agree Strongly Agree

4. Social media increases output quality in manufacturing processes, techniques, machinery, and software

Strongly Disagree Disagree Neutral Agree Strongly Agree

5. Manufacturing companies often introduce new technologies to improve production or process procedure.

Strongly Disagree Disagree Neutral Agree Strongly Agree

6. Most manufacturing companies often raise the quality and competitiveness of their products

Strongly Disagree Disagree Neutral Agree Strongly Agree

7. Manufacturing businesses in Pakistan take measures to reduce energy consumption

Strongly Disagree Disagree Neutral Agree Strongly Agree

8. Most manufacturing businesses Implement recycling and composting programs in all departments

Strongly Disagree Disagree Neutral Agree Strongly Agree

9. Manufacturing companies develop business plans to ensure long-term profitability and financial viability of the business

Strongly Disagree Disagree Neutral Agree Strongly Agree

10. Manufacturing businesses have a formal policy about its sustainable business practices

Strongly Disagree Disagree Neutral Agree Strongly Agree

11. Manufacturing companies of Pakistan have tracks for their energy and water usage, waste generation and carbon footprints.

Strongly Disagree Disagree Neutral Agree Strongly Agree

INNOVATION CAPABILITY

1. Innovation in sustainable business models is a direct result of our business's social media marketing strategy.

Strongly Disagree Disagree Neutral Agree Strongly Agree

2. Social media marketing encourages our business to develop innovative sustainable products and services.

Strongly Disagree Disagree Neutral Agree Strongly Agree

3. The use of social media marketing channels (e.g., Facebook, Twitter, Instagram) inspires new ideas for sustainable innovation in our business.

Strongly Disagree Disagree Neutral Agree Strongly Agree

4. Social media marketing feedback (e.g., customer engagement, comments) influences our business's innovation in sustainable product development.

Strongly Disagree Disagree Neutral Agree Strongly Agree

5. Our business's social media marketing strategy drives innovation in sustainable practices.

Strongly Disagree Disagree Neutral Agree Strongly Agree

6. Social media marketing facilitates collaboration and innovation with stakeholders (e.g., customers, suppliers, NGOs) on sustainability initiatives in our business.

Strongly Disagree Disagree Neutral Agree Strongly Agree

7. Our business's social media marketing activities enhance our ability to innovate sustainably.

Strongly Disagree Disagree Neutral Agree Strongly Agree

Thesis Final

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