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Sustainability Transition of Pakistani SME's

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Abstract

This thesis examines the sustainability transition of Pakistani SMEs, with a focus on understanding the challenges and opportunities that these businesses face as they strive to become more sustainable. The primary goal of the study is to identify the key factors that facilitate or hinder sustainability transitions in the context of Pakistani SMEs.

To achieve this goal, the study employs a qualitative approach, using a systematic literature review and thematic analysis to identify key themes related to sustainability transition in Pakistani SMEs.

The results of the study suggest that Pakistani SMEs face a range of challenges in transitioning to more sustainable business practices, including limited financial resources, lack of knowledge and expertise on sustainability issues, and weak institutional support. However, the study also identifies a number of opportunities for SMEs to become more sustainable.

Overall, the study highlights the need for a more holistic approach to promoting sustainability transitions in Pakistani SMEs, one that takes into account the broader economic, social, and institutional factors that shape these businesses' operations. The findings of this study can inform the development of policies and initiatives aimed at supporting sustainability transitions in Pakistani SMEs, which have the potential to drive sustainable economic growth and social development in the country. It also has important implications for business leaders, and sustainability practitioners in Pakistan and other developing countries seeking to promote sustainable development through SMEs.

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1. Introduction

The goal of this thesis is to examine the sustainability transition of Pakistani Small and Medium Enterprises (SMEs), focusing on their environmental and social performance. The main objective is to explore the drivers and barriers of sustainability adoption by SMEs in Pakistan, and to provide recommendations for business leaders, and sustainability practitioners, SMEs, and other stakeholders to support the transition towards sustainability.

The topic of sustainability transition of Pakistani SMEs is interesting because SMEs play a significant role in the country's economy, and their sustainable growth is essential for achieving the Sustainable Development Goals (SDGs) and addressing global environmental challenges. Moreover, SMEs face unique challenges and opportunities in the sustainability transition process, which makes them an interesting case for research.

I have chosen this topic because of my interest in sustainability and the potential impact of SMEs on sustainable development.

2. The Background of the Study

2.1. Sustainability Transition

Sustainability transition refers to the process of moving towards a more sustainable future by transforming the current socio-economic system to a more sustainable one (Geels et al., 2018). The concept of sustainability transition has gained prominence in recent years due to the growing recognition of the need to address pressing global environmental challenges such as climate change, biodiversity loss, and resource depletion (Loorbach et al., 2017).

The sustainability transition requires a systemic transformation of the current economic, social, and political structures towards more sustainable and resilient systems (Fazey et al., 2018). This involves a shift towards sustainable production and consumption patterns, the adoption of clean and renewable energy systems, the promotion of circular economy models, and the development of sustainable lifestyles (Brand & Jager, 2017).

The sustainability transition is a complex and multifaceted process that involves multiple actors and stakeholders, including governments, businesses, civil society, and individuals (Meadowcroft, 2011). The transition requires collaboration and cooperation among these actors to achieve a common goal of sustainability.

Despite the challenges and complexities, there have been numerous successful examples of sustainability transition in various sectors and regions (Kivimaa & Kern, 2016). For instance, the adoption of renewable energy systems, such as wind and solar power, has rapidly increased in recent years, leading to a reduction in greenhouse gas emissions (IPCC, 2018). Similarly, the circular economy model, which emphasizes the reuse and recycling of materials, has gained traction in various industries, including construction, textiles, and electronics (Kirchherr et al., 2018).

In conclusion, the sustainability transition is a crucial process that requires collective action and commitment from various stakeholders to achieve a more sustainable and equitable future. The transition requires systemic changes in the current economic, social, and political structures towards more sustainable and resilient systems. While the transition is complex and challenging, there are numerous successful examples that provide hope for a sustainable future.

2.2. Sustainability Transition in Pakistan

Pakistan is a developing country that faces numerous sustainability challenges, including rapid population growth, resource depletion, and climate change impacts (World Bank, 2021). The country has made some progress towards sustainability in recent years, but significant challenges remain in achieving a sustainable future.

The government of Pakistan has recognized the importance of sustainability and has taken steps to address sustainability challenges. For instance, the government has developed a National Climate Change Policy and a National Biodiversity Strategy and Action Plan to address climate change and biodiversity loss (Government of Pakistan, 2012; Government of Pakistan, 2016). The government has also set targets for renewable energy production, aiming to generate 30% of the country's electricity from renewable sources by 2030 (Government of Pakistan, 2019).

However, the implementation of these policies and strategies has been challenging due to limited resources and institutional barriers (Bano et al., 2020). The lack of coordination among different government agencies and the limited capacity of local governments to implement sustainability initiatives have also hindered progress towards sustainability (Bano et al., 2020; UNDP, 2018).

The private sector, particularly SMEs, can play a crucial role in promoting sustainability in Pakistan. However, SMEs face numerous challenges in adopting sustainable practices, including lack of awareness, limited financial resources, and inadequate regulatory frameworks (Akram et al., 2020). The lack of access to sustainable financing and the limited availability of sustainable technologies are also significant barriers to sustainability transition in SMEs (Akram et al., 2020; Hussain et al., 2021).

Despite these challenges, there have been some successful examples of sustainability transition in Pakistan, particularly in the renewable energy sector (Zafar, 2020). The government has also initiated programs to support sustainable development, such as the Green Pakistan Program, which aims to plant 10 billion trees across the country (Government of Pakistan, 2018).

2.3. Small and Medium Sized Enterprises

Small and medium-sized enterprises (SMEs) are rising to prominence in achieving the business-related SDGs for sustainable economic growth for decent work and producing a constructive push towards improved quality of life, education, and health for all

(Ahmed et al., 2021). The rural poor, especially those who are illiterate but skilled, benefit greatly from these businesses. They help low-income families cover their basic costs by earning a little wage. Plans that do not include a fundamental rethinking of how our monetary system and other institution's function will not achieve the SDGs (Khan et al., 2021).

A total of 5.2 million small and medium-sized enterprises (SMEs) were reported in the press as active in Pakistan in 2016 (Xin et al., 2023). Almost all privately held companies are small and medium-sized enterprises. Businesses in this category range from established corporations to fledgling service providers and manufacturers. Small and medium-sized enterprises (SMEs) employ 78% of the non-agricultural workforce, produce 25% of Pakistan's industrial exports, and contribute 30% to the country's GDP.

In 1998, the Small and Medium Business Development Authority (SMEDA) was created to aid the growth and development of such businesses (Khan et al., 2021). Its mission goes beyond that of a government think tank dedicated to advising on small and medium-sized enterprise (SME) issues; it also serves to facilitate the vision of other stakeholders as they work to implement strategies for the growth of SME. Pakistan's SMEs are small, low-profit establishments that pay scant attention to the SDGs and have adopted only a subset of its goals (Rehman et al., 2022).

2.4. Globalization and its Rise to Problems

The advent of globalization has given rise to a number of problems associated with sustainability, including climate change, biodiversity loss, and the degradation of ecosystems (Ahmed et al., 2021). In spite of the existing conditions, the challenges associated with sustainability have grown very quickly, and it appears to be difficult for SMEs to maintain the balance among environmental, social, and economic challenges.

As a result, the role of the entrepreneur is preeminent as both a visionary and a solution maker. Entrepreneurs have gradually begun to contribute support, not only for the purpose of resolving the crisis but also for providing solutions to the fundamental sustainability challenges (Kumar et al., 2022).

From the beginning of the core ecosystem difficulties, the organisation started investigating "sustainable entrepreneurship" as a business model in order to recognize, evaluate, and engage the harmful effects on the ecosystem (Khan et al., 2020). Entrepreneurship that is focused on social, economic, and environmental sustainability, as well as the production of wealth and long-term growth, is what is meant by the term

"sustainable entrepreneurship." even though social entrepreneurship and ecological innovation are two distinct bodies of expertise (Xin et al., 2023).

In a similar vein, management in developing is being considered as a crucially important aspect since it makes it possible to analogize and digitize both social and ecological enterprise. In the current, the tone for the market will be set by sustainable entrepreneurial stimulation to extend the future wellness, operational excellence again for society, plus coming results (Khan et al., 2021).

3. Key Challenges and Problems in Sustainability Transition

3.1. Sustainability Issue with Environmental Uncertainty

It is commonly held that the sustainability issue, which is made worse by environmental uncertainty, can only be ameliorated by sustainable entrepreneurship and the diversion of the necessary organizational resources to support sustainable development (Bokhari et al., 2020). In the framework of sustainable entrepreneurship, the organisation ought to gather together all of the essential resources and knowledge in order to guarantee and increase the amount of sustainable development within the organization (Khan et al., 2021). The organisation gave off an impression of being dominant and competitive when they were approached. When sustainable entrepreneurship assumed the lead, it was able to successfully navigate the perilous waters of the sustainability crisis (Fahad et al., 2022).

The governments of developed countries recognize that small and medium-sized businesses (SME's) are the primary engines of economic growth, which brings about shifts in the distribution of income, the creation of new jobs, and the building of economic structure (Fu et al., 2021). But in the case of developing countries like Pakistan, small and medium-sized enterprises (SMEs) face challenges in achieving their full economic potential due to an underdeveloped market mechanism. In these countries, organisational structures often lack innovation, and limited resources make it difficult for SMEs to expand (Kumar et al., 2022). It is of the utmost importance to have an understanding of how small and medium-sized enterprises (SMEs) can accomplish sustainable development despite having limited resources and keep a competitive advantage while having a negative impact on the environment in general and society in particular. In earlier studies, the framework for sustainable entrepreneurship that was developed for small and medium-sized enterprises (SME) produced hopeless results (Aftab et al., 2022).

These results included a lack of desertification, soil exploitation and overbuilding, waste of food and hazardous material, damage to biodiversity, and an increasing pollution mechanism. In contrast, the structure that was developed for multinational corporations produced different results (Qamar et al., 2022). Hence, sustainable entrepreneurship was believed to be a method for the ecological problems that were occurring among the SMEs, while the identification of problems required strong entrepreneurial expertise and bricolage in order to contribute and handle such ecological concerns. In the small and medium-sized enterprise sector, unsatisfactory results are caused by a lack of entrepreneurial expertise.

3.2. Sustainable Value Chains

Pakistan, like most other countries, has major problems with its ability to consume and produce sustainably. (Qamar et al., 2022). Incentives for sustainable value chains are needed to address these issues, especially in the context of Pakistan's substantial waste generation. Sustainable manufacturing practices and the adoption of circular economy principles can be promoted via a number of policy levers. (Xin et al., 2023).

Creating trade and industrial policies that are ethical and take into account the needs of sustainability is a key area of concern. A substantial body of evidence and the participation of think tanks and research institutions are needed for this. Complementing national efforts, international and regional collaboration in harmonizing environmental standards and deploying carbon-neutral technologies can play a crucial role. (Khan et al., 2020).

Governments can encourage value chains that prioritize sustainability by revising tariffs, para-tariffs, and regulatory policies. The shift toward more sustainable manufacturing methods can be sped up by phasing out fossil fuel subsidies and by placing a price on carbon. However, local capacity must be built to produce responsibly for Pakistan's expanding population, and trade-offs between conventional and sustainable production strategies must be carefully examined. (Qamar et al., 2022).

4. The Potential of Sustainability Transition in Pakistan

4.1. Implementation of CSR as a Suitable Solution

Corporate social responsibility (CSR) is a concept that helps businesses connect with their communities and teaches them how to use their resources for the greater benefit. Responsibility in the areas of law, ethics, and finances are all part of corporate social responsibility. Social responsibility and corporate citizenship are other names for CSR. Companies have been under increasing pressure from customers, competitors, governments, and other groups to adopt sustainable business practices, therefore CSR has been a major focus for the previous three decades. In part because of this, CSR has become the "new normal" for corporations everywhere (Rehman et al., 2022). Organizations in the modern era are, therefore, held to a higher standard of accountability for their efforts to improve the lives of the public at large (Aftab et al., 2022).

Companies who invest in CSR initiatives have a leg up on the competition. CSR is the practice of managing a company's interactions with the government and the general public (Qamar et al., 2022). The effects of corporate social responsibility (CSR) initiatives are complicated, especially for less developed countries like Pakistan. More than 220 million people call Pakistan home, but many lack access to even the most fundamental services (Khan et al., 2019). The country is currently facing significant difficulties in maintaining a clean environment and enough social facilities. So, it places the responsibility on contemporary enterprises to aid society in overcoming these environmental and social difficulties (Khan et al., 2021).

Economic, legal, ethical, and philanthropic are the four pillars of corporate social responsibility. A company's economic responsibilities are paramount, followed by its legal, ethical, and philanthropic obligations. The first group, which includes economic and legal responsibilities, is mandated by society, while the second set, which includes ethical and charitable obligations, is anticipated (Bokhari et al., 2020).

4.2. The Pyramid of Economic Responsibility and Sustainability

Since maintaining a healthy economy is crucial to fulfilling ethical and philanthropic obligations, this aspect of the pyramid lies at the very bottom. (Xin et al., 2023). It is challenging to allocate funds to ethical and philanthropic causes when an organization is struggling to meet its economic goals and experiencing a resource deficit. (Chatzistamoulou & Tyllianakis, 2022). When businesses prioritize social responsibility alongside profit and environmental protection, they are practicing economic accountability. Businesses aim to make a profit while also doing good for society (Khan et al., 2021). The term "legal duties"

refers to the obligation of a company to comply with state laws in order to carry out its day-to-day activities and achieve its goals. "Ethical CSR ensures stakeholders that their interests are part of the company's values, and the products and services are created to fulfil consumers' true requirements, without being twisted by marketing practices," as one author puts it (Bokhari et al., 2020). Those who practice philanthropy provide money, resources, or time to organizations working to improve society. It also includes a group's efforts to improve society and the environment (Aftab et al., 2022).

Carrol's pyramid is mentioned in Figure below.

Figure 1: Pyramid of CSR (Aftab, 2022)

There is widespread agreement that SMEs are an essential part of our economic infrastructure. Without anyone noticing, they can cause harm to society, thus they must answer to it for their activities (Khan et al., 2019). As a result, stakeholders are pressuring businesses to make CSR essential to their operations. CSR has become a strategic weapon for modern businesses looking to gain an edge in the marketplace. Unfortunately, CSR is still in its early stages of development in many developing and growing economies, including Pakistan. In addition, there is a widespread misunderstanding in Pakistan that large corporations are responsible for CSR since they have the financial wherewithal to devote substantial resources to a variety of CSR initiatives (Aftab et al., 2022).

However, SMEs do engage in some CSR-related strategies, but the existing literature is unclear as to which facet of CSR is most important to them [6]. Most SMEs do not adhere to any sort of codified CSR plan, instead opting instead to implement CSR strategies based on their own internal criteria (Alkahtani et al., 2020). Because most of them view CSR as a burden rather than a responsibility to society,they miss the mark when it comes to understanding the fundamental meaning of CSR activities. Most small and medium-sized businesses in Pakistan engage in CSR activities for altruistic reasons. Under the guise of CSR, they engage in charitable giving, social service, and other community-benefiting activities in the areas of education, healthcare, and social welfare (Sher & Qiu, 2022).

The stakeholder theory proposes that CSR is primarily the result of forming associations with actors/entities that are affected by the organization's actions; the resource-based view (RBV) proposes that organizations must be resourceful in order to participate in all areas of CSR; and institutional theory proposes that social institutions are required to establish a moral code for organizations. In contrast, the viewpoints of RBV and stakeholders are central to this investigation. (Bokhari et al., 2020). Under the principle of stakeholder interest, all relevant parties, such as shareholders, consumers, employees, the public community of lenders, government bodies, and trade groups, must be taken into account. (Aftab et al., 2022).

4.3. Organizations that Support Sustainability

Together, they ensure the company's continued success and growth (Xin et al., 2023). Thus, these businesses have a moral obligation to return a portion of their profits to their stakeholders through targeted CSR initiatives (Khan et al., 2019). The growth of an organisation can be aided in a number of ways by providing a conducive environment for its personnel and providing them with open and transparent information (Alkahtani et al., 2020). On the other hand, a small or medium-sized enterprise (SME) meets the needs of

its consumers by offering them something of value, and in doing so, increases those customers' satisfaction (Rehman et al., 2022). However, RBV highlights SME's resource gaps, which demonstrates why these businesses can't take the lead in implementing sustainability initiatives.

According to Barney (2021), a competitive advantage can be obtained" if the current strategy is value-creating and is not being implemented by present or potential future competitors. He also argues that a company must rely on its resources, both tangible and intangible, in order to achieve competitive advantage. Xin et al (2023) argue that resources that can be physically touched are the most straightforward to assess. Assets like a company's good name and cutting-edge technology are examples of intangible resources. In addition, he said, a company's resources are a key factor in its development (Ali et al., 2020). An organization's ability to compete in the market is then claimed to depend on the existence of unique and priceless assets. That's why, to grow sustainably, businesses need to maximize their existing assets.

Businesses in the present day are urged to implement sustainable strategies due to the ever-shifting nature of the business environment. Many businesses have come to understand that they will not be successful in the long term without projecting an image of being a socially responsible enterprise (Rehman et al., 2022). Sustainable initiatives, such as corporate social responsibility (CSR), are becoming increasingly important for firms to undertake as globalization and industrialization proceed. Large, medium, and small businesses alike can all benefit from adopting a CSR strategy around the world. Smaller businesses with limited resources and an incomplete grasp of CSR have much work to do in this area if they hope to secure a sustainable future and compete successfully. Researchers are motivated to study CSR in the SME sector of the Pakistani economy because the concept is still in its infancy in the country (Alkahtani et al., 2020).

4.4. Sustainable Competitive Performance

A company can't go head-to-head with a rival in a volatile market unless it has created networking ties with its suppliers, consumers, and competitors (Khan et al., 2021). For a company to maintain a competitive edge over the long term, it needs to address both financial and non-financial concerns on a worldwide and international scale, both of which are facilitated through networking. The networking system also helps to promote both the existing and the potential internal resources (Rehman et al., 2022).

So, it is hypothesized that implementing an external networking infrastructure helps businesses greatly. Due to their inherent lack of capital, small and medium-sized enterprises (SMEs) rely heavily on their ability to network with financial institutions (Khan et al., 2019). Managers with access to unlimited funds can experiment with a variety of policies for the organization's infrastructure support and communication channels, as well as gather data for use in formulating company strategy (Bokhari et al., 2020). Resources including data, management expertise, tools, and technology are made more accessible to actors through networks (Rehman et al., 2022).

4.5. Barriers in the Recycling industries

The recycling industry is critical in promoting sustainable development in Pakistan's SMEs. However, several barriers hinder the growth and development of the industry, including lack of awareness and education, poor infrastructure, limited government support, inadequate funding, and limited market for recycled products. To overcome these barriers, there is a need for increased public awareness and education, government policies and incentives to promote investment in the sector, and private sector investment in the industry's infrastructure and technology. Additionally, there is a need for the government to provide

an enabling environment for the recycling industry by establishing regulations and enforcement mechanisms to ensure compliance with recycling guidelines and standards.

Lack of Awareness and Education:

Lack of awareness and education on the importance of recycling among the Pakistani population is a major barrier to the growth of the recycling industry. According to a study by Khan and Aslam (2020), many Pakistanis do not know what recycling entails, its benefits, and how to participate in the recycling process. Additionally, there is a lack of public education on the types of recyclable materials and their proper disposal, leading to high contamination rates in the recycling stream.

Poor Infrastructure:

The recycling industry requires a robust infrastructure, including collection and transportation systems, sorting and processing facilities, and markets for recycled products (Bokhari et al., 2020). In Pakistan, the recycling industry's infrastructure is inadequate, fragmented, and poorly developed. For instance, the lack of proper waste collection systems in urban areas makes it difficult for recyclers to access materials. Additionally, the limited number of recycling facilities makes it challenging to process and sort the available recyclables (Ahmed et al., 2021).

Lack of Government Support

The government's support is critical in fostering the growth and development of the recycling industry. However, in Pakistan, the government has not given the recycling industry the attention it deserves. According to Shafique et al. (2021), the recycling industry is not a priority in government policies, and there are no incentives or subsidies to promote investment in the sector. Additionally, there are no regulations or enforcement mechanisms to ensure compliance with recycling guidelines and standards.

Inadequate Funding

The recycling industry requires significant investment in infrastructure, technology, and workforce development. However, the lack of adequate funding hinders the growth and development of the industry in Pakistan. According to a study by Ahmed et al. (2021), the recycling industry is considered a high-risk venture by many investors due to the lack of proper regulation and the industry's informality. As a result, there is limited private sector investment in the recycling industry.

Limited Market for Recycled Products

A significant barrier to the growth of the recycling industry in Pakistan is the limited market for recycled products. According to Ali et al. (2019), there is a lack of demand for recycled products due to the low awareness and education levels among the Pakistani population. Additionally, the lack of government policies and incentives to promote the use of recycled products in manufacturing hinders the growth of the market.

4.6. Government Support and Sustainable Competitive Performance and Practical Implications

Tax breaks, loans, social services, and financial aid are just some of the ways that governments have shown their support for the SME sector (Rehman et al., 2022). According to social network theory, organizations with extensive external networking linkages to other firms or institutions on a national or worldwide scale have far greater access to a wide variety of resources, which can be used to great effect in the pursuit of competitive advantage. While the resource-based perspective of the company suggests that enterprises in the emerging economy, which has scarce and unique resources, acquire a competitive edge over their rivals, the idea has not been tested in practise. It is also believed that government incentives play a critical role in boosting emerging economies' competitive performance in the long run (Aftab et al., 2022). Hence, it's clear that government subsidies and development programs help businesses thrive.

In addition, the government's financial aid encourages SMEs to go global, which can boost their performance and add significantly to economic growth (Alkahtani et al., 2020). It is also hypothesized that in rising economies, a company's ability to obtain sustained production is heavily reliant on its political and governmental connections. In addition, leadership with solid ties to government and politics may quickly get a foothold in the turbulent market and maintain a competitive edge for the long haul (Alkahtani et al., 2020).

In addition to facilitating access to capital, government aid helps small and medium- sized enterprises (SMEs) in other ways, too. It is also argued that financial resources like credit, training, services, loans, tax payments, etc. cannot improve an organization's performance, deserve thought resources are crucial for achieving long-term success (Xin et al., 2023). Thus, it is argued that government financial and non-financial support considerably enhances inventive capability based on previous work (Bokhari et al., 2020). A key factor in the enhancement of organisational effectiveness, however, is government assistance (Sher & Qiu, 2022). The growth of businesses can be greatly aided by the government's emphasis on technical innovation within the company (Ahmed et al., 2021). Most notably,

monetary incentive from the government is seen as a crucial aspect to increase innovation in both established (Kumar et al., 2022).

Practical implications for policymakers, SME owners, and managers to develop and implement effective sustainability strategies for Pakistani SMEs include providing financial and technical support, creating awareness about the benefits of sustainability and the potential risks of non-compliance, enforcing regulations, improving energy and resource efficiency, developing sustainable products and services, engaging in partnerships and collaborations, building knowledge and expertise through training and capacity building programs, sourcing materials from sustainable suppliers, and providing loans, grants, and technical assistance through financial institutions and industry associations. By adopting these strategies, Pakistani SMEs can overcome the challenges associated with sustainability transition and realize the benefits of sustainable practices such as improved efficiency, access to new markets, and enhanced reputation, contributing to the sustainable development of the country

5. Methodology

Introduction

This chapter includes the detailed steps which were taken for data collection for this study. This study adopts a systematic literature review, so this chapter includes the search and screening of studies, inclusion and exclusion criteria, quality appraisal and final selection of studies.

Systematic Literature Review

Systematic Literature Review is a methodology used to identify, analyse, and synthesize the existing literature on a particular research topic. SLR involves a structured and comprehensive search of relevant literature to identify and evaluate the quality of available evidence on a specific research question (Xiao and Watson, 2017).

SLR can be a suitable methodology for the study because it allows researchers to identify and analyze the existing literature on sustainability transition and SMEs in the Pakistani context in a rigorous and transparent way. Through a comprehensive search of relevant literature, SLR can provide insights into the current state of knowledge, gaps in the literature, and potential directions for future research on this topic. Overall, SLR can provide a strong foundation for developing evidence-based policy and practice recommendations for sustainability transition of Pakistani SMEs. Figure 2 presents a step-by-step method used in SLR process.

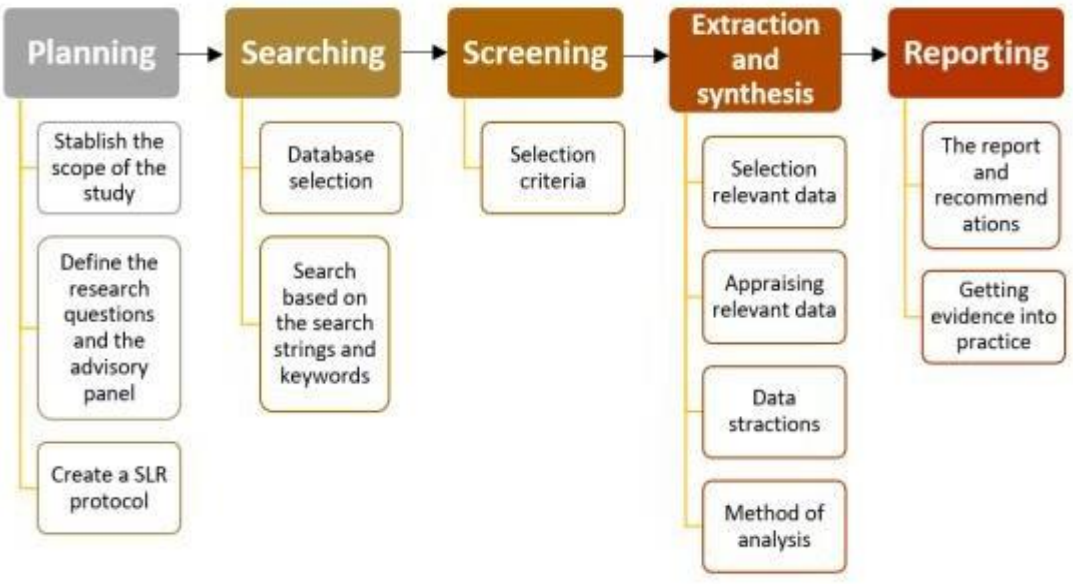


Figure 2: SLR Process (Pilbeam et al., 2012; Tran field et al., 2003)

Search Protocol

The first step was to select the database for my research. The databases used for conducting the research was Google Scholar. In addition, the database “theseus” of my university (KAML- University of Applied Sciences) also served as a database for the screening and selection of articles. These databases provided access to a wide range of academic journals, conference proceedings, and other sources of academic literature. They also had advanced search features that allow researchers to filter and refine their search results based on specific criteria such as publication year, language, and document type. The study also found studies on other databases such as Pakistan Research Repository, Higher Education Commission of Pakistan Digital Library, and Pakistan Journal of Commerce and Social Sciences. These databases provided access to local research and data that may not be available in international databases.

Keywords and Search Strings

The keywords used to find studies on this topic were: sustainability, sustainable development, SMEs, small and medium-sized enterprises, Pakistan, challenges, problems, barriers, transition, sustainable practices, and recommendations. A Boolean search was used to combine and refine these keywords in a systematic and efficient way. For example, the search query included:

(Sustainability OR sustainable development) AND (SMEs OR small and medium- sized enterprises) AND Pakistan AND (challenges OR problems OR barriers OR transition) AND (sustainable practices OR recommendations)

The use of Boolean operators such as "OR" and "AND" allowed for the combination of multiple search terms and their variants to retrieve relevant studies. "OR" was used to include alternative terms (such as "SMEs" and "small and medium-sized enterprises"), while "AND" was used to narrow the search to studies that include all the specified terms (such as "sustainability" and "Pakistan" and "challenges" and "sustainable practices"). The search strategy also included additional filters such as publication year, language, and document type to ensure that the studies retrieved are relevant and up to date.

Inclusion and Exclusion Criteria

Inclusion and exclusion criteria are specific criteria used to determine which studies are eligible for inclusion in a systematic review or research study. These standards are set up to guarantee that the review or research is well-targeted, comprehensive, and accurate. Inclusion criteria are those that a study must meet in order to be considered, whereas

exclusion criteria are those that would rule it out. Maintaining the quality and validity of the research and ensuring that the study provides an impartial and thorough response to the research question necessitates the adoption of clear and transparent inclusion and exclusion criteria (Cocchia, 2014).

Inclusion Criteria	Exclusion Criteria
Studies published in peer reviewed academic journals, or Conference Proceedings	Studies that are not published in peer- reviewed academic journals or conference proceedings.
Studies conducted in Pakistan or focused on the sustainability practices of Pakistani SMEs.	Studies that are not related to the sustainability practices of SMEs in Pakistan.
Studies conducted after 2000	Studies conducted before 2000
Journal articles and books	All other sources of data

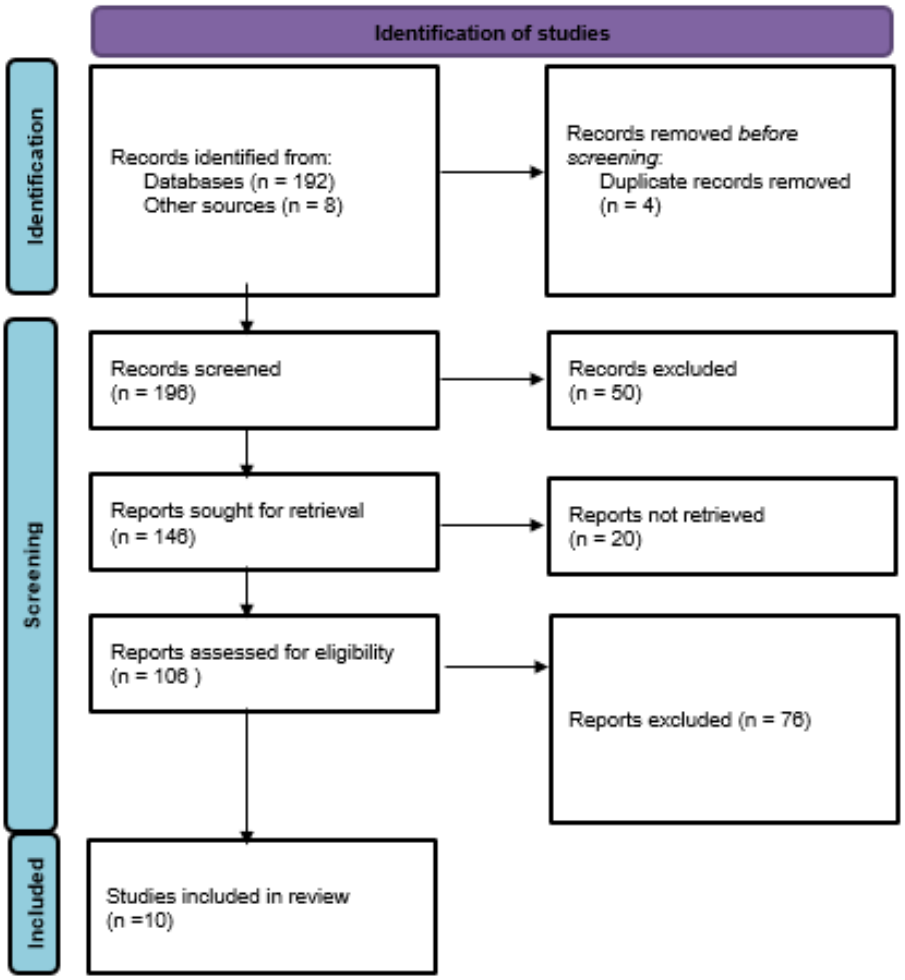
Table 1: Inclusion and Exclusion Criteria

Quality Appraisal

To ensure the quality of the studies included in the review, a quality appraisal process was conducted. The quality appraisal process involved a critical assessment of the studies using established criteria such as relevance, reliability, validity, and methodological rigor. The quality appraisal process involved assessing the studies against a set of predefined quality criteria. These criteria included the “study design, sample size, data collection methods, data analysis, and reporting standards”. The studies were also assessed for their relevance to the research question and their contribution to the overall aims and objectives of the study. Studies were included in the evaluation only if they passed the quality assessment, and those that didn't were left out. The quality appraisal process helped to ensure that the studies included in the review were of high quality and provided valid and reliable data to support the research aims and objectives.

Data Extraction

PRISMA methodology was used for data extraction. A total of 200 studies were identified, which were then screened for eligibility based on the inclusion and exclusion criteria. After screening, 25 studies were found to be eligible for data extraction. Second, I used a standard data extraction form to collect information from the relevant research. Important results on the sustainability problems encountered by Pakistani SMEs were included in the data extraction form with information on the study's authors, year of publication, study design, research methodology, sample size, data analysis methodologies, and key findings. In the third step, the extracted data was synthesized and analyzed. The key findings were organized and summarized to provide an overview of the challenges and problems faced by Pakistani SMEs in their sustainability transition. The data was also analyzed to identify trends and common themes across the studies. The final stage of the PRISMA methodology involved reporting the findings of the data extraction and synthesis process. In this study, a total of 10 studies were included in the final analysis. The findings of the study indicated that Pakistani SMEs face numerous challenges and problems in their sustainability transition, including lack of financial resources, lack of awareness and education, and weak regulatory frameworks. The study also provided recommendations and solutions to address these challenges and promote sustainable development in Pakistani SMEs.


Identification of studies
Identification
Records identified from:
Databases (n = 192)
Other sources (n = 8)
Records removed *before screening*:
Duplicate records removed (n = 4)
Screening
Records screened (n = 196)
Records excluded (n = 50)
Reports sought for retrieval (n = 146)
Reports not retrieved (n = 20)
Reports assessed for eligibility (n = 106)
Reports excluded (n = 76)
Included
Studies included in review (n =10)

6. Results

This chapter includes descriptive and thematic analysis and findings of studies screened and selected in chapter 3. Descriptive analysis involves the categorization of studies based on published year, keywords used, research methods and type of research. Thematic analysis categorizes the data into themes and codes and then analyzes it based on research objectives.

Descriptive Findings

Chronological Distribution

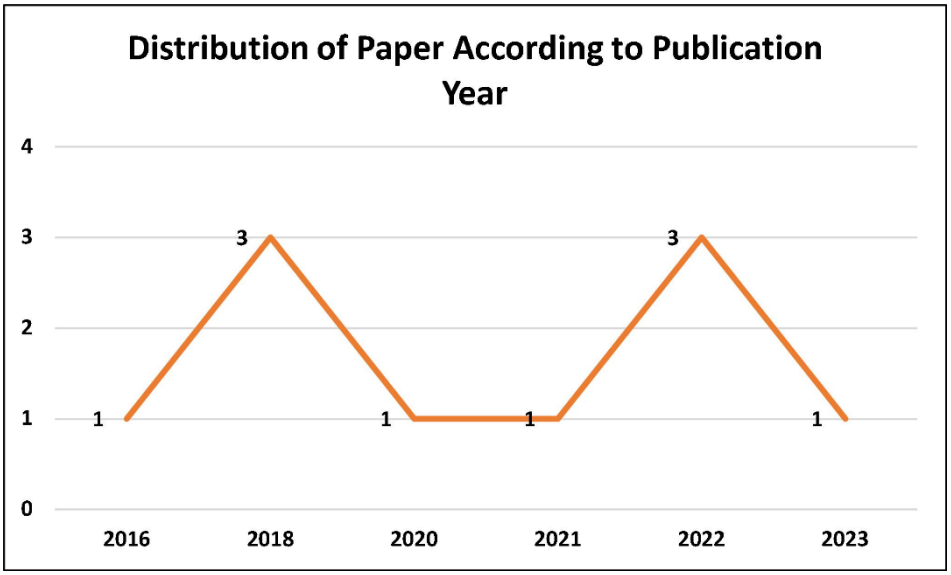


Figure 3: Chronological Distribution of Papers (n=10)

It is seen from the above figure that only articles are published in 2016, 2020, 2021 and 2023 whereas 3 articles are published in 2018 and 3 in 2022. This implies that there is ongoing research on the present topic. Moreover, no article is published before 2010 on the research topic this means that the research on sustainability in SMEs in Pakistan has started recently. In recent years, there has been a significant increase in global awareness of sustainability issues, including the role of businesses in promoting sustainable development. This has led to increased research and interest in sustainability practices in SMEs in Pakistan.

Research Method

It is seen from the figure that out of 10 studies, 7 studies employ primary data collection in their interviews while 2 studies employed literature review. SMEs are considered to be the backbone of the economy in many countries, including Pakistan. Given their significant contribution to economic growth and job creation, it is important to understand the challenges and opportunities they face in transitioning towards sustainability. There is a need for empirical evidence to support sustainability-related policies and strategies. Primary data collection methods, such as surveys, interviews, and case studies, provide rich and detailed information on the challenges and opportunities facing SMEs in their sustainability transition.

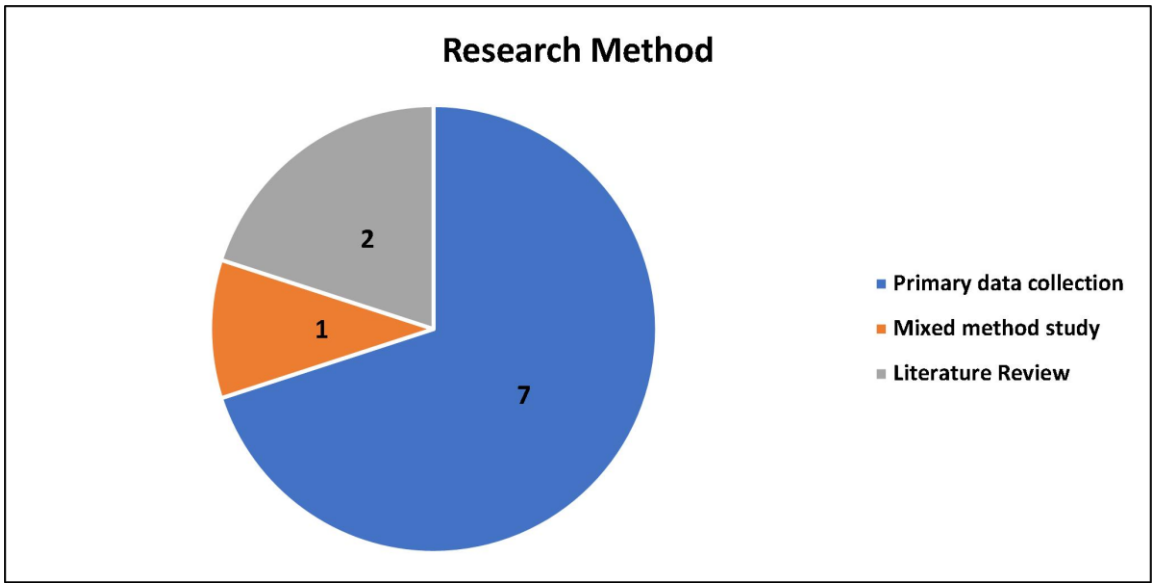


Figure 4: Distribution of Papers According to Research Method (n=10)

Database Selection

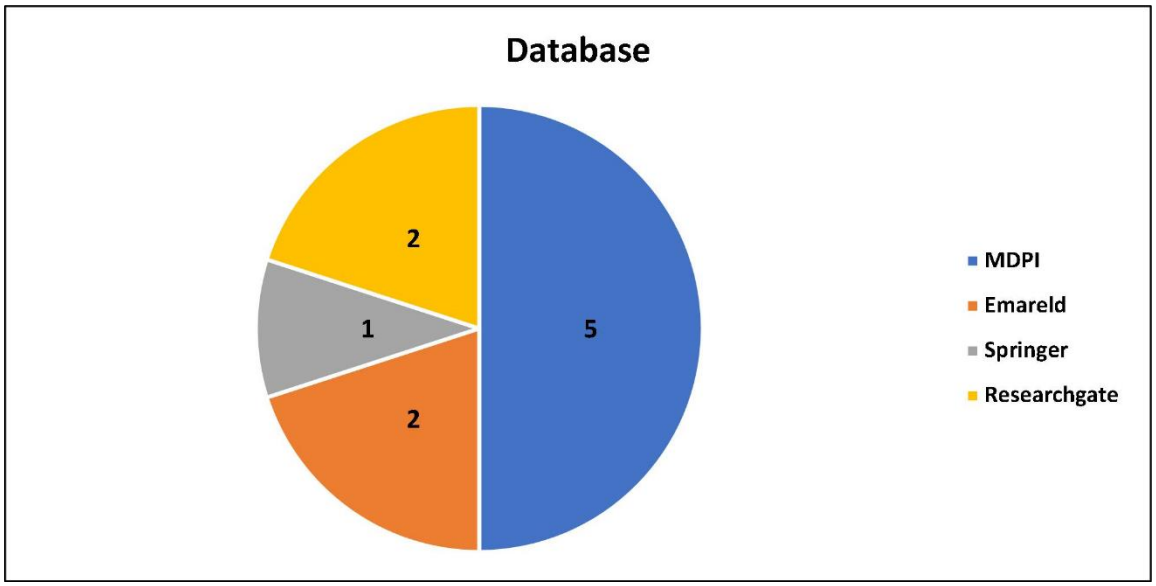


Figure 5: Distribution of Papers According to Database (n=10)

It is seen from the figure that most of the articles were published in MDPI database. Whereas, 2 articles are published in Emerald, 2 in ResearchGate and only 1 in Springer. MDPI is an open-access publisher, meaning that their articles are freely available to anyone with an internet connection. This allows for a wider audience and greater dissemination of research, which can encourage researchers to submit their best work to the journal. Secondly, MDPI has a rigorous peer-review process that ensures that articles published in their journals are of high quality and meet certain standards.

Keywords

It is seen from the figure that they keyword “sustainability” is the most used keyword used in the articles followed by SMEs and Pakistan. It is important to highlight that my research focuses on sustainability transition in Pakistan with respect to SMEs, so the main three keywords are sustainability, Pakistan and SMEs.

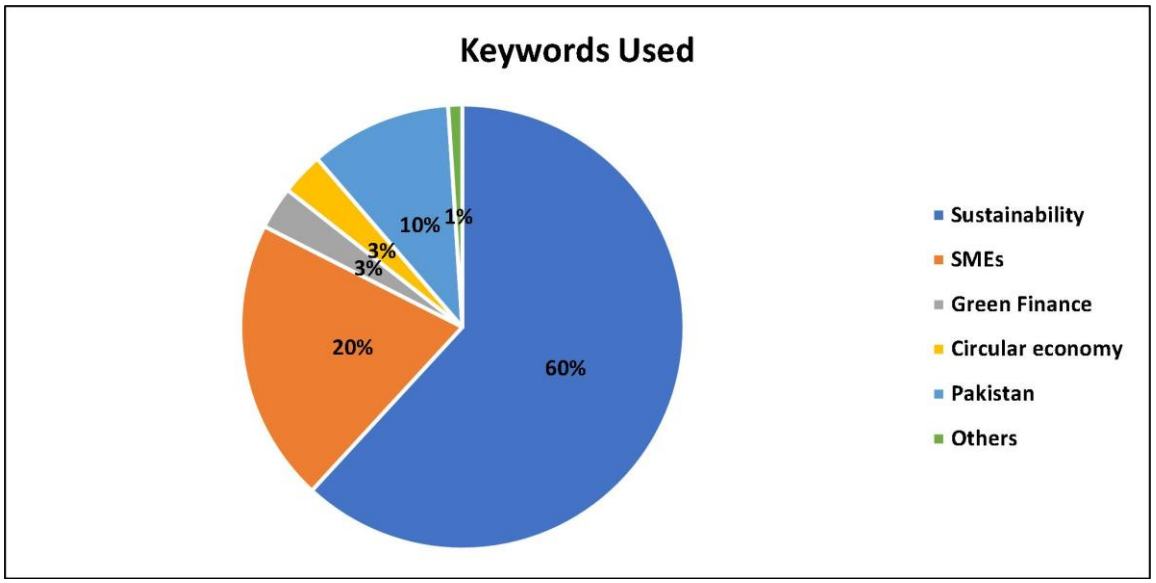


Figure 6: Distribution of Papers According to Keywords Used

Studies Used for Analysis

Table 2: Studies Used for Analysis

Study	Aim	Meth-odol-ogy	Findings
Aftab et al (2022)	This research investigates the link between organizational ambidexterity and involvement in sustainable development and company performance, and how entrepreneurial orientation plays a role in facilitating these connections.	Structured equation modeling was used to examine the data obtained from 339 SMEs using a time-lagged methodology.	Organizational ambidexterity was shown to be related to both business performance and sustainable development participation, with the latter two results mediated by an entrepreneurial orientation. Entrepreneurial orientation, corporate performance, and sustainable development methods are all bolstered by institutional backing.
Ahmad et al (2021)	The purpose of this research is to identify the many kinds of CSR participation that exist among Pakistan's small and medium-sized enterprises (SMEs).	The research takes a qualitative method, conducting in-depth semi-structured interviews, to get the information	The results showed that compared to small businesses, which are more focused on the economic aspect of CSR, medium-sized businesses place a greater emphasis on the social aspect. It has also come to light that the

		needed to achieve its aims.	environmental aspect of CSR does not exist in the case of SMEs. Our research will lead to a better understanding of CSR among policy-makers and a reconsideration of current CSR results that will lead to a more sustainable future.
(Alkahtani, Nordin and Khan, 2020)	The primary goal of this research is to analyze how SME performance in Pakistan is affected by their networking structure (density and centrality).	Hypotheses about government financial assistance and network structure are generated using a review of the relevant literature, and data are gathered by administering standardized questionnaires to the senior management of SMEs.	According to the results, density significantly influences SCP in a favorable way, whereas centrality has no effect on SCP at all. In addition, the government of Pakistan has provided substantial financial backing, strengthening the connection between the country's networking infrastructure and SCP.
(Degong et al., 2018)	This research analyzes the impact of foreign factors on the Sustainable Competitive	Hypotheses were tested on the data	According to the results, international technology is not a major predictor of SCP, but international

	Performance (SCP) of small and medium-sized enterprises (SMEs) in Pakistan.	set collected from 304 emerging SMEs	financing, international experience, and international networks all considerably positively contribute to SCP.
(Khan et al., 2023)	Objectives To experimentally explore the linkages between green technology adoption (GTA), circular economy principles (CEP), sustainable supply chain practices (SSCM), and sustainable performance in a circular economy framework (SP)	A structural equation model was used to gather data from 435 SMEs in Pakistan's textile industry and test it using AMOS. The data was acquired utilizing the country's robust government databases.	According to the results, GTA, CEP, and SSCM all have substantial, positive direct linkages that aid in enhancing SMEs' SP. Positive and substantial effects of circular economy entrepreneurship (CEE) and customer pressure (CP) on the links between GTA and CEP and SSCM were discovered.
(Khan, Yang and Waheed, 2018)	This research investigates at how sustainable competitive advantage (SCA) and firm performance (FP) are affected by a company's investment in certain important intangible resources and competencies in the developing nation of Pakistan.	On a data set consisting of 329 Pakistani SMEs, a structural equation model is used to test the research model and its hypotheses (SEM).	The results demonstrated that the aforementioned parameters had a noteworthy impact on FP. While SCA acts as a mediator between FC and FP and CSR and FP, it only plays a limited role in the relationship between IC and FP.

(Kumar et al., 2022)	The purpose of this research was to examine the barriers to cleaner, more sustainable production in Pakistan's leather and textile industries, focusing on SME financing, green banking, and demand and supply side restrictions.	Techniques based on interviews and a survey of the literature (in which we interviewed more than 20 people representing SME operators, government officials, and banking staff)	Economic obstructions and difficulties such as policy uncertainty and financial short-termism are shown to be a path-dependent, lock-in, non-linear process by the results of this research. This research uncovered a need in the availability of specialized business advise and finance for SMEs to gain knowledge about and make investments in sustainable consumption and production (SCP). In addition, numerous Pakistani financial institutions demonstrate a robust dedication to the development of the State Bank of Pakistan's Green Banking Guidelines (GBGs).
(Raziq and Wiesner, 2016)	This research fills a gap in the literature by investigating the connection between High Performance Management and Planning (HPMP) and Sustainability results (firm performance) in small	Quantitative methodology (Data were collected through a self-administered	The results show that HPMP correlates positively and significantly with sustainability outcomes. The usefulness and relevance of HPMP in attaining sustainability is

	and medium-sized businesses (SMEs) and within a particular cultural context.	survey questionnaire)	shown by the correlation between these HPMP and the long-term viability of SMEs.
(Rehman, Al-Ghazali and Farook, 2022)	The purpose of this research is to analyze the mediating role of government incentives in the relationship between circular economy innovation and BMI (business model innovation) and the economic, environmental, and social performance of SMEs (Small and Medium Enterprises) in Pakistan, Malaysia, and China.	Information was gathered from business leaders in Pakistan, Malaysia, and China using an online poll formatted like a structured questionnaire.	The results showed that in Pakistan, Malaysia, and China, small and medium-sized enterprises (SMEs) benefit from both circular economy innovation and BMI. The research also discovered that in Pakistan, Malaysia, and China, government incentives mediate the connection between circular economy innovation, body mass index, and the economic, environmental, and social performance of small and medium-sized enterprises (SMEs).
(Shabbir and Kassim, 2018)	The major focus of this study is to examine the factors that motivate supply chain managers to ensure the long-term viability of their operations.	Literature review and questionnaire	Facility, inventory, information, transportation, sourcing, and pricing were found to be the most important aspects of supply chain management overall. Such determinants are more influential on

			organizational performance than sustainability, despite the fact that they are less directly tied to sustainability. Finally, findings from this research project suggest that green initiatives can succeed in protecting the environment by having their goals unleashed by the drivers of the supply chain.

7. Analysis of Research Results

Thematic Analysis

This section includes thematic analysis of studies collected in chapter 4. Thematic analysis is a qualitative research method used to identify, analyze, and report patterns (themes) within data. Thematic analysis allows researchers to identify and analyze patterns and themes within textual data. In the case of Pakistani SMEs, textual data could include interviews with business owners or managers, focus group discussions, or documents related to sustainability practices within the company. Through thematic analysis, researchers can identify common themes or patterns related to sustainability practices and transitions in Pakistani SMEs. This chapter will analyze the themes identified from literature and compare it with wider literature.

Challenges And Problems Faced by Pakistani SMES in Their Sustainability Transition:

The growth of a nation's economy is inextricably linked to the success of its small and medium-sized businesses (SMEs). In Pakistan, SMEs contribute to about 40% of the country's GDP and provide employment to a significant portion of the population. However, like in many developing countries, Pakistani SMEs face a myriad of challenges that impede their sustainability transition (Alkahtani et al., 2020).

One of the primary challenges faced by Pakistani SMEs identified by Khan et al. (2023) is the lack of access to finance. This is supported by the study of Arshad et al (2022) who argue that SMEs struggle to secure loans from financial institutions due to their limited creditworthiness, lack of collateral, and high interest rates. Moreover, most SMEs operate in the informal sector and are not registered, making it difficult for them to access financial assistance from the government. As a result, SMEs have limited resources to invest in sustainable practices, making their transition towards sustainability challenging. Pilbeam et al (2012) argue that another significant challenge faced by Pakistani SMEs in their sustainability transition is the lack of awareness and knowledge of sustainable practices. This is consistent with the findings of Awan et al (2021) who argue that SMEs often lack the necessary knowledge and skills to implement sustainable practices, and their employees are not trained in sustainable

techniques. Moreover, many SMEs do not have access to information on the latest sustainable technologies, making it difficult for them to adopt environmentally friendly practices. Through the data collected in the SLR, it can be evidenced that this lack of awareness and knowledge impedes the sustainability transition of SMEs in Pakistan (Kumar et al., 2022; Shabbir & Kassim, 2018). Infrastructure and technology constraints are another significant challenge faced by Pakistani SMEs in their sustainability transition. SMEs often lack the necessary infrastructure and technology to implement sustainable practices. Moreover, the findings are consistent with the study of Zafar & Mustafa (2017) as many SMEs operate in outdated facilities that are not energy efficient, and they do not have access to modern technologies that can help reduce their environmental footprint. Moreover, the lack of proper waste management facilities makes it difficult for SMEs to dispose of their waste in an environmentally friendly manner (Aftab et al., 2022; Ahmad et al., 2021; Kumar et al., 2022; Shabbir & Kassim, 2018). According to Degong et al. (2018), policy and regulatory challenges are also a significant impediment to the sustainability transition of Pakistani SMEs. Many SMEs in Pakistan are not compliant with environmental regulations, and the government lacks the necessary resources to enforce these regulations effectively. Moreover, the government does not provide adequate incentives to SMEs to adopt sustainable practices, making it less attractive for them to transition towards sustainability. The lack of a supportive policy framework makes it difficult for SMEs to invest in sustainable practices (Arshad et al., 2022).

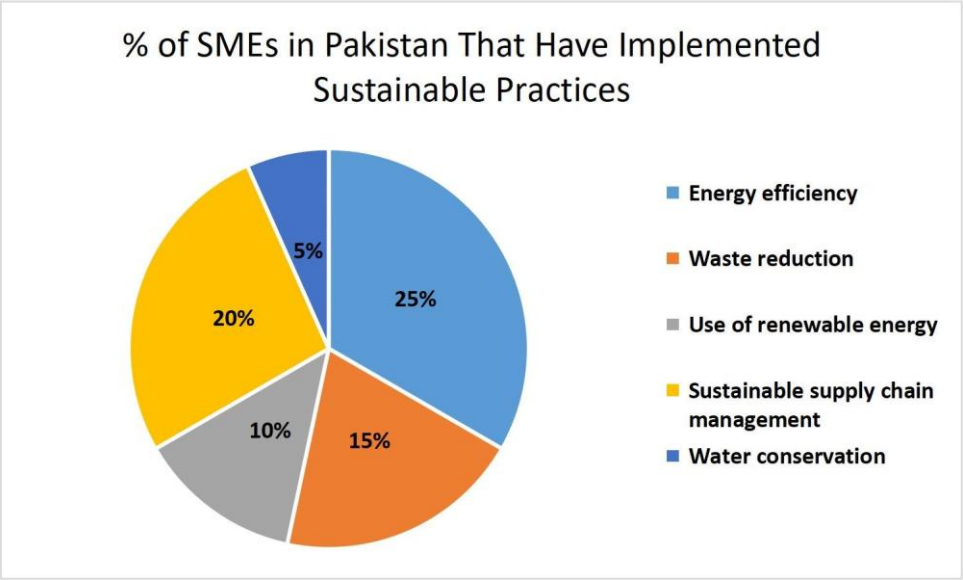


Figure 7: % of SMEs in Pakistan That Have Implemented Sustainable Practices (Degong et al., 2018; Ahmad et al., 2021)

Drivers Of Sustainability Transition in Pakistani SMEs:

Sustainability has become a critical concern for businesses worldwide, and small and medium enterprises (SMEs) play a significant role in shaping a sustainable future. Pakistan, like many developing countries, is still in the early stages of transitioning towards sustainability, and there is a need to explore the drivers of sustainability transition in Pakistani SMEs (Khan et al., 2023).

One of the key drivers of sustainability transition in Pakistani SMEs is government policy and regulation, according to a study by Rehman et al (2022) that surveyed the owners, CEOs, and senior managers of SMEs in Pakistan, Malaysia, and China. This is supported by the findings of Wahga et al (2017) as the government of Pakistan has initiated several policies and regulations to promote sustainable business practices, such as the National Climate Change Policy 2012 and the Environmental Protection Act 1997. These policies aim to reduce environmental degradation, promote sustainable energy use, and encourage businesses to adopt sustainable practices. Moreover, Shabbir and Kassim (2018) found that the government provides tax incentives to SMEs that invest in sustainable practices, which encourages them to transition towards sustainability.

Another driver of sustainability transition in Pakistani SMEs is customer demand. To support this, Anwar & Clauß (2021) argue that consumers are becoming increasingly

aware of the impact of their purchases on the environment and society. Therefore, they are more likely to purchase products from businesses that demonstrate a commitment to sustainability. According to Kumar et al. (2022), this shift in consumer behavior has led to a growing demand for sustainable products and services, forcing SMEs to adopt sustainable practices to remain competitive.

However, Butt et al (2021) argue that Investors are increasingly looking for businesses that prioritize sustainability, and SMEs that fail to meet these expectations may lose out on investment opportunities. Moreover, employees are more likely to work for businesses that demonstrate a commitment to sustainability, and civil society organizations may advocate for sustainable practices through public campaigns, putting pressure on SMEs to transition towards sustainability (Aftab et al., 2022; Alkahtani et al., 2020; Khan et al., 2018). Moreover, technological advancements have facilitated sustainability transition in Pakistani SMEs (Hanan et al., 2021). For instance, renewable energy technologies, such as solar panels, have become more affordable and accessible, enabling SMEs to transition towards sustainable energy use. Similarly, digital technologies, such as cloud computing and data analytics, can help SMEs optimize their resource use and reduce their environmental impact (Ahmad et al., 2021).

List of companies	Sustainability of green initiatives
Lucky cement	Waste Heat Recovery Plant-acquisition of green technology.
	Reduction in CO2 Emissions-further sustainability initiatives.
	Alternative fuel projects for achieving sustainability of the environment.
Nestle	Total water consumption per ton of the product was reduced by 14%
	Emissions reduced by 9.8% in 2017.
	Energy consumption reduced by 24% per ton since 2010.

	Investments in various projects of Energy & Water savings as well as Greenhouse gas reduction
Tetra Pak	Deployment of FSC-certified Packaging.
	Developing process of recycling of Used Beverage Cartons (UBCs).
	Minimization of environmental footprint towards overall value chain Process

Table 2: Green Initiatives in SMEs in Pakistan (Shabbir & Kassim, 2018)

Impact of Sustainability Transition on Pakistani SMEs:

Sustainability has emerged as a key concern in today's world, and the concept of sustainable development is gaining popularity worldwide. Degong et al. (2018) argue that the transition towards sustainability is a critical issue for all businesses, including small and medium-sized enterprises (SMEs), which constitute most businesses in Pakistan.

The literature (Aftab et al., 2022) suggests that the sustainability transition has significant implications for SMEs in Pakistan. It is argued that sustainable practices can enhance the competitiveness of SMEs in the long run by reducing their environmental impact and improving their social and economic performance. Several studies have shown that SMEs that adopt sustainable practices can improve their profitability, increase their market share, and improve their reputation (Ahmad et al., 2021; Khan et al., 2018; Rehman et al., 2022). However, the literature also highlights some challenges that Pakistani SMEs face in their transition towards sustainability (Xin et al., 2023). These challenges include lack of awareness and understanding of sustainability issues, financial constraints, lack of government support, and lack of institutional and regulatory frameworks. SMEs in Pakistan also face challenges in implementing sustainable practices due to the lack of resources and knowledge (Alkahtani et al., 2020).

Despite these challenges, several initiatives have been taken to promote sustainability among SMEs in Pakistan. For example, the government has launched various programs to support SMEs in adopting sustainable practices. For example, Ecosystem

map of green financing for leather/textile SMEs in Pakistan is mentioned in figure 8. These programs provide financial assistance, training, and technical support to SMEs to help them adopt sustainable practices. Moreover, several non-governmental organizations (NGOs) and international organizations are working to promote sustainability among SMEs in Pakistan (Ahmad et al., 2021; Degong et al., 2018; Raziq & Wiesner, 2016).

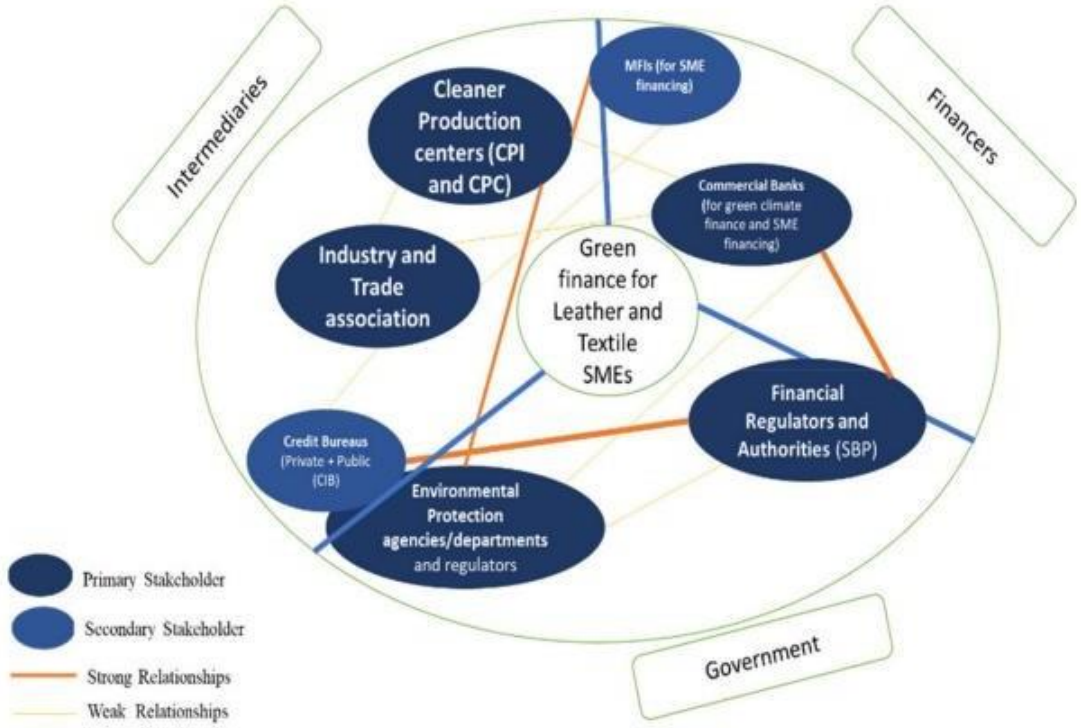


Figure 8: Ecosystem map of green financing for leather/textile SMEs in Pakistan. (Kumar et al., 2022)

Solutions And Recommendations for Promoting Sustainable Development in Pakistani SMEs:

Small and medium-sized enterprises (SMEs) in Pakistan have significant potential to contribute to sustainable development by promoting economic growth, creating employment opportunities, and addressing environmental and social challenges. However, Raziq & Wiesner (2016) argue that there are several barriers that prevent SMEs from adopting sustainable practices, such as lack of awareness, financial resources, and regulatory support.

One of the key solutions identified by Mubarak et al (2019) to promote sustainable development in Pakistani SMEs is to increase awareness about sustainable practices and their benefits. This is consistent with the findings as Shabbir & Kassim (2018) argue that many SMEs in Pakistan lack knowledge about sustainable practices and their potential impact on business operations. Therefore, there is a need to develop educational and training programs that can provide SMEs with the necessary knowledge and skills to adopt sustainable practices. These programs can be delivered through various channels, such as government agencies, business associations, and academic institutions. Another important solution identified by Shabbir & Kassim

(2018) in his study is to provide financial incentives and support to SMEs for adopting sustainable practices. Financial incentives can include tax rebates, subsidies, and low-interest loans for SMEs that invest in sustainable technologies and practices. Additionally, financial support can be provided to SMEs to help them overcome the initial costs associated with adopting sustainable practices. This can be done through government schemes, private sector initiatives, and donor-funded programs.

. Regulatory support is another key solution that can promote sustainable development in Pakistani SMEs (Raziq & Wiesner, 2016; Shabbir & Kassim, 2018). The government can introduce policies and regulations that promote sustainable practices and penalize SMEs that do not comply with these regulations. This can include mandatory reporting of environmental and social impacts, setting standards for resource efficiency and waste reduction, and promoting the use of renewable energy sources as argued by Degong et al (2018). Additionally, the government can establish regulatory bodies to monitor and enforce these policies and regulations. Collaboration and networking among SMEs can also promote sustainable development. SMEs can work together to share knowledge and resources, develop sustainable supply chains, and collectively advocate for policies that support sustainable development (Ahmad et al., 2021). Business associations and networks can play a key role in facilitating these collaborations by providing a platform for SMEs to connect and share ideas. Finally, building partnerships with international organizations and donors can also promote sustainable development in Pakistani SMEs. This is consistent with the findings of Bokhari et al (2022) who argue that these partnerships can provide access to funding, technical expertise, and knowledge sharing opportunities. Additionally, international organizations can help SMEs comply with international standards and certifications, which can enhance their credibility and competitiveness in the global market (Khan et al., 2023).

8. Conclusion and Future Work

The sustainability transition of Pakistani SMEs is an urgent and critical task that needs immediate attention. The study has explored the current state of sustainability practices in Pakistani SMEs, identified the challenges faced by these businesses, and proposed solutions to overcome these challenges. The results of the study show that Pakistani SMEs are lagging behind in terms of sustainability practices, primarily due to the lack of awareness, inadequate resources, and limited government support. However, the study has also shown that there is a willingness among SMEs to adopt sustainable practices, and many businesses are taking steps towards sustainability, albeit at a slow pace.

To achieve the aim of the study, a systematic literature review and thematic analysis were used to analyze the results. The review of existing literature on sustainability in SMEs helped to identify the key challenges and problems faced by SMEs in their sustainability transition in Pakistan. Through a comprehensive secondary data analysis, the challenges and problems faced by Pakistani SMEs in their sustainability transition were identified and analyzed.

The study revealed that the challenges and problems faced by Pakistani SMEs in their sustainability transition include lack of awareness and education, lack of resources and funding, limited access to technology and innovation, and inadequate policy and regulatory support. These challenges and problems have a significant impact on the sustainability practices of SMEs in Pakistan.

The findings of the study stated some possible solutions and recommendations to overcome these challenges and promote sustainable development in Pakistani SMEs. It highlights the need for a comprehensive sustainability framework that addresses the specific challenges faced by Pakistani SMEs. Such a framework should focus on providing education and awareness about sustainable practices, creating incentives for SMEs to adopt sustainable practices, and developing a supportive regulatory environment. The government can play a significant role in this regard by providing financial support to SMEs, promoting sustainable practices through policy interventions, and creating awareness campaigns to encourage businesses to adopt sustainable practices.

Although this study has provided some insights into the challenges and problems faced by Pakistani SMEs in their sustainability transition, there is still much more that needs to be done in this area. Future research could focus on the following areas:

Empirical Studies: While this study is based on secondary research, future studies could employ empirical research methods, such as surveys and interviews, to collect primary data on the challenges and problems faced by Pakistani SMEs in their sustainability transition.

Comparative Studies: Comparative studies could be conducted to compare the sustainability practices of SMEs in Pakistan with those in other developing and developed countries. This would help to identify best practices and provide insights into how Pakistani SMEs can improve their sustainability practices.

Longitudinal Studies: Longitudinal studies could be conducted to track the progress of Pakistani SMEs in their sustainability transition over time. This would help to assess the effectiveness of policies and interventions aimed at promoting sustainable development in Pakistani SMEs.

Replicating the study in other developing countries: As the current study only focuses on Pakistani SMEs, future research could replicate the study in other developing countries with similar sustainability challenges. By comparing the findings across different contexts, researchers could identify commonalities and differences in the factors that influence sustainability practices among SMEs in different regions.

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