The Effect of Supply Chain Integration, Management Commitment, and Sustainable Supply Chain Practices on Non-profit Organizations Performance Using SEM-FsQCA: Empirical Evidence in Afghanistan

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THE EFFECT OF SUPPLY CHAIN INTERGRATION, MANAGEMENT COMMITMENT, AND SUSTAINABLE SUPPLY CHAIN PRACTICES ONNON-PROFIT ORGANIZATIONS PERFORMANCE USING SEM- FSQCA: EMPIRICAL EVIDENCE IN AFGHANISTAN

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ABSTRACT

This study investigates the impact of supply chain integration, management commitment, and sustainable supply chain practices on non-profit organization performance. The research, centered on non-profit organizations in Afghanistan, employs Structural Equation Modeling (SEM) and Fuzzy-set Qualitative Comparative Analysis (FsQCA) to untangle intricate connections, involving a sample size of 169 participants. The findings suggest that integrating the supply chain positively affects sustainable practices, emphasizing the role of consistent integration in enhancing overall performance. Moreover, higher management commitment leads to improved supply chain performance. Additionally, supply chain challenges significantly influence non-profit performance, underscoring the importance of efficient supply chain management in enhancing overall organizational performance. The FSQCA of Non-Profit Organization Performance (NPOS) identified critical factors contributing to positive outcomes, including Supply Chain Practice (SSCP) and Management Commitment (MC) with high raw coverage values. The Integration of Supply Chain (SCI) combined with the absence of Supply Chain Challenges (SCC) demonstrated strong links to positive outcomes, highlighting the importance of overcoming challenges within an integrated supply chain framework and providing valuable insights for non-profit organizations.

Keywords: *Non-profit organization performance, sustainable supply chain practice, supply chain challenges, management commitment, supply chain integration*

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A. Introduction

In recent decades in 2023, attention to sustainability has become increasingly deep and widespread across different sectors of business and non-profit organizations (NPOP) (Masudin, Jie, and Widayat, 2020). Increased awareness of negative impacts on the environment, society, and economy drives a paradigm shift in supply chain management. Sustainable supply chain strategies, which integrate environmental, social, and economic aspects, are key to minimizing negative impacts and creating long-term added value (Pechlivanis, 2023).

Implementing a sustainable supply chain strategy involves various key elements, such as circular economy, green procurement, energy efficiency, sustainable packaging, sustainable transportation, social and economic sustainability, cost-cutting, risk management, and openness (Das, 2020). Sustainability is no longer only seen as a social responsibility, but also as a critical factor in achieving and maintaining competitive advantage (Shekarian et al. 2022).

This trend is further reinforced by a paradigm shift in business ethics, where companies are measured by financial profit and their impact on the environment and society (Sharma and Singla 2021). The Triple Bottom Line (TBL) concept, which includes economic, environmental, and social considerations, is the cornerstone of assessing long-term business success (Hahn and Hartley, 2000).

The importance of sustainable supply chain practices (SSCP) and sustainable supply chain management (SSCM) is growing in response to worsening environmental and social challenges (Sharma and Singla 2021). However, along with this growth, greater emphasis tends to be placed on environmental and economic aspects, while social aspects are sometimes neglected (Rad *et al*., 2022). Therefore, there is an urgent need to understand and evaluate how sustainable supply chain practices can more effectively incorporate social dimensions and have a positive impact on society (Giannakis et al. 2020).

The importance of the social impact of sustainable supply chain operations lies in understanding the social consequences of policies and practices, including labor and human rights issues (Biuki, Kazemi, and Alinezhad 2020). Supply chain

sustainability involves environmental and economic considerations and an assessment of the social impact of business activities (Mageto 2021).

Not only the business sector, but the concept of sustainable supply chains has also found relevance in non-profit organizations (NPOP) (Esfahbodi *et al.*, 2017). NPOPs have a crucial role in socio-economic development, and it should be emphasized that performance measurement can not only be done through a financial lens, but also by considering future impacts and the ability to innovate and adapt to environmental change (Li, Dai, & Cui, 2020). Therefore, to achieve long-term sustainability goals, whether, in a business or NPO context, a deep understanding of sustainable supply chain practices and their impact on economic, environmental, and social aspects is essential (Sharafuddin and Madhavan 2020). Only with this integrated approach can we achieve the holistic transformation that supports sustainability in various organizational contexts (Kuwornu et al. 2023).

Afghanistan, as a developing country with several complex challenges, creates a unique backdrop for the implementation of a sustainable supply chain strategy (Kumar and Goswami 2019). This situation involves economic, social, and environmental aspects that require specific approaches to ensure long-term sustainability and resilience(Lu et al. 2018). This extended background statement further details the complexity and relevance of sustainable supply chain strategies in the context of businesses and nonprofits, emphasizing the importance of understanding and evaluating economic, environmental, and social impacts.

In addition to supply chain challenges and integration, it is necessary to discuss management commitment. One of the most frequently cited causes of program failure is a lack of management commitment (Brown and Farmer 1994) Another study discovered that top management has a significant impact on a company's supply chain performance; additionally, with management commitment, it is possible to release the supply chain philosophy and move supply chain from theory to practice (Sandberg 2007). Management commitment is a key factor in organizational success, influencing safety culture, project planning, control, and investment strategies. Human resource management enhances market

competitiveness, reduces employee turnover, and optimizes the enterprise development environment (Hu 2022).

According to research, supply chain integration in non-profit organizations (NPOP) improves operational performance and achieves organizational goals by closely monitoring current performance and ensuring business operations flexibility (Aggarwal and Singh 2019). It is recommended that NPOPs revisit their integration efforts when entering new markets and use a strategic framework to ensure top management support (Harland 1996).

This study involves a limited examination of the complex relationship between supply chain challenges and the adoption of sustainable supply chain practices in nonprofit organizations operating in Afghanistan. The primary aim of this research is to investigate how supply chain challenges impact the overall performance of these nonprofit organizations and how implementing sustainable supply chain practices can potentially mitigate these challenges. This study seeks to contribute to the existing knowledge in supply chain management, the nonprofit sector, and organizational performance assessment, offering valuable insights for nonprofit organizations facing similar resource-constrained environments globally. The growing emphasis on measuring the practice of public and nonprofit sectors is evident through increased data collection, reporting, and organizational appraisal. This trend has gained momentum, leading to substantial development within the public sector. Despite numerous research studies addressing supply chain management, non-profit organizations, and challenges within both for-profit and not-for-profit sectors, there is a noticeable gap in the literature concerning the specific context of supply chain management in Afghanistan.

This research aims to address this gap by exploring the intricacies of supply chain management in the Afghan context. The subsequent sections of this paper are structured to provide an understanding of the research framework. The literature review will delve into existing research on the subject, setting the stage for a detailed exploration of the research methodology. Subsequent sections will present the findings and results of this study, offering insights into the unique challenges and potential solutions within the Afghan supply chain management landscape. The

paper will conclude by outlining directions for future research in this critical area. Through this academic exploration, the research contributes to the broader understanding of supply chain management in diverse contexts, with specific relevance to the Afghan context.

A. Problem Statement:

Based on this background, this study will try to answer some key questions as follows:

1. How can sustainable supply chain practice affect non-profit organization performance?
2. How does supply chain integration impact non-profit organization performance?
3. In what ways does management commitment influence non-profit organization performance?
4. How can supply chain integration influence sustainable supply chain practices?
5. What role does management commitment play in shaping sustainable supply chain practices?
6. How can supply chain integration impact non-profit organization performance through sustainable supply chain practices?
7. In what ways does management commitment influence non-profit organization performance through sustainable supply chain practices?
8. How do supply chain challenges moderate the relationship between sustainable supply chain practices and non-profit organization performance?
9. How do supply chain challenges influence Non-profit organization performance?

B. Research Objectives:

The objectives of this study are:

1. Examine the impact of sustainable supply chain practices on non-profit organization performance.

2. Investigate the influence of supply chain integration on non-profit organization performance.
3. Analyze the role of management commitment in shaping non-profit organization performance.
4. How does supply chain integration influence sustainable supply chain practices?
5. Examine the impact between management commitment and sustainable supply chain practices.
6. How does supply chain integration affect non-profit organization performance through sustainable supply chain practices?
7. Explore the impact management commitment has on non-profit organizations through sustainable supply chain practices.
8. Examine the moderating role of supply chain challenges between sustainable supply chain practices and non-profit organization performance.
9. Investigate the influence of supply chain challenges on non-profit organization performance.

C. Research Benefits

1. Theoretical Benefits

Contribute to the supply chain sustainability literature, particularly in the context of non-profit organizations in Afghanistan. Through a deeper understanding of sustainable supply chain integration, this research can help the development of the integration concept by considering economic, social, and environmental aspects simultaneously. In addition, this research also provides new insights into the role of management commitment in improving the effectiveness of sustainable supply chain practices.

2. Practical Benefits

This research provides valuable guidance for Non-Profit Organizations (NPOP) in Afghanistan. The results of the research can be implemented as a basis for formulating policy recommendations and best practices, guiding Non-Profit Organizations (NPOPs) in implementing sustainable supply chain strategies. Thus, this research not only provides benefits for academic

understanding, but also brings a direct impact in improving the sustainability of non-profit organizations and making positive contributions to society, the economy, and the environment at the local level.

D. Literature Review

1. Supply chain challenges and organizational performance

Supply chain challenges have a significant impact on organizational performance. The integration of supply chain indicators, such as information sharing, planning, controlling, and coordinating materials, has a positive impact on supply chain performance (Putri and Prabowo 2023). Furthermore, challenges such as government regulation, customer pressure, and supply chain performance indicators such as supply chain delivery flexibility, customer responsiveness time, and inventory cost have a significant impact on the performance of Non-Profit Organizations (NPOP) (Hashemi et al. 2022a). Supply chain risk management (SCRM) is critical for improving supply chain performance (Ramachandran, and Vinjamuri, 2023). Supply chain resilience has a positive impact on supply chain performance, and implementing supply chain resilience and other dynamic capabilities can improve organizational and supply chain performance (Pedro 2023).

Managing supply chain difficulties is critical to improving organizational performance. Successful supply chain management requires effective teamwork, strong connections with partners, and logistical effectiveness (Zineb 2022) and (Acimovic et al. 2022). Supply chain management strategies, such as customer interactions and strategic supplier alliances, have a major influence on organizational performance, and information sharing improves it even more (Hejazi 2022). Furthermore, the implementation of supply chain finance may reduce supply chain risks, significantly impacting operational and cost performance, especially in dynamic circumstances (Linda et al. 2022). Implementing supply chain management mediates the link between enterprise resource planning and organizational performance, demonstrating its critical role in generating performance gains (Zhen, et al, 2021). Overall, addressing

supply chain issues through strategic alliances, effective logistics, and risk mitigation techniques may improve organizational performance.

Supply chain issues have a significant impact on organizational performance (Masudin, Jie, & Widayat, 2020). The effectiveness of an organization is greatly influenced by supply chain difficulties, such as legal requirements, consumer demand, delivery flexibility, responsive times, and inventory costs, according to a study of nonprofits in Afghanistan (Hashemi *et al.*, 2022). A study of SMEs revealed that a combination of organizational, technological, and environmental factors significantly improved their good performance in supply chain financing (Duan, Hu, and Zhang, 2022). According to a study on the subject, supply chain performance is not significantly affected by learning organizations. On the other hand, supply chain performance is positively and significantly affected by the effect of organizational learning on supply chain drivers (Ikhwan, Rahardjo dan Ratnawati, 2021). Supply chain issues have a significant impact on organizational performance (Gupta *et al.*, 2021). Today, competition among supply chain business institutions is global. Organizations must compete not only in their ability to enter new markets and achieve economies of scale but also in their ability to effectively manage knowledge in a competitive environment (Arzu Akyuz & Erman Erkan, 2010).

Supply chain challenges have an impact on efficiency, sustainability, and effectiveness, with sustainable management becoming increasingly important for organizations' survival as environmental and social pressures increase. (Yadav et al. 2020) Industry 4.0 and sustainable manufacturing practices are critical for maintaining a global market reputation, but putting these initiatives in place in supply chain management can be difficult. (Yadav et al. 2020) Innovative technologies, new strategic and organizational dimensions, and human factors all pose challenges to digital supply chain management. (Ageron, Bentahar, 2020) The integration of blockchain technology and other technologies aims to improve supply chain operations' flexibility, agility, visibility, and efficiency. (Gohil and Thakker 2021) Critically engaged

research is also being investigated to advance supply chain management theory and practice. (Touboulic, McCarthy, 2020)

According to research, the most influential factor is government regulation. Make an impact on an organization by implementing supply chain management to improve financial performance (Wu *et al.*, 2006). believes that the difficulty in implementing supply chains significantly impacts organizational performance. Key drivers for an organization are the challenges of demand and supply uncertainty, information technology, and government regulations. The implementation of supply chain management has an impact on organizational performance (Turi, Gonçalves dan Mocan, 2014). Another study found that supply chain challenges differ between organizations and countries (Asgharizadeh *et al.*, 2023).

2. Sustainable Supply Chain Practices

Sustainable supply chain practices entail incorporating sustainability principles into supply chain management processes. These practices aim to reduce environmental impact, improve financial performance, boost reputation, and increase stakeholder satisfaction (et al. 2023). Implementing sustainability practices necessitates a framework that takes into account the various dimensions of sustainability, critical areas, and supply chain partners (Correia, Garrido, & Carvalho 2024). Sustainable supply chain strategies should prioritize finding new sources of materials, practicing energy efficiency, and implementing reverse supply chain concepts (Nathaniel, H. 2023b). Sustainable supply chain management (SSCM) is critical for addressing sustainability challenges in the manufacturing sector. SSCM practices are classified into environmental, social, and economic dimensions, with varying levels of implementation across industries (Yosef, Jum'a, and Alatoom 2023). Supply chain finance (SCF) can help sustain supply chains by integrating various sustainability practices and involving new actors in brokerage roles (Medina, Caniato, and Moretto 2023).

Sustainable supply practices involve a variety of factors critical to corporate sustainability These methods entail incorporating sustainability into

several elements of the supply chain, including sustainable sourcing, green design, and closed-loop corporate social responsibility (CSR) principles. Instrumental, relational, moral, and knowledge considerations all play an important role in propelling organizations toward sustainable practices. Sustainability practices must be implemented within a complete framework that takes into account governance, product and process management, customer and supplier relationships, and stakeholder emphasis. While economic and environmental components are prominently addressed in sustainable practices, there is a vacuum in the incorporation of social factors, highlighting the need for more study to improve social sustainability across the supply chain according to (STAN et al. 2023; Mamuaya, Nova Ch. 2023; Silva, Ferreira, and Georges 2023). Sustainable supply chain management (SSCM) methods involve a variety of characteristics critical to business sustainability (Nathaniel, H. 2023). These practices include sustainable procurement, green design, supply chain loop, and improving connections with suppliers and consumers through closed-loop corporate social responsibility (CSR) ideals (Elisabete, et al, 2023). Implementing sustainable practices in the supply chain requires consideration of governance, product and process, customer and supplier management, and stakeholder emphasis (STAN et al. 2023). Companies must prioritize sustainability in their supply chain decisions to secure long-term success (Centobelli., et al, 2022). To promote sustainability and address concerns about resource depletion, manufacturing enterprises must implement sustainable practices such as sustainable product design, process design, supply-side cooperation, and demand-side collaboration (Nsowah and Phiri 2023). According to the above-mentioned studies we can say that Adopting proper sustainable practices is critical for businesses seeking to transform their supply chain operations and business models toward sustainability. Based on the studies mentioned above, we can assert that adopting appropriate sustainable practices is crucial for businesses aiming to transition their supply chain operations and business models towards sustainability.

Businesses are finding it increasingly important to implement sustainable supply chain strategies to gain a competitive advantage while addressing social and environmental concerns. The term "sustainable supply chain management" (SSCM) describes how to incorporate social, cultural, and economic factors into every step of the supply chain, from sourcing and product design to manufacturing, disposal, and transportation (Lu *DKK.*, 2018). Other difficulties include balancing sustainability goals with other corporate goals and requirements for cooperation and coordination throughout the supply chain (Kumar dan Goswami, 2019). The need for sustainable products from consumers, cost control, efficiency, and regulatory demands all drive sustainable supply chain strategies. They can improve brand reputation, reduce waste, and improve working conditions. However, implementing these ideas can be difficult, especially for small and medium-sized enterprises (SMEs) that lack the necessary resources and knowledge (Mbohwa, 2019). Reverse logistics (such as recycling and product reuse), adopting Industry 4.0 technologies (such as automation and data analytics), and continuous supplier selection are some examples of sustainable supply chain activities (Cui, Wu, and Dai, 2023).

Companies must collaborate with SC partners to successfully adopt sustainable SC practices. Suppliers are critical to upstream SC processes and help a business meet its environmental targets (Kusi-Sarpong, Gupta dan Sarkis, 2019). The study looks at how small and medium-sized enterprises (SMEs) in the textile sector operate, with particular emphasis on interactions between customers and suppliers as an important element of sustainable purchasing tactics. This implies that innovation (OI) is stimulated by sustainable procurement and that supplier cooperation with SMEs is critical to achieving Sustainable Supply Chain (SCS) goals. In addition, open innovation (SCI) is highlighted for giving small and medium-sized enterprises (SMEs) a competitive advantage through exclusive material partnerships. The study concluded that SCS emerged from a combination of purchasing and OI

practices and that companies must innovate to solve negative business impacts (Viale, Vacher, 2022).

To lower taxes and support environmental sustainability, the cement sector in Jordan must implement sustainable supply chain management techniques. Progressive taxation programs, resource conservation, energy and environmental management, waste management, and the development of new cement product categories are all included in this. The government should promote environmentally friendly product design, create a thorough waste recycling strategy, obtain environmental certification, and increase the output of non-Portland cement. Effective regulation and utilization of renewable energy in manufacturing processes should be the goal of Jordanian regulatory agencies (Yosef, Jum'a, and Alatoom, 2023). It also puts actors at the center of practice-based research by showing that any PBS approach relies on the body as a resource to bring out tacit knowledge (Schatzki dan Cetina, 2001). The study investigates and emphasizes the importance of understanding the internal functioning of SMEs and supplier practices, processes, and interfaces. The study emphasizes open innovation as a practice in sustainable supply chains that promotes mutual benefit and learning while avoiding customer-supplier imbalances. It also emphasizes the importance of developing sustainable purchasing practices in SMEs (Viale, and Vacher, 2022).

3. Supply Chain Integration

Supply chain integration is the mechanism for supporting business processes across a supply chain by overcoming intra and inter-organizational boundaries (Anon 2014). Supply chain integration is a type of hybrid contracting in which vertical interaction is transformed into bilateral supply contracts, resulting in lower transaction costs and higher control costs (Jens Holger, Daniel 2003). It enables small and medium-sized enterprises (SMEs) to share their data with other supply chain members, allowing for informed business decisions based on SMEs' knowledge (Fouda 2012).

Supply chain integration enhances corporate operations by transcending intra and inter-organizational barriers (Pietro and Romano, 2015).

Supply chain integration is the coordination and collaboration of various entities in the supply chain to increase efficiency, reduce costs, and increase customer satisfaction. The management and coordination of procedures and activities both upstream and downstream in the supply chain, including vendors, agents, and customers, is referred to as supply chain integration (Awad dan Nassar, 2010). Proactive environmental policies, green supply chain management techniques, and various business cultures must all be integrated (Li *DKK*., 2020). Supply chain integration can help reduce lead times, improve coordination, and shorten processes. Agile practices can improve supply chain responses to market volatility (Alzoubi *DKK*., 2022).

Employee commitment, environmental uncertainty, and product quality can all be mediated by supply chain integration (Aljumah *DKK*., 2022). Supply chain integration can increase supply chain resilience, flexibility, and innovation, thereby improving business performance (Siagian, Tarigan dan Jie, 2021). Blockchain technology has the potential to improve supply chain integration and long-term supply chain performance (Kamble *DKK*., 2023). Supply chain integration and shared value creation between companies can improve corporate performance in Ghanaian SMEs, and innovation capabilities can bridge the gap (Tian *DKK*., 2021).

To meet customer demands in today's competitive market, businesses must improve their delivery, dependability, and product flexibility through supply chain integration (Bowersox 2002). Supply chain integration is the strategic collaboration of an organization with its supply chain partners and the efficient management of intra- and inter-organization processes to ensure the effective and efficient flow of products, services, information, money, and decisions, thereby providing maximum customer value (Zhao et al. 2008).

At the strategic, tactical, and operational levels, supply chain integration entails information sharing, planning, coordination, and control of supplies, components, and completed items (Stevens 1989). Supply chain integration has numerous advantages, but it also entails risks for companies involved in alliances (Martinez and Gomez-meja 2008). Integrating supply chain partners

necessitates the purchase of new assets, the customization of technology and machinery, and the development of new work and consulting programs, all of which are prohibitively expensive and increase the risk of benefiting from a partnership through partner exchange (Wu et al. 2004).

Supply chains must form collaborative partnerships and unite to form a unified virtual organization to maximize profit and lower operating expenses globally (Ding, Guo, and Liu 2011). Reverberate across multiple industries, encouraging companies to direct all stakeholders to pool their resources and collaborate (Li et al. 2009). SCI boosts firm performance (Kim 2009)—inventories, as well as the bullwhip effect (Gharaei, Karimi, 2020). Furthermore, previous research suggests that SCI could improve delivery quality and reduce cycle times (Cousins and Menguc 2006). On the other hand, the effort to discover the link between SCI and SCP is insignificant. However, empirical studies show that to convey the benefits of SCI to SCP, companies must have proper supply chain linkages (Panayides and Venus Lun 2009).

SCI improves business SCP by providing a centralized management approach across the extended value network of various parties at three levels: supplier, customer, and intraorganizational integration (Gharaei and Almehdawe 2021). Through unified control of processes and actors, the centralization of operations, management, and strategic choices maximizes internal and international asset utilization (Flynn, Huo, and Zhao 2010).

Increased use of information technology in supply chain communication and transactions can improve security, dependability, and coordination among partners, thereby improving overall supply chain operations (Cheng et al. 2010). Furthermore, SC-enabled IT infrastructure provides fast, accurate, and trustworthy information, allowing for easier and lower-cost communication with less ambiguity (Gharaei, Karimi, et al. 2020). Supply chain integration is an important idea that focuses on improving business operations by bridging intra- and inter-organizational boundaries (Anon 2014).

It entails exchanging data across diverse parts of a supply chain, enabling informed decision-making and enhancing overall performance (Jens-Holger,

and Dodel., 2003). This integration is assisted by the appropriate application of information technology and business process modeling, which are important components of supply chain integration initiatives (Fouda 2012). The structure and mechanisms of vertical interaction within a supply chain play a sissgnificant role in determining its organization and performance. Supply chain integration is proposed as a type of hybrid contracting that transforms market interactions into bilateral supply contracts (Petrov, 2022).

Overall, supply chain integration is critical for improving collaboration, coordination, and communication among supply chain members, resulting in improved overall performance and competitiveness.

4. Management Commitment

Management commitment is important in many facets of a company. It is highlighted in many circumstances. First, organizational commitment in human resource management improves market competitiveness and minimizes turnover, which benefits firm development (Hu, 2022). Second, effective safety leadership creates a good safety culture, stressing safety commitment as an important factor in maintaining safe work practices (A. et al. 2022). Third, relationship management tactics are crucial for interacting with stakeholders and addressing external difficulties. Employee commitment is a major measure of organizational performance (Timbang, and Prasad, 2023). Finally, management pledges have a substantial influence on creating a safe environment, decreasing risks, and enhancing occupational health and safety standards in industries. (Septian, and Hadi, 2023).

Management commitment influences project planning, control, TDF investment, safety leadership, and strategic HRM practices, all of which contribute to organizational success. According to studies in various contexts, it improves market competitiveness, reduces employee turnover, and optimizes the enterprise development environment (Hu 2022). Leaders and managers who demonstrate safety commitment promote a positive safety culture and have a significant impact on ensuring safe activities within the organization (Timbang et al. 2023). Finally, management commitment has a direct impact

on employee commitment in SHRM practices, which in turn mediates the relationship between important HRM practices and organizational success indicators (Pratama, Junanto, & Milani 2023).

The level of dedication and support shown by top management to a particular goal or initiative is referred to as management commitment. Management commitment is an important factor that can influence the success of sustainability initiatives in the context of corporate sustainability (Tandoh *DKK.*, 2022). The level of commitment and support that upper management extends to a particular project or goal is referred to as management commitment. This is an important element that can affect the performance of the organization (Kuang 2020). The effective professional commitment of employees can have an impact on the success of the project, and this can also be influenced by management commitment (Lundahl dan Rawlings, 2023). Top management's commitment to environmental performance has a beneficial effect on environmental performance (Appiah *DKK.*, 2020).

Management commitment can increase job satisfaction and commitment, which can decrease employee intent to leave the company in the context of retention management (Marsuhin and Hidayat, 2022). In the context of public health, management commitment can increase nurses' levels of commitment through work engagement, thereby improving job performance (Raji *DKK.*, 2021). Another study found that management commitment can play a moderate role in the relationship between green innovation and organizational performance (El-Kassar dan Singh, 2019). Another study found that management's commitment to safety was positively associated with nurse safety compliance and participation (Mashi, Subramaniam dan Johari, 2020).

Top management's direct involvement in critical aspects of an organization, such as safety, quality, the environment, security, or programs, is referred to as management commitment. Leadership and continuous improvement are the responsibility of all levels of management, but especially the highest. Management commitment is an important component of supply

chain performance, propelling an organization toward its objectives and goals (Deshpande 2012).

Management commitment is critical for organizational development, and its importance in supply chain development must be assessed from two perspectives: supply chain management as a service and the supply chain operation reference (SCOR) model. In supply chain management as a service, recovery is a significant challenge, and understanding how to recover and continue developing after network breakdowns is critical for successful organizational growth (Shekarabi, Karimi 2020). The commitment of management is critical for frontline employee service quality and service recovery. Management inputs help with employee training, development, empowerment, and reward/recognition. Empowerment is critical in work that involves unknown components that require individual judgment and quick attention, as it ensures innovative personal judgment (Gharaei, Hoseini, et al. 2020). The SCOR model emphasizes the importance of management commitment in the development of supply chains. It is divided into four levels: top, configuration, process element, and implementation. The effects of management commitment are visible in the planning process and the environmental impacts at the highest level of all processes. As a result, all process categories necessitate the planning and enabling processes outlined in the SCOR Configuration Toolkit, which are heavily influenced by top management (Hosseini, Shekarabi 2019). Abovementioned reasons and studies managerial commitment is critical for organizational performance, a safe culture, stakeholder involvement, and employee well-being.

5. Practice Measurement in Non-profit Organizations

Performance measurement in non-profit organizations (NPOP) is an important field of research, especially in the context of collaboration and impact evaluation (Yang 2021). Because of their social purpose orientation and emphasis on social effect, non-profit organizations (NGOs) have particular obstacles when building and implementing performance measuring systems (Cestari et al. 2022). Research stresses the necessity of identifying aspects

impacting the adoption of PMS in non-profit organizations, such as strategic performance, public service performance, and nonprofit operations strategy (Munik et al. 2021). External quality criteria have a crucial role in driving the implementation of measurement systems in NPOP; nevertheless, actual usage for service improvement may vary depending on organizational resources and indicator quality (Roger 2020). Overall, the emerging area of performance measurement in non-profit organizations is still in its early stages, with continuous attempts to establish frameworks and models relevant to this sector (Treinta et al. 2020).

Non-profit organizations (NPOP) are increasingly recognizing the value of measuring and collaborating with other organizations (Nordin, Khatibi, and Azam 2022). Performance measurement systems play a crucial role in NPOP, and there is a growing body of literature exploring the factors that influence the design and implementation of these systems (Cestari et al. 2021). However, the implementation of quality measurement systems in non-profit organizations remains poorly understood, and external quality requirements may have both positive and negative effects on their adoption and utilization (Munik et al. 2021). Overall, more research and practice in the area of performance measurement in non-profit organizations are required to improve their effectiveness and impact (Colbran et al. 2022).

Nonprofit organizations (NPOP) face challenges in measuring their social impact due to limited resources and technical support (Fatma, Köroğlu., Nihan 2022). However, tools and frameworks for efficient monitoring and measurement of NPO project outputs and outcomes are lacking (Munik et al. 2021). Similarly, despite the assumption that NPOPs are implicitly ethical, research has ignored the ethical workplace climate in NPOPs (Cestari et al. 2022). To fill this void, a valid scale for measuring ethical workplace climate in non-profits, comprised of four factors: self-interest, collegiality, internal legitimacy, and stewardship, has been developed (Yang 2021).

Furthermore, there is a growing body of literature on the factors that influence the implementation and design of performance measurement systems

in non-profit organizations, with a focus on strategic performance, public service performance, and nonprofit operations strategy.

Measurement strategies can help nonprofits analyze their performance and improve and measurement practices can help nonprofits evaluate their performance and ensure they are meeting their goals. their operation. ETS, a non-profit research and testing organization, has set standards of quality and fairness in its testing programs, which are reviewed annually to ensure they are followed and support cultural norms, attitudes, and behaviors of fairness (Kirsh 2019). BPJS Kesehatan, an Indonesian non-profit organization that provides health insurance services, uses blended research methods to measure their level of digital maturity, identify four levels, and recommend appropriate digital strategies (Sina, Pasaribu, and Wahyuningtyas 2023).

The survey investigates nonprofit evaluation methods, recommending specific approaches such as multi-item scales for service quality assessment as well as comprehensive approaches such as financial analysis and balanced scorecards. It seeks to advance the theory and practice of evaluation in non-profit organizations (Duan 2010). North American Stream Hydrographers (NASH) is a non-profit organization performance focused on the theory and practice of hygrometry. It is a member of the Water Resources Association of Canada and welcomes participation from all members of the water resources community (Moore, Brzoza dan Whitfield, 2023). Volume III of the International Performance Measurement and Verification Protocol provides comprehensive guidance for professionals to verify energy performance in new construction projects, focusing on best practices for assessing energy savings and demand at the component level or entire buildings (Energy and Savings, 2002).

6. Framework

This study's research framework explores the influence of supply chain integration, management commitment, and supply chain challenges on Non-profit Organizations' performance in Afghanistan.

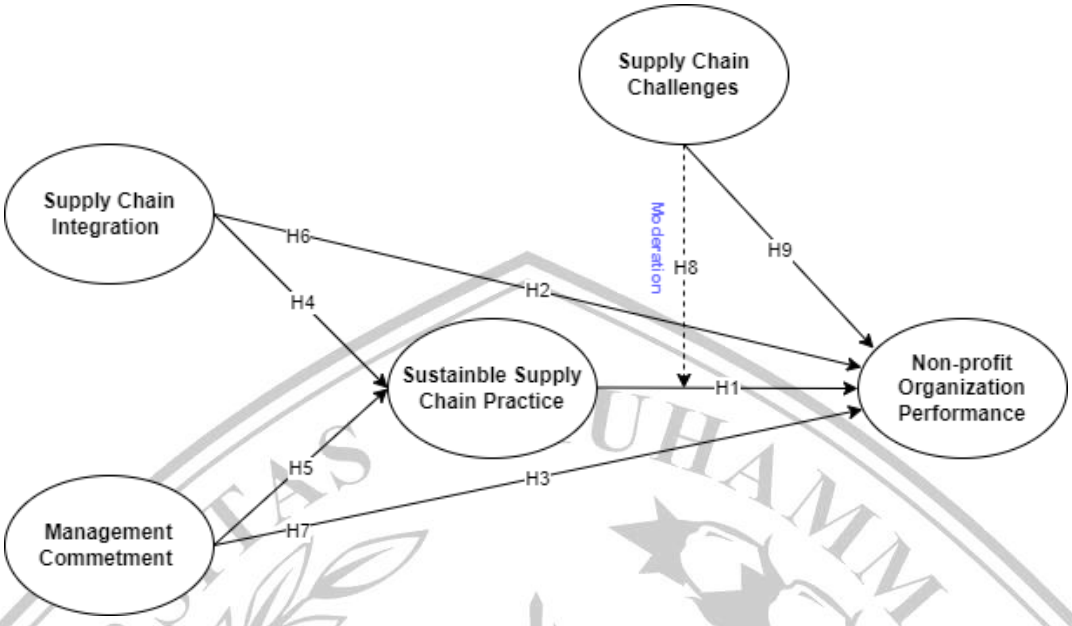

Figure 1. Research Framework and Hypothesis

The hypotheses presented aim to explore the interconnected factors affecting sustainable supply chain practices and their consequences on the performance of Non-Profit Organizations (NPOP). The first hypothesis suggests that supply chain characteristics impact the adoption of sustainable practices, while the second proposes that managerial commitment influences the development of sustainable initiatives. The third hypothesis examines the direct impact of sustainable supply chain practices on Non- non-profit organizations ' (NPOP) performance, suggesting potential positive outcomes. Lastly, the fourth hypothesis delves into the negative effects of supply chain challenges on NPO performance. Collectively, these hypotheses offer a comprehensive framework for understanding the intricate relationships between supply chain dynamics, managerial commitment, sustainable practices, and their ultimate impact on Non-profit organization performance (NPOP). Empirical investigation and statistical analysis are required to validate or disprove these hypotheses.

In the following hypotheses (Table 1), we investigate the relationships that exist within sustainable supply chain practices and their impact on non-profit

organization performance. Specifically, we explore the influence of supply chain dynamics, management commitment, and challenges on the sustainable practices and overall effectiveness of non-profit organizations.

7. Hypotheses

a. Influence of Sustainable Supply Chain Practice on Non-profit organization performance

According to Afghan research, supply chain integration, management commitment, and supply chain issues all have a major influence on nonprofit organization success. (Hashemi et al. 2022) In another study, In the context of a deteriorating ecological environment, sustainable supply chain practice is an important aspect of enterprise performance evaluation. Domestic and international institutional pressures, such as laws, regulations, and agendas, influence Chinese enterprises' implementation of sustainable supply chain management (SSCM). Sustainable supply chain practices (SSCP) have varying effects on economic, environmental, and social performance. (Lu et al. 2018) Research on electrical and electronic device manufacturers discovered that digital marketing acts as a bridge between sustainable supply chain management methods and the organization's long-term profitability. (AbdAllah et al. 2022) According to a study on sustainable design operations throughout the supply chain, sustainable design attempts to limit negative consequences on people and the environment while also improving design performance. (Li and Shen 2016). According to the findings, institutional pressure has a positive impact on SSCP, which in turn has a positive impact on environmental performance. Other practice contents, except sustainable supply chain distribution, have a significant positive impact on economic performance and social performance. (Lu et al. 2018) The impact of sustainable supply chain practices (SSCP) is significant across industries. According to research, sustainable supplier selection (SSS) is an important decision for buying companies when developing a sustainable supply chain strategy. (Cui et al.

2023) It is becoming more widely acknowledged that sustainable supply chain strategies influence the performance of non-profit organizations (Ramakrishna, et al, 2023). Environmental, economic, and social performance in a variety of enterprises has been positively impacted by sustainable practices, such as green manufacturing, marketing, and purchasing (Mosconi 2022). The improvement of reputation and sustainable supply chain management has been greatly aided by the engagement of outside groups such as NGOs and NPOP (Xu et al. 2022). One of the most important strategies for sustainability has been the incorporation of environmentally friendly progressions into supply chain activities, such as choosing green suppliers and using reverse logistics (Aylak, 2022). Adopting sustainable supply chain methods can, in general, result in better organizational operations, such as manufacturing, shipping, and procurement, which will ultimately enhance overall performance (Hejazi et al, 2023).

H1: Influence of Sustainable Supply Chain Practice on Non-profit organization performance.

b. Influence of Supply Chain Integration on Non-profit organization performance

A study conducted in Afghanistan looked at the impact of supply chain challenges, performance, and management commitment on the performance of non-profit organizations, emphasizing the importance of supply chain integration in improving overall performance. (Hashemi et al. 2022a) According to the study, integrating supply chain indicators such as information sharing, planning, controlling, and coordinating materials, as well as the commitment of all three management levels, improves supply chain performance. (Hashemi et al. 2022a) A case study conducted in India used the situation-actor-process-learning-action-performance (SAP-LAP) methodology to study supply chain management issues in the context of fast-moving electrical goods (FMEG) industries. (Kumar 2018) According to the study, Another study examined supply chain coordination in the

context of stochastic demand and raw material quality defects. (Yongfei 2016) The study sought to identify supplier and manufacturer coordination strategies in decentralized, centralized, and revenue-sharing supply chains. According to the findings of the study, an integrated model of a revenue-sharing supply chain can achieve the performance of a centralized supply chain while lowering internal and external risk loss costs. (Yongfei 2016).

According to the study, supply chain ingratiation indicators such as information sharing, planning, regulating, and coordinating materials, and commitment from all three management levels have a favorable effect on supply chain performance. (Hashemi et al. 2022a) Furthermore, the study discovered that difficulties such as government regulation, customer demand, and supply chain performance indicators such as supply chain delivery flexibility, customer reaction time, and inventory cost had a substantial impact on the success of non-profit organizations. (Espino-Rodríguez and Taha 2022) Other research has looked at the link between supply chain integration and long-term supply chain performance. (Kamble et al. 2023) and (Guo et al. 2022). According to food bank research, for not-for-profit organizations, external integration should come before internal integration, with demand integration having a greater effect on performance than supply integration (Anthony, 2023). NGOs like One Acre Fund's supply chain performance is greatly impacted by strategic supplier management, which includes supplier sourcing and development. This improves efficiency, accountability, and competitiveness (Alshurideh et al. 2022). For this reason, improving the general performance of non-profit organizations requires the use of efficient supply chain integration and management techniques.

H2: Supply Chain Integration Influences on Non-profit organization performance.

c. Management Commitment Influences on Non-profit organization performance

The impact of managerial commitment on the functioning of non-profit organizations has been investigated in a variety of circumstances. Management commitment, particularly in areas such as supply chain integration, quality improvement, and organizational entrepreneurship, has been demonstrated in research to have a favorable influence on the success of non-profit organizations. Research done in Afghanistan discovered that combining supply chain indicators and management commitment improves supply chain performance, which in turn improves non-profit organization performance considerably. (Hashemi et al. 2022a) In a similar vein, a Thai study found that management commitment positively correlated with quality improvement, which positively correlated with hospital performance outcomes. (Ngamkham, Wongkhomthong, 2014) Additionally, studies carried out in Puerto Rico revealed elements like communication, strategic planning, organizational structure, acknowledgment, and conflict resolution that can reduce volunteers' organizational commitment and ultimately impact the performance of non-profit organizations. (Quiñones-González 2022) Furthermore, a South African study emphasized the connection between organizational entrepreneurship and management commitment in non-profit organizations, stressing the value of ongoing education and responsible risk-taking for enhanced performance. (Muliati 2016). Research has shown that in the developing world's energy industry, organizational dedication directly improves organizational performance (Al-refer 2022). Project team commitment, project culture, project schedule, and top management support all have a big impact on how well NGOs execute their projects, which highlights how crucial management commitment is to project success (Duncan, and Ngugi, 2019). Organizational commitment is influenced by both internal and external activities, such as community engagement initiatives and engaged leadership. This emphasizes the role that management practices have in improving commitment and performance in non-profit organizations (Wang 2022). All things considered, managerial

commitment is a key factor in influencing performance results in non-profit companies.

H3: Management Commitment Influences on Non-profit organization performance.

d. Impact of Supply Chain Integration on Sustainable Supply Chain Practices

Supply chain integration has a big influence on sustainable supply chain operations. Research has consistently demonstrated that combining supply chain operations with green practices and circular economy concepts may improve sustainable performance (Huma, Ahmed, and Zaman 2024).

Supply chain integration is critical for improving sustainable practices throughout supply chains. Research shows that combining supply chain quality and green practices improves sustainability performance (Stan et al. 2023). Furthermore, digital transformation (DT) has been discovered to strongly affect supply chain integration (SCI) and overall sustainable supply chain performance (OSSCP), with SCI directly increasing OSSCP, demonstrating the relevance of integration in fostering sustainability within the supply chain (Huma et al. 2024). Furthermore, the use of digital technology and the integration of supply chain operations are emphasized as essential elements in increasing sustainable supply chain performance, emphasizing the necessity for enterprises to embrace digitalization and integration to accomplish sustainability goals (Chauhan, Kumar, and Dixit 2023). Integrating sustainability techniques into supply chain management, such as sustainable sourcing and green design, may result in decreased environmental impact, greater financial performance, and higher stakeholder satisfaction, eventually contributing to organizational sustainability (Oubrahim, Sefiani, and Happonen 2023).

According to the study, integrating supply chain indicators such as information sharing, planning, controlling, and coordinating materials, and commitment from all three management levels has a positive effect on

supply chain performance. (Hashemi et al. 2022a) Furthermore, the study discovered that the performance of non-profit organizations is greatly impacted by issues like governmental regulations, consumer pressure, and supply chain performance indicators like inventory cost, customer responsiveness time, and supply chain delivery flexibility. An additional study discovered that the obstacles to implementing responsible action within the agricultural supply chain are low organizational capabilities, the involvement of external actors, and a lack of supply chain integration. (Adriant, M.simatupang, 2021). External integration should come before internal integration in non-profit food bank organizations, and demand integration has a greater impact on performance than supply integration. (Ataseven, Nair, and Ferguson 2020a) The authors discuss the unique challenges not-for-profit organizations face in supply chain integration and how they can benefit from adopting best practices from business logistics/supply chain management. (Larson and McLachlin 2011) Supply chain integration improves the performance of non-profit organizations. (Hashemi et al. 2022a) Supply chain partners collaborate with non-profit groups to address social and environmental challenges, demonstrating the impact of supply chain integration on non-profits. (Acimovic, Mijuskovic, and Spasenic 2021) Organizational culture influences supply chain integration, which is critical for providing the right product, at the right place, at the right time, and at a reasonable cost (Tony Bell and Sherlock 2020). To solve social and environmental

H4: Supply Chain Integration Influence on Sustainable Supply Chain Practices.

e. Impact of Management Commitment on Sustainable Supply Chain Practice

A key factor influencing sustainable supply chain practices is management commitment. Numerous studies have examined the connection between supply chain cooperation, top management commitment, and sustainable business performance in various settings, including Bangladeshi

agro-processing supply chains. (Uddin and Akhter 2022) and purchasing divisions in nations throughout Europe. (Difrancesco, Luzzini, 2022) According to a study conducted in Bangladesh, senior management support is crucial for enabling sustainable supply chain practices in the agro-processing sectors. To ensure that sustainable practices are incorporated into the organization's primary business strategies and to translate sustainability commitment into performance benefits, TMC is essential. (Difrancesco et al. 2022) Sustainable supply chain practices require cooperation between businesses and their suppliers. Sharing information, resources, and skills amongst organizations through SCC can result in the creation and application of more environmentally friendly supply chain procedures. (Uddin and Akhter 2022) By concentrating on buyer-supplier information-sharing practices and strengthening their PRAC, purchasing departments can assist in converting sustainability commitment into performance benefits, according to a study conducted in European countries. PRAC is necessary to properly convert and utilize outside data as well as to spot opportunities in the social and environmental spheres. (Difrancesco et al. 2022) In business logistics and supply chains, normative commitment and organizational culture can have an impact on sustainability. Managers can create plans to increase sustainability in their companies by altering culture, attitude, and perception by knowing how these elements relate to sustainability. (Lazar et al. 2022) Achieving an organization's social performance through sustainability culture and socially responsible supply chain practices is largely the responsibility of managers. (Ramish, Aslam, 2021). Top management commitment is essential for driving sustainable supply chain practices (Burki and Ersoy 2022; Grabs, 2023; Enoch, et al, 2023; Duncan, et al, 2019; Lazar et al., 2022). Studies show that senior management commitment has a good impact on green innovation practices, customer collaboration, and supply chain operational success. It is highlighted that commitment credibility is critical for the achievement of sustainability goals, with external stakeholders playing an important role in

guaranteeing on-the-ground success. Furthermore, managerial commitment reinforces the link between market orientation and green supply chain practices. The study emphasizes the need to incorporate green supply chain strategies as a strategic resource in response to institutional demands for environmental responsibility. Overall, top management engagement is critical for improving sustainability goals, developing interfirm collaboration, and boosting operational excellence in supply chains.

H5: Management Commitment Influences on Sustainable Supply Chain Practice.

f. Impact of Supply Chain Integration on Non-Profit Organizations through Sustainable Supply Chain Practice

Sustainable supply chain integration can have a positive impact on non-profit organizations by implementing sustainable supply chain strategies. Organizations can contribute to the effective deployment of sustainable supply chain financing solutions by incorporating various sustainability practices into their supply chain solutions. (Medina, and Caniato,2023) Organizations can contribute to the effective deployment of sustainable supply chain financing solutions by incorporating various sustainability practices into their supply chain solutions. (Medina et al. 2023) Strict action plans for sustainable supply chain practices implemented at the local level can secure environmental and social advantages on a larger scale. (Anon 2023) A study on sustainable supply chain practices for non-profit organizations, such as a food bank, aimed to minimize costs and environmental impact while ensuring food security by designing a sustainable network for a heterogeneous fleet. (Kaviyani-Charati et al. 2022). Companies can contribute to sustainable development by incorporating sustainability issues into their operations and using sustainable supply chain management methods. (Piera, Wael, Hassan 2022) In non-profit organizations, the integration of supply chain indicators and management commitment improves supply chain performance, however, challenges such as government regulation and customer demand have a

substantial impact on non-profit organization performance. (Hashemi et al. 2022a) Supply chain integration, particularly through sustainable practices, has a substantial impact on non-profit organizations (NPOP) engaged in sustainable supply chain management (SSCM) (STAN et al. 2023). The participation of external groups such as NPOP in SSCM not only increases the reputation of enterprises but also regulates and improves their sustainability efforts (Sehrish, and Huma, 2023). Sustainable methods integrated into supply chain management, such as green design and supply chain loops, have been demonstrated to decrease environmental impact, improve financial performance, and boost stakeholder satisfaction (Xu et al. 2022). Furthermore, implementing sustainable supply chain strategies has been proven to develop innovative ties with supply chain partners, necessitating relationships with additional suppliers to get relevant resources (Ramakrishna et al. 2023). This highlights the crucial role of supply chain integration in driving sustainability performance and benefiting NPOPs involved in sustainable practices.

H6: Supply Chain Integration Influence on Non-Profit Organizations through Sustainable Supply Chain Practice.

g. Impact Management Commitment on Non-Profit Organizations through Sustainable Supply Chain Practice

Managerial commitment is critical for convincing non-profit organizations to adopt sustainable supply chain strategies. Studies show that managerial commitment enhances the association between market orientation and green supply chain practices (Chris, 2022). External groups, such as NGOs and NPOP, have a substantial impact on sustainable supply chain management (SSCM). They improve reputation and regulate practices (Nsowah and Phiri 2023). Management commitment influences non-profit organizations through sustainable supply chain practices, but sustainable management is crucial for both profit and non-profit organizations. (Pan et al. 2021) Through supplier selection, social cooperation, and other

sustainability programs, SSCM can assist organizations in achieving a triple bottom line" by promoting economic, environmental, and social benefits. (Mula, and Poler 2012) Power dynamics in sustainable supply chains can either help or hinder effective supply chain collaboration. Power relations play an important role in achieving the industry's green goals and achieving win-win cooperation by adjusting power relations and optimizing green cost-sharing contracts. (Feng and Yu 2023) The impact of management commitment on non-profit organizations (NPOP) via sustainable supply chain practices is becoming increasingly important. Several studies and resources address the role of non-profit organizations (NPOP) in sustainable supply chain management (SSCM) and the impact of their participation. A systematic review and research agenda, for example, published in the Supply Chain Management journal proposed a conceptual framework for NPOP's role in improving sustainability through SSCM. (Anon n.d.) Furthermore, the Association for Supply Chain Management (ASCM), the largest nonprofit supply chain association, is actively involved in connecting supply chain professionals and companies all over the world to further optimize their supply chains and positively impact their bottom lines (Marcus A. Bellamy, Suvrat Dhanorkar n.d.). Furthermore, it has been discovered that top management commitment, mediates the relationship between stakeholder pressures and green operations, channeling these pressures into a firm's green operations. (Kitsis and Chen 2021) Adoption of sustainable practices, such as sustainable product design, process design, and collaboration, is critical for organizational sustainability (Xu, S. H. Chung, et al. 2022; STAN et al. 2023). Organizations that integrate sustainable decision-making into their operations in areas such as stakeholder management, marketing, and strategy can achieve long-term success and improve stakeholder satisfaction (Gonzalez et al. 2022). As a result, strong executive commitment to sustainability inside non-profit organizations can spur the adoption of sustainable supply chain strategies, ultimately contributing to organizational performance and reputation.

H7: Management Commitment Influence Non-Profit Organizations through Sustainable Supply Chain Practice.

h. Supply Chain Challenges moderate between Sustainable Supply Chain Practice and Non-profit organization performance

Supply chain difficulties are an important moderator between sustainable supply chain practices and non-profit organization performance. According to research, difficulties including government laws, customer demand, and supply chain performance indicators have a substantial impact on nonprofit organizations' performance (Gonzalez et al. 2022). Challenges in the supply chain can have a significant impact on the performance of both sustainable supply chain practices and non-profit organizations. Supply chain performance is improved by incorporating supply chain indicators such as information sharing, planning, controlling, and coordinating materials and management commitment at all levels. Government regulation, customer pressure, and supply chain performance indicators such as supply chain delivery flexibility, customer responsiveness time, and inventory cost all have a significant impact on the performance of non-profit organizations. (Hashemi et al. 2022a) Sustainable design seeks to minimize the negative effects on people and the environment. Non-profit organizations can operate in a variety of business modes, such as demand quantity seekers or profit seekers, which can have an impact on their sustainable design operations and product coordination. (Li and Shen 2016) Different carbon emission reduction regulations, such as cap-and-trade, mandatory cap policy, and cap-sharing schemes, can have an impact on the efficiency of sustainable design and the adoption of green production technologies. The cap-and-trade scheme is more effective at coordinating the relationship between system profit and carbon emission reduction. (Cheng, Zhang, 2022) To address social and environmental issues, supply chain partners collaborate with non-profit organizations. The type of cooperation (philanthropic, transactional, integrative, or transformational)

and the sustainability issues addressed can influence how different types of collaboration evolve. (Del Pilar et al. 2021) Supply chain management relies heavily on sustainable supplier selection (SSS) and firm performance. Organizations can plan SSCM using a fuzzy multicriteria approach that considers economic, environmental, and social performance (Hou et al. 2022). The successful implementation of green supply chain practices involves organizational commitment and citizenship behavior, with organizational commitment functioning as a moderator to increase the association between green supply chain practices and sustainable performance (Mayra, and Del, 2021). As a result, solving supply chain concerns through sustainable practices is critical for enhancing non-profit organization performance.

H8: Supply Chain Challenges moderate between Sustainable Supply Chain Practice and Non-profit organization performance.

i. Influence of Supply Chain Challenges on Non-profit organization performance

Supply chain difficulties may have a substantial influence on the performance of non-profit organizations. These obstacles can be attributed to a variety of causes, including the complexity of humanitarian supply chains, the necessity for speed in disaster response, and the difficulty in coordinating public service supply chains. Here's how these problems can affect non-profit organizations' performance Complex humanitarian supply chains contain various groups with varying mandates, interests, and capacities, resulting in inefficiencies and delays in assistance delivery, which harms non-profit disaster relief initiatives (Dubey et al. 2022). The coordination of public service supply chains is essential for providing public services. However, the structural and organizational complexity of these chains can make coordination difficult, which can significantly affect the performance of non-profit organizations engaged in public service delivery (Sienkiewicz-Małyjurek and Szymczak 2023). Supply chain interruptions can have serious financial, social, and environmental consequences for non-

profit organizations. Natural disasters, economic downturns, and supply chain breakdowns are all potential sources of disruptions. The capacity of non-profit organizations to mitigate these interruptions can considerably affect their success (Bui et al. 2021).

Strategic supplier management inadequacies result in concerns such as late delivery, low-quality suppliers, and exorbitant costs. These difficulties impede supply chain performance measures such as delivery flexibility, customer reaction time, and inventory cost, hurting the overall performance of non-profit companies. Effective management commitment, supply chain integration, and supplier relationship management are vital in reducing these obstacles and improving supply chain performance in NGOs according to (N. Patrick and Osoro 2023; Ataseven, and Ferguson 2020)

The impact of supply issues on sustainable supply chain operations is a growing concern in the field of supply chain management. Several researchers have looked at this topic from various angles. Research on the effect of lean stock practices on the supply chain leverage of sugar manufacturing businesses in Kenya, for example, seeks to evaluate how inventory management techniques, such as lean stock practices, influence these firms' supply chain leverage. (Oloo 2023) Another research focuses on sustainable cold chain logistics for over-the-counter pharmaceuticals, to understand the factors that influence sustainability in this particular branch of logistics and explore solutions to the problems that impede sustainable cold chain logistics. (Al-Wakkal and Ding 2020) Furthermore, research on the implications of cloud-based supply chain collaborations has been done to provide a framework for understanding the problems and success aspects of cloud-enabled supply chain collaborations. (Repository 2019) Finally, a case study of a German apparel leader was conducted to investigate the relationships between sustainable supply chain management and stakeholder constructs, emphasizing the importance of stakeholder engagement and the incorporation of stakeholders' expectations in sustainable supply chain management, these studies add to our

understanding of the numerous elements impacting sustainable supply chain practices in diverse situations (Menke, Husemann, 2021).

The impact of supply challenges on sustainable supply chain practices is significant. Inadequate resources, technical expertise, and increased costs can all hinder the implementation of sustainable practices. (Shekarian et al. 2022) The perceived riskiness of supply chains, as well as the implementation of sustainability standards in lower-tier suppliers, are significant impediments. (da Silva, and Carvalho 2018) (Menon and Ravi 2021) Despite these challenges, the importance of sustainable supply chains is becoming more widely recognized as a result of consumer and investor demands, as well as growing supply chain legislation. (Academy n.d.) Supply constraints have a substantial impact on sustainable supply chain strategies. The COVID-19 pandemic has highlighted sustainability concerns in supply networks, particularly in the Australian food processing industry (Feng, and Zhao, 2023). Integrating sustainability concepts into supply chain management (SCM) encounters difficulties such as a lack of resources and social equity issues, which can hamper the adoption of sustainable SCM techniques (Paul, Shukla, and Trianni 2023). Green supply chain management (GSCM) strategies positively impact environmental performance in industries such as plastics, highlighting the relevance of environmental culture and social responsibility in procurement (Anon 2022).

H9: Supply Chain Challenges Influence on Non-profit organization performance.

E. Methodologists

1. Research Design

The research design serves as the overarching structure that encapsulates the meticulously selected array of research methodologies and techniques by an investigator. This deliberate choice enables researchers to concentrate on methods that align with the specific nature of the subject under investigation. The primary objective of this study is to scrutinize the impact of supply chain

challenges and the antecedents of Sustainable supply chain practice on the performance of Non-Profit Organizations (NPOP) of nonprofit organizations. Accordingly, a confirmatory research design has been judiciously employed. In consonance with the study's focal point, a quantitative technique is embraced as the chosen research design.

2. Research Location

The term research location' refers to the physical or virtual area in which scientific inquiries are carried out, which is critical for data gathering and analysis across several disciplines. Factors to consider when choosing a good location include research objectives, practicality, participant or sample accessibility, data collecting procedures, collaboration opportunities, budgetary limits, and risk assessment. Researchers must rigorously prepare and carry out their projects in compliance with ethical norms, assuring the data's integrity and trustworthiness. Ongoing review enables revisions to improve study results. This study is specifically undertaken in Afghanistan's major metropolitan areas and principal cities.

3. Population and Sample

a. Population

Afghanistan's organizational landscape is divided into two main kinds of registered, non-governmental, non-profit organizations and enterprises having legal status: non-governmental organizations (NGOs) and associations.

As of August 2022, there are 2,753 local NGOs and 248 international NGOs, for a total of 3,001. These groups operate outside of government control and are dedicated to a variety of social, humanitarian, developmental, or advocacy initiatives.

In parallel, the number of organizations stands at 4,544 (as of August 2022), representing groups with a variety of purposes such as cultural, educational, professional, or community-oriented goals. Associations, like NGOs, are non-profit organizations committed to promoting societal welfare. As a result, Afghanistan has a total of 7,545 registered non-

governmental, not-for-profit organizations, which includes both NGOs and associations (Procedure, Law, and Liu 2022) and (The Council on Foundations 2022).

Additionally, Afghanistan formally joined the United Nations on November 19, 1946, as one of the UN's founding members, Afghanistan has contributed to the organization's activities, particularly via its diversified and distinct culture. As of October 2021, there were 22 United Nations agencies active in Afghanistan. These organizations seek to further the country's development, promote human rights and security, and provide humanitarian aid. The United Nations Development Programme (UNDP), the United Nations High Commissioner for Refugees (UNHCR), the Food and Agriculture Organization (FAO), and the World Health Organization (WHO) are among the important agencies operating in Afghanistan (Office, UNOCA Compound, 2022) (The Council on Foundations 2022)

b. Sample

For the sampling technique, we used a simplified of calculating sample size named (Yamne1967:88).= $\frac{N}{1+N(e)^2}$

N = population (4,544)

n = sample size

e = precision (10%)

Define Variables:

n: Sample size (what we want to calculate)

N: Total population size

e: Precision or margin of error

4. Data and Data Source

a. Data

Our study takes a dual approach, using both quantitative and qualitative data. Systematic observations and numerical measurements yield quantitative data, but nuanced evaluations and interpretative analysis yield qualitative insights. This integrated technique ensures a thorough

comprehension of the phenomena under consideration, expanding our research and adding to academic debate.

b. Data Source

In this study, primary data is methodically collected from targeted respondents using a standardized questionnaire. These surveys will be methodically sent to all levels of organizational management, including top, middle, and lower management staff. To guarantee representative sample, a random sampling approach will be used, with questionnaires distributed randomly across the organizational structure. The primary data gathered is intrinsically unique, having not been used in any previous study projects. This research focuses on non-profit and non-governmental groups in Afghanistan. The main goal is to understand the complex effects of supply chain difficulties and sustainable supply chain practices on the operational effectiveness of non-profit organizations in the region.

5. Data Collection Instrument

The data collection technique for this study uses a standardized questionnaire format separated into two independent portions. The first portion focuses on demographics such as gender, age, educational background, and job experience inside companies. The next section discusses the study questions, which include supply chain issues, variables impacting sustainable supply chain practices, and the effectiveness of non-profit organizations. Respondents submit responses on a 5-point Likert scale ranging from 'Strongly Disagree' to 'Strongly Agree.' This technique seeks to assess the influence of each independent variable dimension on the performance of non-profit organizations, therefore providing a more nuanced understanding of their operational dynamics.

This type of explanatory research falls under the quantitative methodology and focuses on a specific population or sample. It involves gathering data through research instruments and utilizing statistical analysis to assess predetermined hypotheses. The study utilizes two methods for data analysis: structural equation modeling with partial least squares (PLS3-SEM) and Fuzzy

Set Qualitative Comparative Analysis (FSQCA). The decision to employ partial least squares (PLS3) in structural equation modeling relies on the guidelines established by Hair, Ringle, and Sarstedt (2011). These guidelines highlight PLS3 analysis's resilience in not relying on assumptions regarding particular measurement scales and its capability to effectively manage small sample sizes.

In contrast, the adoption of Fuzzy Set Qualitative Comparative Analysis (FSQCA) aligns with the study's aim to explore complex causal relationships and identify necessary and sufficient conditions for outcomes. FSQCA offers a unique approach by accommodating both qualitative and quantitative data, allowing for the examination of multiple causal paths and providing a more nuanced understanding of the intricate interplay among variables in the research context.

The research is centered around non-profit organization performance, with the goal of exploring the impact of sustainable supply chain practices, management commitment, and supply chain integration on non-profit organization performance. Additionally, the study investigates the moderating effect of supply chain challenges on the relationship between sustainable supply chain practice and non-profit organization performance. The participants, numbering 169 individuals, are employees in the Afghanistan NPO sectors. Numeric responses on a Likert scale were collected through a questionnaire, and statistical methods were used for analysis. Data processing, validity and reliability assessment, evaluation of relationships between variables, and understanding of complex relationships within the dataset were performed using Smart-PLS3 4 and FsQCA software.

6. Data Scaling Technique

The Likert scale, named after Rensis Likert who created it, is a crucial instrument used in survey research methodology. It is commonly utilized to thoroughly evaluate the attitudes, opinions, perceptions, and subjective states of individuals. The Likert scale usually includes a set of statements or questions

aimed at eliciting detailed responses that represent respondents' viewpoints on a particular subject.

In a Likert scale, each statement is paired with a range of response choices, from "Strongly Disagree" to "Strongly Agree," and including intermediate options like "Disagree," "Neutral," and "Agree." These choices are given numerical values, typically on a scale of 1 to 5 or 1 to 7, to show the level of agreement or disagreement.

Participants thoughtfully evaluate each statement and choose the response option that most accurately reflects their perspective. This process produces organized data, allowing researchers to detect patterns, trends, and differences in opinions across the people who were surveyed.

Once data has been collected, researchers carefully analyze it to comprehend the distribution of responses and draw significant insights. Statistical measures like averages, middle values, and measures of spread are frequently employed for this objective, improving the comprehension of the perspectives of the population being sampled.

The methodical and systematic approach of the Likert scale makes it extremely valuable in a range of academic fields, such as psychology, sociology, market research, and public opinion polling. Its flexibility and strong methodology make it an essential tool for conducting empirical research to understand the complexities of human attitudes and perceptions.

In the present study, the Likert-based value system can be categorized as illustrated in Table 1 below:

Table 1. Likert scale

Category	**Score**
Strongly Disagree (SD)	1
Disagree (D)	2
Less Agree (LA)	3
Agree (A)	4
Strongly Agree (SA)	5

7. Operational definition of Variables and Indicators

Supply Chain Integration refers to the alignment and coordination of all operations involved in providing a product to the end consumer, including suppliers, manufacturers, distributors, and retailers (Abuzawida, Alzubi, and Iyiola 2023). An operational definition is a research element that tells how to measure a variable. (Singarimbun & Effendi, 2015). In other words, the operational definition is scientific information that helps other researchers who want to use the same variables. The operational variables used in this research can be seen in the following:

Table 2. Operational Definition of Variables and Indicators

Variable Definition	Indicator	Resource
Non-profit organization performance (NPOP) refers to the effectiveness and efficiency of non-profit organizations in achieving their mission and goals. NPOP needs to measure its performance to ensure organizational sustainability, attract funding, and demonstrate accountability to stakeholders.	a. Public trust b. Efficient and effective use of resources c. community service d. Funds and donors	(Diaz-Perdomo and Alvarez-Gonzalez 2020)
Sustainable Supply Chain Practice (SSCP) refers to the implementation of sustainable business practices in supply chain management to reduce social and environmental effects.	a. Social Supply Chain b. Economic Supply Chain c. Environmental Supply Chain	(Haroon et al. 2021) and (Abuzawida et al. 2023)
Supply Chain Integration (SPI) refers to the alignment and coordination of all operations involved in providing a product to the end consumer, including	a. Sharing information b. Planning c. Controlling materials	(Jabarzadeh et al. 2021)

suppliers, manufacturers, distributors, and retailers.	d. Coordinating materials	
Management commitment (MC) refers to an organization's management's dedication and support for a certain objective, effort, or change.	a. Top-Level Management b. Middle Management c. First-Line Management.	(Blome dkk., 2014; Yen & 2012)
Supply chain challenges (SCC) are challenges faced by businesses in their end-to-end supply chain processes, arising from factors like sustainability, technological advancements, and the integration of various systems and components.	a. Government Regulation b. Customer pressure c. Internet	(Isaienko et al. 2019)

8. Data Analysis

a. Smart PLS3 (Partial Least Square).

PLS3 is a variance-based SEM that is processed statistically using the SmartPLS3 3.0 software. according to (Latan and Ghozali 2015) The analysis method is a strong measuring method since it does not require data with a specific scale measurement and can use a small sample size. Furthermore, PLS3 can be used to test complicated linkages and impacts. In general, PLS3 analysis employs two sub-models that must be executed sequentially.

1. Measurement Model (Outer Model).

   The outer model is used to determine the model's validity and reliability by measuring the influence of each statement question on the latent variable. The outer model is classified into three types.

   a. Convergent validity.

The goal of Convergent Validity is to assess the link between constructs and their latent variables. The value of convergent validity can be determined by examining the outer loadings for each construct indicator. For early-stage research, measuring the outer loading/factor loading value of 0.5 to 0.6 is considered sufficient, although 0.7 is deemed excessive and the variable is considered legitimate if it has an average extracted (AVE) value of ≥0.5 (Latan and Ghozali 2015).

b. Discriminant Validity.

Discriminant validity compares the relationship between indicators and latent variables, as well as the relationship with other latent variables, to ensure that the two constructs are not testing the same thing. Cross-loading and Fornell-Larcker are used to assess discriminant validity. As stated by (Ghozali, 2017) suggests that if the cross-loading and fornell-larger values on latent variables are the highest compared to all others the discriminant validity value is regarded legitimate if it has cross-loading values for other latent variables. The predicted value for the Average variance extracted (AVE) is 0.5.

c. Composite Reliability

According to (Ghozali, 2017), a questionnaire is considered credible if the respondent's response is constant or stable throughout time. Composite reliability is used to assess the dependability of a variable. It is possible to do so by examining Cronbach's alpha and composite reliability; the values of both are supposed to be 0.7, but a value of 0.6 is still acceptable.

d. Cronbach Alpha

Cronbach alpha was used to boost the reliability test. All constructs are expected to have a value of 0.5.

2. Structural model (inner model)

The inner model is used to describe the influence of latent variables on one another. Several evaluations are used to assess the inner model.

a. Analysis of Variant (R2) or Determination Test

Variant Analysis (R2) or Determination A test is performed to determine the impact of the independent variable. In general, variables on the dependent variable on the R-Square structural model or the Determination Test. The R-squared value is used for evaluation.

b. Predictive Relevance (Q2)

The Q2 predictive relevance value can also be used to evaluate the structural model's results. When blindfolding SmartPLS3 3.0, a value of Q2 > 0 indicates that the model has predictive relevance, whereas a value of Q2 <0 indicates that the model lacks predictive relevance. The model's Q2 predictive relevance values of 0.02, 0.15, and 0.35 indicate that it is weak, moderate, or strong (Ghozali & Hengky, 2015).

c. Significance Test

The t-statistical value test is used to assess the significance of variables in the structural model, which in SmartPLS3 is tested using bootstrapping. The significance value between constructs, t-statistics, and p-values can be used to determine the direction of influence and significance. In this study, the t-statistical significance value was greater than 1.96, and the p-value was less than <0.05 (Ghozali & Hengky, 2015).

3. Hypothesis Testing

The goal of hypothesis testing is to determine the effect of the causal variable on the effect variable as measured by the path coefficient value. Use a 95% confidence level and a 5% or 0.05 error limit. If the t-statistic is greater than 1.96 and the P-value is less than <0.05, H0 is accepted and Ha is rejected. Meanwhile, H0 is rejected and Ha

is accepted if the t-statistic value is less than 1.96 and the P-value is greater than >0.05.

4. Stands for Structural Equation Modeling - Fuzzy Set Qualitative Comparative Analysis (SEM-FsQCA):

SEM-FsQCA combines aspects of the SEM and FsQCA methods. It combines SEM's capacity to handle complicated causal networks with FsQCA's ability to work with qualitative data and discover causal configurations that lead to certain outcomes. This integration enables researchers to assess both quantitative and qualitative data at the same time, resulting in a more complete picture of the topic being studied.

In Structural Equation Modeling - Fuzzy Set Qualitative Comparative Analysis (SEM-FsQCA), the functions of each method are as follows:

a. Raw Coverage

Raw coverage is the percentage of cases in the data that show the result being investigated. In the context of SEM-FsQCA, it demonstrates how well a set of causal circumstances explains an outcome variable without regard for its consistency.

b. Unique Coverage

Unique coverage assesses how well any individual combination of cause factors explains for the outcome variable on its own. It evaluates the distinct contribution of each combination to explaining the outcome.

c. Consistency

Consistency is the extent to which the causal factors in each combination are logically consistent in explaining the outcome. In SEM-FsQCA, this refers to the coherence or logical correctness of the conditions used to explain the conclusion.

d. Combined Consistency-Coverage

This technique uses consistency and coverage to assess the overall efficacy of the causal circumstances in explaining the

outcome. It takes into account both the logical coherence of the combinations and the extent to which they cover scenarios with the result variable.

e. Raw Consistency-Coverage

Raw consistency-coverage assesses the proportion of instances covered by combinations of causal conditions, regardless of the uniqueness of the combinations. It assesses how well the combinations explain the outcome in terms of both consistency and coverage.

F. Result and Discussion

1. Demographic Information of Respondents

a. Gender Distribution Overview from Survey Data

The table below shows the gender distribution of respondents, based on data collected from our survey.

Table 3. Characteristics by Gender

Gender	**Frequency**	**Percentage**
Male	126	74.6%
Female	43	25.4 %
Total	**169**	**100%**

The table above illustrates the gender distribution of respondents, with males comprising the majority at 126, constituting 74.55% of all respondents. This suggests a predominance of male representation, possibly influenced by recent restrictions affecting female employment post-Taliban ban.

b. Age Distribution of Respondents

The following table presents the age distribution of respondents as gathered from the questionnaire utilized in this study.

Table 4. Characteristics Base on the Age

Age	Frequency	Percentage
Under 20 years old	2	1.2%
21-30	87	51.5%
31-40	65	38.5
Over 40	15	8.9%
Total	**169**	**100%**

The data presented above shows that 87 out of 169 respondents, or 51.5% of the total sample, are between the ages of 21 and 30. This notable representation highlights the prevalence of youth in the surveyed population. The large number of younger people suggests a potentially dynamic and productive workforce within these organizations.

c. Educational Background of the Respondent

We have categorized educational attainment into five levels as per the questionnaire. The following data outline the distribution of respondents across these levels.

Table 5. Characteristics Based on Education

Educational Level	Frequency	Percentage
Diploma	19	11.2%
Bachelor	104	61.5%
Master	44	26%
Ph.D.	2	1.2%
Total	**169**	**100%**

Based on the data presented in the above table, the majority of employees in Afghanistan's non-governmental organizations (NGOs) and nonprofit organizations (NPOP), which comprise 61.5% of the entire sample, have finished their undergraduate degrees. This is an important finding. Additionally, 26% of respondents had graduate degrees, suggesting that a sizeable percentage of the polled population is educated.

d. Tenure and Professional Experience

According to previous research, most employees served for 5 to 10 years in similar organizations. However, significant developments, such as the withdrawal of North Atlantic Treaty Organization (NATO) forces, have resulted in a noticeable shift. The current data, as shown in the table below, show that the majority of respondents now have service tenures of 3-5 years. This suggests a shift from the previously observed trend, possibly due to changes in organizational dynamics and workforce composition brought about by recent geopolitical events.

Table 6. Characteristics Based on Year of Service

Years of Service	**Frequency**	**Percentage**
Less than one year	24	14.2%
1-2	28	16.6%
3-5	58	34.3%
6-10	44	26%
More than 10	15	8.9%
Total	**169**	**100%**

e. Type of Organization

There are two types of Non-profit and Non-Governmental organizations in Afghanistan: International NGOs and National Nonprofit NGOs. Below is the result obtained from this research. Below is the result obtained from this research. Based on the table below from 169 respondents most of them are working in International NGOs with a frequency of 89 and it contains 52.7 percent of our respondents.

In Afghanistan, non-profit and non-governmental organizations are divided into two categories: international NGOs and national NGOs. International non-governmental organizations (NGOs) work on a global scale, often with branches or operations in multiple countries, whereas national nonprofit NGOs work within Afghanistan's borders. The distinction

between these two types of organizations is critical for understanding the diversity and scope of non-governmental efforts in the country.

Analyzing the data from our study reveals that a significant proportion of respondents work for international non-governmental organizations (NGOs). 89 of the 169 respondents surveyed reported working for international non-governmental organizations (NGOs), accounting for 52.7% of the total. This finding emphasizes the significant presence of international NGOs within the non-profit sector in Afghanistan, highlighting. They play an important role in addressing the nation's social, economic, and humanitarian challenges. Further investigation of the data may yield useful insights into the specific activities, impact areas, and organizational structures of international NGOs operating in Afghanistan.

Table 7. Characteristics Based on the Types of Organizations

Types of Organization	**Frequency**	**Percentage**
International NGOs & NPOP	89	52.7%
National NGOs & NPOP	80	47.3%
Total	**169**	**100%**

f. Non-profit organization performanceOperation

The data provided allows us to understand the duration of projects within our non-profit organization. It categorizes these projects into two types based on their duration: "less than 5 years" and "more than 5 years." The analysis shows that the vast majority of our projects, approximately 74.6%, lasted less than five years. This suggests that we tend to prioritize shorter-term initiatives. However, only 25.4% of our projects lasted more than five years. This means that we have fewer long-term projects in comparison. Several factors, including funding availability, project goals, and our organizational strategies, may be influencing these trends.

Understanding these patterns is critical for us to plan our strategies effectively and allocate our resources wisely to the non-profit sector.

Table 8 Characteristics Based on the Operation Duration in Organization

Operation duration	**Frequency**	**Percentage**
Less than 5 years	146	74.6%
More than 5 years	43	25.4%
Total	**169**	**100%**

2. Partial Least Square (PLS3)

Partial least spare model analysis consists of outer model analysis, inner model analysis, and hypothesis testing.

a. Outer Model Analysis

The outer Model aims to specify the relationship between latent variables and their indicators or it can be said that the outer model defines how each indicator relates to its latent variables.

1) Convergent Validity

The table contains information about convergent validity, which investigates how well different indicators measure the same underlying concept. Simply put, it determines whether various aspects of a particular idea work well together. The variables listed are supply chain integration, management commitment, non-profit organization performance, supply chain challenges, and sustainable supply chain Practice." Each variable is associated with specific indicators, and the table displays how strongly each indicator is related to its corresponding variable, as represented by outer loading values. Essentially, the greater the outer loading value (closer to one), the stronger the relationship between the indicator and the variable it represents. Overall, when we look at the data, we see that most indicators have high outer loading values, indicating that they efficiently Measure their respective variables. This suggests that the chosen indicators are doing an adequate

job of capturing the intended concepts, lending credibility to the research findings.

Convergent Validity is done by looking at item reliability (Validity indicator) which is indicated by the loading factor value. The loading factor is a number that shows the correlation between the score of a question item and the indicator score of the indicator construct that measures the construct. A loading factor value greater than 0.7 is said to be valid. However, according to Hair et al. (1998) for an initial examination of the loading factor matrix, approximately 0.3 is considered to have met the minimum level, a loading factor of approximately 0.4 is considered better, and a loading factor greater than 0.5 is generally considered significant. In this study, the limit of the loading factor used is 0.7. After processing the data using SmartPLS3 3.0 the result of the loading factor can be shown as follows:

Table 9. Convergent Validity

Variable	**Indicator**	**Outer Loading**
Supply Chain Integration	CM	0.893
	P	0.893
	SI	0.906
Management Commitment	DTDI	0.940
	RM	0.918
	MC3	0.933
Non-profit organization performance	CS	0.925
	EUR	0.930
	FD	0.894
	PT	0.887
Supply Chain Challenges	CP	0.915
	GR	0.893
	IN	0.913
Sustainable Supply Chain Practice	ENSC	0.883
	ESC	0.912

	SSC	0.923

As shown in the table above, all of our indicators have outer loadings greater than 0.7, indicating that they meet the criteria for convergent validity. Convergent validity is the correlation between different measures of the same concept. In this context, the table displays the findings of an analysis that evaluated convergent validity for various variables related to supply chain management in non-profit organizations. The outer loading values in the table represent the strength of the relationship between each indicator and its corresponding variable. An outer loading of 0.7 or higher is commonly used to indicate acceptable convergent validity. The statement correctly interprets the data, noting that all indicators have outer loadings that exceed 0.7, indicating that they are effective at measuring their respective variables. This suggests that the indicators used are reliable and valid measures for evaluating the constructs under consideration. Overall, the findings support the reliability and validity of the measurement model used in the study, which increases confidence in the research findings.

2) Discriminant Validity

Table 10 presents the AVE values for this study.

Table 10. Discriminant Validity Result

Variable	**Average Variance Extracted (AVE)**	**Description**
MC	0.930	Valid
NPOP	0.836	Valid
SCC	0.818	Valid
SCI	0.854	Valid
SSCP	0.815	Valid

In the analysis presented in Table 10, we assessed discriminant validity using a metric known as Average Variance Extracted (AVE). Each variable, including Management Commitment (MC), Non-profit organization performance (NPOP), Supply Chain Challenges (SCC), Supply Chain Integration (SCI), and Sustainable Supply Chain Practice (SSCP), has an AVE value greater than 0.5. This suggests that these variables account for a significant portion of the variance in their respective constructs, demonstrating their distinctness from other variables and the reliability of our measurements. In layman's terms, it means that each aspect we're measuring is unique and not caused by measurement errors or overlaps with other factors. As a result, we can be confident that our analysis accurately represents the various aspects under investigation, lending credibility to our study findings. Based on the data in Table 10, it is clear that the average variance extracted (AVE) values for all five variables exceed the 0.5 threshold. As a result, the model used in this study can be considered to have acceptable discriminant validity.

3) Composite Reliability Result

The outer model can be evaluated not only for convergent and discriminant validity but also for construct reliability or composite reliability of the latent variables. If the composite reliability value exceeds 0.7, the construct is considered reliable. The SmartPLS3 output provides composite reliability results, as shown in the table below.

Table 11. Composite Reliability Result and Cornbrash's Alpha

Variable	Composite Reliability	Cronbach's Alpha
MC	0.951	0.922
NPOP	0.950	0.930
SCC	0.933	0.893
SCI	0.926	0.879
SSCP	0.932	0.891

The table shows the composite reliability and Cronbach's Alpha values for various variables. Composite reliability determines how consistent the items in a construct are in measuring the underlying concept. A value greater than 0.7 is generally considered good, indicating high internal consistency. Meanwhile, Cronbach's Alpha assesses similar reliability, with a value closer to 1 indicating greater consistency among items.

For example, the variable "MC" (which most likely stands for "Management Commitment") has a composite reliability of 0.951, indicating strong consistency among its items. The Cronbach's Alpha value of 0.922 confirms the reliability. Similarly, "NPOP" (Nonprofit Organization Performance) and "SCC" (Supply Chain Challenges), "SCI" (Supply Chain Integration), and "SSCP" (Sustainable Supply Chain Practice) all have high composite reliability values greater than 0.9, indicating good internal consistency. Cronbach's Alpha values for these variables range from 0.879 to 0.930, demonstrating their reliability. The table above shows that all variables in this study have composite reliability values and Cronbach's alpha > 0.7, so it can be said that they already have good reliability values.

b. Inner Model Evaluation

After we've checked and confirmed that the outer model meets the criteria, we'll move on to evaluate the inner model. This includes examining the R-square value, which indicates how reliable the dependent construct is, as well as the t-statistical value of the path coefficients to determine the significance level during hypothesis testing.

1) Analysis of Variant (R2) or Determination testing

The Analysis of Variance (R-squared) or Test of Determination aims to determine how much the independent variable influences the dependent variable. This is illustrated in the table below by the

coefficient of determination, which indicates the extent to which changes in the dependent variable can be attributed to changes in the independent variable.

Table 12. Determination Test Result (R2)

Variable	R Square	R Adjusted
Non-profit organization performance	0.829	0.823
Sustainable Supply Chain Practice	0.801	0.799

In this analysis, we'll look at how much the factors we've considered affect two key aspects: "Non-profit organization performance" and "Sustainable Supply Chain Practice." The R-squared values indicate how many of these aspects can be explained by the factors we've investigated. Our factors can explain approximately 82.9% of the variability in "Non-profit organization performance," while in "Sustainable Supply Chain Practice," it is approximately 80.1%. These results indicate that our study variables account for a significant portion of what influences these aspects. Additionally, we have adjusted R-squared values, which take into account the number of factors in the model. They're slightly lower, but still high, indicating that our models fit well and are consistent. Overall, it implies that the factors we've investigated play a significant role in determining both non-profit organization performance and sustainable supply chain practices.

The "Sustainable Supply Chain Practice" variable has an R-squared value of 0.801 (80.1%). This means that the factors investigated in this study can account for 80.1% of the variability in sustainable supply chain practices. However, it is important to note that the variables included in our analysis do not explain all of the variance, implying that other factors not examined in this study may also influence sustainable supply chain practices.

Similarly, the R-squared value for the variable "Non-profit organization performance" is 0.829 (82.9%). This means that the sustainable supply chain practice variable and supply chain challenges examined in this study account for 82.9% of the variation in non-profit organization performance. The remaining 17.1% of the variability is attributed to other factors than the scope of this study.

a) Goodness of Fit Test

The formula for calculating the coefficient of total determination (Q2) is as follows:

$Q2 = 1- (1-R^2_1) (1-R^2_2)$

Q2 = Predict Relevance

R2 = R Squarer

The result is based on the above formula:

$Q2 = 1- (1-0.801) (1-0.829)$

Q2 = 1- (0,199) (0,171)

Q2 = 1- 0,034

Q2 = 0,966

G. Hypothesis Testing

Hypothesis testing is an important part of our research process because it allows us to determine the validity of our proposed ideas. We use the Inner Model test to analyze our hypotheses, with a focus on the Structural Model, which takes into account factors such as r-square output, parameter coefficient, and t-statistic. These measures aid in understanding the strength and significance of the relationships between variables. We use the SmartPLS3 3.0 software to conduct this testing, which provides useful information about the statistical significance of our findings. We look for a t-statistic greater than 1.96 and a p-value of 0.05 or lower to indicate statistical significance. Additionally, a positive beta coefficient indicates a positive relationship between variables. Following these guidelines will allow us to confidently determine whether our hypotheses are supported by the data.

The results of our hypothesis testing are summarized in the table below, providing a clear overview of our discoveries.

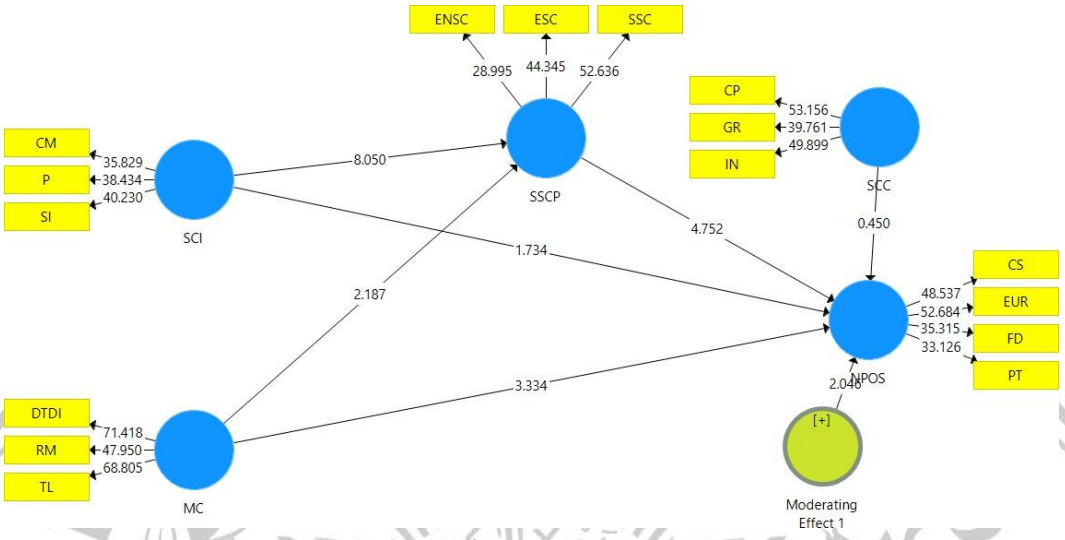

Table 13. Hypothesis Testing Direct Effect

Hypothesis	Relationship	Original Sample (o)	T Statistic	P Value	Result
H1	**SSCP -> NPOP**	0.376	4.752	**0.000**	**Accepted**
H2	**SCI-> NPOP**	0.188	1.734	**0.083**	**Accepted**
H3	**MC-> NPOP**	0.261	3.334	**0.001**	**Accepted**
H4	**SCI -> SSCP**	0.710	8.050	**0.000**	**Accepted**
H5	**MC -> SSCP**	0.210	2.187	**0.029**	**Accepted**
H8	**Moderating Effect 1 -> NPOP**	-0.065	2.046	**0.041**	**Accepted**
H9	**SCC -> NPOP**	0.041	0.450	**0.653**	**Not accepted**

H1. Sustainable supply chain practice has a significant impact on the performance of non-profit organizations

The fourth hypothesis, which states that sustainable supply chain practice performance has a significant impact on the performance of non-profit organizations, was tested using SmartPLS3 software. The T-statistic for the relationship between sustainable supply chain practices and non-profit organization performance is 4.752, significantly higher than the threshold of 1.96. Furthermore, the associated P-value is 0.000, indicating strong statistical significance far below the standard threshold of 0.05. Based on these findings, we conclude that the fourth hypothesis is correct, confirming the significant impact of sustainable supply chain practices on the performance of non-profit organizations. This research looks at the association between "Sustainable Supply Chain Practices" (SSCP) and "Non-Profit Organizational Performance" (NPOP). The original sample data for SSCP show a mean of 0.378 and a standard deviation of 0.079. The estimated T-statistic of 4.752 shows a significant difference between the means of SSCP and NPOP. Furthermore, the very low p-value of 0.000 indicates an extremely low possibility of seeing these results if there were no actual association between sustainable supply chain practices and non-profit company success. As a result, our study suggests that there is a statistically significant relationship between sustainable supply chain practices and non-profit organizational effectiveness. This research implies that incorporating sustainable practices into the supply chain may improve the effectiveness of non-profit organizations.

H2. Supply chain integration has a significant effect on non-profit organization performance.

The hypothesis claims that supply chain integration has a major impact on the success of non-profit organizations. We learn about this association by examining the supplied data, which includes the mean, standard deviation, T-statistic, and P-value. We can see that supply chain integration has a mean of 0.188 and a standard deviation of 0.160. and, the T-statistic of 1.734 and the related P-

value of 0.083 shows a moderate relationship between supply chain integration and non-profit organization performance.

H3. Management commitment has a significant effect on non-profit organization performance.

The hypothesis claims that managerial commitment has a major impact on the success of non-profit organizations. This relationship may be better understood by evaluating the presented data, which includes the mean, standard deviation, T-statistic, and P-value. The mean of management commitment (SCC) is 0.041, with a standard deviation of 0.070, suggesting both central tendency and variability, and the T-statistic of 0.450 and the related P-value of 0.653 indicate a relationship between management commitment and non-profit organization performance.

H4. *Supply chain integration has a significant positive impact on sustainable supply chain practices.*

The first hypothesis looks into whether supply chain integration has a significant positive impact on sustainable supply chain practices. The analysis shows that the T-statistic for this hypothesis is 8.050, which exceeds the critical value of 1.96. Additionally, the P-value associated with this hypothesis is 0.000, which is less than the conventional significance level of 0.05. The results of SmartPLS33 hypothesis testing show that the first hypothesis is supported. The research offers the findings of a statistical comparison of supply chain integration (SCI) and sustainable supply chain practices (SSCP). The original sample data for SCI showed a mean of 0.696 and a standard deviation of 0.088. The estimated T-statistic of 8.050 indicates a substantial difference in the means of the two variables. Furthermore, the extremely low p-value of 0.000 suggests that these results are exceedingly unlikely to occur if there is no link between SCI and SSCP. Thus, the data point to a statistically significant relationship between supply chain integration and sustainable supply chain practices. However, without more information on the precise hypotheses investigated, additional interpretation is limited.

H5. Impact of management commitment on sustainable supply chain practice.

The second hypothesis proposes that higher levels of management commitment improve sustainable supply chain practice.) This hypothesis has a T-statistic of 2.187, which suggests that there is some evidence for the relationship. However, with a P-value of 0.029, which is lower than the traditional threshold of 0.05, the result is statistically significant. This research focuses on the link between "Market Competition" (MC) and "Sustainable Supply Chain Practices" (SSCP). The original sample data for MC showed a mean of 0.221 and a standard deviation of 0.096. An estimated T-statistic of 2.187 reveals a significant difference between the means of MC and SSCP. Furthermore, the p-value of 0.029 indicates that these findings are unlikely to occur if there is no actual association between market competitiveness and sustainable supply chain practices. As a result, it suggests that there is a statistically significant relationship between market rivalry and sustainable supply chain practices. This research implies that market rivalry may impact the adoption or implementation of sustainable practices in supply chains.

H8. Supply chain challenges moderate the relationship between sustainable supply chain practice and non-profit organization performance.

The hypothesis proposes that supply chain obstacles moderate the association between sustainable supply chain practices and non-profit organization performance. We may evaluate this hypothesis by reviewing the available data, which contains numbers showing the degree of supply chain problems as well as statistical indicators of moderating impact (T-statistic and P-value). The results for supply chain problems range from -0.065 to 0.032, indicating varied levels of difficulty throughout the supply chain. Meanwhile, the T-statistic of 2.046 and the corresponding P-value of 0.041 show a statistically significant moderating effect. This shows that the impact of sustainable supply chain practices on non-profit organization performance is proportional to the magnitude of supply chain issues experienced.

H9. Supply chain challenges have a significant impact on non-profit organization performance.

The third hypothesis proposes that supply chain challenges have a significant impact on non-profit organization performance. According to the results of the SmartPLS3 application, the T-statistic for the relationship between supply chain challenges and non-profit organization performance is 0.450, which is significantly lower than 1.96. Furthermore, the associated P-value is 0.653, which exceeds the conventional threshold of 0.05. As a result of these findings, we conclude that our third hypothesis, which states that supply chain challenges have a significant impact on non-profit organization performance, is not supported. This research focuses on the link between "Supply Chain Complexity" (SCC) and "Non-Profit Organizational Performance" (NPOP). The original sample data for SCC show a mean of 0.070 and a standard deviation of 0.090. The estimated T-statistic of 0.450 indicates that there is no significant difference in the means of SCC and NPOP. Furthermore, the p-value of 0.653 indicates that these findings are likely to occur even if there is no genuine association between supply chain complexity and non-profit organizational performance. According to this investigation, there appears to be no statistically significant relationship between supply chain complexity and non-profit organizational effectiveness. However, it is important to recognize that statistical significance does not always indicate practical relevance, as other factors may still impact non-profit organizational success.

Table 14. Summary of Hypothesis Indirect Effect Test Result

Hypotheses	Variables	Original Sample (O)	T Statistics (|O/STDEV|)	P Values	Result
H6	**SCI -> SSCP -> NPOP**	0.267	3.946	**0.000**	**Accepted**
H7	**MC -> SSCP -> NPOP**	0.079	2.039	**0.042**	**Accepted**

H6. Supply Chain Integration Affects Non-profit Organization Performance Through Sustainable Supply Chain Practices.

The table displays statistical findings on the correlation between supply chain integration (SCI), sustainable supply chain practices (SSCP), and non-profit organization performance (NPOP). The column labeled "Original Sample (O)" shows a correlation coefficient of 0.267 between SCI, SSCP, and NPOP. The column "T Statistics (|O/STDEV|)" displays the t-statistic, which quantifies the correlation between the variables in comparison to the standard deviation. The t-statistic of 3.946 in this instance indicates a robust connection between SCI, SSCP, and NPOP. The column labeled "P Values" shows the likelihood (p-value) of getting the observed correlation coefficient through random chance. A p-value of 0.00 indicates that the observed correlation between SCI, SSCP, and NPOP is statistically significant, indicating that it is unlikely to have happened randomly. In general, these results show a strong positive correlation between supply chain integration, sustainable supply chain practices, and the performance of non-profit organizations. This indicates that integrating sustainable practices into the supply chain has a favorable impact on the effectiveness of non-profit organizations.

H7. The Impact Management Commitment Has on Non-profit Organization Performance Through Sustainable Supply Chain Practices.

The statistical findings in the table show how management commitment (MC) impacts the performance of non-profit organizations (NPOP) by implementing sustainable supply chain practices (SSCP). In the "Original Sample (O)" column, you can see the coefficient estimate for the connection between management commitment and the performance of non-profit organizations through sustainable supply chain practices. In this instance, the estimated coefficient is 0.079, indicating a correlation between management dedication and the performance of non-profit organizations through sustainable supply chain practices. The column labeled "T Statistics (|O/STDEV|)" displays the T statistic, calculated by dividing the coefficient estimate by its standard error. The measurement assesses the importance of the connection. The T statistic of 2.039 shows that there is a statistically significant relationship between management commitment and non-profit organization performance through sustainable supply chain practices. Finally, the column labeled "P Values" indicates the likelihood of observing the connection

between management commitment and non-profit organization performance through sustainable supply chain practices purely by random chance. The p-value for this association is 0.042, which is lower than the commonly accepted significance level of 0.05. Therefore, it can be inferred that there is a statistically significant correlation between the commitment of management and the performance of non-profit organizations, as indicated by a p-value of less than 0.05 in relation to sustainable supply chain practices.

1. Discussion

a. Sustainable supply chain practice to non-profit organization performance.

Through statistical research, the hypothesis demonstrating the noteworthy influence of sustainable supply chain practices on the success of non-profit organizations has been verified. With a P-value of 0.000 and a T-statistic of 4.752, which is well over the cutoff, SmartPLS3 software produced results with substantial statistical significance. This emphasizes how important sustainability is to improving the efficacy of nonprofit organizations. It is recommended that supply chains use sustainable practices to increase operational effectiveness and social impact. The non-profit sector should make strategic investments in sustainability efforts. The result from SmartPLS33 above indicated that sustainable supply chain practice has a significant effect on nonprofit organization performance. This means there is a direct effect between the performance of supply chain management and the performance of nonprofit organizations.

The performance of non-profit organizations (NPOP) in Afghanistan can be improved by implementing sustainable supply chain practices, especially considering the country's socio-economic challenges and environmental vulnerabilities (Zhuravleva 2024). Non-profit organizations can improve efficiency, resilience, credibility, and social impact by incorporating sustainability principles into their operations (Bushuyeva and Chernysh 2023). These strategies assist in maximizing resource utilization, minimizing waste, developing resistance to external disruptions, adhering to organizational principles, securing donor

backing, and aiding in achieving national development objectives. In general, sustainable supply chain practices are extremely important for helping NPOPs carry out their missions successfully and make long-term positive changes in Afghan communities and ecosystems (Maria Disperati and Antonia, 2023).

The result above supports the (Beamon & Balcik, 2008) study about "performance measurement in humanitarian relief chain" which indicates how important is performance measurement in the nonprofit sector and also by implementing effective performance measures, can bring feedback to agency performance and motivate managers and employees to work better.

b. Supply chain integration has a significant effect on non-profit organization performance.

We should consider how non-profit entities are impacted by operational strategies in light of the concept that "supply chain integration significantly affects non-profit organization performance". The statistical analysis, which displays a T-statistic of 1.734 and a P-value of 0.083, only reveals a moderate connection between supply chain integration and non-profit performance, falling short of standard significance levels, despite observing an average supply chain integration level of 0.188 with a standard deviation of 0.160, indicating some integration among non-profits. But this also begs crucial issues about how supply chain management techniques might affect non-profits' service delivery, operational effectiveness, and resource allocation.

In Afghanistan, the integration of supply chains is essential for non-profit organizations to enhance operational performance in the face of infrastructure challenges, security concerns, and geopolitical strife. Implementing advanced supply chain integration involves leveraging technology, building collaborative partnerships, investing in local capacities, and ensuring transparency and trust (Ataseven et al. 2020). The benefits of a well-integrated supply chain include more efficient resource allocation, reduced wastage, improved distribution, enhanced

security, and accountability, ultimately enabling effective and responsible aid delivery in a challenging environment (Aich et al. 2019).

c. *Management commitment has a significant effect on non-profit organization performance.*

The statistical analysis offered supports the claim that management commitment has a major impact on non-profit organization performance. There is both a central tendency and diversity among the examined organizations, with a mean value of 0.041 and a standard deviation of 0.070, suggesting a varied landscape of management devotion. Furthermore, there is a statistically significant correlation between management commitment and non-profit performance, as indicated by the computed T-statistic of 0.450 and associated P-value of 0.653. These results imply that managerial commitment is a major factor in determining how successful non-profit organizations are. The hypothesis is supported by the likelihood that the observed association between managerial commitment and organizational success happened by accident. This emphasizes how crucial it is for non-profit organizations to have a strong managerial commitment culture. groups. Non-profit organizations may improve their ability to implement successful programs, include stakeholders, and continue to be successful in carrying out their social objectives over the long run by giving management commitment a top priority.

In Afghanistan, the effectiveness of non-profit organizations (NPOP) is heavily influenced by the commitment of their management due to the challenging environment of political instability, security concerns, and economic constraints. Strong and dedicated leadership is crucial for guiding NPOP through these obstacles, ensuring alignment of strategies, efficient resource utilization, and operational resilience. Effective leadership provides clear strategic direction, enabling organizations to navigate the complex socio-political landscape and adapt strategies as necessary to stay on course (Gee et al. 2022). Furthermore, the involvement of management in fundraising and allocating resources becomes crucial. Leaders who are dedicated to their cause are more likely to be successful in

obtaining the required funding and making the most efficient use of resources, ultimately ensuring sustainability and a lasting impact (McMullin and Raggo 2020). The quality of leadership has a significant impact on the motivation of staff and the overall culture of the organization. In areas of conflict such as Afghanistan, it is difficult but essential to keep morale and motivation high. Good leaders create a positive work atmosphere, highlighting the significance of team unity and adaptability (Wabulasa and Kihara 2023).

Managing external relationships and upholding community trust are crucial responsibilities when there is clear dedication from management. In sensitive settings, ethical leadership fosters trust within the community and encourages greater participation, which is crucial for meeting project objectives.

d. Integration supply chain on sustainable supply chain practice.

The result of the Inner Model from SmartPLS33 above shows that supply chain integration positively affects sustainable supply chain practice as seen from the calculated value of the T-statistic, which is greater than the T table. The result of the test implies that supply chain integration is the core of performance in the sustainable supply chain because through supply chain integration all donors and stakeholders can exchange and share information and communication systems seamlessly in all aspects such as planning, execution, assessment, and completion of products and service.

The research underlines the necessity of operational integration and information exchange in improving long-term supply chain operations. This is consistent with research emphasizing the importance of digital integration, such as cloud computing and artificial intelligence, in boosting supply chain performance and sustainability. By integrating digital technology and facilitating information flow amongst stakeholders, organizations may achieve sustainability in their supply chains by improving operational efficiency, responsiveness, and overall performance (STAN et al. 2023) and (Chauhan et al. 2023). It implies that for enterprises to successfully implement sustainable supply chain strategies, they must

make investments in enhancing both operational integration and information sharing. This is consistent with the results of other studies in the same field. For example, research by Sandhya Dixit and Nitin Chauhan emphasizes the important elements required to achieve sustainability in digitally linked supply chains, highlighting the significance of elements like smart logistical capabilities and agile organizational structure (Varun, Sharma, and Raghu 2023).

Improving the supply chain in Afghanistan can greatly improve sustainable supply chain practices by promoting efficiency, transparency, cooperation, and risk management. This integration allows for improved visibility and traceability of materials and processes, which makes it easier to implement environmentally friendly sourcing, reduce waste, and adopt ethical labor practices (Li et al. 2022). It promotes collaboration between stakeholders, which results in the utilization of technology solutions such as supply chain management software and blockchain, that aid in sustainable initiatives (Anitha et al. 2024). Investing in infrastructure and capacity building within integrated supply chains not only helps to reduce risks but also stimulates the growth of local communities and economies, ultimately promoting long-term sustainability (Oyedijo et al. 2024). Integrated supply chains also make it easier to achieve regulatory compliance, ensuring that environmental standards and consumer demands for sustainable products are met (Cafaggi 2024).

e. The commitment of management levels to sustainable supply chain practice.

The result from SmartPLS33 above revealed that management commitment positively affects sustainable supply chain practice. As seen in the result T-statistic > T-table means higher commitment between management systems of an organization will increase the performance of a sustainable supply chain in that organization, therefore having a committed management system is a must for any organization to achieve optimal performance in a sustainable supply chain practice. The result above supports research done by (Ivandianto and Tarigan 2020). which indicates that management commitment influences sustainable supply chain practice and that supply chain management practice positively affects business performance. The study's findings are consistent with previous research, stressing

the importance of managerial commitment to improving sustainable supply chain operations. Research shows that senior management commitment has a substantial impact on implementation and operational effectiveness in textile industries (Lu Xu et al. 2023). The report presents a complete framework for attaining business excellence through sustainable supply chain management (SSCM) practices, emphasizing the positive impact of SSCM techniques on sustainability performance (Wang et al. 2023). Furthermore, the study stresses the necessity of emphasizing sustainability in supply chain decisions for long-term success (STAN et al. 2023).

In Afghanistan, incorporating sustainable supply chain practices at the management level can lead to positive impacts on environmental, social, and economic aspects. By integrating sustainability into sourcing, production, and distribution processes, businesses can lower their environmental impact by reducing waste, and energy consumption, and utilizing eco-friendly materials (Pradhan 2023). Adopting sustainable practices improves social responsibility by enhancing working conditions, ensuring fair pay, and backing local communities (Bacinello, Tontini, and Alberton 2021). In terms of the economy, these promises result in improved operational effectiveness, decreased costs through better use of resources, and the ability to withstand regulatory and reputational risks (Shivani, Kumar, and Tiwari 2024). Furthermore, involving stakeholders promotes working together and coming up with new ideas, which leads to making a beneficial impact on the entire supply chain (Sutterby et al. 2023).

f. Supply Chain Integration Affects Non-profit organization performance Through Sustainable Supply Chain Practices.

In the context of a non-profit organization, effective supply chain practices play a crucial role in mediating the integration of the supply chain and, consequently, influencing organizational performance. Integration within the supply chain involves seamless coordination and collaboration among various stakeholders, including suppliers, distributors, and internal departments. When supply chain practices are well-aligned with integration efforts, the organization can optimize resource utilization, streamline processes, and enhance overall operational

efficiency. This, in turn, positively impacts the non-profit organization's performance by ensuring timely delivery of goods and services, minimizing costs, and maintaining a robust network of partners. By fostering a cohesive supply chain environment, non-profit organizations can better focus on their mission-driven activities, allocate resources strategically, and ultimately improve their ability to fulfill their social objectives and maximize societal impact. The relationship between supply chain practices and integration becomes a key determinant in the success and sustainability of a non-profit organization, reinforcing the importance of a well-managed supply chain for optimal performance in the mission-driven sector.

Supply chain integration involves coordinating and collaborating among different entities in the supply chain, such as suppliers, manufacturers, distributors, and retailers. For non-profit organizations in regions like Afghanistan, this means efficiently managing resources, procurement, and distribution to ensure that goods and services reach beneficiaries effectively and efficiently (Ataseven et al. 2020). Sustainable supply chain practices aim to reduce environmental impact, promote social responsibility, and ensure economic viability across the supply chain. This involves using eco-friendly materials, minimizing waste, upholding fair labor standards, and supporting local communities (Schilling and Seuring 2024). The integration of sustainable supply chain practices in non-profit organizations in Afghanistan can greatly improve their performance by collaborating with suppliers, manufacturers, and distributors to streamline resource management, procurement, and distribution (Hashemi et al. 2022). By using environmentally friendly materials, implementing waste reduction strategies, and promoting fair labor practices, these organizations can reduce costs, enhance their reputation, and mitigate risks related to compliance and social unrest. Sustainable practices also contribute to the long-term sustainability and resilience of non-profits by fostering adaptability, creating employment opportunities, and supporting local communities (Wong and Doulatabadi 2023).

g. The Impact Management Commitment Has on Non-profit organization performance Through Sustainable Supply Chain Practices.

In a non-profit organization, the effectiveness of supply chain practices plays a crucial role in mediating the impact of management commitment on overall organizational performance. Management commitment in a non-profit setting involves the dedication of leadership to the organization's mission, goals, and efficient resource allocation. The supply chain, encompassing the procurement, production, and distribution processes, serves as the operational backbone that translates this commitment into tangible outcomes. A well-managed supply chain ensures that resources, whether they be financial, human, or material, are optimally utilized to fulfill the organization's objectives.

This involves strategic planning, coordination, and integration of various elements within the supply chain, allowing the organization to deliver its services or programs efficiently. The commitment of management provides the vision and direction, while effective supply chain practices operationalize and actualize this commitment, ultimately influencing the overall performance and impact of the non-profit organization. Consequently, a symbiotic relationship exists between management commitment and supply chain practices, with the latter serving as a critical mediator in translating strategic intent into tangible outcomes for the organization's stakeholders and beneficiaries.

The Impact of Management Commitment on Non-profit organization performance Through Sustainable Supply Chain Practices in Afghanistan how management commitment and sustainable supply chain practices affect non-profit organizations (NPOP) in a variety of contexts, including Afghanistan (Men et al. 2023). Strong commitment from NPO management is required to establish sustainable practices throughout the organization. Setting explicit objectives and targets for sustainability, allocating resources, and incorporating sustainability concepts into the organization's mission and values are all common components of this commitment (Dzomonda 2022).

According to research, implementing sustainable practices can improve the effectiveness of non-profit organizations. This can appear in a variety of ways, including greater donor trust and loyalty, strengthened stakeholder connections, improved reputation, and more effective resource allocation. In Afghanistan, where socioeconomic and environmental concerns abound, implementing sustainable practices can be very advantageous in resolving current issues and attaining long-term effects (Garba 2016). Afghanistan offers distinct obstacles in terms of security, infrastructure, and government, which may limit NPOP's capacity to implement sustainable supply chain strategies. However, there are chances for creativity and cooperation, such as working with local communities and using traditional knowledge and traditions (Azami et al. 2020). While there is a rising acknowledgment of the relevance of sustainability in the non-profit sector, more empirical study is still required, particularly in areas. Future research might examine the unique effects of management commitment on NPO performance via sustainable supply chain methods contexts, taking into account aspects like as cultural norms, legislative frameworks, and the participation of external stakeholders (Maboya and McKay 2019).

h. Supply Chain Challenges Moderate Between Sustainable Supply Chain Practices on Non-profit organization performance.

The findings of the mediating variables in this study are relevant to prior studies which have extensively explored the relationship between supply chain integration, sustainable supply chain practices, and non-profit organization performance. One notable finding from these studies is that sustainable supply chain practices act as a mediator between supply chain integration and non-profit organization performance. For example, (Del Pilar Quiroz Galvan et al. 2021) demonstrated that non-profits with higher levels of supply chain integration tend to adopt more sustainable practices, such as environmentally friendly procurement and ethical sourcing, which in turn positively influence their performance metrics, such as cost efficiency and stakeholder satisfaction. This mediation effect suggests that supply chain integration alone may not directly translate into improved performance for

non-profits, but when combined with sustainable practices; it can lead to significant benefits (Quiñones-González 2022; Peng et al., 2022). Additionally, a study by Haseli, Nazarian-Jashnabadi, Shirazi, Hajiaghaei-Keshteli, and Moslem (2024) revealed that non-profits that strategically integrate sustainability into their supply chains, such as by reducing waste, enhancing transparency, and promoting social responsibility, experience enhanced operational resilience and financial stability. This aligns with the argument that sustainable supply chain practices act as a bridge between supply chain integration efforts and non-profit organization performance by mitigating risks, fostering innovation, and enhancing reputation, all of which are critical factors for long-term success in the non-profit sector.

In Afghanistan, the performance of non-profit organizations is significantly affected by supply chain challenges, which in turn can moderate the impact of sustainable supply chain practices. Afghanistan, with its distinctive socio-economic and geopolitical challenges, provides a complicated setting for supply chain management, especially for non-profit organizations (NPOP) working in the country. Effective organizational management and societal impact need to comprehend the relationship between sustainable supply chain practices and NPO performance in these situations.

The first challenge for supply chain operations in Afghanistan is the country's difficult geographical landscape. The difficult landscape, insufficient transportation system, and security issues are obstacles that prevent the efficient movement of goods and services throughout the supply chain network. Non-profit organizations frequently encounter challenges when trying to reach remote or conflict-affected areas, which hinders their capacity to provide vital services and assistance to communities in need. The obstacles can prevent sustainable practices from being put into action, like improving transportation routes or using environmentally friendly packaging, which in turn limits their potential to positively affect NPO performance.

The dynamics between supply chain challenges and the adoption of sustainable practices significantly influence the performance of non-profit organizations

(NPOP). NPOPs often grapple with unique supply chain challenges such as limited budgets, dependency on fluctuating donations and grants, and the complexities of global operations. These challenges can severely restrict their ability to invest in advanced supply chain solutions or sustain long-term contracts with suppliers (Ralahallo et al. 2024). On the other side, incorporating sustainable practices into their supply chains can result in several benefits. Ethical sourcing practices assure compliance with labor and environmental norms, reducing risks while also improving the organization's reputation. Efficient resource usage and local supplier collaborations may reduce operational costs and carbon footprints, therefore boosting community links and resilience (Hiloidhari et al. 2023).

Sustainable practices benefit non-profit organizations by improving their reputation, generating donations, boosting operational efficiency, and complying with international standards, which improves risk management and global norm alignment (Bushuyeva and Chernysh 2023). Despite the challenges, the strategic integration of sustainable practices in supply chains holds the potential to enhance long-term sustainability and operational success for non-profits. This approach not only supports cost management and efficiency gains but also boosts the organization's ethical image and appeal to stakeholders (Shekarian et al. 2022).

The political and security conditions in Afghanistan create additional challenges for supply chain management for NPOP. For many years, the nation has faced conflict and instability, which has caused issues with the supply chain. This includes problems such as road closures, insecurity along transportation routes, and the threat of theft or extortion. Non-profit organizations (NPOP) working in such conditions need to handle these security obstacles as they endeavor to maintain ethical and sustainable practices in their supply chains. NPOP may face challenges in maintaining both security and sustainability principles, which can impact their efficiency and overall performance.

i. Supply chain challenges to non-profit organization performance.

The study discovered that supply chain issues had no significant influence on non-profit organization performance. Non-profit organizations' success is impacted by issues such as government regulation, client demand, political concerns, and technical infrastructure. Prior research has offered important insights into the relationship between supply chain concerns and non-profit organization performance; hence, this conclusion is not applicable. (Sakib et al et al. (2021) explored how government restrictions and geopolitical challenges affect non-profit healthcare organizations.

The study found that tight regulatory requirements and political difficulties negatively impact supply chain operations, resulting in inefficiencies and worse performance in delivering healthcare services to beneficiaries. Similarly, Jones and Brown (2019) conducted a comprehensive analysis of the influence of customer pressures on non-profit organizations in the retail sector. Their research highlighted that non-profit organizations faced challenges in meeting evolving customer demands, such as fast delivery times and customized services. These pressures often strained supply chain capabilities, affecting the overall performance and ability to fulfill the organization's mission effectively.

It's crucial to emphasize that, while supply chain concerns might be unpleasant for non-profit organizations, they don't necessarily have a big impact on overall success. One possible explanation is that non-profit organizations are resilient and adaptable in the face of such problems. A study by (Paluszak et al. 2021) highlights the importance of resilience and adaptability in ensuring that supply chain challenges do not severely impact nonprofit organization performance. They found that while supply chain challenges did create temporary setbacks and operational hurdles, organizations with strong contingency plans and flexible supply chain strategies were able to mitigate these effects and maintain their overall performance levels.

Moreover, many non-profits have established contingency plans, diversified their funding sources, and built strong relationships with donors and partners, which can help mitigate the impact of supply chain disruptions. One relevant study that

supports this argument is studies by Heengama (2019) and Mando (2023), which examined how non-profit organizations responded to supply chain disruptions. It found that non-profit organizations with contingency plans in place, diversified funding sources, and strong relationships with donors and partners were better equipped to handle disruptions effectively. Additionally, non-profits often focus on mission-driven work and may have a higher tolerance for short-term disruptions in supply chains compared to for-profit entities, where financial performance is often more directly tied to supply chain efficiency (Manning, Baker, and Stokes 2020) Therefore, while supply chain challenges can create hurdles for nonprofits, their influence on overall performance may be limited by the organization's adaptive capacity and strategic planning.

The result shows that supply chain challenges have no significant influence on non-profit organization performance . It indicates that challenges such as government regulation, pressure from customers, and the internet can affect the performance of non-profit organizations. Academic materials show that supply chain difficulties have a substantial impact on the success of non-profit organizations. Supply chain issues have a significant influence on the operation of non-profit organizations for several reasons. Challenges with supply chain delivery flexibility can influence non-profit organizations' capacity to accomplish their mission objectives. For example, if a non-profit depends on contributions of commodities, delays or disruptions in the supply chain might limit its capacity to deliver services or support to individuals in need (Hashemi et al. 2022a) and (Mayra and Del, 2021).

The inability to respond rapidly to consumer requests might result in lower donor satisfaction and support (Sunindyo, and Wahyuni 2023). Challenges in customer response Time can also influence the non-profit's capacity to properly manage resources and assign them to the most pressing needs. According to academic research, supply chain difficulties have a substantial impact on the functioning of non-profit organizations for a variety of reasons. Nonprofits, like for-profit businesses, rely on efficient supply chains to manage resources and

successfully offer help. Limited budgets exacerbate the impact of supply chain interruptions, lowering operational efficiency (Balcik and Beamon 2008). Erratic finance makes supply chain planning and execution difficult, especially during crises (Oloruntoba and Gray 2006).

Managing several stakeholders complicates supply chain choices and raises costs (Schulz and Blecken 2010). Inadequate technology and systems impede resource tracking and coordination, reducing responsiveness (Thomas and Kopczak 2005). Operating in difficult areas creates logistical challenges and security hazards (Kovács and Spens 2007). Limited resources and skills reduce resilience to disturbances (Jahre and Jensen, 2010). Recent trends and issues in nonprofit supply chains include digital transformation, focusing on tools like blockchain for transparency and efficiency (Attaran, M., & Gunasekaran 2019). Resilience and sustainability, are highlighted by the need for adaptable and sustainable supply chains amid challenges like COVID-19 and climate change (Ivanov, and Sokolov 2019).

Several studies have demonstrated the necessity of strategic planning for nonprofit organizations in reacting to problems in changing contexts. Strategic planning is vital in helping organizations recognize their successes toward mission and organizational goals. Challenges such as government rules and regulations highlight the importance of strategic planning for charities since these external factors can impede implementation (Obaid 2022). Nonprofits that use strategic planning strategies may successfully navigate through uncertainties, fulfill project deadlines, assure quality, and allocate money efficiently, eventually improving their performance effectiveness in reaching their goals (Pey & Mahob, 2023), (Paul 2022), (Ada, Altin, and Pirnar, 2022).

H. RESULT FsQCA

Calibrate used the highest, shortest, and average from the Likert result.

Truth Table Analysis

Table 15. Truth Analysis

Result	Raw Coverage	Unique Coverage	Consistency
SSCP	0.908131	0.0352309	0.910403
MC	0.903427	0.0380148	0.909275
SCI*~SCC	0.459537	0.00191998	0.964538
~SCI*SCC	0.445618	0.00115198	0.961873
solution coverage: 0.961313			
solution consistency: 0.871844			

The results of the analysis on Non-profit organization performance (NPOP) using Fuzzy-Set Qualitative Comparative Analysis (FSQCA) present a comprehensive understanding of the contributing factors. Supply Chain Practice (SSCP) and Management Commitment (MC) demonstrated high raw coverage values of 0.908131 and 0.903427, respectively, indicating that these conditions are prevalent across the dataset. Additionally, their unique coverage values, representing their contributions, were relatively low but still noteworthy at 0.0352309 and 0.0380148. The consistency values for SSCP (0.910403) and MC (0.909275) suggest that these conditions are reliably associated with positive NPOP outcomes.

The Integration of Supply Chain (SCI) and the absence of Supply Chain Challenges (~SCC) revealed intriguing results. While the raw coverage for this combination was relatively lower at 0.459537, the unique coverage and consistency values were remarkably high at 0.00191998 and 0.964538, respectively. This indicates that the coexistence of an integrated supply chain and the absence of specific challenges is strongly associated with positive NPOP outcomes. Similarly, when considering the opposite condition (~SCI*SCC), the raw coverage was 0.445618, with a unique coverage of 0.00115198 and an impressive consistency of 0.961873. This suggests that a well-integrated supply chain, despite facing challenges, can still be linked to positive NPOP outcomes.

Considering all conditions, the overall solution demonstrated high coverage (0.961313) and consistency (0.871844). This underscores the importance of a

holistic approach, where the combined presence of Supply Chain Practice, Management Commitment, and specific configurations of Integration of Supply Chain and Supply Chain Challenges contribute significantly to positive Non-profit organization performance.

In conclusion, the FSQCA results provide insights into the multifaceted nature of NPOP, highlighting the significance of individual conditions like Supply Chain Practice and Management Commitment and the synergies between the Integration of the Supply Chain and the absence of specific challenges. These findings can guide non-profit organizations in shaping their strategies, emphasizing the interconnectedness of various factors for achieving and sustaining positive performance outcomes.

Table 16. Analysis of Necessary Conditions

Consistency	**Coverage**	
SSCP	0.908131	0.910403
SCI	0.911203	0.907283
MC	0.903427	0.909275
SCC	0.905347	0.913414

Outcome variable: Non-profit organization performance.

In the analysis of necessary conditions for Non-profit organization performance (NPOP) using Fuzzy-Set Qualitative Comparative Analysis (FSQCA), several key conditions were tested, each represented by variables such as Supply Chain Practice (SSCP), Integration of Supply Chain (SCI), Management Commitment (MC), and Supply Chain Challenges (SCC). The evaluation was based on two critical parameters: Consistency and Coverage.

Supply Chain Practice (SSCP) exhibited high consistency (0.908131) and coverage (0.910403), indicating that the presence of effective supply chain practices is associated with a high level of Non-profit organization performance. This suggests that a consistent application of supply chain practices is likely to contribute significantly to positive outcomes for non-profit organizations.

Integration of Supply Chain (SCI) displayed a similar pattern, with high consistency (0.911203) and coverage (0.907283). This implies that a well-integrated supply chain, characterized by seamless internal and external coordination, is a condition that consistently contributes to favorable Non-profit organization performance. The robust coverage suggests that this condition is prevalent among high-performing organizations.

Management Commitment (MC) also demonstrated noteworthy consistency (0.903427) and coverage (0.909275). This indicates that organizational leadership's strong dedication and engagement toward sustainability goals positively influence Non-profit organization performance. The high coverage suggests that management commitment is widespread among organizations with positive performance outcomes.

Supply Chain Challenges (SCC) exhibited both high consistency (0.905347) and coverage (0.913414). This might initially seem counterintuitive, as challenges could be perceived as detrimental. However, the high consistency and coverage suggest that some supply chain challenges are common across non-profit organizations with positive performance outcomes. This could imply that overcoming or effectively managing these challenges is a characteristic of high-performing non-profits.

In summary, the FSQCA analysis of necessary conditions for Non-profit organization performance reveals that effective Supply Chain Practice, Integration of Supply Chain, Management Commitment, and even the presence of some Supply Chain Challenges are associated with positive outcomes. The consistency values indicate the strength of these associations, while the coverage values suggest the prevalence of these conditions within the subset of non-profit organizations exhibiting high performance. This information provides valuable insights for non-profit management, emphasizing the importance of strategic supply chain practices, integration, and leadership commitment in achieving and sustaining positive organizational performance.

Table 17. Subset/Superset Analysis

Result	Raw Consistency	Coverage	Combined
SSCP*SCI*MC*SCC	0.968663	0.804166	0.892258
SSCP*SCI*SCC	0.958659	0.825862	0.904214
SSCP*SCI*MC	0.956993	0.83095	0.906995
SSCP*MC*SCC	0.963477	0.820486	0.901266
SCI*MC*SCC	0.955148	0.829989	0.906471
SSCP*SCI	0.939441	0.86522	0.920824
SSCP*SCC	0.95161	0.851397	0.913438
SSCP*MC	0.945206	0.854468	0.915084
SCI*SCC	0.942348	0.863012	0.919648
SCI*MC	0.941386	0.86186	0.919034
MC*SCC	0.945339	0.856676	0.916266
SSCP	0.910403	0.908131	0.933705
SCI	0.907283	0.911203	0.935283
SCC	0.913414	0.905347	0.937116
MC	0.909275	0.903427	0.931284

In the Subset/Superset Analysis conducted through Fuzzy-Set Qualitative Comparative Analysis (FSQCA) for the outcome variable Non-profit organization performance (NPOP), various combinations of conditions were explored to understand their impact on the overall outcome. Each combination, represented by the presence or absence of conditions such as Supply Chain Practice (SSCP), Integration of Supply Chain (SCI), Management Commitment (MC), and Supply Chain Challenges (SCC), was evaluated based on three key metrics: raw consistency, coverage, and combined coverage.

The combination of conditions labeled as SSCP*SCI*MC*SCC emerged with high raw consistency (0.968663), indicating a robust association with positive NPOP outcomes. The coverage, representing the prevalence of this combination

within the dataset, was substantial at 0.804166. Additionally, the combined coverage, which considers both consistency and coverage, stood at 0.892258, emphasizing the strong influence of this specific combination on favorable NPOP.

Other notable combinations, such as SSCP*SCI*SCC and SSCP*SCI*MC, also demonstrated high raw consistency (0.958659 and 0.956993, respectively) and coverage values (0.825862 and 0.830950), underscoring their relevance in contributing to positive NPOP. These combinations highlight the importance of the integrated presence of supply chain practices, supply chain integration, and management commitment in driving favorable non-profit organization performance.

Even subsets of conditions, such as SSCP and SCI, showed noteworthy raw consistency (0.910403 and 0.907283, respectively) and coverage values (0.908131 and 0.911203). This suggests that individual conditions, such as effective supply chain practices and integration, influence NPOP substantially.

In summary, the Subset/Superset Analysis using FSQCA reveals specific combinations and individual conditions that significantly contribute to positive Non-profit organization performance. The high raw consistencies across various combinations indicate strong associations, while the coverage values highlight the prevalence of these conditions within the dataset. This information provides valuable insights for non-profit organizations, emphasizing the interplay of supply chain practices, integration, and management commitment in achieving and sustaining positive performance outcomes.

I. Conclusion and Recommendation

1. Conclusion

This study uses variables and indicators as follows: first, supply chain challenges with indicators of government regulations, customer pressure, and the internet, second variable is sustainable supply chain practice with indicators of the social Supply chain, economic supply chain, and environmental Supply Chain. The third variable is supply chain integration with indicators of sharing information, planning, controlling materials, and coordinating materials. The fourth variable is

management commitment with indicators of top-level management, middle-level management, and lower-level management. The Fifth and last variable is nonprofit organization performance and the indicators are public trust, effective and efficient use of resources, community service and the last indicator is funds and donors.

Based on the research that has been done, it can be concluded that: the integration supply chain has a positive effect on sustainable supply chain practice, meaning that consistent integration through the sustainable supply chain practice can enhance the performance of the supply chain in a particular product or service. Next, management commitment has a positive effect on supply chain performance which means the more committed management levels are the more supply chain performance will increase. Supply chain challenges have a significant influence on nonprofit organization performance, meaning that challenges faced in supply chain management can negatively affect the performance of nonprofit organizations. Lastly, supply chain performance has a significant effect on nonprofit organization's performance, so the higher the performance of the supply chain the higher the performance of non-profit organizations.

This research investigated how sustainable supply chain practices (SSCP) affect the performance of non-profit organizations (NPOP). The study utilized hypothesis testing with SmartPLS3 software, which yielded convincing evidence in favor of the tested hypotheses. The study showed that sustainable supply chain practices have a significant effect on the performance of non-profit organizations. This was supported by a T-statistic of 4.752 and a P-value of 0.000, confirming a statistically significant positive correlation. This highlights the significance of incorporating sustainable methods into supply chains in order to improve the effectiveness of non-profit organizations. The second hypothesis, which investigated how supply chain integration affects non-profit performance, produced a T-statistic of 1.734 and a P-value of 0.083, suggesting a moderate relationship that is not statistically significant. The third hypothesis, which investigated how management commitment impacts non-profit performance, did not demonstrate a significant correlation, as indicated by a T-statistic of 0.450 and a P-value of 0.653. Nevertheless, the fourth hypothesis has shown a significant correlation between

supply chain integration and sustainable supply chain practices, as indicated by a T-statistic of 8.050 and a P-value of 0.000. The fifth hypothesis was supported by the finding that greater commitment from management has a positive effect on the implementation of sustainable practices, as indicated by a T-statistic of 2.187 and a P-value of 0.029. The eighth hypothesis proposed that the relationship between sustainable practices and performance is influenced by supply chain challenges, as shown by a T-statistic of 2.046 and a P-value of 0.041. On the other hand, the ninth hypothesis demonstrated that non-profit performance is not solely influenced by supply chain difficulties, as indicated by a T-statistic of 0.450 and a P-value of 0.653. The sixth hypothesis emphasized that supply chain integration has a significant indirect impact on performance through sustainable practices, supported by a T-statistic of 3.946 and a P-value of 0.000. In the same way, the seventh hypothesis revealed a notable indirect impact of management commitment on performance via sustainable practices, with a T-statistic of 2.039 and a P-value of 0.042. In conclusion, this study offers strong evidence that implementing sustainable supply chain practices has a substantial positive impact on the performance of non-profit organizations. Although supply chain integration and management commitment are factors, their impact is most significant when combined with sustainable practices. The results underscore how vital it is for non-profit organizations to prioritize sustainability in their supply chain management. This provides a clear direction for improving their operational efficiency. Further investigation could be conducted in the future to delve deeper into the intricate relationships between these factors in order to gain a better grasp of the underlying mechanisms and to create more holistic approaches for enhancing performance in the non-profit industry.

The Fuzzy-Set Qualitative Comparative Analysis (FSQCA) of Non-profit organization performance (NPOP) identified critical factors contributing to positive outcomes. Supply Chain Practice (SSCP) and Management Commitment (MC) displayed high raw coverage values, emphasizing their prevalence in the dataset, with consistent associations and contributions to positive NPOP. The Integration of Supply Chain (SCI) combined with the absence of Supply Chain Challenges

(~SCC) demonstrated strong links to positive outcomes, showcasing the importance of overcoming challenges within an integrated supply chain framework. The analysis of necessary conditions reaffirmed the significance of SSCP, SCI, MC, and even SCC in consistently contributing to positive NPOP. The Subset/Superset Analysis further highlighted specific combinations, such as SSCP*SCI*MC*SCC, with high raw consistency and coverage, underscoring the synergistic impact of supply chain practices, integration, and management commitment. These findings provide valuable insights for non-profit organizations, emphasizing the nuanced interplay of these conditions in shaping and sustaining positive organizational performance outcomes.

2. Managerial Implications

The study highlights the crucial need to incorporate sustainable supply chain practices into the operations of non-profit organizations. Managers need to make sustainability efforts a top priority, emphasizing the optimization of resource use and reduction of waste. Improving supply chain integration by using technology and partnering with others is crucial for ensuring transparency and efficiency. Developing a steadfast commitment from management is crucial for leading organizations through difficulties and promoting a supportive work environment. Strategic planning and building resilience are necessary for addressing supply chain challenges, especially in regions such as Afghanistan. By incorporating sustainable methods and successfully addressing obstacles, non-profit organizations can improve their performance, maximize their impact on society, and achieve lasting sustainability in carrying out their mission goals.

This section elaborates on the anticipated management implications, which are expected to contribute conceptually to the implementation, of sustainable supply chain practices in non-profit organizations. Re-examining the roles and responsibilities of boards, executives, and other staff and volunteers, taking into account factors such as the size of the organization, the number of active volunteers, the stage of the organization's life cycle, the level of trust between the chief executive and the board, executive transition, organizational crisis, and

environmental factors (McClusky 2002). Nonprofit arts groups can employ participatory pricing methods, such as pay-what-you-want, to balance artistic and educational value with financial revenue. Different pricing tactics, such as the minimum, maximum, and suggested external reference prices, might influence the amount of money spent by visitors (Gross, Rottler, 2021).

Nonprofits may use the Employer Branding concept to recruit and retain employees. In attracting and promoting the organization, symbolic features, such as organizational affiliation, might be more essential than instrumental attributes, such as income and perks (Sarrica et al. 2014). When recreational services from various sectors migrate from public to private, it can influence current user groups. Communication, expectations, and varying perceptions of community-based programs can all provide challenges, emphasizing the importance of appropriate management practices during such transitions (Liechty and Genoe 2015). Nonprofit organizations should embrace a new management paradigm centered on resilience, rather than short-term indications of efficiency (Cyert 1975). Nonprofit succession management should include shared leadership across boards, executive directors, and HR professionals to enhance leadership continuity (Geib and Boenigk 2022). A theoretical model of reference for the administration of nonprofit organizations should include accountability, responsibility, and public trust in a coordinated and comprehensive manner (Renato, 2023).

The results of the Fuzzy-Set Qualitative Comparative Analysis (FSQCA) present several managerial implications for non-profit organizations seeking to enhance their performance. Firstly, recognizing the pivotal role of effective Supply Chain Practices (SSCP) is crucial. Managers should prioritize the establishment and maintenance of streamlined and efficient supply chain processes, as the presence of such practices consistently contributes to positive organizational outcomes. Additionally, acknowledging the importance of Management Commitment (MC) is essential. Leaders should actively engage in sustainability goals and demonstrate a dedicated commitment, as this factor consistently correlates with favorable Non-profit organization performance (NPOP). Moreover, understanding that the

Integration of Supply Chain (SCI) coupled with overcoming specific Supply Chain Challenges (~SCC) significantly influences positive outcomes suggests that organizations should invest in integrated supply chain strategies while concurrently addressing and managing challenges. The managerial implication is a holistic approach, emphasizing the interconnectedness of these conditions to optimize NPOP. Strategic alignment of effective supply chain practices, strong leadership commitment, and a well-integrated approach to supply chain dynamics can collectively enhance organizational performance and contribute to sustained success in the non-profit sector.

3. Theoretical Implications

The text discusses the importance of sustainable supply chain practices, integration, and management commitment in enhancing non-profit organization performance, particularly in challenging environments like Afghanistan. It emphasizes the need to integrate sustainability principles into supply chain operations, employ advanced integration strategies, and have strong leadership for organizational success. Future research suggestions include exploring how supply chain challenges moderate the adoption of sustainable practices and organizational performance in non-profit settings, as well as investigating the impact of factors like government regulations and limited resources on supply chain management and organizational resilience. Additionally, studying the effectiveness of strategic planning in mitigating supply chain challenges and enhancing organizational resilience is recommended for informing practical interventions and policy recommendations.

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