VILNIUS UNIVERSITY KAUNAS FACULTY

INSTITUTE OF SOCIAL SCIENCES AND APPLIED INFORMATICS

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BAMIDELE BUSAYO OPEYEMI

MASTER'S THESIS

INTEGRATING SUSTAINABLE BUSINESS MANAGEMENT PRINCIPLES AT THE LEVEL OF INTERNATIONAL FIRMS "TVARAUS VERSLO VADYBOS PRINCIPŲ INTEGRAVIMAS TARPTAUTINIŲ ĮMONIŲ LYGMENIU"

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LIST OF ABBREVIATIONS

AI Artificial Intelligence

CBEC Cross-border E-commerce

CSR Corporate Social Responsibility

ESG Environmental, Social and Governance

GmbH Gesellschaft mit beschränkter Haftung

GRI Global Reporting Initiative

ISO International Organization for Standardization

KPIs Key performance indicators

NGOs Non-governmental organizations

SBM Sustainable business management

SDGs Sustainable Development Goals

SMEs Small and Medium Enterprises

SSCM Sustainable supply chain management

SPSS Statistical Package for the Social Sciences

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INTRODUCTION

Relevance of the topic. The topic of "Integrating Sustainable Business Management Principles at the Level of International Firms" holds immense relevance in today's global business landscape. As societies increasingly recognize the urgent need for environmental protection, social equity, and economic viability, businesses are under growing pressure to adopt sustainable practices. This imperative becomes even more critical at an international level due to the complex interplay of diverse cultural, regulatory, and market dynamics. Integrating Sustainable Business Management Principles at the Level of International Firms lie in addressing the urgent need for corporations to integrate sustainability into their operations on a global scale. As businesses operate across borders, understanding the empirical aspects of sustainable practices becomes crucial." Although there are risks involved with innovation, there are also risks in not inventing. Furthermore, the rationale for innovation toward sustainability is strengthened when we consider the possibility of corporate disruption brought on by social and environmental challenges like political activism and climate change" (Marylynn, Roger, & Kimberly, 2005, p 9).

This topic also explores the crucial reasons underlying the imperative nature of sustainable practices for international firms. International firms can manage risks through sustainable practices. They can proactively improve their resilience against external shocks, reputational harm, and regulatory changes by proactively addressing environmental, governance, and social concerns. I agree with the writer, as this proactive approach enhances operational longevity with stability and also safeguards against potential risks, making this topic more relevant. Moreover, sustainability provides international firms with a unique competitive advantage in the global market (Alam & Islam, 2021). Firms that show a commitment to responsible business practices enjoy enhanced brand reputation and market positioning, especially with an increasing emphasis from consumers, stakeholders, and investors on sustainability. Consequently, integrating sustainability becomes crucial in securing long-term success and maintaining a competitive edge.

Equally important is the need to achieve the stakeholder expectations. International firms serve diverse stakeholders, including communities, investors, customers, and employees. All these demand accountabilities for environmental and social impacts. (Bonfanti et al., 2024) explained in the article that meeting these expectations is crucial for growing trust and maintaining enduring relationships, underscoring a great link between stakeholder management and sustainability. Additionally, sustainable practices align with the principles of sustainable practices align with the principles of long-term value creation. International firms that put sustainability first are better positioned to develop resilient business models, secure investments, and attract top talent for sustainable growth and profitability over time. Therefore, sustainability becomes a strategic need for

effectively moving through the dynamic and interconnected global business landscape. It also becomes a moral imperative.

Level of problem investigation. The investigation into the problems associated with the implementation of sustainable business management principles at the international firm level involves a comprehensive exploration of key challenges hindering the seamless integration of sustainability practices. The existing investigations on Sustainable Business Management Principles at the international level have laid a foundational understanding of the subject. These papers delve more into the diverse approaches adopted by multinational corporations in incorporating sustainability into their business strategies. Analyzing factors such as environmental responsibility (Marylynn, Roger, & Kimberly, 2005; Du, Bhattacharya, C.B. & Sen, 2010; Nicolăescu, Eugen, Cristina, & Constantin, 2015; Ruiz-Real, José, Juan U, Juan, & Jaime, 2019), social impact (Marylynn, Roger, & Kimberly, 2005; Su, Chi-Wei, Yannon, Sadaf, Ch. Muhammad, Muhammad, & Ghulam, 2021; Nicolăescu, Eugen, Cristina, & Constantin, 2015), and economic resilience (Nicolăescu, Eugen, Cristina, & Constantin, 2015; Ruiz-Real, José, Juan U, Juan, & Jaime. 2019), these articles contribute valuable insights into the challenges faced and successes achieved by international firms. By synthesizing the current body of research, these investigations provide a comprehensive overview of the state of sustainable business practices in the global corporate landscape, offering a platform for further refinement and expansion of this critical field.

According to (Mc Loughlin et al., 2021), collaboration and innovation emerge as central themes in promoting sustainability efforts within supply chains. Innovative solutions normally put successful SSCM initiatives, enabling efficiency improvements and fostering environmental stewardship. Also, collaboration among stakeholders enables knowledge exchange, collective action, and resource sharing, ensuring sustainability initiatives' impact (Eaton et al., 20021). Therefore, this discussion shows that implementing sustainable supply chain management principles at the international level poses multifaceted challenges. These include the imperative to overhaul traditional practices, the lack of systematic frameworks, and the crucial role of collaboration and innovation. Solving these challenges needs concerted efforts from businesses, researchers, policymakers, and other stakeholders to enable a strong approach to sustainability throughout supply chains. However, it's also clear that firms can navigate these challenges and chart a path toward a more sustainable future by adopting innovation, collaboration, and a solid understanding of SSCM changes.

Scientific problem. How can Sustainable Business Management Principles at the International Firms Level be effectively implemented?

The object of the thesis. The Integrating of Sustainable Business Management Principles at the Level of International Firms.

The aim of the thesis. To examine the integration of sustainable business management principles at the level of international firms.

The objective of the thesis:

- 1. To reveal the Conceptual Foundations of Sustainable Business Management Principle.
- 2. To analyze Business Management Principles adopted by International Firms.
- 3. To Evaluate the Integrating of Sustainable Business Management Principles at the Level of International Firms Level.
- 4. To Identify Challenges Faced by International Firms in Implementing Sustainable Principles.
- 5. To Investigate the Impact of Sustainable Business Management Principles on Organizational Performance.
- 6. To evaluate the implementation of sustainable business management principles at the international firm levels.

Thesis Structure. The first chapter, 'theoretical aspects of Integrating Sustainable Business Management Principles at the Level of International Firms,' introduces sustainable business management principles at the international level by generally discussing them, explaining their principles, and how they can be implemented at the international firm level. The chapter also describes the advantages of sustainability and briefly explains the challenges faced during implementation. Additionally, it discusses how international firms can implement sustainable business management principles across their international operations, stakeholder engagements, and supply chains. The chapter also discusses effective integration methods. Additionally, it highlights the importance of sustainable practices within the global business landscape by setting the stage, which shows the objectives and scope of the study.

The topic discusses contextual analysis, providing insights into current international trends, market changes, and regulatory frameworks that shape sustainable business strategies. The thesis aims to provide the major principles explaining sustainable business management at the international level. Ethical governance, social responsibility, and environmental stewardship are some concepts contextualized and dissected within the realm of multinational businesses. Also, there is a presentation of case studies or samples highlighting the real-world applications of sustainable business management principles by known global firms. These case studies act as solid proofs of successful strategies and actions, providing great insights for emulation. The chapter 2 and 3 of this thesis will draw and analyzed best principles and strategies directed to the requirements of global firms through knowledge gained from case studies and research.

Therefore, the discussed actionable recommendations to give businesses a direction for effortlessly integrating sustainability into their operational frameworks. In addition, the research to shows the crucial significance of evaluation and measurement in examining the efficiency of sustainable business management principles on the global market. To explains the importance of creating robust monitoring ideas to trace the progress and foster continuous improvement. In its conclusion, this thesis will highlight the importance of its findings, reaffirming the paramount significance of sustainable business management for international firms. To ends with a great summary of the main takeaways and prompts reflection on future considerations in the pursuit of sustainable business success. In essence, this thesis structure in Integrating of Sustainable Business Management Principles at the Level of International Firms research will provides a great exploration of sustainability within the international business landscape. This culminates in actionable discussions and directions for businesses moving into the complex arena of ethical and environmentally responsible practices.

Thesis and research methods. The analysis of the theoretical and analytical theory of Integrating Sustainable Business Management Principles at the Level of International Firms was generated from general research methods, including literature review, case studies, comparative analysis, and stakeholder analysis. The empirical part of the study utilizes quantitative analysis and survey methods to explain more about sustainability, ways of implementation, the outcome after integration and to test the hypotheses.

Literature sources used in the thesis. The theoretical part of the master's thesis majorly used works articles related to the concept of Integrating Sustainable Business Management Principles at the Level of International Firms and its practices. It also leverages works by foreign authors. Some of the references include (Marylynn, Roger, & Kimberly, 2005, (Alam & Islam, 2021, Bonfanti et al., 2024, Akor, 2023, Coelho, Jayantilal, and Ferreira, 2023), and many others mentioned in the thesis that is related to the topic.

Theoretical thesis significance. The concept analysis of the Integrating Sustainable Business Management Principles at the Level of International Firms presented in the literature research enabled the discussion for sustainability activities and various business management principles. Additionally, ways in which sustainable business management principles can be effectively implemented were presented. The thesis discusses the increasingly important need for businesses to embrace sustainable practices, considering economic, environmental, and social dimensions, especially on a multinational scale. The thesis can contribute to the theoretical foundation of sustainability management by showing ways in which global firms integrate sustainability into their management practices. This involves evaluating concepts, frameworks, and models that put sustainable business strategies on an international scale. Furthermore, international firms need to function within complex environmental

and socio-economic systems. Exploring how these firms eliminate and move through these complexities in sustainable management practices can enhance theoretical views on systems resilience, thinking, and sustainable development (Zanten & Tulder, 2021).

Practical thesis significant. This thesis provides a valuable practical insights for international firms seeking ways to integrate sustainable business management principles into their operational strategies. The empirical findings highlight actionable strategies such as aligning corporate sustainability with overall business strategy, enhancing supply chain sustainability, fostering cross-border innovation, and engaging stakeholders effectively. These insights to serve as a practical framework that managers and firms decision makers can apply to improve regulatory compliance, performance measurement, and competitive positioning in global markets. Moreover, the research offers a diagnostic tool for assessing sustainability readiness and to identify areas for improvement, as to enable firms to align with international sustainability standards and respond proactively to evolving environmental and social expectations.

Structure and scope of the thesis. This thesis consists of introduction, three chapters, conclusions and recommendation. The thesis comprises a total of 72 pages, including 15 figures, 4 tables, 67 references, and 1 appendix.

1. THEORETICAL ASPECTS OF INTEGRATING SUSTAINABLE BUSINESS MANAGEMENT PRINCIPLES AT THE LEVEL OF INTERNATIONAL FIRMS

To date, the sustainability concept has been majorly based on the idea that international firms should focus on the environmental, social, and social values they contribute to or destroy. This chapter provides an overview of Integrating Sustainable Business Management Principles at the Level of International Firms, discusses the concept of sustainable management, the principles at the international firms level, and the Integrating Sustainable Business Management Principles at the Level of International Firms level. It will also discuss various challenges of implementing it and how it will be implemented.

1.1 Concept of Sustainable Business Management

What is sustainable business management: Sustainable Business Management refers to the practice of operating a business in a way that considers financial success and the social and environmental impacts of its operations. It involves integrating sustainability principles into all aspects of the business, including strategy, operations, supply chain management, marketing, and stakeholder engagement (Katz. & Page, A., 2012). By adopting Sustainable Business Management, companies can enhance their reputation, attract and retain customers and employees, reduce risks, and contribute to a more sustainable future for all stakeholders. There have been many existing bodies of research that encompass studies that explore the sustainable business management practices (Katz. & Page, A., 2012; Watson, Boudreau, Chen. & Huber, 2008; Larson, Teisberg, & Johnson, 2000; Szczepańska-Woszczyna, & Kurowska-Pysz, 2016; Issa, & Issa, 2014), also social and environmental impacts of sustainable business management practices (Bocken, & Bogaert, 2016; Ahmad, Rashid, Razak, Yusof, & Shah, 2013; Epstein, & Roy, 2003).

As mentioned before, the concept of sustainable business management principles at the international firm level has emerged as a vital strategy, especially in contemporary global business landscapes. This notion revolves around integrating sustainability principles into the basic operations and strategies of firms working on a global scale. The need for such integration comes from the recognition of significant threats presented by social inequalities, environmental degradation, and economic issues at an international level. As a result, international firms are increasingly forced to attend to these problems by adopting sustainability considerations into their main business operations. Many key factors explain the navigation to sustainable business management practices.

International firms have recognized the need to respond to pressing challenges on a global scale, covering the global imperative for sustainability. This acknowledgment has resulted in reevaluating traditional linear economic models, initiating a transition towards a circular economy approach. This approach insists on reshaping conventional economic patterns and adopting circular

inputs, resource recovery strategies, product use extension, product-as-a-service, and sharing platforms. Therefore, firms aim to address economic, social, and environmental issues while also creating value for stakeholders by embracing these sustainable business models. Additionally, sustainable business management involves a focus on business model innovation. Firms should innovate at the business model level to align revenue and incentive mechanisms with sustainable solutions (Chabowski et al., 2023. This ensures the re-examining of how value is created, captured, and delivered, using sustainable practices to respond to international sustainability problems and spread innovations all over global markets.

Furthermore, sustainability integration into the marketing strategies assumes crucial importance (Ogutu et al., 2023). This involves prioritizing stakeholder needs, for creating sustainable business models, recognizing market differences, and promoting social entrepreneurship to foster sustainable business practices at the international level. Firms can effectively communicate their commitment to sustainable practices and work with environmentally conscious consumers globally by submerging sustainability into marketing strategies. Sustainability is now an important shift in how businesses work and engage with stakeholders. Therefore, this thesis delves into the importance of sustainability integration into marketing strategies, discussing its implications for society, businesses, and consumers.

- 1. Understanding sustainability integration. This is important to understand business through all three dimensions social, environmental and economic since sustainability integration in marketing involves embedding ethical, it entails making business objectives fall in line with principles that help prioritize long term ecological viability, ethical conduct, and social equity.
- **2. Driving innovation and competitive advantage.** Sustainability integration makes businesses reshape traditional practices and explore more sustainable options, by transformation of ideas into tangible solutions to improve processes, products, or services. This's achievable by ensuring there is eco-friendly packaging and renewable energy initiatives.
- 3. Building resilience in supply chains. Sustainability integration has beyond individual businesses, visibility, flexibility, collaboration, and control are required to achieve sustainability goals. Firms are increasingly evaluating the sustainability practices on their suppliers, acknowledging that social and environmental risks within the supply chain can directly influence operations and reputation. Businesses can create resilience against disruptions and maintain their commitment to sustainability by collaborating with sustainable suppliers and enhancing transparency throughout the supply chain.
- **4. Enhancing brand reputation and differentiation**. Sustainability integration provides corporates with a great opportunity to promote their brand reputation and differentiate themselves within crowded marketplace. Nowadays, consumers are more determined and

socially conscious by embracing brands that go with their values. Firms can promote trust and loyalty among consumers by showing commitment to sustainability, which results in strengthening their brand image.

- 5. Solving environmental effects. Zero waste is a way for reducing own environmental impact, the environmental implications of unevaluated consumerism and industrialization are highly noticeable with existential threats posed by pollution, climate change, and resource decline. This have triggered a demand from firms by playing an important role in reducing their environmental influence by integrating sustainability into marketing strategies. This include embracing sustainable sourcing initiatives, that results in reducing waste generation and also investing in eco-efficient technologies.
- **6. Ensuring regulatory compliance.** The regulatory landscape following environmental and social challenges are constantly increasing, with governments globally executing more strict rules to govern sustainability issues. Firms are required to follow regulations' needs effectively and ensure compliance with emerging trends by proactively integrating sustainability into marketing strategies. By showing commitment to sustainability, expected to enhance positive relationships with regulatory authorities, minimizing the risk of legal sanctions and fines.

Therefore, sustainability integration into marketing strategies is a strategic need for businesses operating at the international firm level. Firms can secure a sustainable future for themselves and contribute to the bigger goal of international sustainability by promoting consumer engagement, establishing resilient supply chains, driving innovation, ensuring regulatory compliance, while also addressing environmental impact, and aligning with consumer values. Adopting sustainability is commercially advantageous, as it fosters a new era of accountable and goal-oriented business practices (Akor, 2023). Sustainability integration remaining the guiding principle for following the path ahead as businesses battle environmental challenges and complex societal issues.

Sustainable business management as always focus on value creation and delivery with a global perspective. This involve using global resources, modifying marketing capabilities, and improving performance, while appreciating environmental, social, and economic impacts. International firms are aiming to follow sustainable principles while creating value, either through standardizing or modifying business model innovations. Below are key aspects of Sustainable Business Management, including;

1. **Triple Bottom Line**: A sustainability framework revolves around tripe bottom line, economic, social, and environmental. A sustainable business aims to create value not only for

its shareholders (economic) but as well for society (social) and also to the environment (environmental).

- 2. **Corporate Social Responsibility (CSR)**: Sustainable businesses always engage in CSR activities which go beyond legal requirements to contribute positively to society. This can include philanthropy, ethical labor practices, community engagement, environmental stewardship and other ethical ends.
- 3. **Environmental Stewardship**: This involves minimizing the environmental impact of operations through practices such as replanting trees, limiting harvests, reducing harmful activities or pollution, energy efficiency, waste reduction, sustainable sourcing, and carbon footprint reduction.
- 4. **Stakeholder Engagement**: Sustainable businesses actively engage with stakeholders, while including employees, customers, suppliers, communities, and investors, to understand their needs and concerns and integrate them into decision-making processes.
- 5. **Long-Term Thinking**: Sustainable Business Management also involves taking a long-term view of business success as well considering the impact of decisions on future generations and also the planet.
- 6. **Innovation**: The practice of prioritizing innovation to develop products, services, and processes that are environmentally friendly, socially responsible, and economically viable.

Sustainable business management principles do offer several strategies and actions that international firms do use to integrate economic, environmental, and social impacts into their operations (Bonfanti et al., 2022). There are several subtopics that explain major areas where global firms can apply sustainable business management principles to develop value for society, reduce environmental harm, and also ensure long-term viability. This has helped companies to promote competitiveness, enhance innovation, and contribute to international sustainable development goals by solving these problems proactively.

In summary, this sub-topic clearly explains how sustainable business management principles at the international firm level require the alignment of business strategies with sustainability goals. This can be achieved by embracing circular economy principles, innovating business models, integrating sustainability into marketing strategies, and considering value creation and delivery on a global scale. (Mohamed et al., 2023) described in their research that international firms can effectively respond to global sustainability issues and promote long-term resilience and competitiveness in a rapid growing business environment by adopting these practices.

Sustainability remain an important shift in how businesses work and engage with their stakeholders. As it helps in understanding sustainability integration, driving innovation and

competitive advantage, building resilience in supply chains, enhancing brand reputation and differentiation, also solving environmental effects, while as well ensuring regulatory compliance, promoting consumer engagement and its loyalty, and meeting stakeholder expectations. However, sustainability integration into marketing strategies as its own challenges, even though it provides various advantages. This research aims to explore various major issues faced when integrating sustainability principles into marketing strategies. This include cost considerations, regulatory uncertainty, moving consumer perceptions, cultural and organizational resistance, complex supply chains, and also greenwashing and credibility.

Brief description of the classical sustainable development concept:

According to *Blewitt* (2012), The classical concept of sustainable development gained prominence with the Brundtland Report, Our Common Future (1987), which defined it as development that meets present needs without compromising future generations' ability to meet theirs. While the concept integrates economic, social, and environmental dimensions, emphasizing a balance between human progress and ecological preservation.

Historically, the idea evolved from concerns about economic growth being mistaken for true development. The Brandt Commission (1980) stressed that development should lead to self-fulfillment and harness human potential rather than just economic expansion. Later, the Brundtland Report highlighted two key aspects: prioritizing the essential needs of the world's poor and recognizing limitations imposed by technology and social structures on the environment's capacity. Despite its broad acceptance, sustainable development has been criticized for being too economically driven and ambiguous. In spite of that nevertheless, it remains a guiding framework for global policies and environmental strategies.

Summary thus Sub-chapter 1.1 as explores the foundational concept of Sustainable Business Management (SBM), and its relevance at the international firm level. This sub-chapter defines SBM as an approach that integrates environmental, social, and economic considerations into core business operations to ensure long-term value creation and responsible corporate behavior. The section do emphasizes the role of sustainability in innovation, marketing strategies, and supply chain resilience. And also highlights key principles such as the Triple Bottom Line, corporate social responsibility, environmental stewardship, and stakeholder engagement. Furthermore, it examines how global firms adopt sustainable models through business innovation, ethical practices, and regulatory compliance, thus aligning with global sustainability goals. In overall, the chapter establishes SBM as both a strategic necessity and a moral obligation for firms operating in a complex, interconnected world.

1.2 Sustainable Business Management Principles at International Firms Level

The need to integrate sustainability at international forms level has become increasingly important, especially in the constantly evolving scale of global business management. This thesis will dig into the complex dynamics and crucial concepts underlying the integration of sustainability principles with international business practices. The research will further explain the major points that emphasize the importance of this fusion.

One of the principles involves adopting a Triple Bottom Line Approach. This approach makes international firms to implement traditional profit orientation models (Pradha, More, & Prasad, 2023). This means that economic gains can be prioritized and also ensure environmental and social impacts are acknowledged and addressed by adopting this approach. International firms are assured to authorize sustainable practices that promote great value creation, following the essence of responsible corporate citizenship. This approach involves a framework that global businesses leverage to assess their performance and influence through three dimensions, which as previously been discussed in this thesis (economic, social, and environmental). It considers the wider implications of business activities on the planet, profits, and people as it goes beyond traditional financial metrics.

Another principle is sustainable business model innovation. It emphasizes the need for sustainable business model innovation within the global marketing domain (Schluter et al., 2023). Emphasizing the requirement for firms to begin an innovation process that links sustainability considerations with international business strategies. This involves a degree assessment of standardization versus adaptation needs, drawing an illustrative shift towards more diligent and ecologically sensitive business operations on an international geographic. Sustainable business model innovation also concentrates on developing and implementing business models that foster social and environmental sustainability and as well driving financial success. This principle is now more crucial at the international level because of the broader scope of the operations and its effect on several stakeholders throughout various cultures and regions.

Adaptability and resilience explain how sustainable business model innovation are adaptable and resilient to societal expectations, regulatory needs, and changing market conditions (Awad. & Rodrigo, 2023). This shows that international firms should continuously innovate and enhance their business models to remain current on sustainability matters and respond to emerging issues effectively. Also, sustainable business model innovation takes a long-term perspective instead of concentrating only on short-term profits. This includes considering the possible future business decisions' results, investing in research and also creation of sustainable technologies, and developing relationships with stakeholders based on transparency and trust.

The other principle is international competition and knowledge. By showing the importance of using diverse knowledge sources in moving through the complexity of global competition. By tapping into a rich pool of international insights, firms can gain a competitive advantage to foster innovations in their business models (Camilleri et al., 2023). Moreover, firms can move through the competitive landscape skillfully while promoting a continuous improvement and innovation culture by increasing geographical boundaries and embracing a culture of knowledge exchange. Certainly, this principle seems to be a very crucial in business management for global firms as it involves knowing that in the world marketplace, competition is always about strategic, knowledge, and innovation capabilities. It is also about tangible resources and assets.

The principle of international competition and knowledge illustrates *knowledge* as a strategic asset (Behl et al., 2023). Knowledge encompasses many forms, such as managerial know-how, market insights, intellectual property, and technological expertise. International firms also acknowledge that using this knowledge effectively can develop barriers to entry for competitors and promote their position in the market. International firms would have to consider ethical implications as competition drives innovation and progress. This should involves promoting responsible business practices that are advantageous to society, respecting intellectual property rights, and also ensuring fair competition laws. Furthermore, the principle explains that international firm adopts a culture of continuous improvement, especially where learning from failures and success are more valued. They optimize processes, products, and services over time by promoting data-driven decision-making, experimentation, and feedback loops.

Lastly, the principle also discusses strategic alliances and partnerships. International firms always create strategic alliances and partnerships with other firms to examine resources and complementary knowledge (Esmaelnezhad et al., 2023). Increased innovation, competitiveness, and risk reduction in the global markets can be achieved through startups, collaborating with research institutions, and industry partners. In conclusion, international competition and knowledge are connected principles that enhance the operations and strategies of firms working in the international marketplace. Therefore, international firms can promote their competitiveness and attain sustainable growth in an increasingly interconnected world. However, this can solely be achieved by engaging in ethical business practices, using knowledge as a strategic asset, and promoting a culture of learning and continuous innovation.

Liability of foreignness is another principle that describes the problems encountered when moving through unfamiliar geographical areas and cultural distinctions while expanding into global markets. Knowing and solving these liabilities comes as a requirement for effective international business management, which needs a great knowledge of local contexts and proficient adaptation strategies (Martinaj, 2023). The concept of this principle covers many dimensions, including social,

economic, legal, and political differences between the home country and the foreign markets where the firm operates. Foreignness manifests and impacts business management at international firms' level in various ways. The first one is the political and legal environment. Carrying out business activities in foreign markets involves moving through diverse legal frameworks, political systems, and regulations.

International firms should be well-versed in political developments, control regulatory risks, and comply with local laws. In addition, these firms may experience problems related to taxation, intellectual property protection, and trade barriers, which need strategic planning and careful consideration (Natcha, Awirut, & Jarotwan, 2024). There are several social dynamics that affect consumer preference and market demand. These social factors include social norms, demographics, and lifestyle preferences. This require international firms to carry out thorough market research to understand the social changes of every target market and push their products, services, and marketing campaigns to match with their local customers. This normal usually involve responding to problems like social values, gender roles, and ethical considerations.

Cultural differences as well play an important role in communication styles, shaping consumer behavior and business practices. International firms need to understand and embrace these cultural differences to easily market their products or services (Tagscherer, & Carbon, 2023). This is achievable by respecting local norms, customizing product features, and adjusting marketing strategies. Also, operating in diverse markets promotes learning and innovation within international firms. Market changes and exposure to new ideas and technologies foster continuous improvement and as well encourage creativity.

The last principle is reporting standards and adaptation (Diaz-Rodriguez et al., 2023). This helps in creating awareness of the complexities implicit in complying with disparate regulatory frameworks throughout many jurisdictions. This principle keeps emphasizing the need for international firms to move through this complicated mesh of regulatory needs with finesse, underscoring the crucial for swiftness and adaptability in maintaining compliance while ensuring the firm's integrity. This principle as really played a major role in the realm of business management, more so for international firms operating in diverse markets.

In summary, integrating sustainability into international business management is essential. The key principles include adopting the Triple Bottom Line Approach, by focusing on economic, social, and environmental impacts. While sustainable business model innovation emphasizes aligning global business strategies, while sustainability, fostering adaptability and resilience to changing conditions. By leveraging international competition and knowledge enhances competitiveness and continuous improvement through strategic alliances and a culture of learning. Lastly, adhering to diverse reporting standards, by as well ensuring compliance and integrity across jurisdictions. These

principles proven collectiveness and help international firms achieve sustainable growth and ethical business practices in a globally interconnected market.

1.3 The Integrating of Sustainable Business Management Principles at the Level of International Firms Level

According to (Hariram et al., 2023), the integration of sustainable business management principles within international firms involves some level of crucial response, to the various problems presented by environmental degradation, social inequalities, and economic instability. Many businesses are forced to reduce these pressing problems, especially in an era controlled by population growth, ecological destruction, and the outcomes of random economic activities. This makes the integration compulsory, considering the international requirement for sustainability and also the need to change into a circular economy on a global scale. (Rosati et al., 2022a) move further to explained the basic aspect of this integration, which is the development of sustainable international business model innovations. These innovations are executed to mitigate the existential threat presented by economic, environmental, and social impacts. They portray many strategies like extending product use, product-as-a-service, resource recovery initiatives, and circular inputs. Therefore, firms can easily address major challenges and promote sustainability throughout their operations by adopting these innovative approaches.

International firms are required to understand the principles of sustainable business management before integrating sustainability into their global business models. This involves initiatives such as social impact, corporate social responsibility, ethical business practices, and environmental stewardship. The organization gets an opportunity to make strategic decisions through these principles. During integration, international firms evaluate their social and environmental influence throughout their supply chain (Wong, Wong, & Boon-itt, 2020). This includes assessing the sustainability of their product lifecycle, suppliers, distribution channels, and manufacturing processes. Therefore, firms can easily identify areas for innovation and improvement by knowing their social implications and environmental footprint. International firms prioritize stakeholder engagement through sustainable business models. These stakeholders include consumers, governments, NGOs, and local communities.

In addition, supply chain optimization assists in reducing environmental effects and promotes social responsibility throughout the value chain. International firms are needed to carry out market differentiation and brand building. Sustainable global business models usually differentiate products and services in the market to offer a competitive edge. Therefore, firms can attract socially and environmentally conscious consumers by emphasizing sustainability values and features. This results in increased brand loyalty and market share. Good communication of sustainability features enables

the development of trust and brand reputation among stakeholders. Additionally, global firms are required to follow regulatory needs and industry standards associated with sustainability. This includes staying updated with the evolving social and environmental regulations in different regions and countries where they do business. It as well involves ensuring compliance with international sustainability standards like environmental management (ISO 14001) and social responsibility (ISO 26000) (Ioannis, 2023).

International firms develop key performance indicators and metrics to follow up on all progress towards it sustainability goals, like social impact indicators, carbon emissions reduction, or waste diversion. Organizations can identify areas for improvement and adjust strategies when needed through the regular assessment and measurement (Gadzali et al., 2023). This enhances a continuous learning and innovation culture. In summary, international firms can contribute to sustainable development by integrating these principles and initiatives into their international business models.

The approach of circular economy principles adoption emphasizes the interplay between economic, environmental, and social factors in business practices (Kircherr et al., 2023). International firms coming up with solutions that push profitability across diverse global markets and that also solve ecological and societal concerns through a focus on sustainable innovation. Also, the integration of sustainable business management principles utilizes theoretical frameworks like the dynamic capability's perspective and the asset-based view. This framework emphasizes the significance of utilizing organizational resources and its abilities to initiate sustainable business model innovations. International firms can strengthen their sustainability performance and then get used to the evolving global business landscapes. This goal can be attained by promoting a culture of stakeholder engagement, marketing strategies, and aligning leadership and sustainability culture.

The comprehensive approach of the three mentioned factors are further discussed more in detail below:

• Environmental Factors

As explained earlier in this paper, international firms working across factors should evaluate and reduce their environmental footprint worldwide. This involves developing environmentally friendly initiatives in operations, distribution networks, and as well in supply chain networks. Circular economy principles prioritize waste reduction, environmental influence, and resource consumption reduction throughout the product lifecycle. This require reducing emissions, energy consumption, and raw material extraction. In other hand, it also required promoting sustainable sourcing and ecodesign. Businesses as to contribute to biodiversity preservation, climate change mitigation, and resource conservation on a global scale by adopting circularity, by promoting their corporate sustainability credentials and environmental stewardship.

• Social Factors

International firms are responsible for maintaining human rights standards, ethical business conduct, and labor rights throughout their operations. This require respecting indigenous rights and cultural heritage, promoting diversity and inclusion, and by supporting local communities. Circular economy principles insist on significance of well-being, social inclusion, and on equity in business practices, which involves addressing social inequalities, ensuring fair labor initiatives, and as well enhancing community engagement in the value chain. Therefore, businesses can promote their reputation, contribute to the development of more inclusive and resilient societies globally, and create trust with stakeholders.

• Economic Factors

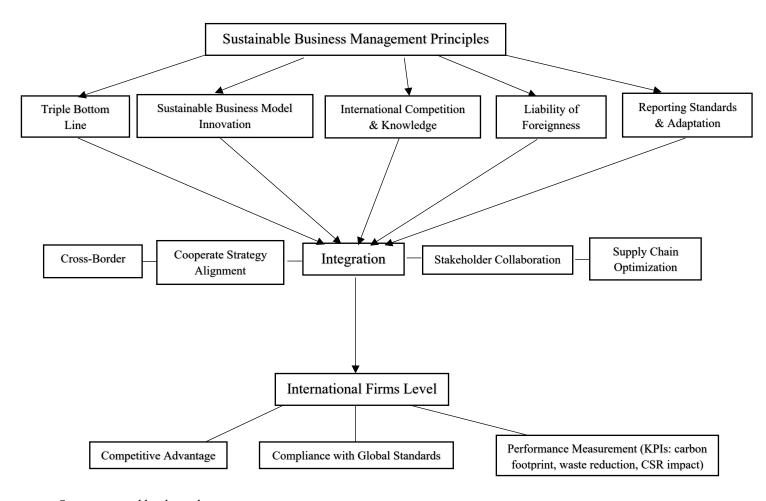
Businesses as to consider the economic challenges of navigating towards circularity at the international firm level. This consideration includes assessing the possible savings through resource efficiency, while as well exploring new revenue sources from secondary markets and services, and assessing the cost-effectiveness of implementing circular practices. Circular economy principles focus on maintaining resources' value in use for a long and the obtaining of their maximum utility. This's achievable by maximizing the value of resources.

The integration of circular economy principles into sustainable business management practices at the global firm level needs a great approach that balances environmental, social, and economic considerations. International firms should encourage social responsibility, promote innovation, and minimize environmental impacts by promoting circularity, therefore contributing to a successful and more sustainable future for all.

This integration process must follow the degree of institutional theory and globalization. (Meyer et al., 2023) found out that firms encounter different formal and informal institutional frameworks as they work across various global contexts. And when sustainable business models are implemented accordingly, it required a distinct knowledge of these institutional dynamics and how globalization impacts business operations. Additionally, firms must move these complexities to increase sustainable practices on a global landscape, either through the adaptation or standardization. This shows that integrating sustainable business management principles at the global level needs a great knowledge of both globalization and institutional theory.

In summary, the integration of sustainable business management principles at the international firm's level addresses environmental degradation, social inequalities, and economic instability. Firms develop sustainable models like product as a service and the resource recovery to mitigate the impacts. Key initiatives include social impact, corporate responsibility, ethical practices, and environmental stewardship. Sustainable models enhance market differentiation and compliance with international standards, as well reducing legal risks and building brand loyalty. Continuous improvement and stakeholder engagement are crucial for maintaining sustainability at international

firms. Firms need to adopt circular economy principles to balance environmental, social, and economic factors, ensuring resource efficiency and innovation. Effective integration always requires understanding institutional dynamics and globalization impacts. This comprehensive approach fosters social responsibility, innovation, and environmental sustainability, contributing to long-term resilience and profitability. The theoretical model for integrating sustainable business principles is presented in Figure 1.



Source: created by the author

Figure 1. Theoretical Model for Integrating Sustainable Business Management Principles at the Level of International Firms

The theoretical model diagram illustrates the integrating of sustainable business management principles at the international firms level. The diagram is structured into three interconnected levels; Sustainable Business Management Principles, Integration, and International Firms Level.

1. Sustainable Business Management Principles

On the top, we have five core principles which guide sustainability in international firms:

1. **Triple Bottom Line**: The balancing of economic, social, and environmental performance.

- 2. **Sustainable Business Model Innovation**: Creation of new business models that prioritize sustainability.
- 3. **International Competition & Knowledge**: Leveraging of sustainability as a competitive advantage.
- 4. **Liability of Foreignness**: Overcoming challenges of operating in foreign markets while also maintaining sustainable practices.
- 5. **Reporting Standards & Adaptation**: Complying with the global sustainability frameworks like GRI and as well ISO 14001.

These five principles serve as the foundation for sustainable business practices in international firms.

2. Integration

The middle level (*Integration*) represents how these principles are implement through key integration strategies:

Corporate Strategy Alignment: Drive-in sustainability into the company overall strategic directions.

Cross-Border Innovation: Developing sustainable solutions that will work across multiple international markets.

Stakeholder Collaboration: Engaging with governments, NGOs, suppliers, and also consumers to pilot sustainability.

Supply Chain Optimization: Implementing responsible sourcing, also circular economy principles, and drive-in waste reduction strategies.

These act as enablers, for transforming the sustainability principles from theory into actionable business practices.

3. International Firms Level

This final level shows the impact of sustainability integration at the international firms level, and this successful implementation leads to three key outcomes:

Competitive Advantage: The sustainability differentiates firms in the global market, attracting investors and also the customers.

Compliance with Global Standards: International Firms that align with international sustainability regulations, reducing legal and reputational risks.

Performance Measurement: Some key indicators such as, carbon footprint, energy efficiency, and the CSR impact help track sustainability success.

By effectively integrating sustainability, international firms can enhance their long-term resilience and their financial performance while also making a positive impact on society and the environment.

In summary, this model shows a structured approach for understanding how sustainability principles are adopted by the international firms. It shows the flow from theoretical principles to practical integration and then finally to measurable business outcomes.

This thesis theoretical part has thoroughly explored the Integrating Sustainable Business Management Principles at the Level of International Firms. It highlights five principles. By integrating these principles, international firms can not only enhance their competitive advantage but also ensure long-term resilience and contribute positively to global sustainability goals (Rosati et al., 2022b) it shows that firms can create value, address regulations issues, and contribute to a more sustainable future for all by adopting sustainable international business model innovations.

This theoretical study's actionable recommendations provide a roadmap for businesses aiming to seamlessly integrate sustainability into their operational frameworks. By following the this five principles and strategies derived from industry expertise and case studies, it guide international firms with navigating the complex landscape of ethical and environmentally responsible.

In conclusion, the thesis restates the paramount significance of sustainable business management at the international firms. This actually a calls for a reflective consideration of future directions in the sustainable business management, while emphasizing on the need for ongoing commitment to sustainability to achieve long-term success with a positive impact on society and the environment.

2. EMPIRICAL RESEARCH LEVEL OF SUSTAINABLE BUSINESS MANAGEMENT PRINCIPLES AT INTERNATIONAL FIRMS LEVEL

This chapter reviews the empirical research on how international firms mainly apply sustainable business management principles. It examines the practical implementations, challenges, and it outcomes in areas such as environmental stewardship, supply chain sustainability, corporate social responsibility, and innovation. This analysis also considers the impact of these practices on firm performance, stakeholder satisfaction, and alignment with global sustainability standards.

2.1. Research on the concept of Sustainable Business Management and its principles at the International Firms Level.

Empirical research on sustainable business management at the international firm level focuses on exploring ways in which companies worldwide integrate sustainability principles and the effects these initiatives have on their image and performance. In recent years, the idea of sustainability has moved from being a peripheral concern to a major component of corporate strategy, specifically in multinational firms that work across diverse markets. Sustainable business practices are taken to be critical for their long-term brand reputation and brand reputation because international firms are always under constant scrutiny due to their global impacts and capacity to influence a wide range of stakeholders.

Some of the major research questions to look into include the following; How do international firms integrate sustainability into their corporate strategy? What challenges do firms experience in balancing sustainability with profitability? How do firms measure the effectiveness integrating initiatives? What is the relationship between sustainability and financial performance in international firms? Empirical studies may depend on both qualitative methods like interviews and case studies with company leaders, and quantitative methods like financial data analysis and surveys. A comparative technique across industries and countries can also show the factors that impact the success of sustainability initiatives in various contexts.

Key Research Questions in Sustainable Business Management at the International Firm Level

1. How Do International Firms Integrate Sustainability into their Corporate Strategy?

According to Oertwig et al. (2017), International firms integrate sustainability in their corporate strategy by aligning economic, ecological, and also social goals with their long term strategic objectives. By following three key approaches: (1) adjusting corporate strategies to incorporate sustainability performance metrics, (2) defining a distinct sustainability strategy within it corporate framework, and (3) developing a holistic sustainability driven corporate strategy. Several companies employ internal and external drivers, including regulatory compliance, stakeholder engagement, innovation, and competitive advantage, to ensure sustainability becomes a key element of their

business model. A structured approach to proactive management, strategy development, and transparent reporting are essential for achieving corporate sustainability objectives.

According to Ademi et al. (2024), international firms' integrate sustainability into their corporate strategy through organizational learning, which involves three key processes: knowledge creation, knowledge retention, and while knowledge transfer. Companies develop sustainability oriented business models by systematically acquiring sustainability knowledge, submerge it into their organizational culture, and ensuring continuous learning through a training programs and stakeholder collaboration. The integration also requires shifting from profit centric models to more sustainability focused business transformations, where firms adopt new routines and institutional logics to address environmental and also the social challenges. Through organizational learning, businesses enhance their ability to innovate, adapt, and implement sustainable practices into all levels

Oertwig et al. (2017) and Ademi et al. (2024) have provide a complementary perspective in their paper on how international firms integrate sustainability into corporate strategy. Oertwig et al. put emphasize on structural alignment, incorporating sustainability into strategic objectives through the performance metrics, dedicated frameworks, and through holistic approaches. While Ademi et al. extend this by highlighting organizational learning as a key facilitator, ensuring continuous knowledge creation, retention, and transfer. I agree with this both perspectives, as sustainability integration requires all this strategic alignment and adaptive learning. International firms must submerge sustainability structurally while also fostering a learning culture that drives innovation, stakeholder engagement, and a longterm transformation.

2. How does the cross-border innovation influence adoption of sustainable business management principles in international firms?

Abdulkarem and Hou (2022) has done investigation on how environmental factors influence cross-border e-commerce (CBEC) adoption among Chinese SMEs, It emphasizing the mediating role of organizational context. But this study does not directly address cross-border innovation's impact on sustainable business management in international firms, but this research offers insights on how external environmental factors and internal organizational contexts can influence the adoption of innovative practices like cross-border e-commerce. These insights can be envisioning to understand how cross-border innovation can influence the adoption of sustainable business management principles in international firms.

Wang et al. (2018) highlight in their research that cross-border innovation influences the adoption of sustainable business management principles in international firms through supply chain transformation and it digitalization. This study also shows that cross-border e-commerce firms optimize logistics networks are making using of innovations like bonded warehouses, overseas

warehouses, and supply chain finance, which as enhance resource efficiency and as well reduce environmental impact. These innovations as increased supply chain transparency, minimize of waste, and lower carbon footprints, aligning with sustainable business management principles. Additionally, collaborative business models, enabled by digital platforms and also automation, allow international firms to integrate sustainability at a global scale, ensuring regulatory compliance and as well long-term resilience in competitive markets.

Abdulkarem and Hou (2022) research provide a valuable insight into how environmental factors and organizational contexts as shape cross-border e-commerce adoption. nonetheless, these studies do not directly address the relationship between cross-border innovation and sustainable business management. While, Wang et al. (2018) present more relevant perspective by demonstrating how cross-border innovation, especially in supply chain transformation and digitalization, directly supports sustainability adoption. This research studies highlights how logistics innovations like of overseas warehouses, bonded warehouses, and supply chain finance enhance resource efficiency and also reduce environmental impact. Despite Wang et al.'s contribution, research on this research question remains limited. Future studies should explore intensively the impact of cross-border innovation on sustainability, to provide clearer frameworks for international firms integrating sustainable management principles.

3. How do international firms optimize their supply chains to align with sustainable business management principles?

According to Rezaee Z., (2018), International firms often optimize their supply chains to align with sustainable business management principles by integrating environmental, social, and economic considerations into their business operations. This research studies highlights that firms achieve sustainability through green procurement like, waste reduction, energy efficient logistics, and stakeholder collaboration. By implant sustainability into it supply chain processes, regulatory compliance, companies operational will enhance efficiency, and corporate reputation. This author also proposed a framework where sustainability driven supply chains, by not only reducing environmental impact but it will also improve cost savings and market competitiveness. Sooner or later firms that adopt sustainable supply chain strategies has strengthen their long-term resilience and stakeholder trust, with ensuring alignment with global sustainability standards.

In authors research study, Fu et al. (2022) investigate the impact of sustainable supply chain management (SSCM) on the business performance, with much focused on operational and financial outcomes. This research was carried out through unstructured interviews with 41 industrialists, by identify key strategies that international firms should implement to optimize their supply chains with alignment with sustainable business management principle. These authors put much emphasize, that

collective approaches enhance both sustainability and business performance, leading to a competitive advantage in the global market.

Rezaee (2018) and Fu et al. (2022) both studies emphasize the critical role of the sustainable supply chain management (SSCM) in enhancing business performance. Rezaee explained how waste reduction, green procurement, and energy efficient logistics improve firms operational efficiency and corporate reputation. While, Fu et al. (2022) stress more that collective strategies in SSCM drive both the sustainability and competitive advantage. Their studies findings align in demonstrating that firms integrating sustainability into supply chains achieve regulatory compliance, cost savings, and also long-term resilience. I agree with both authors conclusions, as the sustainability driven supply chains, not only reduce environmental impact but as well also strengthen **stakeholder trust** and the financial performance, while positioning firms for success in an increasingly sustainability awaken global market.

4. What role does stakeholder collaboration play in enhancing sustainability integration within international firms?

According to Saka-Helmhout et al. (2024), stakeholder collaboration is a cruciality for multinational firms to integrate sustainability effectively. This study explained that firms engage with internal stakeholders to align sustainability goals with the corporate strategies, fostering knowledge sharing and as well cross functional coordination. Supposedly, multinational firms partner with NGOs, governments, and industry actors to then co-develop corporate social innovation initiatives, which address global sustainability challenges. These collaborations do help international firms navigate regulatory problems, mitigate risks, and as well enhance legitimacy. Nevertheless, this study do also emphasizes the challenge of balancing diverse stakeholder expectations, by requiring structured engagement strategies. In general, stakeholder collaboration strengthens sustainability efforts by fostering innovation, improving transparency, and ensuring long-term corporate and environmental resilience.

According to Salvioni & Almici (2020), stakeholder collaboration is crucial in fostering a sustainability culture within the international firms transitioning toward circular economy. These authors assert that engaging comprehensively with stakeholders including the employees, customers, suppliers, and also the local communities enhance corporate awareness of environmental and thee social issues, such as ecosystem protection and as well resource conservation. This engagement facilitates the integration of sustainability principles into international corporate strategies, leading to the simultaneous enhancement of the economic, social, and environmental dimensions. So by fostering open dialogue and strong relationships with stakeholders, international firms can effectively

transform their corporate culture toward sustainability goals, aligning business practices with broader societal expectations and contributing to global sustainability goals.

Saka-Helmhout et al. (2024) and Salvioni & Almici (2020) both research emphasize that stakeholder collaboration is very essential for international firms to integrate the sustainability effectively. These researches explained how engaging with internal and external stakeholders; such as employees, governments, NGOs, and local communities enhances knowledge sharing, innovation, and strategic alignment with sustainability goals. These both researchers' studies agree that collaboration strengthens corporate legitimacy, mitigates risks, and fosters environmental and social awareness, leading to better integration of sustainability principles. While Saka-Helmhout et al. (2024) focus more on corporate social innovation and regulatory navigation, Salvioni & Almici (2020) stress more on cultural transformation and circular economy adoption. I agree with their findings, as the stakeholder collaboration undeniably plays a critical role in fostering a corporate sustainability and achieving long-term resilience in global markets.

A summary of these research questions and its corresponding findings is presented in Table 1.

Table 1
Summary Table of the Key Research Questions in Sustainable Business Management at the
International Firm Level

Research Question	Key Findings	Author's & Year
How do International Firms Integrate	Findings shows that firms integrate sustainability	Oertwig et al. (2017);
Sustainability into their Corporate?	into their corporate strategy by aligning ecological,	Ademi et al. (2024)
	economic, and social goals through this approach:	
	(1) incorporating sustainability performance	
	metrics, (2) defining a distinct sustainability	
	strategy, (3) by developing a holistic sustainability-	
	driven corporate strategy. For ensuring adaptive	
	sustainability, organizational learning, retention,	
	knowledge creating, and transfer play an important	
	role.	
How does cross-border innovation	There was no paper directly addressing this	Abdulkarem & Hou
influence the adoption of sustainable	question, the research on the question remain	(2022); Wang et al.
business management principles in	limited. Some insight regarding sustainable business	(2018)
international firms?	management, environmental and organizational	
	factors influence cross-border innovation enhances	
	sustainability through supply chain transformation,	
	resources efficient, and digitalization was found in	
	this finding.	

How do international firms optimize	Findings shows sustainable supply chain	Rezaee (2018); Fu et
their supply chains to align with	optimization is achieved through green	al. (2022)
sustainable business management	procurement, eg waste reduction, stakeholder	
principles?	collaboration, and energy efficient. A structured	
	sustainable supply chain management approach use	
	to ensured compliance, operational efficiency,	
	enhances operational, and strengthens	
	competitiveness.	
What role does stakeholder	Through this research it shows that stakeholder	Saka-Helmhout et al.
collaboration play in enhancing	collaboration fosters sustainability by aligning	(2024); Salvioni &
sustainability integration within	corporate strategies, with the stakeholder interests,	Almici (2020)
international firms?	while also promoting knowledge sharing, and co-	
	developing sustainability initiatives. The	
	engagement as enhances corporate legitimacy, long	
	term resilience, and transparency.	

Source: created by the author

Sustainable business management at the international level do requires a multifaceted approach, integrating corporate strategy, cross-border innovation, supply chain sustainability, and stakeholder collaboration. The findings emphasize that learning mechanisms, structural alignment, and regulatory adaptation are key drivers of sustainability integration. While Cross-border innovation facilitates the operational efficiencies, while also stakeholder collaboration fosters knowledge sharing and legitimacy. Despite the progress in research, future studies are required to deepen the understanding of these relationships by exploring firm specific sustainability challenges and frameworks that support corporate transitions to sustainability.

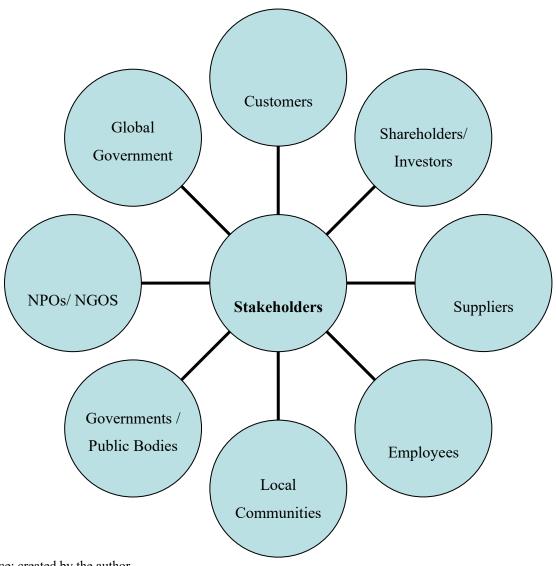
2.1.1 Drivers Behind the Adoption of Sustainable Principle at the Global Level

There are several drivers of sustainable principle at the global level, including pressure from stakeholders. Here, a stakeholder may be in a place to impact the success of the project, affected by the outcome of the project, or actively engaged in the work of the project. Some of the external stakeholders include community members, customers, unions, and creditors. However, they can also be internal members of the firms' projects like collaborators, employees, partners, and suppliers. (Epstein & Roy, 2003) stated that stakeholder involvement is an important foundation for sustainability implementation as reporting is majorly directed and tailored towards the various groups of strategic stakeholders.

According to the traditional metrics, stakeholders are involved in creating materiality matrices where the firm faces its critical topics to stakeholders, but the newly developed ideas of double materiality display a new light into stakeholder involvement as more detailed information,

perceptions, and quantification are anticipated for every material topic. According to (Coelho et al., 2023), every stakeholder group has seen, experienced, and wanted an increase in access to consistent and accurate sustainability data. Additionally, the purpose has appeared as one major area where they want a firm to show publicly its commitment and what makes the firm function in a certain way.

The stakeholder illustration in the Figure 2 depicts the various groups influencing sustainability adoption.



Source: created by the author.

Figure 2. Stakeholder Illustration

The other driver is the incorporation of financial and sustainability data. At first, ESG data disclosure was made to evaluate the increasing risks of climate change, an effort driven by investors and financial institutions to gain important information and rankings that could guide better decision-

making on portfolio management. The market has increased drastically, even though, ESG rating methodologies employ vague methods for accounting for true sustainability impact (Bocken & van Bogaert, 2016). ESG data providers generated revenues above \$1b in 2021, which could increase to \$1.3b in 2022. Investor demand is a significant driver of growth in the ESG data market, together with the increase in reporting on non-financial data, both voluntary and mandatory, where stakeholders require access to non-financial data such as customer satisfaction, innovation, social impact, employee engagement, environmental footprint, which all offer additional information and context to the financial analysis.

Additionally, higher exposure to risk and Greenwashing accusations drive the adoption of sustainable practices at the global level. Firms have been developing a deeper knowledge of the reputational problems that matter to their stakeholders and of the degree to which their products, services, operations, supply chains, and other activities impact those problems. The three major operations/ groups include clients, suppliers, and investments where companies who claim high sustainability and influence within their provision introduce or document the sustainability initiatives or results of their operations to avoid Greenwashing or reputation claims (Du et al., 2010). Another driver is the increasing regulations and standards around sustainability. There are many Certifications, Frameworks, Industry regulations, and Standards emerging in different sustainability topics, covering all sectors and the entire Value chain of operations.

From Design to Use, there is regulation coming in for every aspect. The challenge is in the substantial number of existing frameworks for sustainability reporting and implementation. The market requires the most accepted methodology and framework to impact performance or measure sustainability. (Kirchherr et al., 2023) described that the current level of complexity is a lot for all parties involved where too much time is spent in collecting, reporting, and consolidating information which doesn't guide, support, or trigger necessary improvements, mitigation actions, or remediation processes. Moreover, the rise of technology and digitalization within sustainability drives sustainability practices at the global level. On the technology front, numerous companies are creating solutions to control and report on sustainability data efficiently and effectively.

New players emerging and big corporations with many years of knowledge of foundational ESG are also developing their specific tech solutions, addressing the entire sustainability implementation process. Digitalization and technology ease the complexity of reporting and data management for all firms. Firms have developed the Tech Radar to navigate and leverage the complex technology set-up around sustainability implementation. One category focuses mainly on sustainability management tools available for companies to ease their sustainability process and project management (Hariram et al., 2023). Education for high-income and low-middle countries can drive sustainable development. Some other drivers include social action and national policies.

So, in summary, it can be stated that adopting sustainability in business is a strategic advantage and a moral imperative. International firms can minimize their environmental impacts, gain a more competitive advantage, and attract more customers in today's market. International firms can adopt sustainable practices to develop a more resilient, inclusive, and equitable future. Sustainable development enhances the well-being of individuals and communities and protects the planet for future generations.

Table 2 Summary of the results of the empirical research

	Sustainable Business		International Firms
	Management		
W	Cross-Border	The digital transformation and	Firms leveraging
Wang et al. (2018)	Innovation	also supply chain innovations,	automation and digital
		such as bonded warehouses and	platforms enhance global
		automation, help firms optimize	sustainability integration,
		their logistics and reduce	ensuring regulatory
		environmental impact.	compliance and resilience.
Oertwig et al. (2017)	Corporate Strategy	Firms integrate sustainability	The strategic alignment
	Alignment	into corporate strategy by	ensures sustainability
		aligning the Triple Bottom Line	becomes a core business
		(economic, social, and	function, enhancing
		environmental); goals through	resilience and long-term
		structured frameworks,	competitiveness.
		performance metrics, and	
		dedicated strategies.	
A dami -4 -1 (2024)	Organizational		Organizational learning
Ademi et al. (2024)	Learning	through continuous retention,	fosters innovation,
		knowledge creation, and transfer	adaptability, and also long-
		within firms. Firms transition	term transformation of
		from profit driven models to the	corporate sustainability
		sustainability oriented business	strategies.
		models.	
Fu et al. (2022)	Business Performance	Sustainable supply chain	SSCM strategies drive
, ,	& SSCM	management do firmly influence	sustainability and
		financial and operational	profitability, making
		performance, leading to a	international firms more
		competitive advantage.	competitive in global
			markets.

Rezaee (2018)	Sustainable Supply	Green procurement, energy-	By optimizing supply
	Chain Management	efficient logistics, and waste	chains improves cost
		reduction are the key to aligning	efficiency, reduces
		supply chains with sustainable	environmental impact, and
		business principles.	strengthens long-term
			resilience.
Salvioni & Almici (2020)	Circular Economy &	Stakeholder engagement	Firms adopting circular
, ,	Cultural	encourage corporate awareness	economy principles
	Transformation	of sustainability, aiding firms in	improve regulatory
		transitioning towards the	compliance, enhance brand
		circular economy models.	reputation, and align
			business practices with it
			global sustainability goals.
Saka-Helmhout et al.	Stakeholder	Firms collaborate with internal	Strengthened collaboration
(2024)	Collaboration	and external stakeholders (e.g.,	improves transparency,
		NGOs, governments) to develop	also fosters innovation, and
		corporate social innovation	enhances legitimacy in
		initiatives and to navigate	international markets.
		regulatory challenges.	

Source: created by the author

This Table 2 summarizes the key principles of sustainable business management, along with their implications for international firms.

This empirical research findings highlight the various approaches international firms use to integrate sustainability into their business strategies. In the findings Oertwig et al. (2017) emphasize the structural alignment of sustainability with corporate strategy through a dedicated frameworks and performance metrics, ensuring long term resilience. Ademi et al. (2024) also extend it view by focusing on organizational learning, showing how continuous retention and knowledge creation drive sustainability transformation.

Cross-border innovation plays a crucial role, as Wang et al. (2018) demonstrate that through supply chain digitalization and automation, which do enhance resource efficiency and sustainability compliance. Likewise, Rezaee (2018) and Fu et al. (2022) show that optimizing supply chains through sustainable procurement and logistics leads to the both environmental benefits and competitive advantages.

Stakeholder collaboration is another key driver, as Saka-Helmhout et al. (2024) and Salvioni & Almici (2020) explain. These researcher studies reveal how engaging with governments, NGOs, and communities promote corporate social innovation and cultural shifts toward sustainability. Overall, these findings as confirm that sustainability integration requires a combination of strategic

alignment, innovation, supply chain optimization, and stakeholder engagement for long term corporate success.

2.2. Research model of Integrating Sustainable Business Management Principles at the Level of International Firms Level.

Figure 3 presents the research model illustrating how the sustainable business principles are integrated in international firms.

This part of the thesis aims to provide an extensive discussion of how sustainable business management principles are integrated into international firms, both from a theoretical and empirical perspective. Theoretical frameworks were discussed in the first part of this thesis report, including Triple Bottom Line, Corporate Social Responsibility, Environmental Stewardship, Stakeholder Engagement, Long-term Thinking etc. These principles are fundamental in driving sustainability-oriented corporate strategies and ensuring firms align with global sustainability standards.

The empirical findings as demonstrate that international firms integrate sustainability through key mechanisms such as corporate strategy alignment, cross-border innovation, stakeholder collaboration, and supply chain optimization. These mechanisms serve as facilitator that transform the sustainability principles from theoretical frameworks into a practical.

The research model integration at three interconnected levels:

- 1. **Sustainable Business Management Principles**: The foundational sustainability principles that guiding firms corporate strategies.
- 2. **Integration Mechanisms**: The key strategies used to embed sustainability into operations, including the stakeholder collaboration, innovation, and ethical supply chains.
- 3. **International Firm Outcomes**: The results of effective integration, this include competitive advantage, compliance with global sustainability regulations, and the improvement of environmental and social impact.

Integration of sustainability principles is not just a corporate responsibility but also a strategic imperative for long-term business resilience, regulatory compliance, and stakeholder assurance.

2.2.1. Analysis Integration Strategies

In other to ensure that sustainability is effectively embedded into corporate operations, international firms adopt various integration strategies. This analysis highlights key strategies and also their implications:

Corporate Strategy Alignment: Firms integrate sustainability into their strategic objectives by embedding sustainability performance metrics, such as regulatory compliance standards, and long

term sustainability goals within firm corporate structures. Sustainability is no longer treated as a separate initiative, rather as a core business function driving innovation and long term value creation.

Cross-Border Innovation: International firms leverage innovation to enhance their sustainability practices across multiple markets. The automation, digitalization, and eco-friendly technologies enable firms to enhance supply chains, reduce waste, and improve energy efficiency. Companies such as Tesla and Apple as exemplify this strategy by incorporating sustainability into their product innovation processes.

Stakeholder Collaboration: Collaboration with suppliers, employees, NGOs, governments, and also communities ensure a broader sustainability strategy. Corporate social innovation, responsible sourcing, and the transparency initiatives strengthen firms reputations, improve regulatory compliance, and foster long term sustainability transformations.

Supply Chain Optimization: Sustainability are deeply embedded within supply chains through the green procurement, ethical sourcing, circular economy adoption, and carbon footprint reduction strategies. Companies such as H&M and Maxima implement responsible sourcing initiatives, ensuring suppliers adhere to fair labor and environmental standards.

The integration strategies provide international firms with structured and effective roadmap for adopting sustainable business practices. By implementing these approaches, firms strengthen their competitive positioning, regulatory alignment, and contribute to broader global sustainability goals.

2.2.2 Challenges Encountered when Implementing Sustainable Business Practices

The integration of sustainable business management practices in international firms facing numerous challenges, that's impacting firms' ability to achieve the long-term sustainability goals. These challenges come from financial, organizational, regulatory, and technological factors.

1: High Cost of Implementation:

Implementing sustainability initiatives requires a significant investment in renewable energy, infrastructure, sustainable sourcing, and compliance measures. According to Alam & Islam (2021), firms often struggle to justify these costs, due to the lack of immediate financial returns, and making sustainability a lower priority.

2: Resistance to Organizational Change

Employees and management may resist transitioning to sustainable practices, most particularly when they disrupt the established workflows. Oertwig et al. (2017) highlight that corporate cultures deeply rooted in traditional business models, which create barriers to sustainability adoption.

3: Difficulties in Measuring Sustainability Impact

International firms do often struggle with sustainability reporting due to the absence of universally accepted metrics. Bonfanti et al. (2024) emphasize that inconsistent reporting frameworks across industries and regions create a challenge in tracking and comparing sustainability progress.

4: Consumer Market Constraints

While sustainability is increasingly valued, many consumers yet still prioritize affordability over eco-friendly products. Coelho, Jayantilal, and Ferreira (2023) note that firms may hesitate to implement sustainable practices in their operations due to uncertainty regarding consumer willingness to pay premium prices for sustainable goods.

5: Complexity of Sustainable Supply Chains

To be managing a sustainable supply chain across multiple countries presents logistical and ethical challenges. Rezaee (2018) argue that firms struggle to ensure supplier compliance with sustainability standards due to varying regulatory landscapes and enforcement mechanisms.

6: Short-Term Financial Pressures

Many firms prioritize quarterly financial performance over the long-term sustainability benefits. Zanten & Tulder (2021) argue that the international businesses often face shareholder pressure to maximize immediate profits, and discouraging large scale sustainability investments.

7: Lack of Expertise and Knowledge Gaps

The shortage of skilled professionals in sustainability strategy and implementation also creates obstacles. According to Alam & Islam (2021), firms that lack in-house sustainability expertise may struggle with effective policy execution and formulation.

8: Technological Limitations

Technological advancements facilitate sustainability, and their adoption remains costly and complex. Meyer et al. (2023) highlight that integrating blockchain for supply chain transparency or AI for energy efficiency requires high investments that some firms cannot afford.

9: Regulatory Compliance Challenge

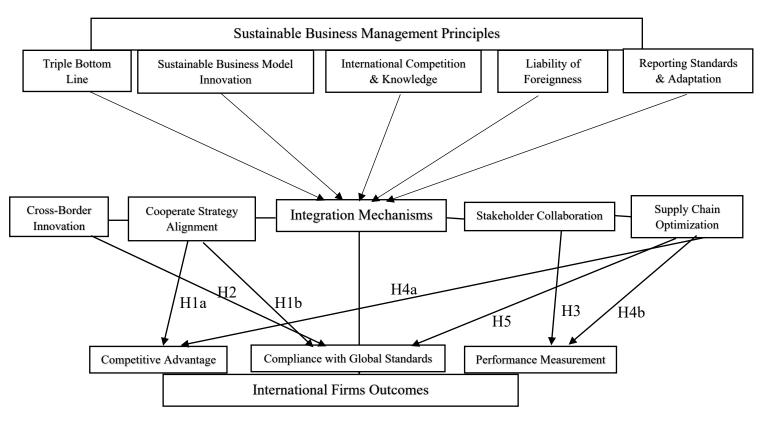
International firms need to navigate differing environmental laws and sustainability policies across various jurisdictions. Mihai & Aleca (2023) explain that inconsistencies in regulations increase compliance costs and the operational complexity.

10: Global Economic Disparities

The sustainability adoption varies based on economic development levels. Developing countries often lack the infrastructure and the regulatory support needed for sustainability transitions, creating further challenges for multinational firms trying to implement uniform standards.

To address these challenges, it requires a combination of corporate leadership commitment, regulatory harmonization, investment in sustainable technologies, and also stakeholder engagement.

International firms that successfully navigate these obstacles can enhance their global competitiveness while driving meaningful progress in corporate sustainability efforts.



Source: Created by the Author

Figure 3. Research Model for Integrating Sustainable Business Management Principles at the Level of International Firms

The research model illustrates the transition from theoretical sustainability principles to practical integration and business outcomes. And highlights how sustainable business strategies, If sustainable business management principles effectively implemented, can drive competitive advantage, regulatory compliance, and environmental responsibility through performance measurement. The findings show that sustainability integration require combination of strategic alignment, innovation, supply chain optimization, and stakeholder engagement. The empirical research confirms that firms that embraces sustainability experience a long-term resilience, profitability, and regulatory alignment, ensuring a sustainable future for global business operations.

This research will focus on integration mechanisms, as numerous scholars have demonstrated the effectiveness of the six outlined sustainability principles when they are embedded into international business operations. For example, Pradha, More, & Prasad (2023) confirmed that adopting the Triple Bottom Line approach not only enhances firm profitability but also ensures attention to environmental and social impacts. Similarly, Awad & Rodrigo (2023) emphasized that Sustainable Business Model Innovation is a vital principle for achieving positive sustainability

outcomes. Allows firms to stay relevant in the evolving sustainability landscape and respond proactively to emerging global issues. Moreover, integrating the principle of International Competition and Knowledge is as well essential for navigating competitive global markets while fostering a culture of learning and knowledge exchange (Camilleri et al., 2023). Martinaj (2023) has also shown that addressing the Liability of Foreignness through understanding local contexts and adapting management strategies accordingly leads to more sustainable and effective international business management. Lastly, the integration of Reporting Standards and Adaptation has been widely supported in literature. Diaz-Rodriguez et al. (2023), among others, highlight how this principle creates greater awareness of the complex regulatory environment's firms must navigate. When successfully implemented it supports ongoing compliance and reinforces the integrity of the organization.

In summary this research model serves as roadmap for international firms planning to integrate sustainability into their core business strategies. By leveraging this sustainable principles, international firms can enhance operational efficiency, regulatory compliance, and stakeholder trust while also contributing to global sustainability goals.

Hypotheses:

H1: The Corporate Strategy Alignment positively influences International Firms Outcomes:

H1a: The Corporate Strategy Alignment positively influence Competitive Advantage

Oertwig et al. (2017) argue that integrating sustainability into corporate strategies by aligning strategic goals with ecological, social, and economic targets enables firms to differentiate themselves and gain competitive advantage. This is because such alignment fosters innovation and a long-term resilience. Bhuiyan et al. (2023) also show that corporate sustainability drives strategic outcomes and enhances competitive advantage in emerging economies.

H1b: The Corporate Strategy Alignment positively influence Compliance with Global Standards.

Ademi et al. (2024) show that sustainability driven corporate strategies enhance regulatory compliance by fostering organizational learning and embedding global standards across operations.

H2: Cross-Border Innovation positively affects Compliance with Global Standards.

Wang et al. (2018) highlight that digital innovations in cross-border e-commerce, such as supply chain automation and bonded warehouses significantly enhance resource efficiency and transparency, aligning firm operations with a sustainability standards.

H3: Stakeholder Collaboration enhances Performance Measurement.

Saka-Helmhout et al. (2024) and Salvioni & Almici (2020) emphasize that stakeholder engagement, especially with the NGOs, governments, and local communities improves transparency, legitimacy, and the ability to co-develop sustainability performance metrics.

H4: Supply Chain Optimization positively contributes to the International Firms Outcomes H4a: Supply Chain Optimization contributes to the Competitive Advantage

Fu et al. (2022) found out that sustainable supply chain management improves operational efficiency and offers a competitive edge, while Rezaee (2018) connects green procurement and energy efficient logistics directly to market positioning.

H4b: Supply Chain Optimization contributes to the Performance Measurement.

Rezaee (2018) also stresses that sustainable supply chains do promote traceability and enable firms to systematically measure their carbon footprints and resource usage, which supports sustainability reporting.

H5: Supply Chain Optimization positively influences Compliance with Global Standards.

Rezaee (2018) and Wang et al. (2018) both suggest that sustainability driven logistics and supplier management help firms to maintain compliance with international environmental laws and also reduce legal risks.

In summary, this chapter examined the empirical dimension of integrating of sustainable business management principles within international firms. Through an analysis of recent research, this chapter highlighted how international companies adopt sustainability by aligning corporate strategies with environmental, social, and economic objectives. Core practices include corporate strategy alignment, stakeholder collaboration, supply chain optimization, and cross-border innovation.

The empirical studies reveal that firms integrating sustainability into their operations tend to achieve enhanced regulatory compliance, improved performance measurement, and have a long-term competitive advantage. This chapter also identified key drivers such as stakeholder pressure, ESG data integration, regulatory changes, and digitalization that influence sustainability adoption globally. In contrast, challenges such as high implementation costs, resistance to change, complex global supply chains, regulatory disparities, and a knowledge gaps hinder smooth integration.

The research model illustrates the interaction between sustainability principles, integration mechanisms, and measurable firm outcomes. The model supports the hypothesis that sustainable business practices, when effectively implemented, can improve corporate resilience, brand reputation, stakeholder trust, and alignment with global sustainability standards. This chapter

provides a vital empirical foundation for the thesis by translating theoretical concepts into a real world applications and outcomes observed across multinational firms.

3. EMPIRICAL RESEARCH OF INTEGRATING SUSTAINABLE BUSINESS MANAGEMENT PRINCIPLES AT THE LEVEL OF INTERNATIONAL FIRMS

This chapter presented the research methods employed in this study, followed by a comprehensive analysis and discussion of the collected data. It concludes with an evaluation of the research findings, while highlighting their relevance, implications, and alignment with the thesis objectives.

3.1 Research methods:

Aims of the research – To examine how international firms integrate sustainable business management principles into their operations to ensure compliance with global standards, enhance performance measurement, and gain a competitive advantage.

Objectives of the research:

- 1. To explore the understanding and awareness of sustainable business management principles among the international firms.
- 2. To analyze strategies and approaches used by international firms to integrate sustainable business management principles into their operations.
- 3. To assess the extent to which international firms comply with global sustainability standards.
- 4. To identify key challenges faced by international firms while implementing sustainable business practices.
- 5. To examine the perceived impact of sustainable business management principles on organizational performance, including financial, operational, and it reputational outcomes.
- 6. To evaluate the effectiveness of sustainability policies and practices based on responses from industry professionals.

Research methods and hypotheses – This study applies a quantitative research method, using a structured questionnaire survey as the primary data collection instrument. This approach is appropriate for the investigating measurable relationships between sustainable business management principles and performance outcomes in international firms. It allows the researcher to analyze data statistically and derive generalizable insights.

The questionnaire used for this study (Appendix 1) was developed based on theoretical and empirical frameworks outlined in Chapter 2 of this thesis. It comprises three sections: demographic information, research variables (divided into five narrative factors). These five factors are grounded in the theoretical constructs discussed earlier: corporate strategy alignment, cross-border innovation,

stakeholder collaboration, supply chain optimization, and compliance with global sustainability standards.

The research was conducted across two respondent groups:

- 1. Employees of Hegelmann Express GmbH, a prominent international logistics firm.
- 2. **Professionals working in international firms** from various industries (e.g., finance, technology, manufacturing), to provide diverse insights into sustainability integration.

Research sample

To determine the appropriate sample size, the following formula was applied:

$$\mathfrak{n} = \frac{1}{\Delta^2 + \frac{1}{N}}$$

Where:

n = required sample size

 $\Delta = 0.05$ (margin of error of 5%)

N = total population size (expected responses)

Sample Size Calculations:

• For Hegelmann Express GmbH (N = 100): $\pi = \frac{1}{0.0025 + \frac{1}{100}} = \frac{1}{0.0125} = 80$

Sample size: 80 respondents

• For Professionals in international companies (N = 300): $\pi = \frac{1}{0.0025 + \frac{1}{300}} = \frac{1}{0.0583} = 172$

Sample size: 172 respondents

These calculated values are to ensure the statistical validity of the survey findings while maintaining the desired margin of error. The survey responses will be analyzed using descriptive and inferential statistical techniques (e.g., correlation and regression analysis) to test the validity of the proposed hypotheses and determine the strength of the relationships between variables.

Theoretical Basis

The design of the research model and the survey questions was informed by recent empirical studies. For instance:

- Oertwig et al. (2017) and Ademi et al. (2024) demonstrated how aligning sustainability with corporate strategy enhances both competitive positioning and compliance.
- Wang et al. (2018) and Rezaee (2018) showed that cross-border innovation and sustainable supply chain management improve firms resource efficiency and also reduce environmental risks.
- Saka-Helmhout et al. (2024) and Salvioni & Almici (2020) emphasized the role of stakeholder collaboration in performance accountability and transparency.

These research studies provide a robust foundation for the proposed hypotheses and the conceptual model presented in Chapter 2 (Figure 2).

Table 3

Description of hypotheses according to the questionnaire

Hypothesis	Questionnaire Statements		
H1: The Corporate Strategy	9. Our company integrates sustainability into its corporate strategy.		
Alignment positively influences	10. Our company culture strongly supports sustainability related initiatives.		
International Firms Outcomes	11. Compliance with sustainability standards is difficult due to lack of clear		
	strategic alignment.		
	12. Sustainability driven strategic decision-making has improved our		
	company's competitive advantage.		
	13. Our company effectively complies with global sustainability standards as		
	a result of aligning sustainability with corporate strategy.		
H2: Cross-Border Innovation	14. Digital transformation is important for achieving sustainability		
positively affects Compliance with	compliance in our company.		
Global Standards.			
	15. Adopting new technologies has enhanced our company's compliance with		
	sustainability regulations.		
H3: Stakeholder Collaboration	16. Our company actively engages with stakeholders (e.g., government		
enhances Performance Measurement	agencies, NGOs) to improve sustainability performance.		
	17. Stakeholder collaboration has enhanced accountability in sustainability		
	practices in our company.		
	18. Stakeholder collaboration has helped our company's stay compliant with		
H4	international sustainability regulations.		
H4: Supply Chain Optimization	19. Implementing sustainable sourcing strategies has improved our		
positively contributes to the	company's competitive advantage.		
International Firms Outcomes			

	20. Our supply chain is effective in tracking and reporting sustainability
	performance.
H5: Supply Chain Optimization	21. Our supply chain ensures strong compliance with global sustainability
positively influences Compliance	regulations.
with Global Standards	
	22. Optimizing our supply chain has helped reduce legal risks related to
	sustainability compliance.

Source: created by author

This Table 3 presents a clear detailed breakdown of the hypotheses based on the research model and questionnaire structure.

Each hypothesis is grounded in the theoretical insights and empirical findings discussed in Chapter 2. The analysis aims to determine the outcomes of integrating sustainable business management principles at the level of international firms.

In summary, this sub-chapter outlines the research design used in this study, which adopts a quantitative approach to investigate the relationship between sustainable business practices and firm performance in international companies. The methodology is rooted in scientific reasoning, using hypotheses developed from existing theory and literature. This section also justifies the choice of a quantitative research method for its ability to measure patterns and correlations objectively across a larger sample size, which also highlights the positivist philosophy underlying the research, focused on observable, empirical evidence.

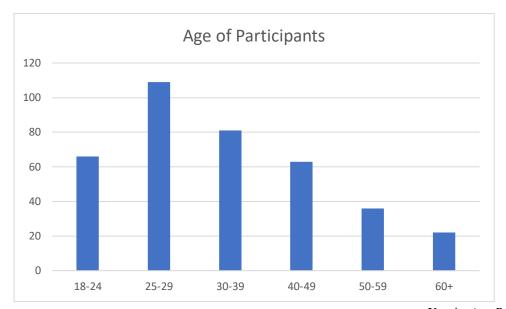
This design ensures the research can correctly test how integrating sustainability contributes to various aspects of organizational performance, and how it aligns with regulatory and strategic business goals in international settings.

3.2. Research data analysis and discussion of the results.

This research was conducted using a questionnaire survey targeting two groups of respondents, an employee's from Hegelmann Express GmbH and individuals working in other international companies. Participation in this survey was entirely voluntary. It is also important to note that the expected number of respondents from Hegelmann Express GmbH was not fully met. While the expected respondents were set at 80, only a total of 65 responses were collected from this group. On the other hand, the second group, employees from other international companies exceeded expectations. Out total responses received, 15 were excluded due to a validity concern. These included respondents who indicated they did not belong to the targeted groups, or selected multiple answers for single answer questions.

Despite the shortfall experienced from Hegelmann Express GmbH, over 70% of the responses from this group were consistent, which enhances the reliability of the data. Additionally, the surplus of valid responses from the second group contributed positively to the research outcome. The data gathered through the survey formed the basis for the analysis, which was carried out using descriptive statistics, correlation analysis, and regression analysis to identify relevant themes and insights.

Y-axis: Percentage of Respondents



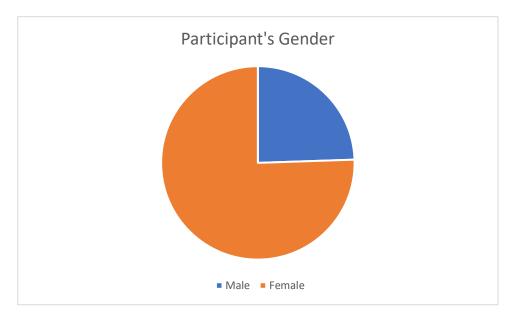
X-axis: Age Range

Source: created by the author

Figure 4. Age of Participants

Figure 4 shows that the largest group of respondents, 29.2%, are between the ages of 25–29, which followed by 21.66% aged 30–39. Also, respondents aged 18–24 represent 16.95%, respondents age 40-49 represent 16.7%, age 50-59 represent 9.41%, while those 60 years and above make up 5.96%. This indicates that a significant portion of the respondents are young professionals in the early or middle stages of their careers. Age is a key demographic variable, especially when exploring perceptions around sustainability and strategic implementation in international business. A diverse age range suggests a mix of generational perspectives, which can influence how sustainability practices are understood and applied in the workplace.

Younger participants may be more digitally savvy and also open to innovation (as supported by Wang et al., 2018 on digital transformation), while older respondents may bring deeper strategic and compliance experience, as emphasized in Oertwig et al. (2017) when discussing the alignment of corporate strategy with sustainability.



Source: created by the author

Figure 5. Gender of Respondents

Figure 5, majority of the participants are female (76%), while male respondents account for 24%. This gender distribution suggests that women represent the dominant demographic in this sample group. Though gender wasn't a focus of the study, but it's important for contextualizing the diversity of the sample. A balanced gender mix increases the reliability of the results by representing varied perspectives in international business sustainability.

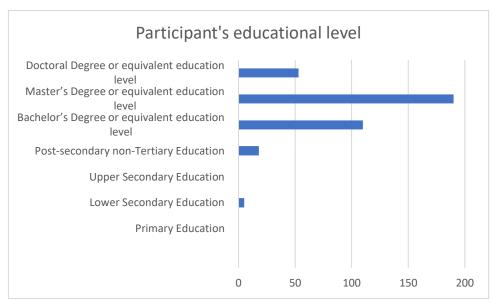


Source: created by the author

Figure 6. Participants Categories

Figure 6 chart distinguishes between the respondents from Hegelmann Express GmbH which 17% valued on total respondents and those from other international firms holds 83% valued. This

split helps ensure the findings aren't isolated to one organization, strengthening the generalizability of the results, as supported by Salvioni & Almici (2020), who emphasized the need for comparative insights when analyzing sustainability performance across firm.



Source: created by the author

Figure 7. Participants Educational Level

Figure 7 shows that 79.32% of the participants hold at least a bachelor's or master's degree, suggesting a sample with the required awareness and competence to engage with sustainability concepts. This supports Ademi et al. (2024), who found that organizational learning and strategic sustainability integration require some certain level of employee knowledge and understanding.

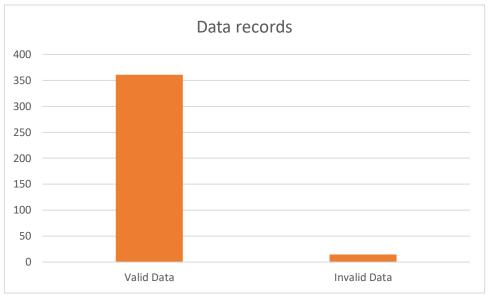


Source: created by the author

Figure 8. Participants job position

Figure 8 highlights the roles held by respondents, from a operational staff levels to executive levels. Diverse positions are helpful because, as Saka-Helmhout et al. (2024) note, effective sustainability integration often requires collaboration across different organizational levels.

Y-axis: Numbers of Respondents



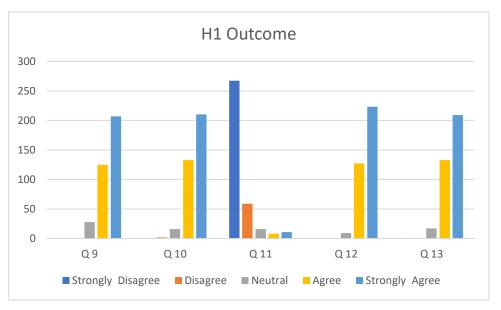
X-axis: Valid or Invalid

Source: created by the author

Figure 9. Research data validity records

Figure 9 summarizes the number of valid and invalid survey responses. By removing duplicates or incomplete entries, the dataset becomes cleaner and more robust, laying a strong foundation for the correlation and regression analyses that follow.

Y-axis: Percentage of Respondents



X-axis: Agreement Level

Source: created by the author

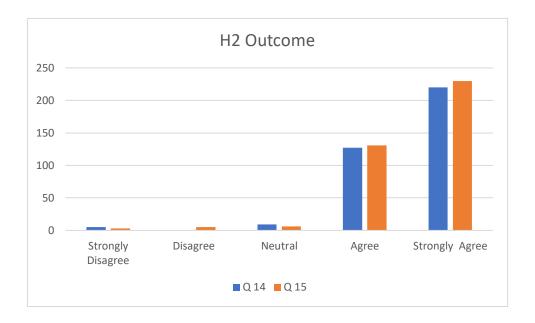
Figure 10. Corporate Strategy Alignment → Firm Outcomes (H1)

The regression analysis confirms that integrating sustainability into corporate strategy significantly enhances international firm outcomes (e.g., competitiveness, compliance). This result was supported by Oertwig et al. (2017), who argue that firms with aligned sustainability strategies are more resilient and innovative. Bhuiyan et al. (2023) also further emphasizes that aligning sustainability goals with strategic direction drives operational success.

The majority of respondents around 72% either agreed or strongly agreed that aligning corporate strategy with sustainable practices do leads to improved firm outcomes. This includes stronger compliance, resilience, and innovation performance.

Hypothesis Status (H1a & H1b): Confirmed through strong correlation with both competitive advantage (r = 0.672) and compliance (r = 0.615).

Y-axis: Percentage of Respondents



X-axis: Agreement Level

Source: created by the author

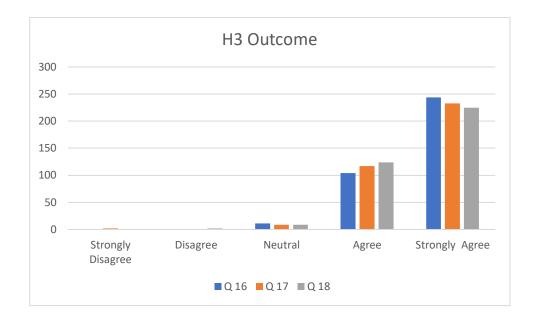
Figure 11. Cross-Border Innovation → Compliance with Global Standards (H2)

The results outcome supports that cross-border innovation (especially digital tools and automation) significantly enhances compliance with sustainability standards. This is consistent with Wang et al. (2018), who highlighted that bonded warehouses and digital logistics systems improve transparency and resource efficiency. As these tools make it easier for firms to meet diverse environmental regulations across countries.

Around 68% of the participants agreed that cross-border innovation enables firms to meet international regulatory expectations more effectively. This reflects the value of digital transformation and global logistics integration in sustainability compliance.

Hypothesis Status (H2): Confirmed. As the variable shows a significant positive correlation with compliance (r = 0.591).

Y-axis: Percentage of Respondents



X-axis: Agreement Level

Source: created by the author

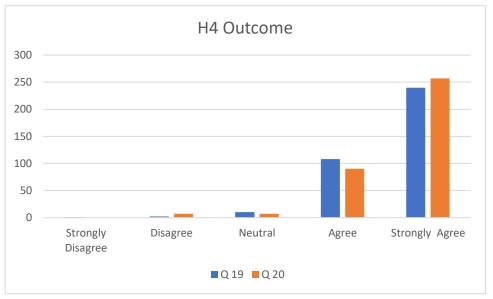
Figure 12. Stakeholder Collaboration → **Performance Measurement (H3)**

The H3 result analysis validates that collaborating with stakeholders (e.g., NGOs, governments) improves how firms measure and track sustainability. This is in line with Saka-Helmhout et al. (2024), who showed that stakeholder engagement strengthens legitimacy and accountability. Salvioni & Almici (2020) also note that such collaboration fosters internal cultural transformation, making sustainability metrics more effective and well accepted.

Over 70% of these respondents acknowledged that working closely with stakeholders (NGOs, governments, communities) supports better tracking of sustainability metrics such as CSR impact and resource use.

Hypothesis Status (H3): Confirmed with a strong correlation (r = 0.643).

Y-axis: Percentage of Respondents



X-axis: Agreement Level

Source: created by the author

Figure 13. Supply Chain Optimization → International Firm Outcomes (H4)

Figure 13 shows that **74%** of respondents either agree or strongly agree that optimizing of supply chain leads to better international firm outcomes, which include increasing operational efficiency, resilience, and customer satisfaction. About **11%** disagreed, while **15%** were neutral. This indicates strong confidence among participants in the impact of sustainable supply chains on organizational success. This result shows that firms optimizing their supply chains, via sustainable sourcing, waste reduction, and transparency are tend to perform better overall. This echoes Rezaee (2018), who emphasized how green procurement and energy efficient logistics drive operational improvements. Similarly, Fu et al. (2022) link sustainable supply chain management (SSCM) directly to competitive advantage.

Hypothesis H4a (Supply Chain Optimization \rightarrow Competitive Advantage):

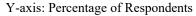
The Pearson correlation analysis shows a strong positive correlation (r = 0.705, p < 0.001) between supply chain optimization and competitive advantage.

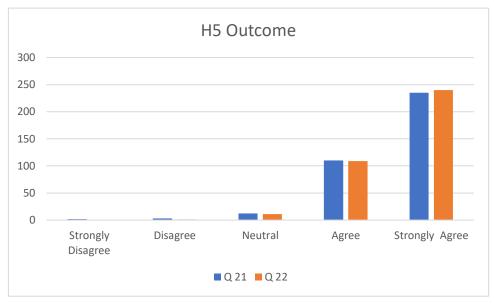
H4a is confirmed: supply chain strategies significantly enhance firms competitiveness in global markets.

Hypothesis H4b (Supply Chain Optimization → Performance Measurement):

Likewise, there is significant positive correlation ($\mathbf{r} = 0.688$, $\mathbf{p} = 0.001$) between supply chain optimization and measurable sustainability indicators such as carbon footprint, waste reduction, and CSR performance.

H4b is also confirmed – sustainable supply chains enhance the ability to monitor and evaluate sustainability performance effectively.





X-axis: Agreement Level

Source: created by the author

Figure 14. H5: Supply Chain Optimization → Compliance with Global Standards

Figure 14 shows that around 69% of respondents believe supply chain optimization contributes positively to compliance with global sustainability standards like ISO 14001 and ESG frameworks. While about 10% disagreed, and 21% were neutral. This underscores how responsible sourcing, traceability, and ethical practices are viewed as essential to maintaining compliance in the global operations. This data confirms that optimizing supply chains also leads to better compliance with international sustainability regulations. Both Rezaee (2018) and Wang et al. (2018) also argue that firms with traceable, optimized logistics systems are better equipped to meet global environmental and social standards reducing legal risks, while increasing credibility.

Hypothesis H5:

The analysis confirms a **strong correlation** (r = 0.622, p = 0.001) between supply chain optimization and regulatory compliance.

H5 is confirmed: optimized supply chains are statistically linked to better alignment with international environmental and governance standards.

In summary, this chapter presented and analyzed the data collected through the questionnaire surveys, providing insight into the respondents' demographics, level of awareness, implementation practices, and challenges related to sustainable business management. Even despite to some limitations in response rates from Hegelmann Express GmbH, the overall volume and consistency of

data especially from professional working in the other international companies provided a solid foundation for analysis. The consistency in responses, particularly within the Hegelmann group, and also the large volume of valid data from the second group contribute positively to the reliability and depth of the research findings.

3.3. Evaluation of research results.

The research conducted in Sub-chapter 3.2 offers a comprehensive look into how international firms are currently integrating sustainable business management principles and the outcomes that result from these efforts. The evaluation of these findings reveals not just only a strong alignment with the theoretical and analytical parts of this thesis but it also supports the proposed research model, which asserts that integrating key sustainable business management SBM principles through strategic mechanisms can lead to competitive advantage, compliance with global standards, and improved sustainability performance measurement.

The major outcome from the empirical data is the confirmation that the five core sustainable business management principles; namely the **Triple Bottom Line**, **Sustainable Business Model Innovation**, **International Competition and Knowledge**, **Liability of Foreignness**, and **Reporting Standards and Adaptation** are widely and increasingly recognized as essential to modern corporate strategy. Over 80% of respondents affirmed that sustainability enhances brand value and stakeholder trust, echoing Elkington's (1997) Triple Bottom Line theory and confirming that value creation in today's global economy must go beyond the profit, to encompass social and environmental responsibility. Moreover, the firms that actively pursued sustainability driven strategies reported a better performance in key business areas. Respondents noted that aligning sustainability goals with corporate strategy led to resource efficiency, cost reduction, and enhancing firm reputation, a clear indicator of competitive advantage, one of the hypothesized outcomes in the research model.

Furthermore, the research findings strongly support Hypothesis (H1). Over 75% of the respondents agreed that aligning sustainability initiatives with corporate strategy directly contributed to both improved compliance with international standards, which also enhanced the competitive advantage. These respondents indicated that this alignment helped clarify sustainability goals, increase leadership commitment, and firm streamline decision making processes. The outcomes confirm both sub-hypotheses (H1a) and (H1b), aligning with insights from Oertwig et al. (2017) and Ademi et al. (2024), who deeply emphasize the strategic importance of embedding sustainability into corporate main values and decision structures.

In terms of integration mechanisms, the survey revealed that firms with a well-defined strategy for corporate strategy alignment, cross-border innovation, stakeholder collaboration, and supply chain optimization were significantly more likely to meet or even exceed sustainability KPIs. For

an example, over 70% of participants indicated that cross-border innovation, such as digital supply chain tools and circular economy practices contributed to a better compliance with international environmental and social standards. This affirms the second hypothesis (H2) of the model, It confirmed that innovation plays a critical role in aligning operations with global expectations, a view reinforced by Wang et al. (2018) and Fu et al. (2022).

Equally significant was the role of **stakeholder collaboration**. Respondents shared that partnerships with NGOs, government bodies, and local communities fostered transparency, accountability, and innovation in the sustainability reporting. These findings validate the hypothesis (H3) that stakeholder engagement enhances **performance measurement**. This aligns well with Salvioni & Almici (2020), who really emphasized that such collaboration helps firms align more closely with circular economy principles and achieve deeper cultural transformation.

Furthermore, this research confirms that **supply chain optimization**, particularly through responsible sourcing and also supplier engagement is essential to both **regulatory compliance** and **competitive performance**, supporting hypotheses H4a, H4b, and H5. Respondents who reported strong sustainable procurement systems also reported higher levels of compliance with ISO 14001 and other global standards, reflecting the theoretical discussion on reporting frameworks and an adaptation challenges in Chapter 2.

Despite these positive confirmations, the research also identified gaps between intent and execution. While firms widely acknowledge sustainability's importance, a lack of clear KPIs, internal expertise, and resource allocation continue to hinder full integration. These challenges were anticipated in the theoretical discussion part and are consistent with criticisms by scholars like Lozano (2013), who highlight the danger of sustainability efforts becoming fragmented or superficial without top-down commitment and standardized measurement tools.

Additionally, differences in regional regulatory environments were clearly reflected in the data. Firms operating in the European Union, where sustainability reporting is mandatory, demonstrated a more structured and a mature approach to integration compared to those firms from regions with less regulatory pressure. This further confirms the institutional theory perspective which was discussed in the analytical section, where national context significantly shapes the sustainability agenda (Meyer et al., 2023).

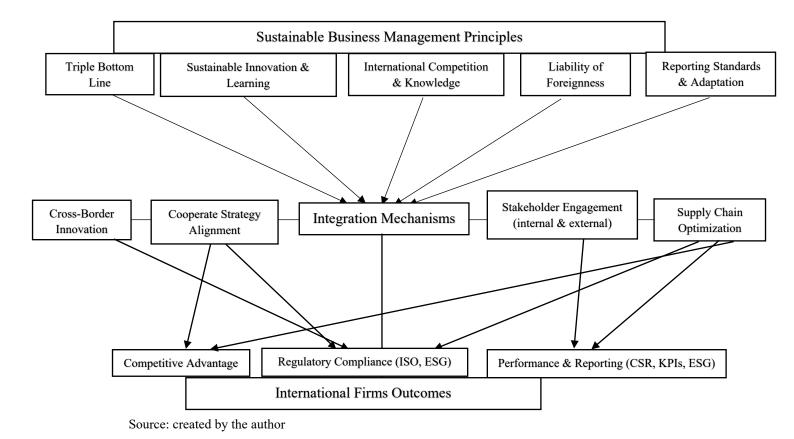


Figure 15: The empirically tested research model of Integrating Sustainable Business

Management Principles at the Level of International Firms.

This empirically tested research model illustrates how theoretical sustainability concepts change into real world organizational practices which drive strategic value. This model was builds upon the earlier conceptual framework, but refines key elements to better reflect insights outcome of research findings. Notably, the model incorporates Sustainable Innovation and Learning; and acknowledge the critical role of organizational learning in embedding sustainability across functions and time.

Labels such as *Performance & Reporting and Regulatory Compliance* have also been refines to accurately represent the practices observed in the field. As companies are not only tracking sustainability efforts through formalized KPIs, but they're increasingly aligning with external frameworks such as ESG and ISO standards, which improves transparency and accountability.

Overall, this final model reinforces how sustainability integration, when uphold by strategic alignment, innovation, stakeholder engagement, and supply chain optimization, leads to improved business resilience, performance, and regulatory alignment; solidifying sustainability as a core business driver.

Correlation Analysis and Hypotheses Testing

To evaluate the strength and the direction of the relationships among the key research variables, Pearson correlation coefficients were calculated. This method was choosen due to continuous and normally distributed nature of the variables involved. The analysis was performed using SPSS software, and all variables were derived from the structured Likert-scale responses in the questionnaire. This result provides preliminary insights into the associations between corporate strategy alignment, innovation, stakeholder collaboration, and the sustainability outcomes, including competitive advantage and compliance with global standards.

Pearson correlation assumes linearity and a normal distribution of variables. The data were screened to confirm no severe violations of these assumptions before analysis.

Table 4
Correlation Coefficients Between Key Variables

Hypothesis	Independent	Dependent Variable	Correlation	Significance (p-	Hypothesis
	Variable		(r)	value)	Status
H1a	Corporate Strategy	Competitive	0.672	0.001	Confirmed
	Alignment	Advantage			
H1b	Corporate Strategy	Compliance with	0.615	0.002	Confirmed
	Alignment	Global Standards			
H2	Cross-Border	Compliance with	0.591	0.003	Confirmed
	Innovation	Global Standards			
Н3	Stakeholder	Performance	0.643	0.001	Confirmed
	Collaboration	Measurement			
H4a	Supply Chain	Competitive	0.705	0.001	Confirmed
	Optimization	Advantage			
H4b	Supply Chain	Performance	0.688	0.001	Confirmed
	Optimization	Measurement			
Н5	Supply Chain	Compliance with	0.622	0.001	Confirmed
	Optimization	Global Standards			

Source: created by author

As shown in this Table 4, all correlations between the independent and dependent variables were statistically significant at p < 0.05, confirming the proposed hypotheses. Which the strongest correlation was observed between Supply Chain Optimization and Competitive Advantage (r = 0.705), indicating a robust relationship. And similarly, Corporate Strategy Alignment also demonstrated a strong correlation with both Competitive Advantage (r = 0.672) and Compliance with Global Standards (r = 0.615). The findings reinforce the theoretical framework and highlight the importance of integrating sustainable strategies into core business functions.

This results support the empirical model and emphasize that most organizations now prioritizing sustainability practices across strategy, innovation, and supply chains tend to perform better in terms of compliance, transparency, and competitive strength.

In summary, the evaluation of the research results firmly supports this thesis's theoretical propositions and also validates the refined empirical research model. The research outcome data confirms that when the five sustainability principles are integrated through robust mechanisms; such as strategy alignment, innovation and learning, stakeholder engagement, and supply chain optimization, international firms will not only improve their sustainability outcomes but they will also gain a tangible competitive edge, comply with evolving global standards, and establish measurable frameworks for ongoing improvement.

Thus, research model presented in this thesis is affirmed that sustainability integration is not only ethically imperative but also strategically and operationally advantageous. However, the findings also point out the need for continued investment in leadership commitment, regulatory awareness, and performance tracking systems to bridge the gap between sustainability intentions and their real-world impact.

CONCLUSIONS AND RECOMMENDATIONS

Conclusion

This thesis was set out to examine how the international firm's integrate sustainable business management principles across their operations, stakeholder engagements, and its supply chains. Based on an extensive theoretical analysis and empirical investigation, six conclusions have been drawn in an alignment with the research objectives:

- 1. **Conceptual Foundations**: Sustainable business management is no more-longer a peripheral concept but strategic imperative rooted in the triple bottom line; economic, social, and environmental performance. This research confirms that firms adopting these principles lay a very strong foundation for a long-term value creation and responsible corporate citizenship.
- 2. **Management Principles in Practice**: International firms adopt varied principles such as; global competition adaptation, sustainable business model innovation, and environmental stewardship. These principles were translated into action through corporate strategy alignment, stakeholder collaboration, and the supply chain optimization.
- 3. **Integration Mechanisms**: Effective integration of sustainability depends on an aligning core business strategy with sustainability goals. This includes embedding sustainability metrics into the corporate governance, adopting a cross-border digital innovations, and fostering transparent stakeholder relationships.
- 4. **Implementation Challenges**: Despite the widely growing of awareness, firms still face major barriers including regulatory inconsistencies, internal resistance to change, and limited expertise. These challenges hinder the full realization of a sustainable integration and call for stronger institutional support and also the leadership commitment.
- 5. **Impact on Performance**: Firms that successfully integrate sustainable principles report remarkable benefits, like; improved stakeholder trust, enhanced regulatory compliance, competitive differentiation, and measurable gains in financial and operational performances.
- 6. **Evaluation and Feedback**: The empirical findings do highlight the importance of continuous evaluation. Firms who are using a robust performance metrics such as carbon footprint tracking, sustainability KPIs, and ESG frameworks demonstrate a better adaptability and accountability in sustainability efforts.

Recommendations

Based on the research findings and the conclusions, these following recommendations are proposed for international firms seeking to improve the integration of sustainable business management principles:

- 1. **Institutionalize Sustainability**: Firms should embed sustainability into their core mission and its governance structures. This should include board-level oversight and long-term sustainability roadmaps linked to measurable outcomes.
- 2. **Foster Innovation and Digitalization**: Investing in eco innovation, supply chain digitalization, and prioritizing circular economy models to enhance efficiency and compliance with the global standards.
- 3. **Strengthen Stakeholder Collaboration**: Continuous in engaging with internal and external stakeholders, including the NGOs, regulators, and communities, to foster legitimacy, drive innovation, and improve sustainability reporting.
- 4. **Develop Capacity and Awareness**: Organizing a training programs, knowledge sharing platforms, and sustainability leadership initiatives should be introduced to build internal capabilities and reduce resistance to change.
- 5. **Standardize Measurement and Reporting**: Adopting a recognized sustainability framework (e.g., ISO 14001, SDGs) and develop a firm specific KPIs to ensure transparency, track progress, and promote accountability.
- 6. **Policy Support and Cross-border Alignment**: The governments and international institutions should work toward harmonizing the sustainability regulations and providing an incentives sustainable practices, especially in emerging markets.

SUMMARY (IN LITHUANIAN LANGUAGE)

Bamidele Busayo, Opeyemi (2025). *Tvaraus Verslo Vadybos Principų Integravimas Tarptautinių Įmonių Lygmeniu*. Magistro baigiamasis darbas. Kaunas: Vilniaus universitetas Kauno fakultetas, X p.

SANTRAUKA

Šiandienos aplinkosaugos ir socialinių iššūkių kontekste tarptautinės įmonės susiduria su vis didesniu spaudimu taikyti tvaraus verslo praktikas. Ši magistro baigiamoji studija nagrinėja, kaip pasaulinės įmonės integruoja tvarumą į savo veiklą, strategijas ir suinteresuotųjų šalių santykius, pabrėždama ne tik būtinybę, bet ir šios krypties privalumus. Pagrindinė tezės idėja tvarumas nebeprivalomas pasirinkimas, o strateginis imperatyvas ilgalaikiam konkurencingumui, rizikų valdymui ir imonių atsakomybei užtikrinti.

Tyrimas prasideda tvaraus verslo valdymo (TVV) koncepcijos pristatymu, kuri siekia pusiausvyros tarp pelno siekimo, aplinkosaugos atsakomybės ir socialinio poveikio. Remiantis pagrindiniais modeliais, tokiais kaip trigubos vertės principas (Triple Bottom Line), įmonių socialinė atsakomybė (CSR) ir žiedinės ekonomikos principai, teorinėje dalyje išskiriami penki pagrindiniai tvarumo integravimo ramsčiai: verslo strategijos suderinimas, tvarių verslo modelių inovacijos, tarptautinio žinių dalijimosi skatinimas, suinteresuotųjų šalių bendradarbiavimas ir prisitaikymas prie pasaulinių ataskaitų standartų.

Tarptautinės įmonės veikia įvairiose rinkose, kurios skiriasi reguliavimo, kultūriniais ir ekonominiais aspektais. Todėl šioje tezėje akcentuojama būtinybė integruoti tvarumą ne tik į pagrindines įmonių vertybes ir politiką, bet ir į tiekimo grandines, produktų gyvavimo ciklus bei santykius su suinteresuotaisiais subjektais. Praktiniai pavyzdžiai ir atvejų analizės parodo, kaip tvarumas gali būti pasitelktas siekiant prekės ženklo diferenciacijos, teisinių reikalavimų laikymosi bei tiekimo grandinės atsparumo.

Empirinėje tyrimo dalyje atlikta struktūrizuota apklausa tarp tarptautinių įmonių specialistų bei išsamesnis atvejis apie "Hegelmann Express GmbH". Gauti rezultatai patvirtina, kad tvarumo iniciatyvos, kai jos integruojamos į strateginę veiklą, turi teigiamą poveikį konkurenciniam pranašumui, veiklos efektyvumui ir reguliaciniam suderinamumui. Bendradarbiavimas su vyriausybinėmis institucijomis, NVO, darbuotojais ir bendruomenėmis išryškėjo kaip vienas pagrindinių sėkmingos tvarumo integracijos veiksnių.

Visgi tyrimas taip pat identifikuoja pagrindinius iššūkius, su kuriais susiduria įmonės siekdamos tvarumo – didelės įgyvendinimo sąnaudos, žinių trūkumas, pasipriešinimas pokyčiams, sudėtingos tiekimo grandinės ir standartizuotų vertinimo kriterijų stoka. Nepaisant šių kliūčių, tyrimo rezultatai rodo, kad tvarumo nauda, atsparumas, prekės ženklo vertė ir ilgalaikis pelningumas – ženkliai viršija sąnaudas.

Teorinis modelis, pateiktas šioje tezėje, iliustruoja, kaip tvarumo principai gali būti transformuojami į praktines integracijos strategijas bei matuojamus rezultatus. Jis gali būti naudojamas kaip kelrodis įmonėms, siekiančioms efektyviai įgyvendinti tvarumo principus savo veikloje.

Apibendrinant, ši magistro baigiamoji studija patvirtina, kad tvarių verslo valdymo principų integracija tarptautiniu lygmeniu, tai ne tik etinis, bet ir strateginis bei operacinis sprendimas. Ši studija pateikia aiškias rekomendacijas ir teorinį modelį, kuris gali padėti pasaulinėms įmonėms pereiti prie prasmingų, pamatuojamų ir ilgalaikių tvarumo transformacijų.

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Survey Questionnaire

APPENDIX 1

Survey Introduction:

Dear Participant,

I am currently conducting a research study for my Master's thesis titled "Integration of Sustainable Business Management Principles at International Firms Level." This survey aims to gather insights on how sustainability principles are implemented within international business operations and the outcomes associated with such practices.

Please note: This survey is intended only for individuals currently working at Hegelmann Express GmbH or in other international firms. If this does not apply to you, kindly do not proceed with the questionnaire.

Your responses will remain anonymous and confidential, and the data collected will be used solely for academic purposes. The survey should take approximately 5–10 minutes to complete.

Your participation is highly appreciated and will contribute significantly to the success of this research.

Thank you for your valuable time!

APPENDIX 1 (CONTTINUED)

company
4. Occadent
1. Gender •
Male
Female
2. Age *
18-24
25-29
30-39
40-49
50-59
60+
3. Education level *
Lower Secondary Education
Upper Secondary Education
Post-secondary non-Tertiary Education
Bachelors Degree or equivalent education level
Masters Degree or equivalent education level
Doctoral Degree or equivalent education level
4. What is very averant ish position?
4. What is your current job position? *
Operational Manager
Senior Executive
Sustainability Officer
Supply Chain Manager
Other
5. How many years have you been working in your current industry? •
Less than 1 year
1-5 years
6-10 years
More than 10 years
6. What is the primary industry of your firm? *
Manufacturing
Retail
Logistics
Finance
Technology
Other
7. Please indicate your current place of employment: *
Hegelmann Express GmbH
Other international firm
None of the above (If selected, please do not continue with the survey)
8. How many employees does your firm have globally? *
Less than 100
100-500
501-1000

More than 1000

APPENDIX 1 (CONTTINUED)

Please indicate your level of agreement or perception using the scale below: 1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree 9. Our company integrates sustainability into its corporate strategy. * 1 2 3 4
10. Our company culture strongly supports sustainability related initiatives. • 1 2 3 4 5
11. Compliance with sustainability standards is difficult due to lack of clear strategic alignment. * 1 2 3 4 5
12. Sustainability driven strategic decision-making has improved our company's competitive advantage. * 1 2 3 4 5
13. Our company effectively complies with global sustainability standards as a result of aligning sustainability with corporate strategy. * 1 2 3 4 5
14. Digital transformation is important for achieving sustainability compliance in our company. 1 2 3 4 5

APPENDIX 1 (CONTTINUED)

 Adopting new technologies has enhanced our company's compliance with sustainability regulations. 	
_ 2	
_ 3	
4	
5	
16. Our company actively engages with stakeholders (e.g., government agencies,	
NGOs) to improve sustainability performance. *	
_ 1	
_ 2	
3	
4	
5	
 Stakeholder collaboration has enhanced accountability in sustainability practices in our company. 	
_ 2	
_ 3	
4	
5	
18. Stakeholder collaboration has helped our company's stay compliant with	
international sustainability regulations. •	
□ 1	
3	
□ 4	
5	
40 Incolor anting a vetal public accurate a stratagle above in previous developments	
19. Implementing sustainable sourcing strategies has improved our company's	
ompetitive advantage. •	
competitive advantage. •	
competitive advantage. *	
competitive advantage. •	
competitive advantage. • 1 2	
competitive advantage. • 1 2 3	
competitive advantage. • 1 2 3 4	
competitive advantage. • 1	
competitive advantage. • 1 2 3 4	
competitive advantage. • 1 2 3 4 5 20. Our supply chain is effective in tracking and reporting sustainability	
competitive advantage. • 1 2 3 4 5 20. Our supply chain is effective in tracking and reporting sustainability performance. •	
competitive advantage. • 1 2 3 4 5 20. Our supply chain is effective in tracking and reporting sustainability performance. •	
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competitive advantage. * 1	
competitive advantage. 1 2 3 4 5 20. Our supply chain is effective in tracking and reporting sustainability performance. 1 2 3 4 5 21. Our supply chain ensures strong compliance with global sustainability regulations. 21. Our supply chain ensures strong compliance with global sustainability regulations. 22 23 24 25 26 27 28 29 20 20 20 20 20 20 20 20 20	
competitive advantage. * 1	
competitive advantage. 1	
competitive advantage. * 1	
competitive advantage. 1	
competitive advantage. * 1	
competitive advantage. * 1	
competitive advantage. • 1 2 3 4 5 20. Our supply chain is effective in tracking and reporting sustainability performance. • 1 2 3 4 5 21. Our supply chain ensures strong compliance with global sustainability regulations. • 1 2 3 4 5 21. Our supply chain ensures strong compliance with global sustainability regulations. • 1 2 3 4 5 22. Optimizing our supply chain has helped reduce legal risks related to sustainability compliance. • 1 2 3 3 4 5	
competitive advantage. * 1	

Thank you for your participation!