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## Green Funding For Malaysian Micro, Small And Medium Enterprises In The Context Of Environmental, Social And Governance Mechanisms

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**Abstract:** This study investigates the mechanisms associated with green funding and its impact on the adoption of Environmental, Social, and Governance standards among micro, small, and medium enterprises in Malaysia. Through surveys, interviews, and document analysis, the research examines the institutional factors that have influenced the development of green funding mechanisms, particularly the roles of Bank Negara Malaysia, the National Sustainability Reporting Framework, and the Low Carbon Transition Facility in supporting sustainability efforts. Key findings reveal the need for accessible low-interest green loans with flexible repayment terms and efficient disbursement processes, which are critical to encourage adoption. Additionally, the study highlights the need to address scope 3 Greenhouse Gas emissions as a central factor in the effectiveness of green funding and Environmental, Social, and Governance implementation. The anticipated auditing requirements for non-financial reporting are further expected to facilitate greater availability of green funding. This research contributes to institutional theory by revealing the interconnected roles of institutional entities in shaping green funding for micro, small, and medium enterprises in Malaysia, highlighting how institutional pressures facilitate the transition toward sustainable practices and enhance long-term competitiveness.

**Keywords:** Green Funding; Environment, Social and Governance (ESG); Micro, Small and Medium Enterprises (MSMEs); Low Carbon Transition Facility (LCTF); National Sustainability Reporting Framework (NSRF)

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### 1.0 INTRODUCTION

Recent findings from the United Nation (UN) Intergovernmental Panel on Climate Change (IPCC) and the First Global Stocktake under the Paris Agreement have emphasised the need for rapid decarbonization to achieve the UN Sustainable Development Goals. Consequently, the full commitment of both the public and private sectors are needed to transition from fossil fuels. The ESG (Environmental, Social, and Governance) framework and related mechanisms have led to the development of a broad range of non-financial ESG targets, driving progress towards a low-carbon economy. The European Union (EU), in alignment with the Paris Agreement, is actively rolling out ESG regulations to promote sustainable finance and integrate ESG considerations into the investment decision-making process [1]. One such example is the Carbon Border Adjustment Mechanism (CBAM), a carbon tax imposed on imports into the EU to mitigate carbon leakage [2]. In addition, the EU's Corporate Sustainability Reporting Directive (CSRD) introduced separate reporting standards for small and medium enterprises, facilitating better access to sustainable finance [3].

ESG movements around the world have compelled companies to adopt ESG reporting in response to stakeholder demands for greater transparency [4]. The mandating of ESG standards is promoting responsible investing,

encouraging companies to disclose their environmental and social performance, which in turn creates value for both businesses and their shareholders. The integration of Environmental, Social, and Governance (ESG) within operations reflects a company’s sustainability efforts to meet carbon reduction targets, especially in the context of international trade. Despite the critical role ESG plays in business survival, less than 12% of Malaysian micro, small, and medium enterprises (MSMEs) are prepared for ESG adoption, with 90% lacking the necessary skills for implementation [5].

It is well-acknowledged that MSMEs often lack the resources for ESG adoption. Consequently, there is a greater need to understand green funding factors and how it influences MSMEs ESG adoption. A gap exists in the research concerning the role and effectiveness of public-private partnerships in shaping ESG practices across various types of organizations [6]. While there are examples of non-governmental entities independently communicating ESG data to the public with minimal government involvement, a comprehensive assessment of how these collaborations influence ESG adoption and performance remains under-explored [6].

To address the existing gap, this study investigates the factors influencing green funding in relation to ESG adoption among MSMEs in Malaysia. It examines how the institutional landscape, involving government policies, financial institutions, and regulatory frameworks, supports the development of green funding and the integration of ESG practices. By providing an overview of the evolving ESG landscape and recent green funding initiatives, such as the NSRF National Sustainability Reporting Framework (NSRF) and the Low Carbon Transition Facility (LCTF), the study highlights important institutional factors that shape green funding and promote ESG adoption. The findings of this study will inform policymakers and relevant stakeholders about the importance of developing suitable and streamlined green funding opportunities to support ESG practices within Malaysian MSMEs, which will contribute to a sustainable economic future for the country.

**1.1 1.1 ESG and Green Funding Developments in Malaysia**

Malaysia has demonstrated its commitment to sustainability by declaring a national goal to achieve net zero greenhouse gas (GHG) emissions by 2050 [7]. To support this objective, the Advisory Committee on Sustainability Reporting (ACSR) introduced the National Sustainability Reporting Framework (NSRF), aligning with the International Financial Reporting Standards (IFRS) Sustainability Disclosure Standards. These standards, developed by the International Sustainability Standards Board (ISSB) under the IFRS Foundation, include IFRS S1 – General Requirements for Disclosure of Sustainability-related Financial Information, and IFRS S2 – Climate-related Disclosures [7]. By adopting these standards, Malaysia ensures consistent and credible sustainability reporting and assurance, strengthening its attractiveness for global investors.

The phased implementation of the NSRF (Table 1) will require three groups of entities to start reporting and eventually fully adopt IFRS S1 and S2 based on the timeline in the table below [7]. The disclosures under these standards cover Scope 1 GHG emissions (emissions from operations owned or controlled by the reporting entity), Scope 2 GHG emissions (emissions from the generation of purchased electricity, steam, heating, or cooling consumed by the entity), and Scope 3 GHG emissions (indirect emissions, excluding Scope 2, that occur across the entity's value chain, including both upstream and downstream emissions) [7]. Future plans include mandating external assurance for Scope 1 and Scope 2 GHG emissions, initially targeting Group 1 entities. For Scope 3 GHG emissions, the ISSB proportionality mechanism requires the use of reasonable and supportable data for measurement [7].

**Table 1: Phased Implementation of the NSRF [7]**

Applicable Entities	Annual Reporting Periods Beginning on or after (Date)	Full Adoption (Year)
<i>Group 1:</i> Main Market listed issuers with market capitalisation of RM2 billion and above	1 January 2025	2027
<i>Group 2:</i> Main Market listed issuers (other than listed issuers in Group 1)	1 January 2026	2028
<i>Group 3:</i> ACE Market* listed issuers & non-	1 January 2027	2030

listed companies with annual revenue of RM2 billion and above		
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\*ACE Market: Bursa Malaysia sponsor-driven market

While the NSRF is focused on large companies, it also seeks to standardize the sustainability disclosures of MSMEs to mitigate inconsistent reporting that can distort information comparability and reliability. As many MSMEs supply goods and services to public listed companies and financial institutions, they are required to comply with ESG reporting standards [8]. Although sustainability reporting is voluntary for non-listed companies, the Companies Act 2016 stipulates that the directors' report to the annual audited accounts may include a business review on contingent assets or liabilities related to potential risks and uncertainties of materiality, as well as environmental concerns and social and community matters [7].

The national target of achieving net zero GHG emissions by 2050 could be difficult to reach without the involvement of MSMEs. These enterprises contribute significantly to Malaysia's economy, representing 39.1% of the gross domestic product in 2023. For the same period, MSMEs accounted for 96.9% of all business establishments, with micro-enterprises making up 69.7% of total businesses, amounting to 767,421 enterprises. Firms in the services sector alone constituted 83.9% of all MSMEs [9]. The significant presence of subcontractors in supporting industries highlights the complexity of tracking Scope 3 GHG emissions in the supply chain [10]. To facilitate the transition towards sustainability, the Malaysian government encourages MSMEs to voluntarily adopt ESG standards, thereby enhancing their resilience in line with international demands for carbon emission transparency and ethical governance. Currently, the most common global ESG frameworks referenced by banks in Malaysia for funding include the Sustainability Accounting Standards Board (SASB) [11] and the Global Reporting Initiative (GRI) [12], among others. Additional guidelines supporting MSMEs include the ESG quick guide by SME Corp [46] a simplified ESG disclosure guide for supply chains by Capital Markets Malaysia [13], the Ministry of Investment, Trade and Industry's New Industrial Master Plan 2030, and the iESG initiative for manufacturing industries to embark on their sustainability journey [14].

Through the NSRF, Malaysia has joined 20 jurisdictions worldwide that are implementing sustainability and climate-related financial disclosures [15]. In 2023, the European Union (EU) introduced the Carbon Border Adjustment Mechanism (CBAM) regulation, which mandates importers to report quarterly on their CBAM goods and related greenhouse gas emissions. Nearly three-quarters of Malaysian exports in specific high-emission sectors, including cement, iron and steel, aluminium, fertilizers, hydrogen and electricity will be impacted by this regulation [15]. MSMEs in these sectors could face trade restrictions if they are unable to manage the high costs of complying with these standards [15].

Bank Negara Malaysia (BNM) has published the Financial Sector Blueprint 2022-2026, outlining the central bank's priorities for developing the financial sector over the next five years. These priorities focus on fostering market dynamism, supporting sustainable development goals, and facilitating a smooth transition to a greener, more climate-resilient economy and financial sector [16]. In alignment to the blueprint, Malaysia initiated the Greening Value Chain Programme (GVC) with support from BNM and strategic partners [16]. As an exporting nation, Malaysia must prepare for potential climate-related regulations from its trading partners [16]. Strategic partners in the GVC programme will provide training and consultation services, granting SMEs free access to solutions that enable them to measure their GHG emissions and formulate strategies to reduce their environmental impact [16].

In Malaysia, banks are required by Bank Negara Malaysia (BNM) to align 50% of their new lending with climate action by 2026 [17]. Banks are encouraged to advance financial innovations and explore novel financial structures to achieve public-private partnerships that will assist Malaysia in meeting its net zero trajectory. BNM has directed banks to help their SME clients develop inclusive and just transition plans to enhance financing capacity and address hard-to-abate emissions within their supply chain businesses [17].

In February 2022, BNM launched the RM2 billion Low-Carbon Transition Facility (LCTF) to offer affordable financing for SMEs' working capital or capital expenditures related to low-carbon practices. Other facilities, such as the High Tech and Green Facility and the SME Automation and Digitization Facility, are also available [16]. The objective is to enhance green finance scaling, particularly for SMEs, by offering targeted credit enhancements and improving data availability, accessibility, and usage to combat climate change and environmental degradation. This initiative aims to establish specialized funding mechanisms for green finance and support the development

of carbon markets to accelerate the adoption of sustainable practices in the Malaysian economy [16]. Large corporations need to take proactive measures to transition their supply chain networks toward greener practices, leading the broader transition in the process [16].

## **2. 2.0 EMPIRICAL REVIEW**

### **2.1 2.1 Trends in ESG Research**

The concept of Environmental, Social, and Governance (ESG) has gained significant attention over the years since its introduction in 2004 [18]. ESG principles are often used interchangeably with terms like sustainability and corporate social responsibility (CSR) [19; 20]. The European Banking Authority (EBA) defines ESG factors as “environmental, social or governance matters that may have a positive or negative impact on the financial performance or solvency of an entity, sovereign or individual” [21]. The global push for sustainable development highlights the importance of integrating ESG into business practices, particularly for MSMEs, which require substantial financial support.

Countries worldwide continue to promote the coordinated development of ESG principles, especially in developed regions like Europe and North America [18]. Developments include the establishment of ESG evaluation systems, disclosure standards, and index frameworks, which are gradually shaping a new framework for sustainable development. While the ESG concept has gained mainstream acceptance, research on its applications and impacts is still growing, with specific attention to the role of ESG in financial decision-making and corporate sustainability performance [22; 23].

Recent ESG research highlights a growing emphasis on the interactions between social and governance dimensions, especially concerning executive and stakeholder factors [18]. In addition, scholars have explored topics such as ESG investment [24] and the importance of ESG metrics in socially responsible investing [25]. Despite this progress, current ESG evaluation systems lack consistency and often rely on subjective expert scoring, which varies across national and industry contexts, limiting the comparability of ESG practices [18].

While ESG literature continues to expand, existing reviews largely focus on areas such as corporate governance’s role in ESG performance [26] and the relationship between corporate governance and CSR [27]. A key challenge moving forward is to develop globally standardized ESG assessments that consider local institutional and industry-specific factors. Clearer, quantitative methods are essential to reduce subjectivity and ensure the accurate implementation of ESG practices [18]. Governments, financial institutions, and academic researchers need to collaborate to refine ESG evaluation systems, establish policies that enhance transparency, and further investigate the mechanisms driving ESG adoption [18].

### **2.2 2.2 Green Funding**

Green funding, also referred to as “Eco Funding,” is defined as targeted financing aimed at expanding responsible investment [28]. It encompasses what is broadly known as green finance, which is characterized as “all market-based instruments designed to deliver environmental quality and to transfer environmental risk” [29, p. 1]. Banks play a dual role as not only are they businesses, but they also have the responsibility to finance sustainable projects in emerging economies that positively impact the environment. When banks lend to companies that are highly polluting or that discriminate against employees, they indirectly contribute to environmental degradation and human rights violations [30].

Consequently, green financing is crucial for promoting sustainable practices, and studies indicate that green funding and technology can significantly help enterprises reduce emissions [31]. Therefore, the financial system plays a vital role in societal transformation and economic sustainability. Nevertheless, despite the rise of green capitalism, the growth motivations of finance continue to drive unsustainable economic practices [32]. This complexity is seen from the ongoing debate between traditional economic interests and the disruptions posed to the capitalist growth model [33].

Literature on green finance mainly emphasizes “assets” and investment returns, reflecting a capitalist focus on shareholder interests rather than addressing the needs of smaller borrowing companies [33]. While financing activities involve securing funds and illustrating relationships between companies and their lenders, it is essential to also consider how these activities can positively impact local economies in transition [33].

Research on green funding highlights socially responsible investments, emphasizing smaller, localized

investments that integrate social, ecological, and ethical considerations. Local alternative financial institutions, such as community banks and NGOs, represent this model, which aims for a “double dividend” of financial returns and moral satisfaction [33].

Another significant focus in the literature is related to “stranded assets.” This highlights the challenges faced by large institutional investors (such as pension funds and insurance companies) who need to balance the integration of ESG goals with the risks of substantial losses on their extensive investments [33]. Together, these themes illustrate the multifaceted dimensions of green finance and its critical role in advancing sustainability. Small and medium-sized enterprises (SMEs) often encounter difficulties in accessing suitable financing for ESG activities and investments [33]. ESG ratings can enhance credit ratings by providing essential non-financial information, potentially lowering debt financing costs, especially for small firms [34]. However, differences in ESG scores create challenges, mainly due to contradictory interpretations of variables and data sources among various agencies [35].

### 2.3.2.3 Theoretical Basis for ESG and Green Funding

Within the ESG literature, institutional theory offers insights into how broader institutional dynamics shape the adoption of ESG practices. It identifies coercive, mimetic, and normative pressures as key mechanisms influencing organizational behaviours related to ESG [36; 37]. The use of institutional theory as a theoretical framework is especially relevant for understanding how green funding impacts the adoption of ESG standards in the context of Malaysian MSMEs.

ESG research mainly explores how the legitimacy-seeking behaviour of corporations contributes to a company's sustainable development [18]. From the perspective of institutional theory, the influence of social performance on corporate performance has been established [38], along with the binding effect of social responsibility contracts on executives [39].

Coercive pressures from regulatory authorities push organisations to conform to legal and policy mandates [40]. Initiatives launched by the Malaysian government to promote ESG adoption reflects these coercive forces, motivating MSMEs to integrate ESG principles into their operations. By complying to these regulations, MSMEs enhance their competitiveness in an increasingly sustainability-focused market.

Mimetic pressures drive organizations to mimic their peers, particularly during times of uncertainty [40]. Consequently, Malaysian MSMEs may adopt ESG standards to improve competitiveness by aligning with customer expectations. MSMEs may try to replicate successful practices, for example, by fostering vendor development programs that promote sustainability within their supply chains.

Additionally, normative pressures from shareholder involvement and industry benchmarks increase the necessity for compliance with ESG standards, enhancing the integrity and credibility of MSMEs. Demands from end-users, trade associations, civil society organizations and other network partners can further drive MSMEs to comply with ESG standards to maintain integrity and credibility within their trade circles.

The interplay of these coercive, mimetic, and normative forces leads to the development of green funding to support the adoption of ESG standards. As the landscape of sustainable funding expands, financial institutions increasingly incorporate ESG practices into their lending criteria. The importance of ESG extends to both the demand and supply of investment. Therefore, it is important to investigate the connections between macro and micro dimensions related to green funding and ESG adoption [41].

Institutional theory suggests that emerging research should focus on the conditions under which government-mandated information disclosure programs are most effective in achieving policy goals [6]. These programs rely on coercive pressures from governments to compel firms to disclose ESG-related data. However, there is an opportunity for governments to collaborate with other stakeholder groups, such as third-party organizations, which can help disseminate the information to the public. While some firms may respond to normative pressures from non-market mechanisms alone, others might be more influenced by the combined coercive and normative forces of such public-private partnerships [6].

## 3. 3.0 METHODS

This study uses a qualitative approach, combining online surveys and structured interviews to gather perspectives

on green funding for MSMEs in the context of ESG mechanisms. Qualitative research enhances understanding, with participants selected to provide relevant insights in line with the study’s objectives [42]. This method fosters engagement, flexibility, and captures diverse perspectives in real-world settings [43]. While most ESG studies are quantitative, qualitative methods have been used, such as a study of 30 Saudi SMEs exploring sustainability and ESG adoption [44]. Qualitative approaches are relevant in ESG research, where compliance and regulations are shaped by subjective behaviours and attitudes. As ESG compliance is new and still voluntary for Malaysian MSMEs, ESG data on MSMEs is not readily available for quantitative analysis.

Purposive sampling was used to ensure diverse participation, with MSME enterprises as the unit of analysis. Participants were selected from both East and West Malaysia, representing sectors such as automotive, ESG consulting, IT, energy services, plastics, supply chain, architecture, HR consulting, education, environmental solutions, construction, agriculture, oil and gas, waste management, and more. Key decision-makers, including directors, chief executive officers, chief operating officers, general managers, and department heads, were targeted for their roles in managing major local and international clients.

The online survey questionnaire, consisting of 71 questions, was validated by a supply chain professor and a central bank sustainability director. The questionnaire was pilot tested by two MSME owners. The survey included 10 sections on various ESG and green funding related issues. The email survey took one month to complete, during which respondents were allowed to withdraw at any time. In the end, 64 out of 46 participants (13 females and 33 males, or 28% female) completed the survey, resulting in a 72% response rate.

The online interview questionnaire consisted of 35 distinct questions that logically extended the earlier survey. These guided questions were also pre-validated by a supply chain professor and a central bank sustainability director. The guide was pilot tested by two MSME owners. Interviewees were asked to respond in five areas related to ESG and green funding. The two-month interview process involved 29 out of the 46 survey respondents. Each interviewee approved the transcript and retained a copy for their records. Interviews were conducted virtually from Kuala Lumpur, covering both East and West Malaysian MSMEs. All 29 interviewees (8 females and 21 males, or 27% female) provided complete responses, achieving a 100% completion rate.

Institutional records and historical documents provided valuable secondary data to enhance understanding of the MSME participants' experiences. To further validate the survey and interview findings, secondary data from ESG-related policy documents, including Malaysian regulations, ESG guidelines, ESG reports, and relevant press releases from governmental and private sector entities, were utilized. Key documents included the New Industrial Master Plan (NIMP) 2030, iESG from the Ministry of Investment, Trade, and Industry (MITI), the National Sustainability Reporting Framework (NSRF) by the Advisory Committee on Sustainability Reporting, the ESG Quick Guide for MSMEs by SME Corporation, the Simplified ESG Disclosure Guidelines by Capital Markets Malaysia, and the Greening Value Chain and Low Carbon Transition Facility by BNM, all of which were used to assess and analyse the primary data collected.

Participant details and data were collected online using Google Forms, and informed consent from interviewees was documented through the “Online Interview Compilation,” which was signed by each MSME participant. Participants were reminded that their involvement was voluntary and assured of the anonymity and confidentiality of their data, used only for research purposes. A total of 93 MSME participants were invited, with 75 responding, resulting in an actual response rate of 81%.

The sampled population represented 20 sectors to ensure comprehensiveness, with supply chain—central to Malaysian MSMEs—emerging as the key sector, comprising 10 participants, including one each from wholesale and distribution and fleet management. Other prominent sectors included architecture (8 respondents), information technology (6 respondents), and ESG consulting (5 respondents), reflecting the importance of ESG considerations in these sectors. Notably, 46% of the participants were micro-enterprises, and 39% of respondents were CEOs, while 50% were directors. Female participants made up 28% of respondents, contributing to a diverse and equitable data mix (Table 2).

**Table 2: Summary of Data Collection**

Type of Survey Instrument	Questions in the Instrument	Total Participants Invited	Total Participants Responded	Actual Response Rate	Female MSME Participants	Male MSME Participants
Open-ended	71	64	46	72%	13	33

email survey						
Structured online interview	35	29	29	100%	8	21
Total number	- 106	93	75	-	21	54
Total - %	-	-	-	81%	28%	72%

Geographically, 34.8% of the participants were from Selangor, 26.1% from Kuala Lumpur, and 21.7% from Johor, indicating that 82.6% of participants were from the three most industrially developed areas in Malaysia. MSMEs from Sarawak, Sabah, and East Malaysian were also included, representing states rich in natural resources, important for ESG activities. The geographical distribution of MSMEs reflected a balanced spread across Malaysia.

Thematic analysis was used to identify trends and themes from the surveys, interviews, and document reviews. This process involved systematically coding the data, which required breaking down the information into smaller, manageable units to facilitate in-depth analysis. Each segment of data was examined for patterns, allowing the researchers to categorize responses based on common themes or recurring ideas. This structured approach resulted in the synthesis of findings, uncovering insights into the factors impacting green funding and ESG adoption and the challenges faced by MSMEs in implementing ESG practices. Trustworthiness assessments were conducted on all survey and interview questions, assessing credibility, transferability, dependability, and confirmability. Reviewers also evaluated the appropriateness, reliability, comprehensiveness, and suitability of the data collection and analysis processes. In-process validation of the questions involved collaboration among the researchers, reviewers, and three MSME respondents throughout the three-month duration of the study.

**4. 4.0 FINDINGS**

**4.1 4.1 Government Initiatives Driving ESG Adoption**

The government of Malaysia, recognising the vital role that MSMEs play in advancing ESG performance at the national level, has established regulations and initiatives to spearhead growth in this area. In the international arena, Malaysian companies must attain acceptable levels of ESG performance to be recognised as having sustainable and ethical operations. As global trading criteria increasingly require adherence to international ESG standards, smaller companies along the value chain are also compelled to meet greenhouse gas emissions targets, particularly Scope 3 emissions. Scope 3 emissions, defined in the Greenhouse Gas Protocol as indirect value chain emissions (not included in Scope 1 and Scope 2 emissions), encompass, among others, greenhouse gas emissions related to production, waste disposal, logistics, and commuting.

The ESG performance of MSMEs, as important players in the value chain, is critical to larger companies meeting their Scope 3 emissions targets. Large companies must recognise that achieving these targets is impossible without the on-going support of their many MSME counterparts. As such ESG adoption by MSMEs is key to reducing greenhouse gas emissions throughout the value chain. Larger companies need to engage MSMEs, acknowledging them as valuable partners within the value chain, and work to ensure transparency in ESG data-sharing and reporting. To contribute to ESG goals and enhance the resilience of the Malaysian economy, a collaborative effort is required to foster a shared commitment to improving ESG performance across value chains.

**4.1. 4.1.1 The National Sustainability Reporting Framework and MSMEs**

The NSRF is envisioned to be the main Malaysian ESG standard, consolidating all major global ESG standards. The ACSR, that was established to develop the NSRF, is working towards requiring verified assurance of sustainability data for specific companies. The readiness and maturity levels of both listed and non-listed companies as well as stakeholder information requirements are currently being assessed. The framework will apply to companies listed on Bursa Malaysia as well as large non-listed companies that meet certain criteria (i.e., a revenue threshold of RM2 billion and above). However, companies that do not meet these criteria are still

encouraged to adopt the requirements under the framework, especially those in sectors affected by the Carbon Border Adjustment Mechanism.

At the national level, the NSRF is emerging as one of the key strategies that is set to steer the achievement of the 2050 net zero emissions nationwide goal. The NSRF adoption timeline for targeted companies is scheduled to be completed by 2030. Although the NSRF is applicable to large companies, it is vital for MSMEs connected to these companies to adopt this framework, especially in relation to Scope 3 emissions. The NSRF aims to simplify non-financial reporting for MSMEs and reduce compliance costs.

*"The NSRF will be helpful for Malaysian MSMEs by providing internationally recognized, cost-effective ESG standards, simplifying compliance, sustainable growth and global market access, enhancing competitiveness, and aiding risk management, thereby supporting green funding." — CEO, medium-sized supply chain enterprise*

With the NSRF, confusion surrounding non-financial reporting requirements for MSMEs will be significantly lowered. The streamlining of ESG standards adoption will ultimately lead to savings in compliance costs for MSMEs. Furthermore, the partial assurance structure of the NSRF will provide a degree of confidence for institutional investors and funding entities. Considering the need for increased readiness among MSMEs and potentially high costs of ESG compliance, green funding will be key to ensuring that MSMEs are able to mitigate the challenges in facilitating Scope 3 emissions reporting of larger companies.

#### **4.1. 4.1.2 Pragmatic Disposition of MSMEs**

The NSRF is timely as the adoption of international ESG standards is increasing globally. The NSRF is key to Malaysian businesses maintaining their resilience and competitiveness. As a major export-oriented country, value chain emissions within Malaysia must consistently progress towards net zero emissions. ESG standards adopted by international trading partners will directly affect the operations of companies in Malaysia, including MSMEs. To remain competitive, larger Malaysian companies rely on MSMEs to adapt to changing ESG policies within the global supply chain.

*"...more and more businesses will be adopting ESG standards as time go by." - Director, micro-sized ESG consulting enterprise*

Decarbonization is a significant challenge for Malaysian MSMEs due to sub-contracting activities. When work is divided among specialized services across different companies, carbon emissions become dispersed, complicating data collection. In such cases, Malaysian MSMEs must adopt pragmatic approaches to ensure carbon data and value chain emissions are collectively captured.

*"...MSMEs servicing public listed companies (PLCs) will be required to submit their ESG data to PLCs for PLCs to complete their ESG reporting..." - Director, small-sized fleet management system enterprise*

However, some MSMEs may only adopt ESG practices due to market demands, especially when exporting to regions like the EU. The EU provides regulatory pressures such as the imposition of the CBAM, which makes it mandatory for companies exporting to the region to meet certain ESG standards. In these cases, compliance is driven by external regulations and customer requirements.

*"If the prime destination market requires adoption." - Director, small-sized industrial automation enterprise*

On the other hand, some MSMEs are motivated by deeper ethical values. Leaders of such MSMEs view ESG compliance as a moral responsibility toward future generations and nation building goals. This perspective recognises that long term business success should take into account social and environmental considerations.

*"As ESG standard adoption is good for the future generation(s) and the nation." - Director, micro-sized architecture enterprise*

#### **4.1. 4.1.3 Pressing Funding Needs Among MSMEs**

Given the choice, Malaysian MSMEs are willing to adapt to changing ESG business requirements. However, they often struggle with limited internal reserves to meet the growing demands for ESG compliance imposed by the

market. Most MSMEs are led by hands-on owner-managers who operate on tight budgets and focus on lean cost management. Expenses beyond daily operations often fall outside their cash flow planning, making it difficult to allocate funds for ESG initiatives. As a result, access to seed funding becomes essential to enable them to initiate ESG changes.

*“...most MSMEs are owner-operated and hence minimally funded.” - Director, small-sized fleet management system enterprise*

Funding requirements for ESG initiatives are ongoing as ESG becomes a permanent part of business operations. ESG activities include infrastructure development and other costs that go beyond compliance. It is anticipated that businesses will experience growth by enhancing their capacities through ESG initiatives. Therefore, green funding for MSMEs must be readily accessible once ESG initiatives are implemented.

*“Asset funding is always needed for business expansion and capacity building consequent to standards adoption. Infrastructural spending should be included as well.” - CEO, small-sized plastic enterprise*

MSMEs require funding for non-regular activities, such as acquiring expensive capital assets like solar roofing (which may take 25 years to recover), or converting fleets to electric vehicles. For MSMEs seeking to acquire assets to reduce carbon footprints, such as wastewater treatment systems for their production processes, term loans may become necessary, particularly in the manufacturing sector. In these circumstances, green funding is needed to facilitate these long-term investments.

*“...funds of MSMEs are mainly used to fund regular business.” - Director, small-sized fleet management system enterprise; “(Funds are needed) for big ticket capital expenditure items.” - CEO, small-sized ESG consulting enterprise*

Maintaining ESG systems and adhering to ESG guidelines require immediate funding that Malaysian MSMEs expect to secure from conventional banks. There is an urgent need for working capital financing to support their daily ESG operations.

*“As during the transition period there will be upfront investment for technology upgrades, resources training, administrative work, certification, etc.” - Director, small-sized information technology enterprise*

Most MSMEs are keen to adopt ESG practices, provided they have a clear understanding of the total costs involved in implementation. They recognize that sustainability is crucial for maintaining competitiveness in today's market. Continuous access to working capital, as well as budgets for technological upgrades, ongoing training, and other related expenses, can be expected from ESG implementation. As long as lending can enhance business performance, MSMEs will embark on ESG initiatives, especially as PLC customers will increasingly demand ESG compliance.

*“Due to the current competitive market, it may cause MSMEs requiring continuous working capital funding depending on the whole costing of ESG standards adoption.” Director, small-sized automotive enterprise*

#### **4.1. 4.1.4 Visibility of Low Carbon Transition Facility (LCTF)**

The GVC programme was launched by Bank Negara Malaysia (BNM) to assist Malaysian small and medium enterprises (SMEs) in transitioning to sustainable operations. The programme adopts an interconnected approach of diagnosis, technical capacity building, and facilitation through green financing from the LCTF. The RM2 billion facility provides funds allocated by both BNM and participating financial institutions on a matching basis. The facility was opened to SMEs from all sectors from 3<sup>rd</sup> of February 2022 to drive low carbon operations. The green financing size is generous at RM10 million per SME for a maximum tenure of 10 years at a financing rate of 5% per annum.

Despite the introduction of the LCTF in 2022, many MSMEs remain unaware of this valuable resource, that offers low-interest, long-tenure green funding for automation, digitization, and green innovation. Through BNM, the government aims to accelerate ESG adoption across all sectors. By providing subsidized funding, the LCTF can significantly alleviate the financial burdens faced by MSMEs, enabling them to invest in ESG practices and technologies essential for compliance with ESG standards.

*“... funding by government in form of subsidizing will help to ease the burden for MSME lenders.” - Director, small-sized information technology enterprise*

Raising awareness about this facility is essential to maximizing its potential impact on the MSME sector. Many

MSMEs believe that it is timely and crucial for BNM to actively promote this initiative to a wider audience of smaller businesses, especially since it is government-sponsored funding. The LCTF is particularly beneficial for larger medium-sized companies, needing to enhance their productivity through capital equipment acquisition. By effectively communicating the advantages and availability of the LCTF, BNM can empower MSMEs to adopt ESG practices that contribute to their long-term growth and resilience.

#### **4.2 4.2 Green Funding**

With the NSRF financial disclosures set to become an ESG baseline for Malaysian companies, MSMEs must align their ESG performance with the NSRF that incorporates international ESG standards. To invest in ESG initiatives, obtaining green funding through commercial banks may become essential. In doing so, MSMEs will be able to increase exports to the EU and other countries adopting stringent climate-related standards. While investments to improve ESG performance will yield long-term benefits, the high costs of ESG transformations may have adverse effects on working capital and short-term liquidity. The increase in current liabilities due to interest costs causes constraints on immediate resources available to run operations.

##### **4.2. 4.2.1 Seed Funding as a Catalyst for ESG Adoption**

Attractive green funding can significantly motivate MSMEs, especially when supported by the government. Such funding is not only beneficial for the businesses themselves but also contributes to the community and nation as a whole. As ESG adoption becomes a critical national priority, green funding can serve as an important form of support for MSMEs.

*"It plays a vital 'boosting' interest to start off ESG adoption." — Director, small-sized automotive enterprise*

MSMEs may hesitate to adopt ESG practices without adequate financial support, hindering ESG performance and progress towards the net-zero national goal. Thus, seed funding serves as an important enabler of ESG adoption among Malaysian MSMEs.

*"As without seed funding it will be most (un)likely for MSMEs to start something new." - CEO, small-sized plastic enterprise*

Commercial banks play a pivotal role in facilitating MSMEs' ESG adoption by offering accessible green funding. They have a moral obligation to assist MSMEs in achieving a smooth transition aligned with ESG principles and green development.

*"Malaysian MSMEs may require initial seed funds from their commercial bankers to kick-start their ESG journey, as adopting ESG standards often involves upfront costs." - CEO, medium-sized supply chain enterprise*

The role of banks as green ambassadors is essential, as businesses cannot be successful without the support of financial institutions.

*"Malaysian banks offering easy-to-access loans for MSMEs to adopt ESG standards, regardless of loan term, with standardized and streamlined application processes across all banks, would facilitate widespread adoption of sustainable practices and promote financial inclusion and sustainability across the MSME sector." - CEO, medium-sized supply chain enterprise*

MSMEs often favour green funding options because government assistance may come with stringent requirements that can be difficult to meet. For example, micro-enterprises, such as owner-operator transporters (where the owner personally drives the truck), may lack resources to manage administrative tasks required to access government incentives.

##### **4.2. 4.2.2 Lending Integrity in Green Funding**

By 2026, BNM requires banks in the country to ensure that half of new loans are aligned with climate-related

initiatives. To support this goal, banks are encouraged to collaborate with the public sector to explore innovative lending structures that enhance ESG performance. This approach includes developing MSME-specific financial packages aimed at facilitating low-carbon transitions and embedding ESG principles for capacity building throughout the nation.

*“(funding) with a clear ESG focus.” - CEO, small-sized automotive enterprise*

Commercial banks must have comprehensive vetting processes for green funding to ensure that GVC program and LCTF goals are met. Rigorous vetting helps banks filter out undesirable loan applicants, reducing the risk of insincere motivations, poor repayment rates or delinquencies.

*“Provided there are safeguard for MSMEs not to use them for purposes other than ESG standards adoption.” - Director, medium-sized information technology enterprise*

These measures represent prudent banking norms to safeguard lending integrity. To ensure that green funding effectively supports ESG adoption, a robust mechanism must be established to guide MSMEs in utilizing these resources appropriately.

*“But with proper green guidelines to monitor results.” — Director, small-sized information technology enterprise*

#### **4.2. 4.2.3 Streamlined Funding Services**

Sustainable development ensures a better future for new generations, motivating businesses to adopt more progressive practices. MSMEs depend on their bankers to facilitate the transition to greener operations through ESG adoption. Commercial banks can assist MSMEs to initiate ESG adoption by reducing costs associated with processes and documentation required for green funding.

*“As standardization and streamlining (of funding) assist MSMEs who are short-handed.” - Director, small-sized fleet management system enterprise*

Banks should respond to the ESG agenda by simplifying and standardizing banking protocols, enabling them to serve their clients through streamlined and inclusive processes. By making the application and approval processes for green financing more straightforward, banks can significantly reduce the burden on MSMEs, facilitating their transition to ESG practices.

*“Commercial banks should simplify and standardize the process to ease the burden of MSMEs.” - CEO, small-sized automotive enterprise*

While green funding is a vital resource for smaller companies, banks need to address their resource constraints effectively. Simple features, such as online access to funds, can significantly enhance the experience for MSMEs.

*“Commercial banks should make it even easier by providing online log in for MSMEs to gain the use of funding quickly.” CEO, small-sized automotive enterprise*

Various factors can indirectly motivate MSMEs to integrate ESG practices into their daily routines. However, time is a critical factor for MSMEs, therefore, banks should value efficiency in their green lending operations.

*“As time is money for MSMEs.” - Director, micro-sized waste food treatment enterprise*

To support ESG adoption effectively, banks must provide a comprehensive range of green funding options that cater to both asset and non-asset loan needs, ensuring convenience and accessibility for MSMEs.

*“Banks should make clear their terms and conditions so as MSMEs can secure quickly their essential assets or*

*resource.” - CEO, small-sized plastic enterprise*

Consistent with the needs of MSMEs, green funding should prioritize accessible repayment options, an application process with minimal bureaucracy, and quick drawdown facilities. Ensuring that these funding options are user-friendly is essential for encouraging MSMEs to adopt ESG practices.

*“Tedious process and long-winded documentation are unfriendly and can discourage MSMEs from embracing sustainability.” - Director, micro-sized waste food treatment enterprise*

#### **4.2. 4.2.4 Prohibitive Borrowing Costs**

High interest rates and fees associated with commercial bank loans can significantly deter MSMEs from implementing ESG initiatives. These financial costs can disproportionately affect MSMEs, that have smaller margins compared to larger, well-established companies. As such, affordable green funding is important to ensure MSMEs are able to become ESG compliant. Reasonable lending options support MSMEs in their ESG efforts.

*“The cost of borrowing can be prohibitively high for SMEs. Interest rates on loans, along with additional fees and charges, can make bank loans an expensive financing option. SMEs with tight budgets may find these costs unaffordable.” - Director, small-sized information technology enterprise*

Smaller businesses often operate on tight margins, and their liquidity directly impacts their daily operations. MSMEs may struggle when funds are tied up in capital expenditures. Therefore, MSMEs should ensure that liquidity is not affected by capital expenditures.

*“...(when) MSMEs liquidity are not tied in capital expenditure.” - Director, micro-sized waste food treatment enterprise*

The fears associated with borrowing costs were clearly reflected in the cautious approach of MSME business owners. One interviewee explained concerns regarding the inability to meet instalment payments and the threat of bankruptcy. To encourage MSMEs to engage in sustainable practices, green funding initiatives must be innovative and appealing.

*“MSME owners are cautious about taking on debt, preferring to operate within their means rather than risk over-leveraging their business. The fear of not being able to meet repayment obligations, leading to potential insolvency or loss of assets, is a strong deterrent.” - Director, small-sized information technology enterprise*

Cash is king for MSMEs, particularly those operating with low profit margins. For these businesses, cash flow is an important consideration, as they lack access to credit and must purchase supplies on a cash basis. Fixed monthly repayments can be burdensome due to the volatile nature of their operations, with overhead costs due at the end of each month.

*“Loan repayments must be aligned to MSMEs affordable cash flow” - CEO, small-sized plastic enterprise*

Flexible repayment schemes that allow repayments based on MSMEs' cash flow patterns provide necessary financial relief. Monthly repayments should be flexible based on income streams, minimizing cash flow constraints.

*“Incorporating flexible repayment terms aligned with the cash flow patterns of Malaysian MSME lenders can expedite ESG standards adoption. This approach reduces financial strain, enabling MSMEs to invest in sustainability initiatives without compromising their day-to-day operations or long-term financial stability.” - CEO, medium-sized supply chain enterprise*

Such arrangements are crucial for smaller businesses, allowing them to concentrate on daily operations while

meeting new ESG requirements without the risk of falling into debt traps. This flexibility provides peace of mind, enabling them to maintain their regular business activities without compromising commitment to sustainability.

*“A flexible scheme will be most helpful to MSMEs” - CEO, small-sized automotive enterprise*

## **5. 5.0 DISCUSSION**

Institutional forces significantly influence the availability and access to green funding for MSMEs. Coercive pressures from regulations and governmental policies compel businesses to adopt sustainable practices, often driving them to seek funding to meet compliance standards. This is complemented by mimetic pressures, where MSMEs imitate successful peers in prioritizing ESG criteria and addressing scope 3 GHG emissions. Normative pressures also play a role, as societal expectations increasingly demand transparency and responsibility in environmental practices. In response, governments and financial institutions are developing green financing opportunities to support MSMEs in their ESG initiatives.

Despite the support, MSMEs encounter significant challenges when it comes to accessing green funding. The complexity and costs associated with meeting stringent funding criteria often deter many from pursuing these opportunities. Furthermore, a lack of awareness regarding available financing options, in addition to bureaucratic problems in the application processes, further limits access. To address these challenges, financial institutions need to adopt more proactive approaches in assisting MSMEs with the integration of ESG strategies into their operations. By providing targeted guidance and resources, these entities can help MSMEs enhance their resilience in an ever-changing business landscape, enabling them to contribute positively to environmental and societal goals while ensuring their long-term competitiveness.

### **5.1 5.1 Regulatory Frameworks and Financial Incentives**

Coercive pressures are increasingly recognized as vital in shaping organisational behaviour, particularly due to increasing global emphasis on ESG compliance. This study highlights the need for access to green funding, essential for enabling MSMEs to effectively meet these coercive demands. Recent literature underscores the importance of financial inclusion and customised funding to assist smaller firms in their transition to ESG compliance. Governments could also encourage technical assistance through subsidies, similar to approaches by Pakistan and Singapore, which have provided funding for training related to adoption of international environmental and labour standards [6]. These mechanisms will be important in technology-intensive industries in which knowledge is mainly tacit and difficult to transfer [6].

In Malaysia, the necessity for MSMEs to adhere to ESG requirements, especially those exporting to markets like the EU, which enforces mechanisms such as the CBAM, illustrates how coercive pressures result in institutional change. As sustainability becomes a priority, the Malaysian government is mandating stricter environmental regulations, including carbon reduction targets and sustainability reporting requirements. Moreover, the need for standardized ESG reporting frameworks, has led to the development of the National Sustainability Reporting Framework (NSRF), which aims to consolidate global ESG standards, reducing confusion and compliance costs for MSMEs. However, regulatory coercion alone is insufficient without concurrent financial support mechanisms that address the needs of MSMEs.

Coercive pressures also have an impact on green funding providers, including the Malaysian government and financial institutions. As MSMEs face increased demands for compliance, the government recognizes the need to establish effective financial support mechanisms that align with ESG regulatory requirements. Due to these coercive pressures from the government, Malaysian banks are offering lower interest rates and favourable terms for projects that meet sustainability criteria, thereby encouraging MSMEs to adopt environmentally friendly practices. However, the limited visibility of public-private funding initiatives, such as the LCTF, highlights the challenges MSMEs face in obtaining necessary resources. While the LCTF aims to reduce financial barriers to ESG compliance, many MSMEs remain unaware of its existence, indicating a need for better communication and outreach from BNM. Banks and financial institutions need to respond by developing more accessible innovative green funding products.

In response to these pressures, the government through the Malaysian Investment Development Authority has created ESG focused grant programs and tax incentives for MSMEs that demonstrate compliance with environmental standards. These financial support mechanisms will not only reflect the government's

acknowledgment of the challenges faced by MSMEs but also provide incentives to drive compliance with ESG regulations. By aligning financial products with coercive pressures, both the government and financial institutions can foster a supportive ecosystem, empowering MSMEs to remain competitive in a sustainable landscape.

### **5.2 5.2 Societal Expectations and Institutional Legitimacy**

Normative pressures, driven by societal expectations, are becoming increasingly relevant as businesses seek to align with evolving market demands and secure their legitimacy. Institutional theory suggests that businesses comply with social norms to gain legitimacy, especially in sectors under stakeholder pressure. In the Malaysian context, societal expectations regarding sustainability have emerged as a significant driver for the adoption of ESG practices, creating a need for accessible green funding mechanisms.

These normative pressures shape organizational behaviour by embedding social expectations and values into business operations, driving MSMEs to adopt ESG practices to maintain legitimacy. As stakeholders, including investors, larger corporate customers (Public Listed Companies), and the broader community, increasingly demand sustainable practices, MSMEs need to respond. Financial institutions recognize the need to develop funding mechanisms that align with these normative expectations. The alignment of green funding with normative expectations is crucial for MSMEs, especially those with limited capital.

As consumers and investors grow more environmentally conscious, they expect businesses to adopt sustainable practices, further increasing normative pressures. Corporate ESG ratings help investors identify socially responsible companies and firms that receive poor ESG ratings are motivated to respond, especially if they have access to low-cost improvement opportunities or expect significant benefits from making changes [6]. This societal shift influences the Malaysian government to implement supportive policies, encouraging banks to develop green funding initiatives. Many banks are now integrating ESG criteria into their lending decisions due to the GVC, aligning their financial products with societal expectations to enhance their legitimacy.

A recent report highlights the role of financial institutions in advancing the low-carbon transition, noting that the most significant portion of their carbon footprint arises from Scope 3 emissions linked to financial products and services [45]. As such, there is a clear obligation for these institutions to address the funding needs of MSMEs, with transition financing emerging as a new approach aimed at reducing GHG emissions [45]. In addition, the GVC encourages deploying technical assistance to help less ESG efficient firms improve their performance. This could yield much greater aggregate performance improvement than dispensing resources on a first-come-first-served basis [6].

MSMEs require funding that is not only affordable but also convenient and meets their business objectives. This means that financial institutions need to understand and respond to normative pressures by creating streamlined processes that facilitate ESG adoption, fostering greater engagement from MSMEs. In response to these normative pressures, the Malaysian government and banks need to establish more policies designed to encourage MSMEs to engage in sustainable practices. This includes improving access to green funding and offering incentives for MSMEs committed to reducing their environmental impact.

Recognition of these societal pressures not only reinforces the need for financial support mechanisms but also highlights how the evolving landscape of sustainability expectations is driving innovation in green financing. This dynamic interplay between normative pressures and the development of financial support mechanisms creates a cycle that enhances the legitimacy of both MSMEs and financial institutions. As MSMEs increasingly adopt ESG practices, they reinforce the normative expectations of stakeholders. Similarly, financial institutions need to continue evolving their products to support sustainable business practices.

### **5.3 5.3 Emerging Industry Trends**

Mimetic pressures are reshaping the competitive landscape for MSMEs by encouraging them to mimic the sustainable practices of industry leaders. This influence is particularly strong in sectors where MSMEs compete for contracts with other companies. The moral capital generated from ESG activities can enhance investor support and serve as a form of insurance to gain legitimacy from stakeholders [38]. Malaysian MSMEs have recognized that adopting ESG practices can enhance their long-term competitiveness and market access, especially as they respond to expectations from business partners to provide ESG data. Even though theoretical research on institutional theory emphasizes the deterministic constraints imposed by institutional forces, the impact of these

forces can be either reinforced or limited by organizations' strategic decisions [6].

These pressures extend beyond MSMEs, significantly impacting financial institutions that aim to remain competitive. Banks are increasingly motivated to adapt their offerings in response to the growing demand for green financing. As they observe competitors successfully providing green funding, they are inspired to develop specialized financial products, such as sustainability-linked loans and green bonds. By integrating ESG criteria into their lending practices, banks attract MSMEs seeking to align with these standards, creating an interconnected impact across the sector.

## 6. 6.0 CONCLUSION

Affordable green funding is crucial for promoting the adoption of ESG standards among Malaysian MSMEs. To enhance effectiveness, financial institutions should require adherence to the National Sustainability Reporting Framework (NSRF) as a prerequisite for all green funding. Additionally, the upcoming audit requirement for ESG reporting is expected to simplify the application process for MSMEs seeking green funding from commercial banks.

Offering low-cost funding with flexible terms and quick disbursement processes will incentivize MSMEs to embrace ESG practices, ensuring their long-term sustainability. A key mechanism to foster ESG adoption among MSMEs is BNM's LCTF, which focuses on automation, digitization, and green innovation. Implementing the NSRF to streamline green funding approval and disbursement, particularly through commercial banks, is expected to have a significant positive impact, especially with BNM's increased involvement.

This study underscores the importance of accessible green funding for ESG adoption among Malaysian MSMEs, which are often restricted by resources. This study is limited by its sample size, reflecting the limited availability of Malaysian MSMEs that have mature ESG practices. This presents challenges in drawing comprehensive conclusions about the broader implications of ESG adoption across the sector. Additionally, while the Low Carbon Transition Facility (LCTF) has been introduced as a supportive mechanism, there is currently insufficient evidence to demonstrate its effectiveness in accelerating ESG adoption among Malaysian MSMEs.

There are several limitations in this study. For instance, the dataset is focused on one period of time, preventing the analysis of firms that have made improvements from green funding. Future research could examine organisational responses to green funding over extended periods. Additionally, a limitation of the analysis is the lack of data to account for companies' characteristics and their resources. Future studies could investigate how these factors may affect organizations' green funding use and ESG performance.

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