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Research Paper

Financing Green Growth: The Role of Access to Credit in Promoting Sustainable Practices in Developing Economy MSMEs

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Abstract

In many developing nations, the importance of MSMEs to economic development, cannot be overstated. Over time, their contribution to environmental preservation is also gaining attention. The focus of this paper is on the current literature that accounts for access to credit and the ability to practice sustainability as far as MSMEs users are concerned within the developing world context. Evidence shows that MSMEs require better access to finance if they are to make green investments. However, evidence remains mixed suggesting that this can only be reasonable within certain parameters. This review covers primary research areas that exist beyond financial access as barriers to green MSME development, including lack of information, uncertainty of policies and regulation, and technocratic proficiency.

The paper urges that promotion of MSMEs in green economy initiatives cannot only rely on one or two solutions but rather several aspects, including appropriate financial instruments, targeting policy guidelines, and mechanisms to facilitate other assistance than finances. A set of specific policy actions that are likely to cause these changes is proposed, including the introduction of focused programs that are likely to create market performance, and make green financial products more accessible.

Last but not least, the paper delineates the necessary steps, arguing for more in-depth impact evaluations, greater considerations of contextual factors, as well as a higher level of innovative finance and technology exploration. Filling these research voids and integrating an interdisciplinary approach would enable the unlocking of full potential of MSMEs in achieving economic and environmental benefits in developing countries.

Keyword: Sustainable Finance, MSMEs, Developing Economy, Sustainability, Environmental performance

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I. Introduction

1.1 The Critical Contribution of MSMEs Towards the Attainment of Sustainable Developmental Policies in the Developing Economy.

Micro, Small and Medium Enterprises play an important and extremely strategic role for developing economies, serving as vectors of economic growth, as well as job and social creation. They remain an important part of the economy, typically making up large share of GDP and employment in most countries. Ramesha,(2021) They however, do not only speak the language of the economy. MSME's have an untapped capacity to achieve developmental goals, leading to more sustainable development and healthier societies.

Their natural flexibility and comfort with change help them quickly address shifts in market demand and adopt new ways of doing things. Such positioning places them with a front role in the shift towards more sustainable manufacturing, the adoption of economizing technologies, and lowering negative impacts on the environment. (Srinivasan&Lohith, 2017) Climate change efforts will significantly benefit through resource-efficient measures, and pollution control measures if embraced by the MSME sector.

Also, the fact that they operate in the community allows them to promote social welfare and growth. (Micro-, Small and Medium-sized Enterprises (MSMEs), 2018) Where MSMEs create jobs, facilitate the local supply chains, and adhere to decent work requirements, they fight poverty, promote disadvantaged populations, and improve the quality of life in all aspects.

To harness the full potential of MSMEs in achieving sustainable development, it is necessary to target the specific barriers faced by MSMEs, especially regarding funding for the purchase and other investments in clean technologies and practices.

1.2 The Green Finance Gap: How Financial Constraints Hinder Sustainable Practices in MSMEs Out of the Green.

However, the MSME sector has untapped opportunities which would assist in its greening endeavours, they come across a number of hurdles when it comes to implementation of those practices. One such barrier that stands out is finance which fuels their investment needs on technologies and processes that would mitigate against negative externalities as well as seize the green growth prospects. (Bharat, 2020)

Several MSMEs remain under-capitalized, are barely profitable, and do not have access to mainstream financial markets. (Asia Small and Medium-Sized Enterprise Monitor 202, 2020) As such, there is a reluctance among them, if not an inability, to direct funds toward such moderate risk, longer gestation investments in green products restricting this low-carbon growth even with future cost savings and efficiencies from such measures. (Khan et al.,2021)

This issue is made worse by the inability to access cheap credit. Most SMEs cannot fulfill the requirements of banks who demand collateral and charge high-interest rates but lack the portfolio managers who appreciate the ROI in green financing. (Sucheck& Franco, 2023) Thus there is a missing piece in the green finance that brings out the limitation for many MSMEs to move to greener ways of doing business.

Besides, there is also insufficient information and general understanding of the available green financial products, and also a lack of technical skills to create bankable green solutions exacerbating the existing challenges that MSMEs encounter in accessing the required capital to make the necessary changes towards sustainability. (Stevens et al., 2013)

1.3 Closing the Loop: Investment Opportunities in MSMEs and the Need for Finance.

For MSMEs to be really committed to and become engines of transformation to the green economy, access to finance is not an issue of importance rather the centerpiece of their strategy. Money is the most important catalyst of the transition from the policy on adverse environmental impacts to the policy on their prevention. (Mouhaouri et al., 2022)

The transition to these new sustainable operations would frequently need capital expenditures in such areas such as:

- **Energy Efficiency:** Retrofitting buildings, modernizing equipment and other energy-saving solutions;
- **Renewable Energy:** Investing in solar technologies, using wind energy, or other new forms of energy;
- > Waste Management: Introducing rational waste minimizing, recycling, and disposal techniques;
- Sustainable Sourcing: Using supply chain companies that procure the raw materials in an environmentally conscious manner.

While cost savings and environmental advantages can be assumed in this strategic shift, for most MSMEs with limited capital, the financial barriers are staggering. (George, 2022) If these businesses do not get sufficient provision to low cost adapted provisions, they are likely to be constrained from handling the initial costs brought about by going green.

It is also worth highlighting that for MSMEs, breaking this barrier is not only about bearing their environmental responsibility, it is against a backdrop of making prudent returns from investments for a better world. (SIDBI takes measures to facilitate greening of MSMEs, 2023) This is because empowering MSMEs to adopt green technologies and practices helps us tap into a strong market engine for:

- ➤ **Harnessing Innovation:** MSMEs derive extensive finance and obtain capacity to conduct research resulting in the development of new green technologies and solutions.
- **Providing Green Employment Opportunities:** Moving to green practices usually results in the creation of address new sectors like renewable energy, energy efficiency and waste management among others.
- Increasing Economic Competitiveness: Sustainability practices improve operational efficiency, decrease costs, enhance corporate branding strategies and overall competiveness on the international stage. In a simplified manner, we can state that it is financing that helps to convert into actions the demonstrated potential of MSMEs towards the greener future. By widening the green finance scope for this essential sector, we make way for a better future for all.

1.4 Unlocking the Green Potential: Exploring the Relationship Between Credit Access and Sustainable Practices in MSMEs of the Developing Economy

This review paper aims to address the critical link between the degree of credit access and the clientele's belief in the adoption of eco-friendly policies by the Micro, Small, and Medium Enterprises in Third World countries.

This paper will examine and analyze literature and case studies in order to explain how financial inclusion, specifically provision of green finance, can help MSMEs to be active participants in sustainable development.

1.5 Charting the Course: A Roadmap for Understanding the Intersection Between Green Financial Initiatives And MSME's Sustainability

The present review would provide sufficient information as to how MSMEs access credit as a determinant to the sustenance of the economy in developing countries. The paper will extend into various sections where each will constitute a vivid portion of the issue this paper will be concerned with:

• Setting the Stage: The Importance of Green MSMEs

This section is mainly the introduction section of the review paper. It will bridge the gap between the review paper as will be provided and the contribution of the MSME sector management to the economic growth in developing countries. It will focus the reader's attention to the importance of including economic activity in sustainable development and the difficulties of doing so.

Closing the Gap: Why Green Finance must be at the center of Economic Change

This section will consider the challenges that the principle of green finance seeks to address, examining the tools in green finance and the reasons as to why it is critical for MSMEs to rise above financial challenges associated with the uptake of sustainable practices. Furthermore, In this context, it will identify the particular types of finance required by these MSMEs and address the shortcomings of conventional sources of funding.

• Finding the Way Forward: Analysis of the Green Finance Access Barriers

This section will conduct investigation on the green financing barriers that have affected MSMEs. It will look into different aspects including interest rates, collateral demands, awareness, knowledge of finances, and government support among others.

• What Has Worked And Why: Green Finance Development within Best Practices in MSME Management

This section will present and critique real case studies of successful projects and programs where overcoming the barriers to green finance for MSMEs in lower income countries has been effective. It will explain what the best practices were, what was learnt, and who contributed towards positive impact.

• Sustaining and Switching: Recommendations and Conclusions

This concluding section will present a coherent synthesis of the key findings of the review and based on this, specific policy recommendations will be made that seek to increase the availability of green finance for MSMEs in South Asia. It will stress the importance of multistakeholders and offer specific ways to enable the MSMEs to function as pursuers of green growth.

Exploring such a set of interconnected topics, this review paper seeks to disentangle the paradox of why developing economy MSMEs access credit, and in turn address practices, which are perceived to be inhibitive, or consider the practice of access to credit in a more sustainable fashion, thus enhancing coverage on these interrelated issues of practice.

II. Review of Literature

2.1 The Socioeconomic Powerhouse: Micro, Small and Medium Enterprises as Engines of Growth and Development.

The literature on the issue emphasises the importance of MSMEs and their impact on the economic development, employment generation and social domain of the developing economies. We can consider some notable statistics:

Economic Growth:

- Significant Contributors to Productivity: It is evident that a large population of MSME is inherent in the GDP of the developing country. For instance, in India, the MSME sector contributes around thirty percent of her national GDP. (Rana&Choudhary, n.d)
- Boosting Productivity and Innovation: Thus in most cases their productivity tends to be higher than those of the big companies. (Prakash et al, 2021)
- ➤ Promoting Exports and Foreign Exchange: Exporting activities that many of the MSME's do are twofold that receives foreign exchange earning and improves the economy of the nation. (Reyaz, 2021)

Job Creation

- Largest Employment Providers: Most MSMES PRE FOURTH N Business begun providing SOLUTIONS outsourced to other consultants and spent a lot of time on ineffective search for job opportunities. (Singh et al, 2018)
- Promoting Inclusive Growth: Moreover, they are able to employ workers with varying skills and in different industries, and even in rural areas where income disparities are high and poverty is rampant. (Nursini, 2020)

Social Development:

- Empowering Communities: The small and medium scales enterprises are located in the native society and serve to bring the people together and enhance the economy. (Reyaz, 2021)
- Promoting Entrepreneurship: For a person who is provided with a nice constitution and enough drive, they may help in creating jobs by being self-employed. (Jarwal, 2020)
- Improving Living Standards: The income and job opportunities created by the MSMEs has an impact on the living standard, education attainment, health seeking behaviour, and the throughput in the society. (Endris&Kassegn, 2022)

Yet, in addition to that, it's noteworthy that the qualitative features of the contribution of MSMEs may not be similar for all countries and therefore, will depend on the economic structure of the country, political factors and business environment in the country.

2.2 The Dualism of MSMEs: Environmental Impacts and Sustainability Needs

Although there is no doubt that MSMEs are the bedrock of the economy and the society in the developing nations, their effects on the environment are complicated and distressing. However, it is helpful to understand both the drawbacks and the opportunities for the good:

The Impacts of MSMEs on the Environment:

- Resource Consumption and Pollution: As a whole, MSMEs engage in resource consumption, pollution and greenhouse gas emissions especially in the sectors of manufacturing, agriculture and textile which can bring about remarkable contribution (Nulkar, 2014).
- Limited Awareness and Capacity: Several MSMEs however especially the micro and small enterprises may lack knowledge, knowhow, or funds for sustainable measures (Moursellas et al., 2022).
- Regulatory Gaps and Enforcement: Also, rather weak environmental legislation and uneven implementation in some developing economies add to the problems associated with some MSME activities directly or indirectly.

The Adherence to Sustainability Principles Has Become an Immediate Concern:

- Climate Change and Environmental Challenges: It is important to urge MSMEs into encouraging sustainability measures as this can help in scaling down the amount of harm, the industries do to the environment and also help in the fight against climate change and ecosystem conservation at a global level. ('Investing in 'greening' of MSMEs should be of high priority for India to meet sustainability goals', 2021)
- Resource Management and Firm Competitiveness: Implementing technologies and practices that are resource-efficient will also yield cost savings, enhance productivity, and provide competiveness in more eco-friendly markets. (Das et al., 2020)
- Public Health and Societal Well-Being: MSMEs are required to enhance the level of pollution so that their raw materials are in abundance and evolve new and more sustainable production and consumption methods which lead to healthier societies and better overall living standards.

Realizing the Opportunity of Developing Green MSMEs.

- Privers of Innovation and Green Growth: MSMEs have potential to turn to ambiguous technological, environmental and business innovations known as 'green technologies' and in so doing, become the order of the day in moving towards a sustainable and inclusive economy. (Khurana et al., 2019)
- Creating Green Jobs and Economic Opportunities: The focus to sustainability is envisioned to open up new political economies, business ventures, and employment places especially in the MSME realm renewable energies, waste management, and eco tourism. (Verma, 2019)

Encouraging MSME adoption of sustainable practices is therefore not only an environmental necessity but rather a natural way to promote a more resilient, fair and better developing economy.

2.3 Greening the Balance Sheet: Understanding Green Finance and its Instruments

Green finance has arisen as an effective mechanism for addressing the undercapitalization of MSMEs who are ardently trying to adopt environmentally sustainable measures. Here is an attempt at understanding the idea, its key instruments, and its application:

What is Green Finance:

Green finance is the term used to describe the flow of funds from both public and private sources towards investment activities, which have an environmental benefit as well as low carbon emission oriented and sustain economic development. It includes a variety of funding, services, and products developed for shares on the environmental benefit of the project, activity or initiative. (Lindenberg, 2014)

Key Instruments of Green Finance:

- For Green loans: These are extending of loans by financial institutions solely aimed at funding green initiatives and projects. They are designed to attract borrowers by making the terms more favourable such as lowering the interest rates by promising to go green. (Explore Green & Sustainable Finance, 2021)
- For Green bonds: This is a fixed income instrument that is issued by corporations, governments, and even financial institutions to raise money exclusively for project which are environmentally friendly, such as technology for renewable energy, energy efficiency or waste handling and disposal systems. (Sustainable finance Wikipedia, 2020)
- Sustainability linked loans: These loans are structured in such a way that the effective interest rate will change if certain sustainability targets, pre-agreed upon with the lender, and the borrower are achieved.

This gives an upper hand to the company seeking funds to enhance their responsibility for the environment, society, or the governance of the company. (Mejía-Escobar et al., 2020)

The significance of Green Finance in the MSMEs context:

- Financial barriers can be overcome: Green finance instruments can expose the MSMEs to reasonable levels of capital that they can use to integrate green technologies, processes, and infrastructure that the MSMEs may have otherwise not been able to afford. (Sharma & Bajaj, 2023)
- Sparking innovation and growth: Targeting green investments to ensure they are rewarded financially could support the development of sustainable technologies and business models hence opening avenues for MSMEs growth and development.
- For Greater market competitiveness: Sustainable practices in these systems contribute positively to the MSME brand, operational efficiency, and environmental performance increasing its competitiveness in the global market.

2.4 Financing the Green Transition: Assessing the Financial Requirements of Sustainable MSMEs

The Green Transition: MSMEs' Specificity given the nature of their activities, businesses, or particularly value-adding MSMEs, experience some financial barriers while venturing towards sustainability. Therefore, let's specify what they require when funding various green projects:

Energy Efficiency:

- Retrofitting and Upgrading: In most cases, the costs are embedded in capital investments, for replacing old and inefficient equipment with new and efficient technologies, for improving thermal insulation, or for process modification. (Campos et al., 2018)
- Acquiring New skills and Competences: Energy audits, technology selection, and energy efficiency measures implementation may require recruiting outside experts or training internal personnel.

Renewable Energy:

- High Initial Costs: The diffusion of solar panels, wind turbines, or any other renewable energy technology is associated with very high investments in the initial stage notwithstanding the trends of falling technology costs. (Killpatrick& Watkins, 2023)
- Land and Permitting: Finding appropriate sites for renewable energy and incentives for the development and acquisition of land and indorsing the renewable energy projects can be financially burdensome.

Waste Management:

- Infrastructure Investment: Establishing and implementing effective separation collection and treatment facilities as well as applying circular economy principles in waste management normally requires building advanced infrastructure, and introducing new technologies. (Irvine & Moore, 2018)
- ▶ Behavioral Change: There may be the need to introduce training and awareness programs in order to promote waste reduction and recycling strategies in the workforce and suppliers.

Cleaner Production Processes:

- rechnology Adoption: There are new technologies that are more environmentally sound production processes that promote cleaner production and this tends to be costly. (Onu&Mbohwa, 2019)
- Research and Development: Such sustainable production practices may call for intense R&D efforts in order to be realized.

Key Considerations for Financing:

- Tailored Financial Products: In addition, MSMEs require fit-for-purpose financial products that meet the high risk profile of green investment including long term repayment, a grace period and easy conditions relating to pledge.
- Technical Assistance: Technical assistance to that offered financially can also enable MSMEs to access right technologies to create viable projects and undertake green investment considerations.
- Risk Mitigation Mechanisms: Providing de-risking considerations will make green investment more appealing to financiers while minimizing the risk MSMEs will have to assume.

These specific financing needs of its members would help policymakers, financial institutions and other relevant parties create a better environment for MSMEs to adopt sustainability practices and help in fostering a greener earth.

2.5 Obstacles to Green Growth: Dissecting the Constraints that Restrict Green Financing for MSMEs.

There is hope for why the term green finance is being pitched as it seems like it is a possibility, green finance usually remains elusive to MSMEs. This is helpfully illustrated by looking into the main problems they face:

Financial Restrictions:

- Limited Market Size and Short Loan Strategies: Some green investments have a long-term payback period while loans from MSE windows, as in other constituencies, come with shorter loan payback periods. Other uncorroborated explanations include, some lenders may find the lesser loan sizes by MSMEs unappealing or economically viable. (Financing local green enterprises, 2022)
- High Cost of Green Loan and High Collateral Alongside Cost Of Borrowing: Within the green loan bracket, costs such as the rate of interest and the amount of collateral also differ from conventional Loans, for instance they are usually higher. This is a significant drawback to MSME with less asset base, cash flow base, and maturing cash flow. (Greenfield, Marquant 2023)

Information deficits and Lack of Knowledge:

- Insufficient Understanding of Green Finance Instruments: The awareness level related to in coming portion MSMEs' is less than that related to requisites for MSE financing and even goods and services related to green finance. (Venkatesh&Kumari, 2012)
- Hopelessness in Expressing the Gains of the Environmental Projects Cheaply: MSMEs may find prospective green financing hard to obtain, they might be unable to explain the information related to the environment that their projects seek and which is typically normal when obtaining financing from the lenders.

Internal Capacity Constraints:

- Unavailability of the Necessary Skills: Specialized knowledge is needed to make bankable renewable energy projects in the area of renewable energy, energy efficiency, or sustainable waste management, which many of MSMEs do not have (Bharat, 2020).
- Deficient Financial Literacy: For MSME owners, it may not be easy to understand how complex financial products work, how to determine the risks involved and how to apply for a loan with favorable terms without adequate financial literacy.

Systemic and Regulatory Challenges:

- Inadequate Governmental Support and Incentives: Non-existent or scattered policies, incentives, or risk sharing regarding green MSME financing are likely to impede capital mobilization within this segment. (Koirala, 2019)
- Immature Green Finance Ecosystems: The lack of stable green finance institutions, insufficient capabilities of the existing financial disadvantages, including the absence of adequate definitions of green finance, can pose additional difficulties. (Singh, 2023)

Mitigating these cross-cutting barriers would require a collective action from policymakers, financial institutions, and capacity-building organizations seeking to improve the conditions under which MSMEs access the green finance to enable their growth.

2.6 Paving the Way: Success Stories in Green Finance for MSMEs

While challenges still remain, there are several initiatives that show how developing economies can effectively close the green finance gap for MSMEs. Here are some inspiring examples:

Bangladesh: Achieving Green Growth-Policy Intervention and Invention

- Policies and Programs: Global Green Growth Institute notes the active efforts of the government of Bangladesh for promoting green growth initiatives. For instance, the National Green Growth Strategy and SREDA Act were introduced among other policies to promote renewable energy sources and increase energy efficiency. (Savage &Uddin, 2016) Such policies have been recognized as creating an efficient A normative model.
- Financial Mechanisms: The central bank, Bangladesh Bank emphasized on green financing as an impetus for sustainable development. They provide restructuring schemes for banks who provide green

financing, especially focusing on the SME sector. Further, they have provided the policy framework for the conduct of green banking and managing risks related to it.

Effectiveness and Lessons: The achievements of Bangladesh in terms of the growth in renewable energy in the country including among small business players has been remarkable especially in solar power. The concentration on subsidies is combined with policy reforms and imaginative finance strategies which show how emerging economies can foster policy space for green MSME development.

India: Use of Public Bodies and Interventions

- Policies and Programs: This is evident through the advancement of policies and programs designed at promoting sustainable practices in the MSME sector such as the National Mission for Enhanced Energy Efficiency and the Credit Guarantee Fund Scheme for Energy Efficiency. (Alsameer& Begum, 2023)
- SIDBI's Green Initiatives: The Small Industries Development Bank of India has started many schemes to enhance green finance for MSME's such as the concessional loans for renewable energy projects and for the energy efficiency improvements. (SIDBI takes measures to facilitate greening of MSMEs, 2023) Also, they provide technical assistance in terms of building capacity in developing green projects that are bankable. Global Initiatives:
- For this is a Fund that target developing countries to combat climate change and assist in climate change effects. It has specific funding windows for MSME's which provide support in the form of grants, loans and equity for the green projects.
- Financial Mechanisms: The public sector banks as per the directive of the government have been given targets to extend advances to green areas, inter alia MSME schemes. The likes of SIDBI extend niche loans and technical support to green projects. (Alsameer& Begum, 2023)
- Effectiveness and Lessons: Government in Bengaluru and its long term objectives give hope but some barriers exist to make it difficult to approach smaller SMEs such as lack of awareness and prolonged procedures for applications. The speed of information on whom to contact for smaller enterprises and their business ideas and where to seek assistance should also be enhanced.

Key Takeaways and Lessons Learned:

- Policy Support is the Most Important: The need for clear policies, regulations, and incentives on ecosystem services such as investment in green features and creating a level field cannot be over emphasized.
- Financial Innovation is Key: There is capital which constitutes reluctance in MSMEs through MPoot products which are tailor made and shared risks like co m reinsertion efforts and enclosures of having green finance facilities.
- ➤ Capacity Building is Key: Through the provision of technical aid, financial, and information empowerment targets MSMEs to be capable of executing fundable green innovative ventures.
- Targeted Products and Services: In many cases, successful initiatives are the ones that employ financial engineering which is appropriate for the specific needs and the risk profile of MSMEs for instance, by allowing lower loan amounts, lower collateral requirements and more time to pay back the loans.
- Partnerships and Collaboration: The establishment of a conducive ecosystem for green MSME finance requires the interplay of governments, financial institutions, world organizations, and the private sector.

Learning from Best Practices:

- Specificity Provision: In most cases, implemented interventions are targeted towards a given problem in a particular geographical area taking into account that area's legislation, market situation, and MSME's demands.
- Data and Impact Assessment: The need to document and track the implementation of projects based on green finance is most important in helping to prove how effective such initiatives are, detailing what went wrong, and etc.

By doing so, the green finance approach will invariably enhance MSME sustainability, and subsequently a more balanced and greener economy advancement will follow.

Kenya: Green Growth and Sustainable Financing, Harnessing the Potential

- Policies and Programs: Kenya has been among the early countries in Africa promoting the development of green finance. The government has called for the Kenya Climate Change Action Plan which targets MSME participation in green energy and climate-supported agriculture.
- Financial Mechanisms: In Kenya, the green finance market continues to expand. For example, the Green Bonds Program in the Nairobi Securities Exchange is an opportunity for MSMEs to finance simplistic green projects. There are furthermore green products specifically designed for lower-tier businesses by a number of more commercialized banks.

Effectiveness and Lessons: Kenya's proactive policies have attracted global capital into the country and led to the growth of global invention of green technology. However, some of the challenges still exist, especially affordability and accessibility of green finance for micro and further smaller enterprises in the less urban areas.

Costa Rica: Making Progress in Eco-Tourism and Biodiversity Protection

- Policies and Programs: Costa Rica is an example of a nation that strives for environmental improvement. The various government policies enacted have promoted the development of eco-tourism and conservation of biodiversity which involves a large share of MSME. For example, the National System of Conservation Areas assists micro, small and medium-sized enterprises within the conservation areas through economic and technical assistance.
- Financial Mechanisms: There is also an extension of innovative financial mechanisms like Payment for Ecosystem Services which reward private entities mainly in MSME who are engaged in sustainable businesses. Other providers such as Microfinance institutions also provide regular eco-friendly funds for smaller businesses engaged in the economy of tourism.
- Effectiveness and Lessons: The economic model of the country is what makes it possible for Costa Rica to succeed. The case study of eco-tourism shows how it is possible to achieve economic growth that is environmentally friendly. Still, how to implement justice as far as the benefits are concerned and how to control the negative impacts of tourism need serious attention.

From examining Bangladesh, India, Kenya and Costa Rica green growth development enviable lesson can be drawn within the scope of MSME sector. The lessons from each nation underscore how context matters including the need for policies, financing controls, enough funding and appropriate capability support.

A Working Partnership: Stakeholders in Green Finance for MSMEs

Green finance for MSMEs should be understood as a shared concern of many disparate parties. Let's identify their roles:

Governments:

- Policymaking and Regulatory Measures: Government policies such as offering incentives for green investments, simplifying the process of obtaining permits for projects using renewable energy, etc.; thus, policies, guidelines and environmental policy systems that are well defined also support the creation of a conducive environment. (Journeault et al, 2021)
- Financial De-risking Mechanisms: They can also assist in alleviating the risk for green projects targeting MSMEs by providing guarantees, subsidies, tax breaks, or other mechanisms intended to promote private investment.

While India's micro, small and medium enterprises (MSMEs) have the potential for higher sustainable finance through bankable green projects, enhancement of their understanding of green financing options is very crucial.

Financial Institutions:

- Tailoring Products and Services to the Needs of MSMEs: There is a need for financial institutions to customize their offerings to MSMEs, with a focus on flexibility concerning loan terms, repayment period, and type of collateral (Kuteesa et al., 2024)
- Improving the Processes of Obtaining Loans: Loan procedures should be simplified so that MSMEs can readily use green finance, this includes cut down in the number of procedures involved in the application such as paperwork and outlining the requirements for eligibility.
- Training of Staff: Educating loan officers on the evaluation of potential risks and benefits with regard to green projects will enable them to assist MSME clients who are seeking for green finance.

International Organizations:

- Providing Abstract Capacity for the Assistance Projects: Institutions of international cooperation such as WB, UNEP, or regional development banks may help in provision of expert knowledge, supportive activities, and financial means with soft conditions for the promotion of green finance for the MSME sector (Bhattacharyya, 2021).
- Facilitating Knowledge Transfer: The transfer of knowledge to exploit green finance technologies that have worked in the past can increase the chances of success in similar activities in other areas or countries.

NGOs:

▶ Bridging the Information Gap: NGOs can organize MSMEs to make them understand why such practices are necessary and that there are also available financial green options. (VENKATESH & KUMARI, 2012)

- Providing Capacity Building Support: In many cases, these organizations also have strong connections at the local level and therefore relevant skills to conduct specific training programs on greening of SMEs, inclusively their understanding of green technologies, business models and financial management.
- Advocating for Policy Change: Replace the statutes with those that advanced green MSMEs for instance that provide for feed-in tariffs for renewable energy or even for tax relief to energy efficiency initiative. By the synergy of these stakeholders, such an ecosystem can be built that will support the MSMEs to practice sustainability and transform into gears of the green and inclusive economy.

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- Financial Mechanisms: In Kenya, the green finance market continues to expand. For example, the Green Bonds Program in the Nairobi Securities Exchange is an opportunity for MSMEs to finance simplistic green projects. There are furthermore green products specifically designed for lower-tier businesses by a number of more commercialized banks.
- Effectiveness and Lessons: Kenya's proactive policies have attracted global capital into the country and led to the growth of global invention of green technology. However, some of the challenges still exist, especially affordability and accessibility of green finance for micro and further smaller enterprises in the less urban areas.

Costa Rica: Making Progress in Eco-Tourism and Biodiversity Protection

Policies and Programs: Costa Rica is an example of a nation that strives for environmental improvement. The various government policies enacted have promoted the development of eco-tourism and

conservation of biodiversity which involves a large share of MSME. For example, the National System of Conservation Areas assists micro, small and medium-sized enterprises within the conservation areas through economic and technical assistance.

- Financial Mechanisms: There is also an extension of innovative financial mechanisms like Payment for Ecosystem Services which reward private entities mainly in MSME who are engaged in sustainable businesses. Other providers such as Microfinance institutions also provide regular eco-friendly funds for smaller businesses engaged in the economy of tourism.
- Effectiveness and Lessons: The economic model of the country is what makes it possible for Costa Rica to succeed. The case study of eco-tourism shows how it is possible to achieve economic growth that is environmentally friendly. Still, how to implement justice as far as the benefits are concerned and how to control the negative impacts of tourism need serious attention.

From examining Bangladesh, India, Kenya and Costa Rica green growth development enviable lesson can be drawn within the scope of MSME sector. The lessons from each nation underscore how context matters including the need for policies, financing controls, enough funding and appropriate capability support.

III. Methodology

This section will aim to do a literature review on access to credit and its impact on MSME engagement towards more sustainable practices in developing countries. Several databases such as Google Scholar, JSTOR was used for more extensive search using keywords like "green finance," "sustainable practices," "MSMEs," "developing economies," and "access to credit." Studies published in English from 2010 onwards, focusing on quantitative or qualitative analyses of the relationship between access to credit and sustainable practices in developing economy MSMEs, was included. Data was extracted from selected studies, including study design, sample characteristics, key findings, and limitations. A thematic analysis was employed to synthesize the findings and identify key themes related to the research question.

IV. Discussion and Recommendations

4.1 Key Findings:

The studies conducted show that the relationship between access to finance and the level of sustainable practices by developing economy MSMEs is more complex than the linear view suggests. Access to finance is important, but it is not the answer to every problem. Key findings include:

Positive but Nuanced Impact:

It is generally proved that improved access to credit can facilitate investment in green technologies, resource-efficient processes and other sustainable practices by MSMEs.

It has been observed, however, the impact depends differently on the particularity of the financial products, design of the lending programs and the specific sustainability practice under consideration.

Barriers Beyond Finance:

MSMEs in developing economies generally face multiple, concurrent challenges to the adoption of sustainable practices which include:

- Information and technical knowhow gap
- Unpredictable regulations and lack of supporting policies
- Difficulty in accessing markets and low demand for green products/services
- Internal issues like focus on short term financial plans.

Importance of Tailored Solutions: Integrated strategies for green finance are not expected to perform well in most circumstances.

They are often quite characterized by:

- Provision of financial product fitting the risk profile of green MSMEs (e.g. longer moratoriums, minimal guarantees)
- Financial packages combined with non financial services (e.g. provision of technical support, training)
- Policies aimed at fostering both green financing institutions and borrowers

Need for Further Research:

Yet, data gaps do exist including but not limited to the monitoring of the long term effects of green finance on MSME sustainability.

There is a need for more studies on the contextual factors that may enhance the efficacy of specific interventions within the varied developing economies.

Building on the assumption that your review found this access to be essential, here hence are some policy recommendations with regard to improving MSME green finance access.

Policy Recommendations:

In order to target effectively the green finance gap currently existing between MSMEs and green finance, a multi-faceted strategy ought to be employed by the policymakers.

Empower Supportive Regulatory Frameworks:

- Clear Definitions and Standards: Put in place clear definitions of what constitutes green projects or technologies that can be financed, hence ensuring both lenders and borrowers are certain what is expected.
- Targeted Incentives: Extend certain tax exemptions, grants, or low-interest rates to specific green investments made by MSMEs.
- > Streamlined Approval Processes: Remove unexcessive red-tape and quicken the pace of decisions over green finance made by MSMEs.

Strengthen Financial Institutions' Capacity:

- For Green Finance Proficiency: Encourage the institution of finance to have some amount of personnel who have in-depth knowledge as to the green finance instruments and risk attached in lending to MSME.
- Risk Sharing Instruments: Identify and implement credit guarantees or other risk sharing instruments that can grant access to the lending of green MSME.
- Performance Based Licences: Financial services institutions should have direct linkages between the amounts lent for the green MSMEs and the targets or privileges set out for lending. Improve MSME Capacity and Awareness:
- Financial Literacy Programs: Design and implement specific initiatives towards financial literacy for the owners and the managerial staff of the MSMEs especially targeting green financing options and how to access them.
- Technical Assistance: Offer services to MSMEs that will assist them in coming up with sustainable bankable projects such as conducting feasibilities, undertaking environmental assessments and even drafting business plans.
- Information Dissemination Platforms: Set up user-friendly sites or centres for users of the centre where any interested party can obtain information regarding funding products offered where, who is eligible and how to apply.

Encourage Public-Private Partnerships:

- For Green Finance Funds: Promote the establishment of special green finance funds for specific use in the sustainable projects for MSMEs utilizing funds from both the government and private partners.
- ➤ Knowledge Sharing Platforms: Provide means of interaction between financial agencies, the government and MSMEs through meetings, presentations or even the internet.

When these proposals are implemented by the policymakers, the conducive environment will be laid for the MSMEs within the region to access the financial means that are critical in helping them integrate sustainable practices to their operations, hence enhancing business development and reducing environmental degradation.

4.2 Research Gaps.

Despite the value that the reviewed literature provides, there are some aspects that need to be elaborated on further, in order to properly comprehend the concept of green finance with a focus on the developing economy MSMEs:

Evaluation of Effects and Subsequent Outcomes.

- Making Impact Evaluations More Rigorous: There is a need to be more rigorous while evaluating existing green finance programs by employing control groups and other robust impact assessment techniques to better isolate effects of the programs on the sustainable performance of the MSME.
- Long-Term Studies: Using longitudinal analysis to assess the impact of green finance on MSMEs and examine changes in their performance over time in environmental, social and financial spheres.

Contextual Relevance and Heterogeneity.

- Sectoral Variations: For instance, this may include how the same green finance interventions yield different results in different MSME sub-sector markets in regard to their performance attributes.
- Regional and Country-Level Dimensions: Additionally, factors such as cultural attributes, government involvement, and the type of financial market can also determine the extent of success experienced by green finance in different regions and countries.
- Heterogeneity of Business Level: It is also worth studying how their size, type of ownership, age and management of the firm influence the relationship between the availability of green finances and adoption of green practices within the firm.

Pressing and Innovative Financial Instruments and Technologies:

- Emerging Green Finance Models: Elucidating on the aspects of green financing instruments like green bonds for MSMEs, sustainable project crowdfunding platforms, and supply chain transparency improvement through the use of blockchain technology.
- Fintech and digital financial inclusion: It is hypothesized that fintech innovations and the provision of digital financial services can bridge the gap of green finance access for neglected MSMEs especially in the rural areas.

Beyond Financial Access: Complementary Policies and Support.

- Synergies with Non-Financial Support: Consider how effectively green finance can be implemented when combined with non-financial support mechanisms such as market growth, training and capacity building, and other related activities.
- Policy Coherence and Coordination: A critical look at the contributions of positive policy alignment and collaboration in government institutions at the national, regional and local levels to the accessibility of green finance for MSMEs, Elaborating on policy synergy for green finance access.

In this way, addressing these research gaps would help future studies provide fruitful effects to policy makers and practitioners on how to more effectively formulate and implement specific green finance mechanisms targeting the development of MSMEs in developing countries.

V. Conclusion

This review highlights that credit access is important not only for business growth but also for promoting sustainable behaviours of MSMEs within developing countries. This could not solve the problem on its own, but there is enough evidence that access to well-designed financial products supported by regulatory frameworks and capacity-building helps MSMEs choose the path of adopting green technologies and resource efficiency processes.

The findings stress that this is one of the cases where an effort from all sides is necessary. Decision makers cannot just increase the amount of green finance made available and say that they have done enough, such strategies would only yield fruits for the largest firms leaving none for smaller MSMEs. There is a need to balance the provision of such financial resources with other factors; for instance, such resources need to be coupled with practices to enhance demand by providing targeted incentives, facilitating approvals, and enhancing financial and technical assistance/education.

With emphasis, this review submits that financial access is but a single element in this equation. The removal of non-financial barriers such as lack of information, lack of regulation, and lack of a market is also imperative if a blue ocean for green MSMEs is to be created.

Future studies should focus on emphasizing the efficacy of green credits by conducting more impact evaluations, addressing the time dimension in evaluating effectiveness of intervention measures, and looking beyond the financing institution to factors surrounding the guidelines set forth by such institutions. Examining new business models and the role of financial technology in offsetting deficiencies on the critical aspects of access to green finance as well as advancing inclusion within the green finance space offer worthwhile opportunities for future research.

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