COLLEGE OF BUSINESS AND ECONOMICS

SCHOOL OF COMMERCE

PROJECT MANAGEMENT PROGRAM

An Assessment on The Level of Implementation of Sustainable Project Management in The Case of FH Ethiopia Projects

By Anwar Mohammed Ali

A thesis submitted to the School of Commerce, College of Business and Economics at Addis Ababa University, in partial fulfillment of requirements for the degree of Master of Arts in Project Management.

Advisor: Dr. Adane Atara

18-June-2024

Addis Ababa, Ethiopia

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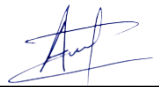
DECLARATION

I confirm that the thesis titled ‘An assessment on the level of implementation of sustainable project management in the case of FH Ethiopia Projects’ is my original work and has not been previously submitted for any academic qualification. All references and data utilized have been appropriately credited, and any support received has been duly recognized.

Anwar Mohammed		18- June -2024
Name	Signature	Date

STATEMENT OF CERTIFICATION

I hereby confirm that the thesis entitled " An assessment on the level of implementation of sustainable project management in the case of FH Ethiopia projects" authored by Anwar Mohammed as part of fulfillment degree of Master of Arts in Project Management at Addis Ababa University is an original research work conducted by Anwar Mohammed under my supervision. This study fulfills the prerequisites for obtaining the degree.

Dr. Adane Atara	_____	_____
Name	Signature	Date

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I want to extend my deepest gratitude to my advisor, Dr. Adane Atara for his guidance and support, during the course of this thesis. His expertise and thoughtful feedback have shaped the outcome of this work.

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ABBREVIATIONS AND ACRONYMS

DJSI	Dow Jones Sustainability Indices
FH	Food for the Hungry
FHE	Food for the Hungry Ethiopia
FY	Fiscal Year
GC	Gregorian Calander
GRI	Global Reporting Initiative
ISO	International Organization for Standardization
JEOP	Joint Emergency Operation Program
NGOs	Non-Governmental Organizations
PReSERVE	Poverty Reduced Sustainably in an Environment of Resilient and Vibrant Economy
RFSA	Resilience Food Security Activity
ROI	Return on investment
SDGs	Sustainable development goal
SDIs	Sustainable development indicators
SNNPR	South nation nationalities & people's region
SPM	Sustainable project management
SPM3	Sustainable Project Management Maturity Model
SPSS	Statistical Package for the Social Sciences
SRG	Sustainability Reporting Guidelines
TBL	Triple Bottom Line
UN	United Nations
USAID	United States Agency for International Development
WASH	Water, Sanitation, Hygiene
WCED	World Commission on Environment and Development

ABSTRACT

The concept of incorporating sustainability principles into project management is recently becoming more important and a concern of interest due to diminishing resources and rising demand. This situation is becoming more critical in countries like Ethiopia, where resources are scarce, and the population growth is high. However, there are limited studies on the extent of Sustainable Project Management (SPM) implementation in the context of non-governmental organizations like FH Ethiopia, which addresses underserved rural communities in Ethiopia. The main objective of this study is to evaluate the overall level of implementation of SPM within FH Ethiopia projects, focusing on environmental, economic, and social dimensions. Additionally, it aims to assess how project staff prioritize these dimensions in terms of their contribution to project success. To conduct the study, a quantitative research method was employed using a structured survey questionnaire administered to 84 project staff members. The sample was drawn from two projects, PReSERVE and JEOP, and a stratified sampling method was used to address diverse job titles. The survey questions were designed based on the Sustainable Project Management Maturity Model (SPM3) and key sustainability parameters outlined in the Brundtland report. A descriptive method of analysis was used to analyze the data. The study findings revealed that project teams prioritize aspects of sustainability for their project success in the following order: meeting current societal needs, economic sustainability, social sustainability, environmental sustainability, and ensuring future generations can meet their needs, regarding the level of implementation of SPM, the social and economic dimensions of SPM rank first and second, both at the 'Proactive' level of implementation followed by the environmental dimension with a 'Reactive' level of implementation in both projects. Overall, the aggregated score of dimensions is situated at the 'Proactive' level of implementation. Despite efforts, FH Ethiopia projects have gaps in balancing SPM dimensions and achieving the highest 'Purpose' level. To enhance SPM, projects should incorporate all twenty-two SPM aspects throughout the project lifecycle, foster an SPM-focused culture, provide extensive staff training, involve stakeholders, and use regular monitoring with the SPM3 model.

Keywords: sustainability, sustainable project management, NGO, FH Ethiopia

CHAPTER ONE

1 INTRODUCTION

1.1 Background of the study

Sustainable project management (SPM) involves the planning, monitoring, and controlling of project outcomes and processes, with a focused on proactive stakeholder engagement. It takes into account the economic, environmental, and social components throughout the project lifecycle, with the major goal of optimizing the benefits of all parties involved in the process (A. J. G. Silvius & Schipper, 2014).

In recent years, there has been a growing emphasis on integrating sustainability principles encompassing environmental, social, and economic dimensions into project management practices as organizations increasingly acknowledge its significance (Clinning & Marnewick, 2017).

Non-Governmental Organizations (NGO's) play a vital part in addressing developmental and humanitarian challenges, particularly in regions with limited government resources. These organizations implement projects to enhance the community's livelihoods, health, and education. Considering the environmental and socio-economic challenges present, the shift towards sustainability is highly essential for NGO's (Haji Hamda & Kebede, 2021).

The sustainability of project outcomes greatly depends on how beneficiaries perceive and value the project benefits. When beneficiaries highly value these benefits, there is a higher likelihood of sustaining these efforts. However, challenges like poverty necessitate a comprehensive approach to project planning and execution to ensure a lasting impact(Gumisiriza, 2019).

This is particularly relevant in developing countries, especially in rural areas of Ethiopia, where many NGOs operate today.

Addressing SPM in project processes involves evaluating the current level of SPM implementation to identify any gaps and subsequently address the root causes. This study assesses the level of SPM within Food for the Hungry Ethiopia (FHE), an NGO dedicated to rural development and humanitarian aid across various regions in Ethiopia.

1.2 Background of the organization

Food for the Hungry (FH) is an international humanitarian and development agency dedicated to ending all forms of human poverty globally. The organization has been able to help the most at-risk populations in more than 20 countries over nearly for four decades. FH has developed considerable expertise in food security, disaster risk reduction and response, livelihoods, education, health, and nutrition; it has been made possible through private donors, foundations, and bilateral and multilateral agencies (FH Ethiopia, 2023).

FH Ethiopia is part of the FH international. It has been in operation in the country since 1984 G.C. The organization started as a response to the 1984 (G.C) famine crisis with vital support to affected people in Northern Ethiopia. In the course of its operation, the organization diversified its work platforms to integrate development programs and emergency response work into the regions it covers, including Amhara, Benishangul-Gumuz, Oromiya, Sidama, the former SNNPR, and Tigray. Over the years, FH Ethiopia has implemented several projects related to agriculture, nutrition, WASH, health, education, and economic development. It was also involved in irrigation, construction of community roads, and promotion of livestock activities. It works with communities, government, and various partners to uplift disadvantaged population, build resilience, and create positive changes (FH Ethiopia, 2023).

FH Ethiopia currently implementing two projects in Northern Ethiopia. Poverty Reduced Sustainably in an Environment of a Resilient and Vibrant Economy (PReSERVE), a project to improve vulnerable household's food security in selected Amhara region's Zones and The Joint Emergency Operation Program (JEOP) to address Emergency food needs of temporary food insecure populations in Tigray and Amhara regions.

1.2.1 PReSERVE

A five-year project with a total fund of $143 million from the United States Agency for International Development (USAID) and implemented by FH Ethiopia, this initiative engaged 245,730 individuals across nine neighboring woredas in the Wag Himra, South Gondar, and Central Gondar zones of the Amhara Region (FH, 2021).

In general, the targeted woredas experience food insecurity; insufficient access to nutrition food and low agricultural production. The project helps to improve the production and consumption of nutrient-rich, animal-source foods and adequate access to clean water and sanitation.

To support the poverty reduction effort, the PReSERVE will mainstream major interventions, including improving access to financial sources, offering skills training, promoting basic literacy, creating job opportunities for the youth, and strengthening the framework of the early incidence alert system in the Amhara Region to build community resilience and preparedness for hazards/disasters and minimize the multiple factors that cause fragility, in the long term (FH, 2021).

1.2.2 JEOP

JEOP is a five-year and $153,297,853 USAID-funded emergency project, to provide Emergency food needs to temporary food-insecure populations (World Vision, 2024).

As World Vision (2024) report address project has 8 binding consortium members of which one of them is FH Ethiopia. JEOP provides targeted food aid to 2.5 million participants. Additionally, it facilitated resilient efforts by implementing community-based early cautionary activities. The JEOP group carries out the initiative in 90 woredas across Amhara, Oromia, Diwa Dawa administration, former SNNP, and Tigray region. FHE Organization Background (2020) report demonstrate FH Ethiopia is currently implementing the project in the Amhara region, South Gondar, and Wag Himra zones in a total of 10 woredas as well as in Tigray region North-West Tigray zone in a total of two woredas.

Key interventions include enhancing the ability of households to handle shocks, managing and distributing essential commodities, ensuring access to nutritious food, and providing nutrition education for pregnant and breastfeeding women (World Vision, 2024).

1.3 Statement of the problem

Sustainable Project Management is recognized as an indispensable approach for facilitating the long-term success of projects. FH Ethiopia has been implementing various initiatives to improve the lives of communities in Ethiopia. However, the available literature indicates a lack of studies investigating the level of SPM implementation within FH Ethiopia, particularly regarding the integration of social, economic, and environmental dimensions of SPM throughout the project management process. This knowledge gap restricts the understanding of FH Ethiopia’s project management in terms of sustainability and makes it difficult to identify areas needing improvement.

The rationale for this study is grounded in the critical importance of sustainability in project management, especially in developing countries like Ethiopia, which face severe environmental, economic, and social challenges. Widespread poverty, income inequality, limited economic diversification, rapid deforestation, declining soil fertility, water scarcity, vulnerability to climate change, gender disparities, weak community participation, and high food insecurity underscore the necessity of integrating sustainability principles into project management. As natural resources become increasingly scarce and populations continue to grow, incorporating sustainability principles into project management is essential for ensuring long-term, equitable, and environmentally conscious development.

This necessity is particularly relevant for NGOs like FH Ethiopia, which play a vital role in addressing the complex and interrelated developmental and humanitarian needs of underserved communities. By evaluating the level of SPM implementation within FH Ethiopia's projects, this study aims to provide invaluable insights to identify the strengths and weaknesses of the current approach. These insights can guide the organization in enhancing its sustainability practices in project management, contributing to more sustainable and resilient development that benefits the society it serves.

1.4 Research question

Research questions that will be answered in the study:

1) What is the level of importance attributed to the economic, environmental, and social dimensions of sustainability by project staff at FH Ethiopia projects?
2) What is the level of implementation of the economic, environmental, and social dimensions of SPM in the project management processes of FH Ethiopia projects?
3) What is the level of SPM implementation in the project management processes at FH Ethiopia?

1.5 Research objective

1.5.1 General objective

To assess the level of implementation of sustainable project management within FH Ethiopia projects.

1.5.2 Specific objective

1) To evaluate the level of importance attributed to the three sustainability dimensions (economic, environmental, and social) by project staff at FH Ethiopia projects.
2) To evaluate the level of implementation of the economic, environmental, and social dimensions of SPM in the project management processes of FH Ethiopia projects
3) To evaluate the level of SPM implementation in the project management processes at FH Ethiopia.

1.6 Significance of the study

This study contributes to the broader understanding and advancement of SPM practices, particularly within the NGO sector in developing countries. Besides, evaluating FH Ethiopia SPM implementation, it has also an advantage for the communities that are served by these projects. As FH Ethiopia internalizes SPM practices, implemented projects become more effective and durable, which brings more positive and long-lasting outcomes. It can also contribute to sustainable development goals at the national and global scale for ensuring projects meet immediate needs while considering future generations and long-term impacts.

1.7 Scope of the study

The thesis aims to evaluate the level of implementation of SPM within FH Ethiopia projects. The scope of the study will be limited to FH Ethiopia's current ongoing projects in the northern part of Ethiopia and focus on the assessment of the level of SPM implementation in the project management process of these projects.

1.8 Organization of the Study

The study consists of six chapters. Chapter one defines the problem statement and outlines the study objectives and scope. Chapter two reviews theories and prior research on sustainability and SPM. Chapter three explains the research design, sampling techniques, data collection methods, and analysis procedures. Chapter four presents the research findings on SPM implementation in FH Ethiopia projects and the perceived importance of sustainability. Chapter five interprets these findings and compares them with existing literature. Chapter six summarizes the discoveries and provides suggestions for enhancing SPM implementation in FH Ethiopia projects. The study concludes with references and an appendix containing data collection tools.

CHAPTER TWO

2 RELATED LITERATURE REVIEW

This section presents a review of related literature on Sustainable Project Management (SPM), including both theoretical and empirical reviews. The theoretical review covers definitions of core concepts, definitions, and relevant theoretical models in the field, while the empirical review discusses findings from previous studies.

2.1 Theoretical literature review

2.1.1 Sustainability

Sustainable development is a development that satisfies current generation requirements without risking the capacity of future generations to satisfy their own needs (World Commission on Environment and Development, 1987). The phrase sustainable development is often used interchangeably with the term sustainability (Seghezzo,2009).

The World Commission on Environment and Development (1987) defined sustainability as addressing three issues: people, profit, and the planet. Elkington (1999) refers to these aspects and sustainability as the 'Triple Bottom Line' (TBL). The economic, social, and environmental components of sustainability.

The TBL concept underscores the significance of harmonizing profitability with social equity and environmental health, emphasizing the interconnected nature of economic success, societal welfare, and ecological sustainability (Hammer & Pivo, 2017).

2.1.2 Sustainable Project Management (SPM)

SPM is all about introducing TBL components into the project management process and throughout the life cycle of the project supported through active engagement of stakeholders with the end goal of achieving a result that benefits all who have a stake in the project (A. J. G. Silvius & Schipper, 2014).

As Dobrovolskienė et al. (2017) illustrated SPM principles advocate sustainability should be incorporated into all project lifecycles. It is a rapidly expanding new domain that shifts from sustainable and green business practice (Moehler et al., 2018).

Poon & Silvius (2019) argue that it demands a mind shift to consider sustainability an essential aspect of project success and incorporate it into project management activities.

Areas that sustainability impacts the project management process include:

In the project initiation phase: in defining project objectives, broadening the project's scope of consideration, and business profitability analysis (Magano et al., 2024).

In the Project planning phase: Identifying and evaluating the stakeholders, choosing suppliers and contractors, project's scheduling, choosing and setting up the project team, acquiring competencies, recognizing and controlling project risks (Magano et al., 2024).

In the project execution phase: project monitoring, internal as well as external communication of the project, Participation of stakeholders, Evaluation, and quality control management for the project (Magano et al., 2024).

The Project closing phase includes, the assessment and identification of the lessons learned (Magano et al., 2024).

2.1.3 Economic dimension of SPM

According to G. Silvius & Schipper (2015) Economic dimension of SPM includes elements like risk minimization, company agility, competitive potential, motivation and incentives, and return on investment (ROI) in the project planning and exaction process. This component considers the larger economic effects on stakeholders and society in addition to guaranteeing the project's sustainability and financial feasibility.

Economic sustainability has a big impact on long-term project performance. According to Chow et al. (2021) sustainable project management, which incorporates economic sustainability as a fundamental element, has been acknowledged as a pivotal factor in project success.

Economic sustainability has advanced to the point where it is now a vital component of project management techniques. It has progressed to become a critical success factor, alongside environmental and social issues. This transition towards recognizing economic sustainability ensures the future economic viability of projects (Foroutan Mirhosseini et al., 2022).

2.1.4 Environmental dimension of SPM

According to G. Silvius & Schipper (2015) the environmental dimension of SPM encompasses various aspects to be taken into account, including transportation operations, energy consumption & source, impact on water sources & usage, ecosystem impact, waste management, material utilization, emissions, and sound pollution in the project planning and execution process.

Numerous studies support the integration of environmental considerations in project management activities, enabling firms to enhance their operations and reduce ecological hazards.

Given the increasing significance of environmental regulation and resource conservation as essential components of sustainability, nowadays project teams concentrate on maintaining resource usage for the project, eco-efficiency, and ecological effect (Armenia et al., 2019).

The above literature highlights the necessity of environmental consideration under the framework of project management nowadays. In addition, it emphasizes the cruciality of continuous suitability assessment and monitoring.

2.1.5 Social dimension of SPM

The Social dimension of SPM includes considerations like Fair labor practices and decent working conditions, avoiding human rights violations, conducting business ethically, society, customer and product responsibility, stakeholder involvement, human capital development, and corporate governance in the project planning and execution process. (G. Silvius & Schipper, 2015).

social component of SPM helps Organizations to help to improve project outcomes by fostering ethical behavior, and positive relationships with communities. The significance of the social dimension of SPM is supported in several studies according to Doloi (2012) Evaluation of social performance is a crucial part of developing sustainable projects.

A study by Awung & Marchant (2016), and Walker & Devine-Wright (2008) demonstrate that actively involving communities in project planning and execution fosters ownership, and transparency, and enhances social sustainability. Community engagement ensures projects are in line with community values and expectations

Based on the above studies we can sum up that organizations can improve community participation, ethical practices, and positive social benefits by including social component of sustainability in the project management. This will ultimately result in more effective and sustainable projects.

2.1.6 SPM within the context of NGOs

The potential of SPM to promote sustainable practices in projects overseen by profit and non-profit organizations makes it extremely relevant to non-profit NGO organizations (Shah & Naghi Ganji, 2019). According to Daub et al. (2014) understanding the causes of reluctance to embrace sustainability is essential for advancing sustainable project management since these organizations frequently struggle to implement sustainable management techniques.

Larsson & Larsson (2020) underscore the necessity of incorporating sustainability in the project management activities of these organizations, especially if they are involved in infrastructure projects with enduring environmental and social consequences.

The above studies highlight that NGOs can benefit from SPM by comprehensively understanding their level of SPM implementation. This understanding enables them to identify any gaps, analyze the underlying causes, and align their initiatives accordingly to implement appropriate measures for improvement.

2.1.7 Theoretical Models related to sustainability

Scholars and institutions have proposed various theoretical models related to sustainability, which can help measure sustainability in different scenarios.

The Brundtland Report With the title ‘Our Common Future’ was delivered in 1987 by WCED. Tries to measure sustainability as a development that balances the three components of sustainability social justice, environmental preservation, and economic growth for the present generation in a manner that does not jeopardize future generation functions and development (Mohammadifardi et al., 2022).

The Sustainable Development Goals (SDGs) is a collection of 17 global goals set by the United Nations General Assembly in 2015 for the year 2030 to urge global action toward ending poverty, protecting the planet, and ensuring peace and prosperity for everyone by 2030. In the context of SDG’s Sustainability is measured based on the extent to which the development addressed the social, economic, and environmental goals listed in the model in a balanced way (Sustainable Development Goals, 2024).

Clinning & Marnewick (2017) assesses how staff members of the project perceive the importance of sustainability aspects using five parameters including satisfying current generation needs, allowing future generations to satisfy their needs, as well as the TBL of sustainability including Economic, Social, and Environmental components extracted from Brundtland Reports definition of sustainability.

The aspects of sustainability that is outlined in the Brundtland report provide a practical and comprehensive framework for evaluating sustainability within the project context, as It incorporates the key dimensions of sustainability identified by the UN SDGs. Furthermore, it is used in studies like Clinning & Marnewick (2017) understanding the perceived importance of the sustainability aspect by project team members to project success makes it highly relevant and effective for assessing sustainability aspects in the project management context.

2.1.8 Theoretical Models related to SPM

Various scholars and institutions forward different theoretical models to assess the maturity of the implementation of SPM. Some of the models include the UN Global Compact framework, the ISO 26000 social responsibility standard, the GRI Sustainability Reporting Guidelines, and the Dow Jones Sustainability Indexes are the most important (G. Silvius & Schipper, 2015).

The UN Global Compact framework is a voluntary code of conduct that has been developed in an attempt to compel firms to engage in more environmentally friendly activities. The ISO 26000 social responsibility standard is an all-inclusive guide on social responsibility to help businesses engage in more socially responsible activities. The most widely used reporting initiative in the world. (G. Silvius & Schipper, 2015).

The Sustainability Reporting Guidelines (SRG) were developed by a non-profit Global Reporting Initiative (GRI). Firms use the SRG to disclose their TBL performance to customers and shareholders. The Dow Jones Sustainability Indices (DJSI) is a set of indexes developed to assess the sustainability elements of the top 2,500 Dow Jones firms (G. Silvius & Schipper, 2015).

The Sustainable Project Management Maturity Model; SPM3; is an instrument that assesses and aids improve an organization’s ability to embed sustainability in projects. Organizations evaluate and develop the theoretical and interpretive aspects of sustainable advancement relevant to their project management using this model.(G. Silvius & Schipper, 2015).

Unlike the other models mentioned above, the SPM3 model which was created by G.Silvius & Schipper (2015) and is particularly designed for projects. Its purpose is to evaluate the degree of incorporation of sustainability in the project management process. A number of research has documented its usage, including(Clinning & Marnewick, 2017; Magano et al., 2024).
The model's effectiveness in various research contexts, encompassing TBL dimensions of SPM, and the structured evaluation system makes it ideal for assessing the level of implementation of SPM in the projects.

2.2 Empirical literature review

2.2.1 Perceived importance of sustainability aspect by project team members

The study conducted on the perception sustainability aspects importance from professionals across information technology, logistics, and supply chain industries projects results in a prioritization of environmental and economic aspects over the social aspect of sustainability (Chang et al., 2017; Haroon et al., 2021; Martins et al., 2020).

A study conducted in the information technology industry revealed that project teams prioritize meeting current needs significantly more than ensuring that future generations can meet their needs (Clinning & Marnewick, 2017).

2.2.2 Level of implementation of sustainable project management

A study conducted by Magano et al (2024) demonstrated a study conducted on the level of implementation of SPM in 134 projects from sixteen different industries across Europe using the SPM3 model outlined an average ‘Reactive’ level of implementation of SPM and among the different perspectives of the triple bottom line, the economic perspective ranks the highest, followed by the social and environmental perspectives.

On the other study conducted by Clinning & Marnewick (2017) on the level of implementation of SPM in the IT industry projects across South Africa using SPM3 model shows the economic and social dimension is implemented at the ‘Reactive’ level, while the environmental dimension is situated at the ‘Compliance’ level of implementation.

2.2.3 Factors Influencing the Consideration of Sustainability in Projects

Due to distinct sustainability problems, legal requirements, resource constraints, and stakeholder expectations, the maturity of incorporating sustainability issues in project management might vary by project type or industry (Magano et al., 2024).

The use of sustainable practices is growing in significance across several academic fields, including supply chain management, design buildings, and logistics. When evaluating sustainability, experts in these domains frequently give precedence to financial and ecological factors over social ones (Chang et al., 2017; Haroon et al., 2021; Martins et al., 2020).

Studies show sustainability focus area is influenced highly by types of industry. Construction, Energy, and Manufacturing sector projects give greater emphasis on environmental sustainability practices to mitigate environmental risks and the SPM practices concentrate on lessening its negative effects on the environment (Magano et al., 2024). Unlike the above industries Sustainability in IT projects focuses on the economic dimension. The social and environmental dimensions got less attention (Clinning & Marnewick, 2017).

According to the study conducted by Magano et al. (2024) apart from Project type SPM may also be influenced by other situational factors, for instance, the project's size or the number of stakeholders engaged. Large Project that has a high number of stakeholders tends to score greater SPM Maturity than small-scale projects.

Studies have examined the extent of SPM implementation in many industries; nevertheless, there is still a notable deficiency in the literature concerning the explicit evaluation of its significance in SPMs in non-governmental organizations.

2.2.4 Addressing SPM in the project management

Addressing SPM requires taking into account a number of factors that are crucial to incorporate the concept into project management process. These elements are essential for guaranteeing that projects are carried out in a way that takes social, economic, and environmental factors into account.

According to the Study Armenia et al. (2019) Putting corporate policies and procedures that prioritize sustainability first is one essential step. These guidelines ensure that sustainability is included in all project activities and serve as a guide for decision-making processes.

Another critical component that is mentioned on Armenia et al. (2019) is effective resource management, which emphasizes reducing waste and maximizing resource utilization during the course of a project. This method improves cost-effectiveness while simultaneously supporting environmental sustainability.

In addition to resource management, adopting the principle throughout the project duration is also noted in Armenia et al. (2019) that entails taking into account a project's social and environmental effects from the beginning to the end, making sure that initiatives are planned and carried out with a long-term view, and accounting for sustainability implications at every area of the project.

Stakeholder engagement is also crucial as mentioned in the study. Involving stakeholders early on in the project guarantees that different viewpoints are taken into account, resulting in more sustainable decisions and results (Armenia et al., 2019).

Lastly, promoting organizational learning is depicted as a key aspect of SPM according to Armenia et al. (2019) that entails learning from completed initiatives and enhancing the organization's sustainability policies constantly. Gaining knowledge from past projects improves the sustainability of projects in the future and the general performance of organizations.

By addressing above aspects organizations successfully can incorporate sustainability into their projects and achieve more environmentally friendly, socially responsible, and economically viable outcomes by including these essential elements in project management techniques.

As we see above there is a notable knowledge gap in the study of SPM within the NGO sector, particularly in the context of developing countries like Ethiopia. This gap highlights the need for comprehensive studies and strategic frameworks to enhance the effectiveness and sustainability of project management process undertaken by NGOs in Ethiopia. this study tries to address this gap by assessing the current level of implementation of SPM in FH Ethiopia projects and identifying the strengths, and weaknesses consistently helps to make information-based adjustments accordingly.

2.3 Theoretical Framework

The thesis examines the extent of implementation of SPM in FH Ethiopia's project management processes. To achieve this objective, it utilizes the SPM3 model adopted from G. Silvius & Schipper (2015) and the parameters of aspects of suitability from Brundtland report to measure the level of importance of dimensions of sustainability attributed by project staff.

The SPM3 model is a model that is used to assess the level of incorporation of sustainability using three dimensions (Economic, Environmental & social) and a total of twenty-two indicators within the project management process. The level of sustainability incorporated is determined by the SPM3 model through the use of four maturity levels: compliant, reactive, proactive, and purpose (G.Silvius & Schipper, 2015).

The first level (Compliance) is all about following the rules and regulations only, focuses on sustainability only in a minimally conscious and implicit way. Reactive, the second level expressly considers sustainability, but with the only goal of mitigating the project's adverse effects. The next stage is a proactive approach, particularly considering sustainability as one of the focal areas that the project contributes to. The final level of the SPM is 'Purpose', which considers sustainability as one of its driving factors, leading to the inclusion of sustainability concerns in the project's justification (G.Silvius & Schipper, 2015).

The assessment findings for each of the individual sustainability metrics can be aggregated to form a unified score for the total TBL. These scores can even be combined into an overall total score that represents the comprehensive integration of sustainability (G.Silvius & Schipper, 2015).

Suitability parameters outlined in the Brundtland report are used to assess how staff members of the project perceive the importance of sustainability aspects. The assessment criteria encompass satisfying current generation requirements, allowing future generations to satisfy their needs, as well as the TBL of sustainability. These elements within the sustainability definition are viewed as individual components rather than containing sub-categories.

CHAPTER THREE

3 RESEARCH METHODOLOGY

3.1 Research approach

The purpose of this thesis is to examine the implementation of SPM in FH Ethiopia projects. To quantify the level of SPM implementation, a quantitative research approach was utilized in which numerical data was gathered and statistical analysis was performed.

3.2 Research design

The study employed a descriptive research design to systematically investigate the extent of SPM adoption. It describes the current state of SPM implementation in the project management process of FH Ethiopia Projects.

3.3 Sampling design

3.3.1 Target population

The target population for the study is FH Ethiopia's ongoing projects. As of the latest data in March 2024, FH Ethiopia has a total of two ongoing projects with 348 project staff members including 15 project managers, 23 project coordinators, and 310 project experts.

Table 1 Number of FH Ethiopia project staff

Project name	Job title	population
PReSERVE	Project manager	10
	Project Coordinator	10
	Project expert	297
JEOP	Project manager	5
	Project Coordinator	13
	Project expert	13
	Total	348

Note. From FH Ethiopia

3.4 Sampling method

At a project level a census method was used since FH Ethiopia's current active projects are two and to ensure a representative sample across each project staff member with different job descriptions, a stratified sampling method was used.

3.5 Sample size

The sample size for the study was calculated using the rule of thumb formula sample size determination method as demonstrated in Table 2.

Table 2 Curry's rule of thumb sample size determination

Range of Population Size(N)	Percentage of population in sample Size (S)
10 - 100	100%
101 - 1,000	10%
1001 - 50,000	5%
5001 - 10,000	3%
10,000 +	1%

Note . Adapted from John Curry,1984, as cited in Kamal et al. (2017).

It is standard procedure to add a percentage to the determined sample size to calculate the appropriate amount to account for non-response rates. To account for non-response, Rajiah et al. (2019) suggested adding 10% to the estimated sample size.

Based on the above Curry's Rule of Thumb Sample Size determination formula the sample size of the study was calculated as shown in Table 3:

Table 3 Sample size

Project name	Job title	population	Sample size
PReSERVE	Project manager	10	10
	Project Coordinator	10	10
	Project expert	297	33
JEOP	Project manager	5	5
	Project Coordinator	13	13
	Project expert	13	13
	Total	348	84

3.6 Data collection methods

Both primary and secondary data were used in the thesis. To gather information, a survey Likert scale questionnaire was employed. The survey consists of two Likert scale questionnaires.

In the first questionnaire, respondents were provided with five items on the aspects of sustainability including fulfilling the present generation's needs, allowing the next generation to satisfy their own needs, and economic, social, and environmental aspects of sustainability as adopted from Brundtland report asked to assess with a five-point Likert rating scale, ranging from 1 to 5, to measure the level of importance of the triple sustainability dimensions attributed by project staff at FH Ethiopia.

The other measurement scale includes twenty-two suitability indicators from the SPM3 Model, using a four-point Likert scale including compliant, reactive, proactive, and purpose level.

The participant was given four options, each corresponding to one of the four tiers in the SPM3 framework, allowing a direct mapping from the Likert scale to the model. As a secondary source of data project documentation and project reports are used.

3.7 Data Analysis

Since the thesis is based on a descriptive research design and utilized a structured survey questionnaire with Likert scales and collected quantitative data, the analysis followed the following procedures first the data was gone through a data cleaning process to make sure all data entry was completed in each questionnaire then descriptive statistics analysis processed. Frequency distributions for each Likert scale question reveal the distribution of opinions among respondents and the mean to identify the average response of the respondents. SPSS version 29 statistical software was used for data analysis.

3.8 Validity and Reliability

To ensure the credibility of the study results, the research incorporated theoretical frameworks such as the SPM3 model and sustainability aspects outlined in the Brundtland report.

These frameworks have a set of standard questionnaires used to collect the data, which helped improve the accuracy of the data collected. The models are commonly employed to assess SPM implementation levels, in industries worldwide and have been utilized in research publications such as (Clinning & Marnewick 2017, Magano et al., 2024)

To maintain the consistency of the study, a questionnaire from a theoretical framework model was adopted, the same survey format was administered throughout the study and clear instructions were provided to participants.

3.9 Ethical consideration

During the course of the study, all participant's informed consent was ensured so that they had full knowledge of what the study was about and their rights. The confidentiality of participants was protected throughout the study. All data was stored in a secure place. In every phase of the research work, honesty and openness were maintained.

CHAPTER FOUR

4 RESULTS

This chapter presents the findings of a survey carried out on FH Ethiopia's project to evaluate the level of SPM implementation. The data presented here established the level of the triple dimensions of SPM alongside the overall implementation level of SPM in project management also discussed. In addition, the perceived importance level of sustainability aspects by project team members is also presented.

The interpretation of these findings is based on the theoretical frameworks discussed in earlier chapters, including the SPM3 model and the definition put forth in the ‘Clinning & Marnewick (2017) .

4.1 Rate of response

According to Peters et al. (2023), a high response is a critical factor in increasing the research's generalizability and reliability. Although there is no agreement on the ideal percentage, over 80% of respondents rate taken as an acceptable rate of response. This volume makes sure that the bias from non-respondents is minimized and increases the reliability of the study.

In the context of this study, the overall response rate is 89.3% across the PReSERVE and JEOP projects. The rate not only meets but exceeds the 80% threshold suggested by Peters et al. (2023). This high-volume engagement of the staff adds strength to the conclusion of the study. As a result, the findings of this survey were reliable for generalizability and applicability of conclusions drawn.

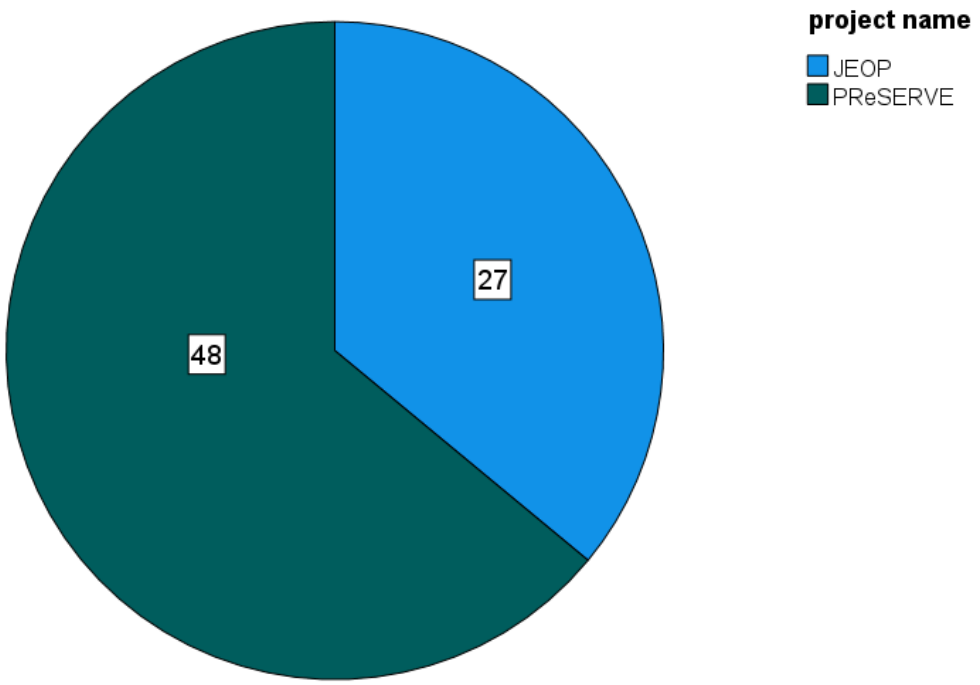
4.2 Demographic Characteristics of Respondents

Comprehending the demographic characteristics of the respondents is critical as it allows us to check the reliability and generality of the data collected in this study. The following section briefly describes the demographic characteristics of project staff who participated in the survey, in terms of years of experience and job role within FH Ethiopia projects.

4.2.1 Respondents based on the projects

PReSERVE took the majority with a 64% rate of response, in turn, the participants from the JEOP project account 36% of the total respondents.

Figure 1: Distribution of respondents by projects



4.2.2 Job title of respondents

As Table 4 illustrates Project Experts have the highest number of respondents combined as well as for each project. The least amount to the respondent is recorded in the project manager group across both projects as well as in combined together.

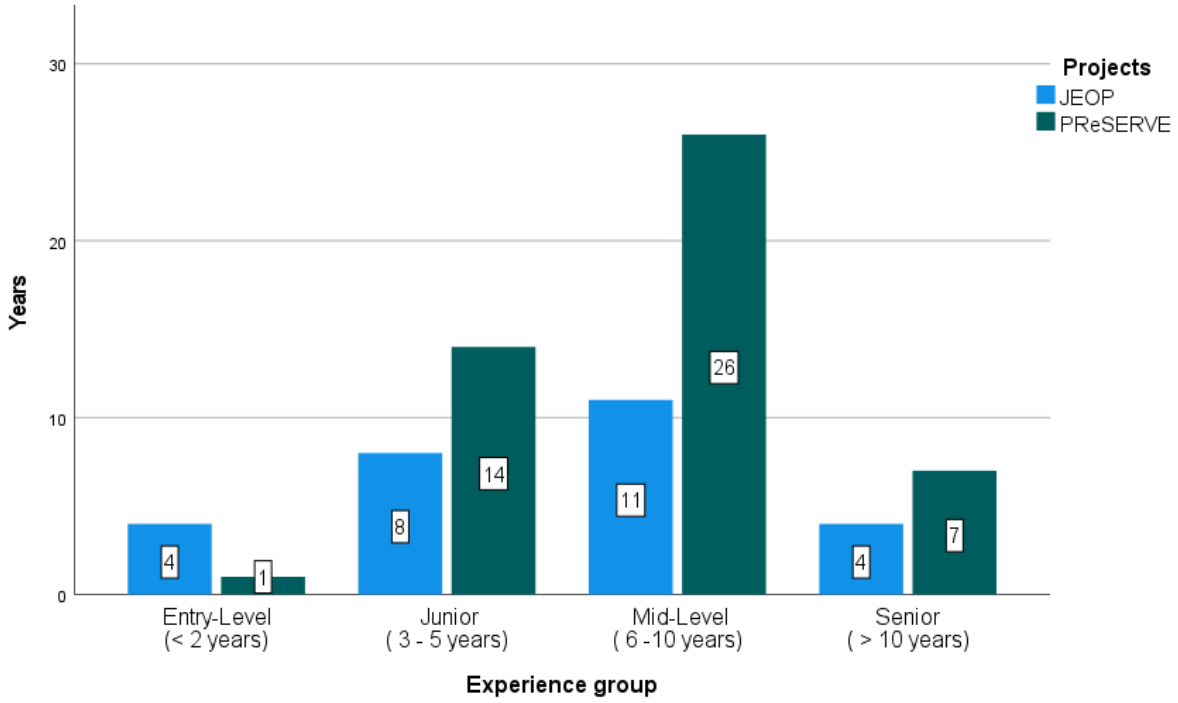
Table 4 Distribution of participants based on job title

		Job title			
		Project Coordinator	Project Expert	Project Manager	Total
project name	JEOP	12(44.4%)	11(40.7%)	4(14.8%)	27(100%)
	PReSERVE	9(18.7%)	31(64.6%)	8(16.7%)	48(100%)
	Total	21(28%)	42(56%)	12(16%)	75(100%)

4.2.3 Experience of the respondents

The distribution of survey respondents from both the JEOP and PReSERVE Projects indicates varying degrees of participation. As Figure 2 depicts. the least respondents recorded at entry level only accounted for 6.7% of the total respondents. Conversely, for Juniors percentage is higher at, 29.3%. The middle level takes the largest portion at 49.3%. The senior group is larger than the entry-level, but it is still small, at 14.7%. This distribution reveals that mid-level professionals are the dominant participants, followed by juniors and seniors in that order.

Figure 2 Distribution of respondents by experience level



4.3 Project Team member's perceptions of the importance of Sustainability aspects

This section examines how project team members in the FH Ethiopia project rate aspects of sustainability according to the definition outlined by the Clinning & Marnewick (2017) .

The project teams presented with the key sustainability aspects and they evaluated based on the level of importance of individual aspects to the success of their project. For analysis, the study followed an interval approach in which data collected by employed a five-point Likert rating scale (1 being not important, 2 being somewhat important, 3 being moderately important, 4 being important, and 5 being extremely important)was processed as interval data as adopted from Bukhari & others (2023) as seen in Table 5.

Table 5 Mean interval for perceived importance levels

Mean Interval	Perceived importance level
1–1.80	Not Important
1.81–2.60	Slightly Important
2.61–3.40	Moderately Important
3.41–4.20	Important
4.21–5.00	Very Important

Note. Adapted from Bukhari & others (2023)

4.3.1 Ensuring the current generation meets their need

This aspect evaluates how the project teams perceive fulfillment of the immediate needs of society and ensures that the outcomes are directly beneficial to the community's current requirements for their project success.

The analysis highlights that all respondents from both project teams gave the highest perception rating for this aspect, with 24% of them perceiving it as 'Important', while the majority, 76%, took it as 'Very important'. In addition, there is no record for 'Not important' or 'slightly important' rating for either project. 76% of the total respondents across both projects rated this factor as 'Very important'.

Table 6 Perceived significance of ensuring projects meet current needs

		Project name		
		JEOP	PReSERVE	Total respondents
Ensuring that the project meets the current needs	Not Important	0	0	0
	Slightly important	0	0	0
	Moderately important	0	0	0
	Important	9 (33.3%)	9(18.8%)	18(24%)
	Very Important	18(66.7%)	39(81.2%)	57(76%)
	Total Respondents	27(100%)	48(100%)	75(100%)

4.3.2 Allowing future generations to fulfill their needs

This section examines the viewpoints of project team members from the JEOP and PReSERVE regarding the significance of guaranteeing that future generations can fulfill their needs, as a key element for the success of their projects. This success factor is vital for the long-term success and the relevancy of the project because the dual focus of sustainable development requires not only addressing the immediate needs of populations but also securing the ability of next generations to fulfill their need.

As Table 7 describes the JEOP project team mainly believes that it is 'Moderately important' at 63 %, without any emphasis on 'Very important'. Conversely, more than 80 % of respondents from the PReSERVE project chose the highest ratings as either 'Important' or 'very important'. The combined findings, of the two projects reveal the majority percentage of respondent's perceived it as 'Moderately important' (32%) or 'Important' (30.7%).

Table 7 Perceived significance of allowing future generations to fulfill their needs

		project name		
		JEOP	PReSERVE	Total
Allowing future generations to fulfill their needs.	Not Important	1(3.7%)	0 (0%)	1(1.3%)
	Slightly Important	8 (29.6%)	1(2.1%)	9 (12%)
	Moderately Important	17 (63%)	7(14.6%)	24(32%)
	Important	1 (3.7%)	22(45.8%)	23(30.7%)
	Very Important	0 (0%)	18(37.5%)	18(24%)
	Total respondent	27(100%)	48(100%	75(100%)

4.3.3 Economic aspect of sustainability

This section uncovers the respondent's insight on the level of importance perceived by the project team members of JEOP and PReSERVE to maintaining internal financial health, budget effectiveness, and cost-effectiveness for the project's success.

As illustrated in Table 8, it is interesting that no respondents from either project rated this aspect as 'Not important' or 'Slightly important'. Also, the response 'Very important' got the largest percentage in both projects for PReSERVE, 64.6%, and for JEOP 51.9%.

The combined results show that 60% which is the highest record of respondents rated the economic dimension as ‘Very important’ and the lowest recorded respondent (5.3%) found in ‘Moderately important’.

Table 8 Perceived significance of the economic aspect

		project name		
		JEOP	PReSERVE	Total Respondent
Economic dimension	Not Important	0	0	0
	Slightly Important	0	0	0
	Moderately Important	1(3.7%)	3(6.3%)	4(5.3%)
	Important	12(44.4%)	14(29.2%)	26(34.7%)
	Very Important	14(51.9%)	31(64.6%)	45(60%)
	Total respondent	27(100%)	48(100%)	75(100%)

4.3.4 Environmental aspect of substantiality

This section investigates how project team members view the significance of environmentally responsible practices and the reduction of the project's internal ecological footprints for the accomplishment of their project. Environmental sustainability is crucial in a manner as to minimize the negative impact of the project’s operations on the natural ecosystem as well as contribute to the preservation and enhancement.

The analysis outlines an interesting insight: no respondents from either project consider environmental sustainability as ‘Not important’. In addition, the results in Table 9 also demonstrate that more than half of the participants in each project gave this aspect of sustainability the second highest score, ‘Important’, followed by ‘Very important’, which accounts for 29.6% and 39.6% respondents from JEOP and PReSERVE, respectively. The combined findings outline, that the lowest respondent rate, which accounts for 1.3% of respondents rated the environmental aspect of sustainability as ‘Slightly important’, while the highest number of respondents (45.3%) is recorded at the ‘Important’ level.

Table 9 Perceived significance of the environmental dimension

		project name		
		JEOP	PReSERVE	Total Respondent
Environmental dimension	Not Important	0	0	0
	Slightly Important	1(3.7%)	0	1(1.3%)
	Moderately Important	2(7.4%)	3(6.3%)	5(6.7%)
	Important	16(59.3%)	26(54.2%)	42(45.3%)
	Very Important	8(29.6%)	19(39.6%)	27(36%)
	Total respondent	27(100%)	48(100%)	75(100%)

4.3.5 Social aspect of sustainability

This section focuses particularly on the how project team views the significance of fairness, ethical behavior, diversity, inclusivity, and active participation in the project process by project team members for their project success.

The analysis highlights that 93% of PReSERVE team members, rated this aspect either 'Important' or 'Very important'. As Table 10 also reveals, from JEOP, 51.9% consider this aspect 'Moderately important', and only 3.7% say this aspect is 'Very important' for their project success. The aggregate findings indicate that 1.3% of respondents which is the lowest record thought the social aspect was 'Not important', while the highest record which accounts for 46.7% said it was 'Important'.

Table 10 Perceived significance of the social dimension

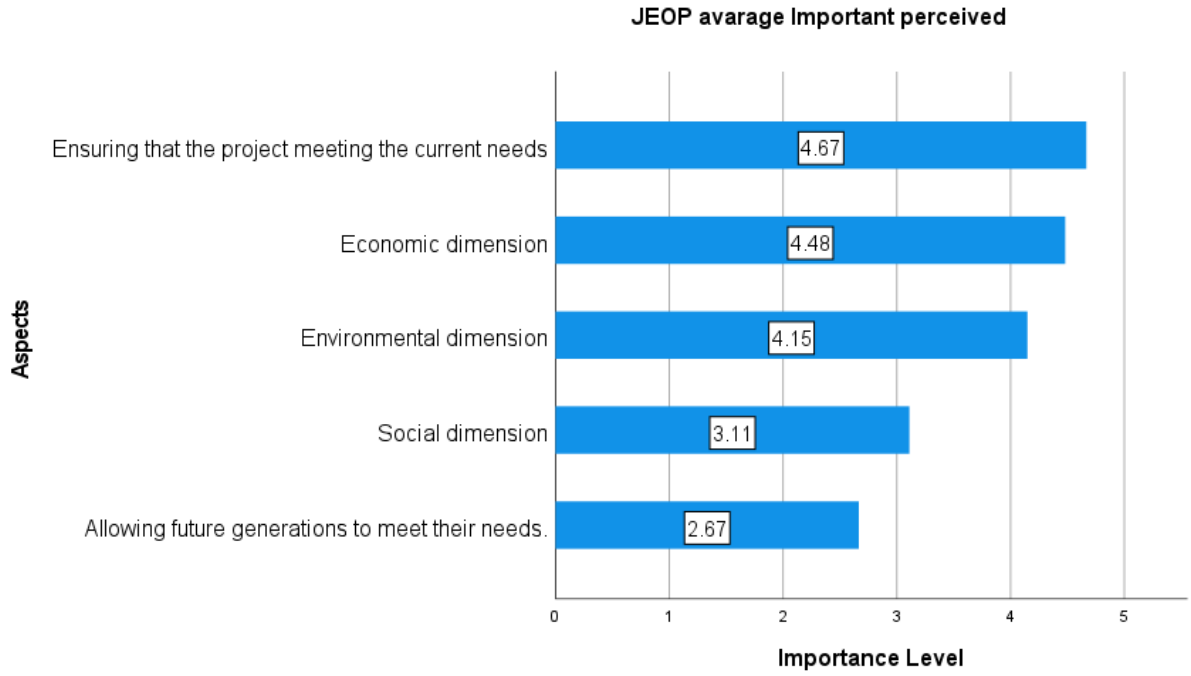
		project name		
		JEOP	PReSERVE	Total Respondent
Social dimension	Not Important	1(3.7%)	0	1(1.3%)
	Slightly Important	4(14.8%)	0	4(5.3%)
	Moderately Important	14(51.9%)	3(6.3%)	17(22.7%)
	Important	7(25.9%)	28(58.3%)	35(46.7%)
	Very Important	1(3.7%)	17(35.40%)	18(24%)
	Total respondent	27(100%)	48(100%)	75(100%)

4.3.6 Overall level of importance attributed to the sustainability aspects by project team member

JEOP project team members' average perceived importance of the five suitability aspects reveals a priority order where ‘Ensuring that the project meets the current needs’ and ‘The Economic Dimension’ are both deemed ‘Very important’. In contrast, ‘The Social Dimension’ and ‘Allowing future generations to fulfill their needs’ aspects are held to be 'Moderately important’ and ‘Slightly important' respectively.

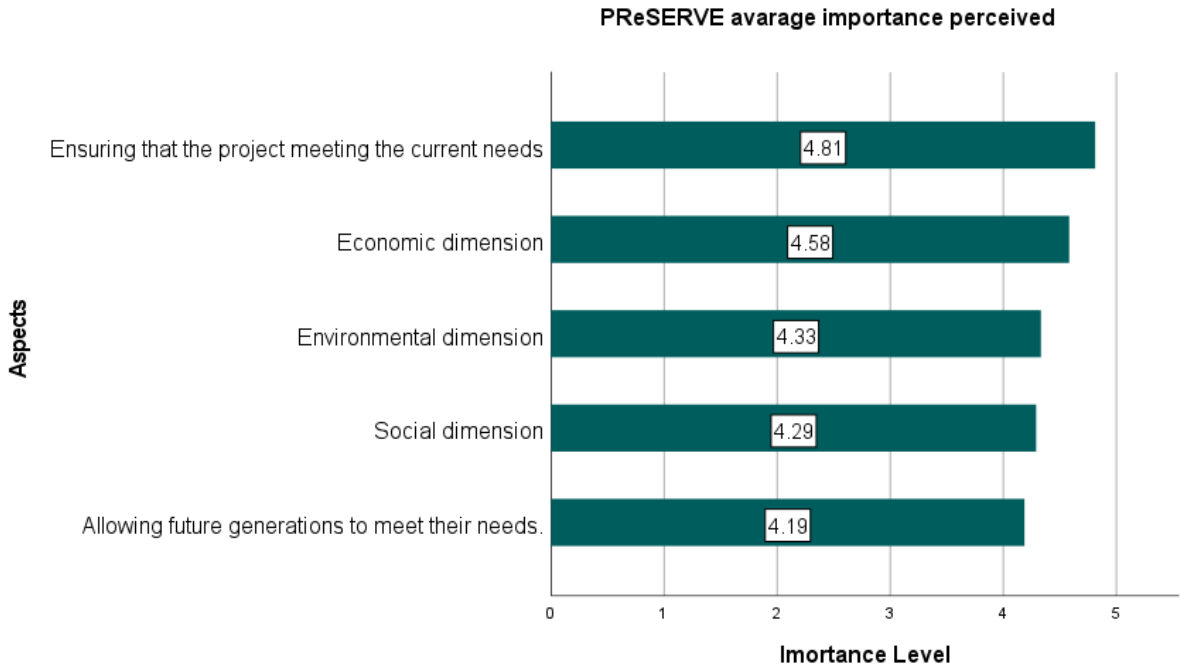
The distribution in Figure 3 outlines, that JEOP team members prioritize the project's immediate requirements and financial results over societal and ecological issues as well as fulfillment of future generation needs.

Figure 3 The average perceived significance of sustainability aspects in JEOP



In addition, the analysis of the average perceptions of PReSERVE team members on the importance of different sustainability aspects for their project success as Figure 4 depicts, out of the five aspects four of them fall in ‘Very important’ which ranked ‘Ensuring that the project meeting the current needs’ leads and closely followed by the ‘Economic dimension’. The least perceived important aspect is ‘Allowing future generation to meet their need’, located at the ‘Important’ level of perception.

Figure 4 The average perceived significance of sustainability aspects in PReSERVE



The overall aggregate analysis scores combined with the JEOP and PReSERVE projects demonstrate a high priority on meeting immediate societal needs, which got a 4.7 score. Economic sustainability got 4.5; both of these aspects of sustainability are perceived as 'very important'. Environmental sustainability scores 4.2, which implies it is seen as 'Important'.

However, 'The social dimension' and 'Allowing future generations to fulfill their needs' score 3.8 and 3.6, respectively. Compared with the other aspects, these aspects are perceived as relatively less important but still fall in the 'Important' level.

4.4 The Dimensions of SPM

This section explores the level of SPM dimensions addressed in each project in addition to the total aggregated level of SPM of the projects as a whole. the subsequence analysis part uses a maturity on a 4-point scale where the level's understanding is as follows**:**

Level 1 (Compliant); The project does not directly discuss this aspect. It indirectly considers it by following the laws of the country and company regulations. There are no policies, within the project that address this aspect.

Level 2 (Reactive); The project acknowledges this aspect. The approach is reactive aiming to minimize impacts when issues arise.

Level 3 (Proactive); This aspect is seen as a contribution area for the project. It is approached proactively with efforts made to guarantee that the project has an impact on this aspect.

Level 4 (Purpose): This aspect drives the project and is a reason for undertaking it. The project is executed to make a substantial input regarding this element.

The study used an interval technique for analysis, processing data as intervals based on the SPM3 ordinal maturity scale (1- compliant, 2- reactive, 3 -proactive, and 4-purpose). The interval will be as follows:

Table 11 The mean interval for levels of implementation SPM

Mean Interval	Level of Implementation
1.00 – 1.49	Compliant
1.50 – 2.49	Reactive
2.50 – 3.49	Proactive
3.50 – 4.00	Purpose

Note. Adopted from Magano et al.(2024)

4.5 The Economic Dimension of SPM

In this section, the analysis result of six aspects under the economic dimension is presented to measure the level of implementation.

4.5.1 Project's financial return and value creation

As describes by G.Silvius & Schipper (2015) this aspect assesses the level of consideration given to economic value creation for stakeholders in the project process. Specifically, when organizations work in underdeveloped nations and participate in socio-economic activities, indirect effects such as job creation and stimulating local business in the area are taken into account are considered.

The analysis, as shown in Table 12, outlines, 68.8% of respondents of PReSERVE and 55.6% of JEOPS indicate that this aspect is addressed proactively, and efforts are undertaken to ensure that the project makes a constructive contribution in this area.. In contrast, the lowest response rate is recorded at the 'Compliant' level with 11.1% of JEOP and 2.1 % of PReSERVE respondents. The combined results show that the lowest number of respondents (5.3 %) rated the aspect at the 'Compliant' level, while the highest number of respondents (64%) rated it at the 'Proactive' level of implementation.

Table 12 Response distribution for the project's financial return aspect

		project name		
		JEOP	PReSERVE	Total
Project's financial return	Compliant	3(11.1%)	1(2.1%)	4(5.3%)
	Reactive	7(25.9%)	2(4.2%)	9(12%)
	Proactive	15(55.6%)	33(68.8%)	48(64%)
	Purpose	2(7.4%)	12(25%)	14(18.7%)
	Total	27(100%)	48(100%)	75(100%)

4.5.2 Adaptation of operation to the changing needs of the surrounding project environment

This aspect assesses the level of consideration of business flexibility or agility in the project process. This flexibility encompasses a range of issues including numerous uses of deliverables, products, and processes as well as the ability to keep possibilities open before making a final decision (G.Silvius & Schipper, 2015).

As Table 13 demonstrates, the majority of respondents from PReSERVE (62.5%) rated this aspect as proactively addressed. In contrast, more than 50% of JEOP respondents rated this aspect among the project's driving factors. There is no 'Compliant' level of response recorder across both projects. The combined findings indicate that none of the participants evaluated the adjustment of operations to evolving requirements as a 'Compliant' level whereas the highest respondent (52%) recorded at the 'Proactive' level.

Table 13 Response distribution for the adaptation of the operation aspect

		project name		
		JEOP	PReSERVE	Total
Adaptation of its operation to changing need	Compliant	0	0	0
	Reactive	3(11.1%)	4(8.3%)	7(9.3%)
	Proactive	9(33.3%)	30(62.5%)	39(52%)
	Purpose	15(55.6%)	14(29.2%)	29(38.7%)
	Total	27(100%)	48(100%)	75(100%)

4.5.3 Adaptation to innovation & technology

This aspect tries to ascertain the level of consideration for integrating new technologies, innovation, and information and promoting eco–friendly initiatives to respond to resource scarcity and gain a competitive edge in the project process (G.Silvius & Schipper, 2015).

The analysis demonstrates that the majority of JEOP respondents (70.4%) indicate that technological advancement and eco-friendly initiative integration are predominantly considered just for 'Compliant' situations. On the contrary, as demonstrated in Table 14, from PReSERVE 45.8% of respondents indicate that the project adopts new technologies in the process 'Proactively' to increase the project's productivity. The overall findings specify that the lowest of participants (7.4%) was recorded at the 'Reactive 'level, whereas the highest number of respondents was recorded (32%) at the 'Proactive' level of implementation.

Table 14 Response distribution for the adaptation to innovations and technology aspect

		project name		
		JEOP	PReSERVE	Total
Adapt to innovations & technology	Compliant	19(70.4%)	4(8.3%)	23(30.7%)
	Reactive	2(7.4%)	12(25%)	14(18.7%)
	Proactive	2(7.4%)	22(45.8%)	24(32%)
	Purpose	4(14.8%)	10(20.8%)	14(18.7%)
	Total	27(100%)	48(100%)	75(100%)

4.5.4 Ensuring operation continuity

This aspect tries to ascertain the level of consideration for business operation continuity in a reactive way, such as making sure the vital organization's operation will carry on in the event of a significant accident, as well as in a proactive way, such as adapting its operation and model in response to evolving situations, such as limited resources or change of laws in the project process (G.Silvius & Schipper, 2015).

As Table 15 shows, 74.1% of PReSERVE and 89.6% of JEOP respondents voted for the 'Purpose' level of implementation. The 'Compliant' level of implementation received the lowest number of respondents in both projects. The combined findings indicate that whereas the highest respondent rate which accounts for 84% of respondent assessed operation continuity at the 'Purpose' level of implementation, the lowest respondent percentage (1.3%) assessed it at the 'Compliant' level.

Table 15 Response distribution for the ensuring operation continuity aspect

		project name		
		JEOP	PReSERVE	Total
Ensuring operation continuity	Compliant	0	1(2.1%)	1(1.3%)
	Reactive	3(11.1%)	2(4.2%)	5(6.7%)
	Proactive	4(14.8%)	2(4.2%)	6(8%)
	Purpose	20(74.1%)	43(89.6%)	63(84%)
	Total	27(100%)	48(100%)	75(100%)

4.5.5 Motivation and Incentive to align with sustainability

This section attempts to determine the level of consideration of incentives for actions aligned to sustainability initiatives to reinforce and motivate this behavior in the project process (G.Silvius & Schipper, 2015).

The analysis outlined in Table 16, PReSERVE demonstrates a balance tendency between the 'Proactive' (47.9%) and 'Reactive' (45.8%) level of consideration for this aspect. In contrast, the JEOP respondents (40.7%) chose the 'Proactive' level of adoption. Furthermore, the records at the 'Purpose' level for both projects are the lowest. The combined findings revealed 'Proactive' level got the highest level of record with 45.3% of respondents, while the lowest number of respondents that account for (6.7%) is located at the 'Purpose' level.

Table 16 Response distribution for the incentives to be inn with the sustainability aspect

		project name		
		JEOP	PReSERVE	Total
Incentives to align with sustainability	Compliant	8(29.6%)	2(4.2%)	10(13.3%)
	Reactive	4(14.8%)	22(45.8%)	26(34.7%)
	Proactive	11(40.7%)	23(47.9%)	34(45.3%)
	Purpose	4(14.8%)	1(2.1%)	5(6.7%)
	Total	27(100%)	48(100%)	75(100%)

4.5.6 Identification and manage risks

This part attempts to determine the level of consideration for financial, operational, and environmental risks in the project process to minimize potential losses and maximize value (G.Silvius & Schipper, 2015).

As represented in Table 17, from PReSERVE (54.2%) and JEOP (48.1%) respondents illustrate a preference for a 'Proactive' level of risk management, followed by a 'Purpose' level with PReSERVE (45.8%) and JEOP (37%) respondents rated the aspect as a core driver for the project. In Addition, no respondents rated this aspect as it is considered at the 'Compliant' level in both projects. The aggregate result from both projects indicates that the highest (52%) record of respondents voted for a 'Proactive' level of implementation, on the contrary, the lowest number of respondents is recorded at the 'Compliant' level.

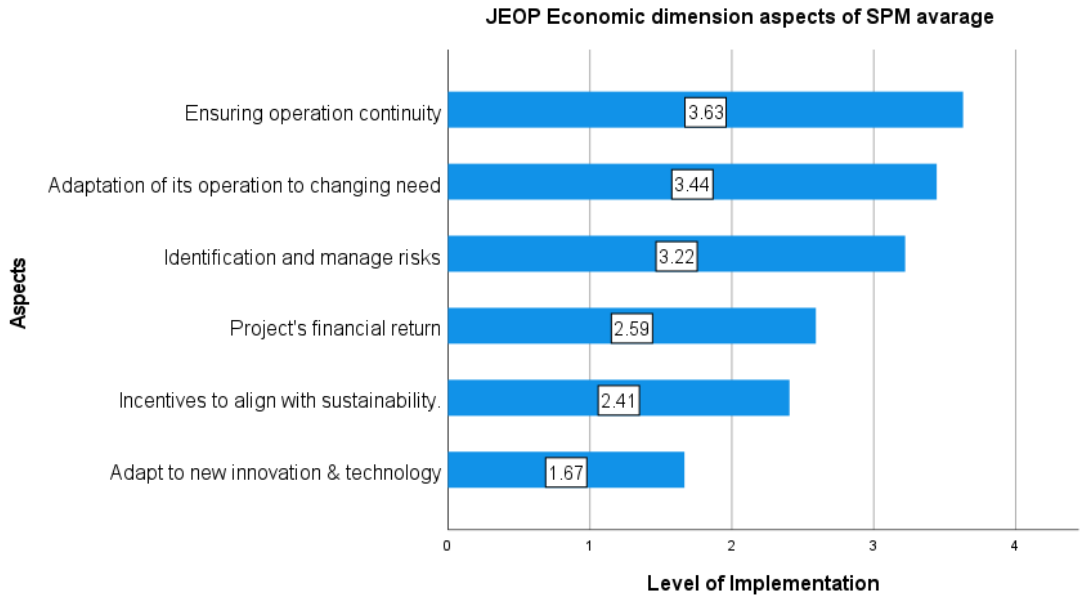
Table 17 Response distribution for the identification and management of risks aspect

		project name		
		JEOP	PReSERVE	Total
Identification and management risks	Compliant	0	0	0
	Reactive	4(14.8%)	0	4(5.3%)
	Proactive	13(48.1%)	26(54.2%)	39(52%)
	Purpose	10(37%)	22(45.8%)	32(42.7%)
	Total	27(100%)	48(100%)	75(100%)

4.5.7 Overall level of economic dimension aspects of SPM

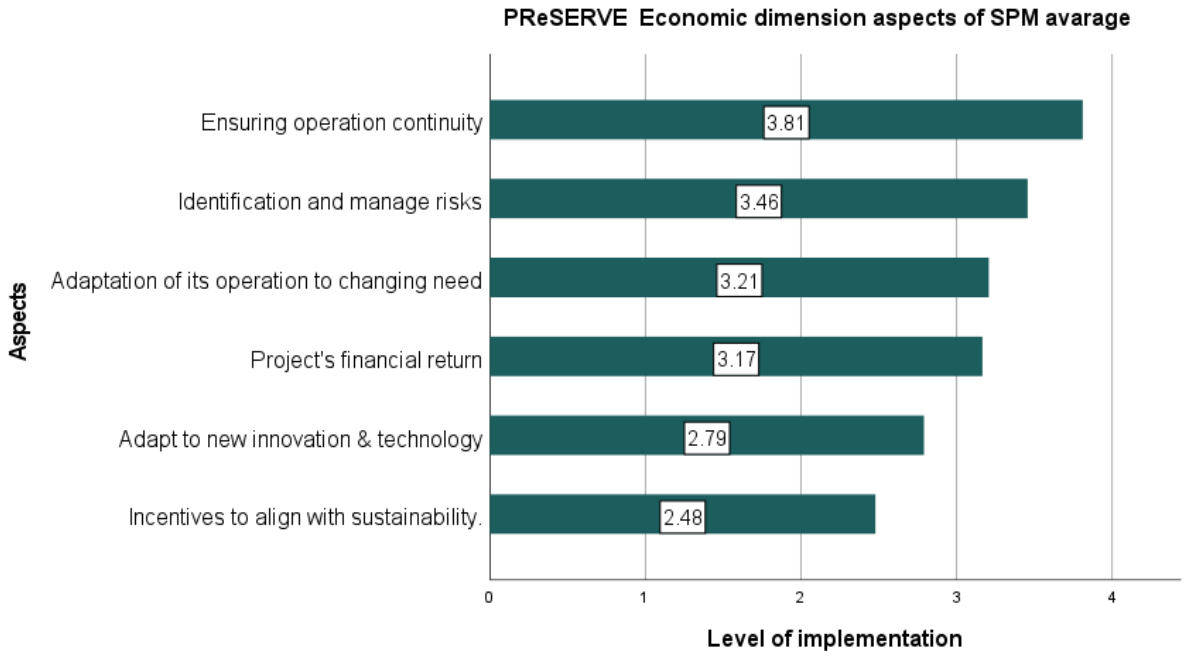
JEOP average economic dimension aspects of SPM as shown in Figure 5 indicate a varied level of implementation across different aspects. 'Ensuring operation continuity' is the highest addressed aspect, placed at the 'Purpose' level. 'Adaptation of operation to changing need' follows closely with a 'Proactive' level of implementation along with 'Identification & manage risks' and 'Project's financial return'. However, 'Incentives to align with sustainability' and 'Adapt to innovation & technology' got the lowest level of implementation both situated at the 'Reactive' level of implementation.

Figure 5 JEOP economic dimension aspects of SPM average



As Figure 6 demonstrates, the economic dimension of the PReSERVE SPM average has a variable level of implementation. ‘Ensuring Operation Continuity’ ranks the highest of all at a 'Purpose' level. ‘Identification and Manage Risks’, ‘Adaptation of operation to changing need’, and ‘Project's Financial Return’ are all addressed at a ‘Proactive’ level. Meanwhile ‘Adaptation to innovation and technology’ and ‘Incentives for sustainability’ are at the 'Reactive' level of implementation.

Figure 6 PReSERVE economic dimension aspects of SPM average



4.6 The Environmental Dimension of SPM

This section explores the level of implementation of the environmental dimension aspects of SPM.

4.6.1 Transport

As describes by G.Silvius & Schipper (2015) this aspect assesses the level of consideration of environmental impacts of transporting goods, materials, and workforce members in the project process to promote environmental sustainability.

In the analysis outlined in Table 18, respondents from PReSERVE(85.4%) and JEOP(74.1%), said the aspect is addressed at the 'Compliant' level. Furthermore, the lowest respondent count is recorded at the 'Purpose' level for both projects, JEOP (0) and PReSERVE (4.2%). The combined result across both projects depicts, that the highest of respondents (81.3%) are recorded at the 'Compliant' level, while the lowest percentage of respondents (2.7%) is at the 'Purpose' level.

Table 18 Response distribution for the transport aspect

		project name		
		JEOP	PReSERVE	Total
Transport	Compliant	20(74.1%)	41(85.4%)	61(81.3%)
	Reactive	5(18.5%)	2(4.2%)	7(9.3%)
	Proactive	2(7.4%)	3(6.3%)	5(6.7%)
	Purpose	0	2(4.2%)	29(2.7%)
	Total	27(100%)	48(100%)	75(100%)

4.6.2 Energy

This aspect tries to look at the degree of focus given to balancing the usage of fossil fuels and renewable energy sources as well as controlling energy consumption in the project process (G.Silvius & Schipper, 2015).

The analysis in Table 19 demonstrates 75% of PReSERVE and 51.9% of JEOP respondents saying this aspect is addressed at the 'Compliant' level. Additionally, the lowest figures are recorded in the 'Purpose' level: 6.3% for PReSERVE and 3.7% for JEOP. The combined findings specify the highest number of respondents (66.7%) evaluated energy at the 'Compliant' level of implementation, and the lowest percentage of respondents (1.3%) ranked it at the 'Purpose' level.

Table 19 Response distribution for the energy aspect

		project name		
		JEOP	PReSERVE	Total
Energy	Compliant	14(51.9%)	36(75%)	50(66.7%)
	Reactive	10(37%)	7(14.5%)	17(22.7%)
	Proactive	2(7.4%)	5(10.4%)	7(9.3%)
	Purpose	1(3.7%)	0	1(1.3%)
	Total	27(100%)	48(100%)	75(100%)

4.6.3 Water

This aspect tries to explore the level of consideration of project operation impact on water sources and the choice of water sources like rainwater or potable water used by the project (G.Silvius & Schipper, 2015).

As illustrated in Table 20, the highest number of respondents from both projects voted for the 'Purpose' drive strategy. JEOP (51.9%) and PReSERVE (47.9%) said the projects recognize protecting water sources as their core objective, followed by 39.6% and 29.6% of respondents from PReSERVE and JEOP respectively chose a 'proactive' level of implementation. In the combined analysis, the highest number of respondents (49.3%) evaluated the feature as implemented at the 'Purpose' level, while the lowest number of respondents (2.7%) rated it at the 'Compliant' level.

Table 20 Response distribution for the water aspect

		project name		
		JEOP	PReSERVE	Total
Water	Compliant	0	2(4.2%)	2(2.7%)
	Reactive	5(18.5%)	4(8.3%)	9(12%)
	Proactive	8(29.6%)	19(39.6%)	27(36%)
	Purpose	14(51.9%)	23(47.9%)	37(49.3%)
	Total	27(100%)	48(100%)	75(100%)

4.6.4 Habitat conservation

According to G.Silvius & Schipper (2015), An ecosystem is a collection of living things (plants, animals, and microbes) that interact as a system with non-living things (air, water, and mineral soil) in their surroundings, Ecosystems provide humans with a vast array of services, such as providing food, water, minerals, raw materials, waste decomposition, and disease and pest management. This aspect tries to explore the level of consideration of habitat conservation and biodiversity preservation to support ecosystem functions in the project process.

Notably, as revealed in Table 21, a majority of PReSERVE (75%) and JEOP (70.4%) respondents say that habitat conservation and maintaining biological diversity are addressed at the ‘purpose’ level as a center of their project design. Respondents who voted for the ‘Compliant’ level from JEOP and PReSERVE are the minimum, 0 for JEOP and 2.1% for PReSERVE.

The collective result from the two projects outlined, that the highest number of respondents (64%) is recorded at the 'Purpose’ level, while the fewest respondents (1.3%) ranked it at the ‘Compliant’ level.

Table 21 Response distribution for the habitat conservation aspect

		project name		
		JEOP	PReSERVE	Total
Habitat conservation	Compliant	0	1(2.1%)	1(1.3%)
	Reactive	2(7.4%)	4(8.3%)	6(8%)
	Proactive	6(22.2%)	14(14.6%)	20(26.7%)
	Purpose	19(70.4%)	29(75%)	48(64%)
	Total	27(100%)	48(100%)	75(100%)

4.6.5 Waste Management

One of the current environmental concerns pertains to waste management. This aspect tries to grasp the level of consideration given to the proper disposal of products and packaging when their usability is over, on top of that, the establishment of efficient recycling and reuse systems is also taken in to consideration(G.Silvius & Schipper, 2015).

As depicted in Table 22, the highest number of respondents from JEOP (37%) and PReSERVE (45.8%) voted that the aspect is addressed at the 'Purpose' level, The lowest number of respondents, 7.4% from JEOP and 14.6% from PReSERVE was recorded at the 'Compliant' level. The combined results demonstrated that the least respondents (12%) rated the aspect at the 'Compliant' level, while the highest number of respondents (42.7%) rated it at the purpose level of implementation.

Table 22 Response distribution for the waste management aspect

		project name		
		JEOP	PReSERVE	Total
waste management	Compliant	2(7.4%)	7(14.6%)	9(12%)
	Reactive	7(25.9%)	8(16.7%)	15(20%)
	Proactive	8(29.6%)	11(22.9%)	19(25.3%)
	Purpose	10(37%)	22(45.8%)	32(42.7%)
	Total	27(100%)	48(100%)	75(100%)

4.6.6 Procurement of Materials

As demonstrated by G.Silvius & Schipper (2015) This aspect tries to evaluate the level of consideration given to the evaluation and selection of materials in procurement processes, considering factors like toxicity, scarcity, reusability, origin, and the energy incorporated during sourcing, production, or use in the project process.

As outlined in Table 23, PReSERVE majority of respondents (33.3%) voted for a 'Proactive' level of strategy when selecting and buying a product, followed by a reactive approach (25%). in contrast, JEOP's majority of respondents (48.1%) said it is regarded as a 'Reactive' level of implementation. The collective results from both projects demonstrated that the fewest respondents (16%) rated the aspect at the 'Purpose' level, and the highest respondent number (33.3%) is located at the 'Reactive' level of implementation.

Table 23 Response distribution for the procurement of material aspect

		project name		
		JEOP	PReSERVE	Total
procurement of material	Compliant	5(18.5%)	11(22.9%)	16(21.3%)
	Reactive	13(48.1%)	12(25%)	25(33.3%)
	Proactive	6(22.2%)	16(33.3%)	22(29.3%)
	Purpose	3(11.1%)	9(18.8%)	12(16%)
	Total	27(100%)	48(100%)	75(100%)

4.6.7 Measuring Controlling and Emission

As pointed out by G.Silvius & Schipper (2015) this aspect tries to evaluate the level of consideration of measuring and controlling emissions into air, soil, and water that is produced during the project process.

The analysis demonstrates in Table 24 the highest respondent rate: About 44.4% from JEOP said the aspect is considered Reactively, and 41.7% from PReSERVE said this aspect is addressed at the 'Compliant' level. The lowest respondent rate is at in the 'Purpose' level for both projects, 0 for JEOP and 4.2% for PReSERVE. The combined results outlined that the highest respondent 38.7% recorded at the 'Compliant' level, while the lowest record which accounts for only 2.7% respondents rated it at the 'Purpose' level of implementation.

Table 24 Response distribution for the emission aspect

		project name		
		JEOP	PReSERVE	Total
Emission	Compliant	9(33.3%)	20(41.7%)	29(38.7%)
	Reactive	12(44.4%)	15(31.3%)	27(36%)
	Proactive	6(22.2%)	11(22.9%)	17(22.7%)
	Purpose	0	2(4.2%)	2(2.7%)
	Total	27(100%)	48(100%)	75(100%)

4.6.8 Impact on Land Use

This aspect tries to evaluate the level of consideration of the organization and management of land use in a way that balances the demands of various social and economic activities while protecting the environment in the project process (G.Silvius & Schipper, 2015).

The analysis outlined in Table 25 that 75% of respondents from PReSERVE respondents voted for a purpose-driven initiative toward land use management aspects. Conversely, JEOP respondents show a strong preference for 'Proactive' level of implementation, as 63 % of them said the aspect is addressed actively but not as an integrated part of the project.

A minimal number of respondents from JEOP (0%) and PReSERVE (2.1%) said this aspect is addressed for compliance situations only. The aggregated analysis shows that only 1.3% of respondents rated the impact on land uses addressed at the 'Compliant' level which is the lowest record, while the highest record which accounts (58.7%) is found at the 'Purpose' level.

Table 25 Response distribution for land use aspect

		project name		
		JEOP	PReSERVE	Total
Impact on land use	Compliant	0	1(2.1%)	1(1.3%)
	Reactive	2(7.4%)	5(10.4%)	7(9.3%)
	Proactive	17(63%)	6(12.5%)	23(30.7%)
	Purpose	8(29.6%)	36(75%)	44(58.7%)
	Total	27(100%)	48(100%)	75(100%)

4.6.9 Nuisance

According to G.Silvius & Schipper (2015) nuisance is anything that annoys other people, such as loud noise, vibration, or dust. This aspect tries to measure the level of consideration of controlling levels of noise, vibrations, dust, or dirt during the project execution process.

As Table 26 outlined, respondents that account for 48.1% from JEOP and 56.3% from PReSERVE voted this aspect is addressed at the 'Compliant' level. In addition to that, a lower number of respondents 7.4% and 4.2 % respectively from JEOP and PReSERVE voted for 'Purpose' level implementation. The combined results depict that the highest record (53.3%) of respondents rated nuisance management at the 'Compliant' level, whereas the lowest record which accounts for 5.3% rated it at the 'Purpose' level.

Table 26 Response distribution for the nuisance aspect

		project name		
		JEOP	PReSERVE	Total
Nuisance	Compliant	13(48.1%)	27(56.3%)	40(53.3%)
	Reactive	8(29.6%)	11(22.9%)	19(25.3%)
	Proactive	4(14.8%)	8(16.7%)	12(16%)
	Purpose	2(7.4%)	2(4.2%)	4(5.3%)
	Total	27(100%)	48(100%)	75(100%)

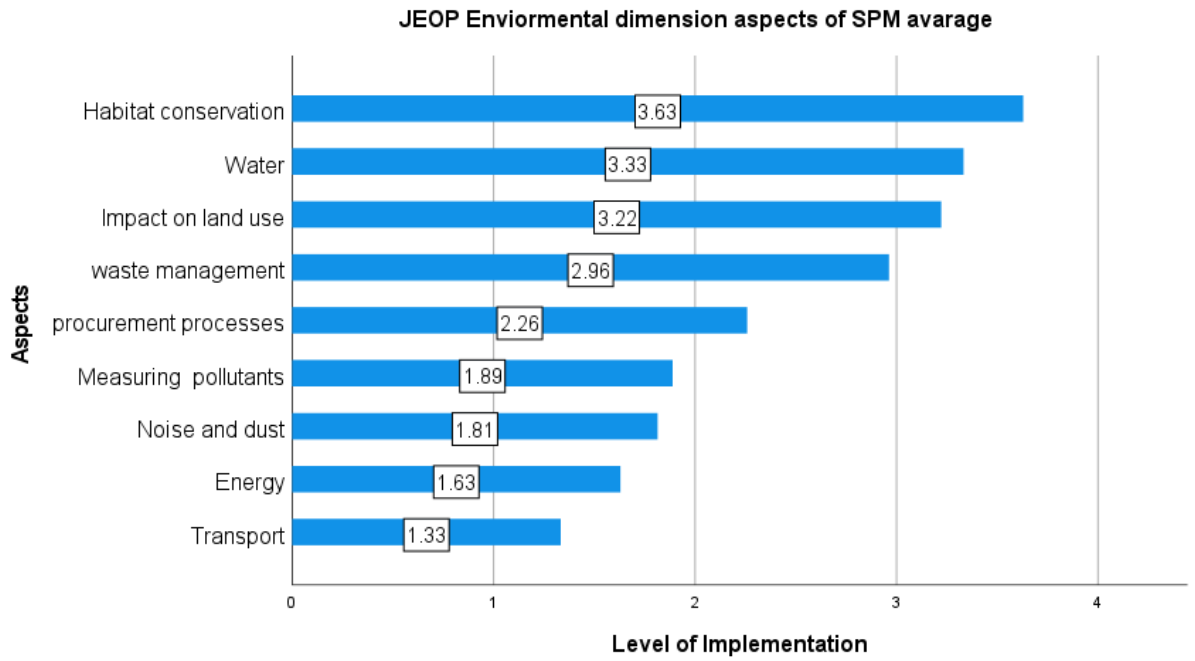
4.6.10 Overall level of environmental dimension aspects of SPM

The result of the average environmental dimension aspects of the JEOP SPM score revealed that 'Habitat conservation' achieved the highest rank, which falls into the 'Purpose' level. Following closely, the 'Water' aspect achieved a 'Proactive' level of implementation. Similarly, 'Impact on land use' is also situated in a 'Proactive' level of implementation.

Even though 'Waste management' received a lower rank when we compared it with the above aspects, it was still implemented at a 'Proactive' level. In contrast, 'Procurement processes' are addressed in a 'Reactive'. Aspects such as 'Measuring pollutants', 'Nuisance', and 'Energy' are ranked less, but they still are falling the 'Reactive' level. Finally, the 'Transport' aspect got the lowest score of all and situated at the 'Compliant' level of implementation.

As illustrated in Figure 7, out of six aspects of the environmental dimension of sustainability, ‘Habitat Conservation’ has reached the ‘Purpose’ level of implementation. Other aspects, including Transport, Energy, and Nuisance, are situated at lower rank.

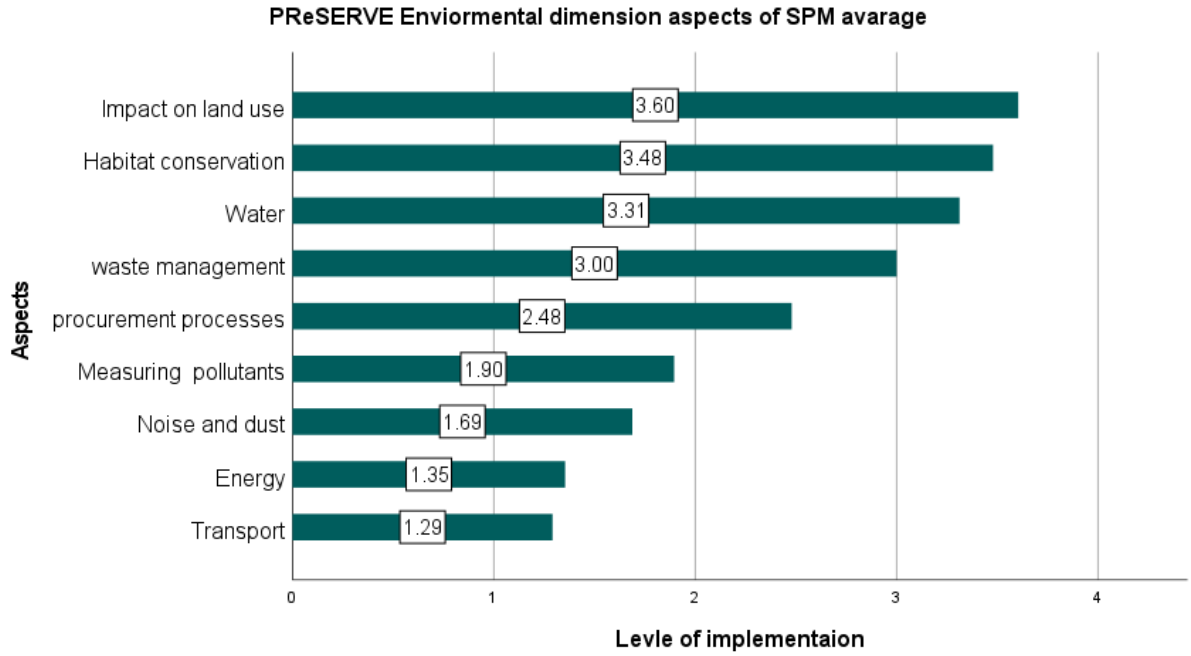
Figure 7 JEOP environmental dimension aspects of SPM average



As demonstrated in Figure 8, in the PReSERVE project, The aspect of ‘Impact on land use’ scores the highest, demonstrating a purpose-driven approach to managing land use in a manner that balances environmental protection with social and economic activities. Following closely, ‘Habitat conservation’ at the ‘Proactive’ level of implementation.

The ‘Water’ and ‘Waste management’ aspects also landed at a ‘proactive’ level. In contrast, ‘Procurement processes’ lean towards a ‘Reactive’ level. Aspects such as ‘Measuring pollutants’, ‘Nuisance’, ‘Energy’, and ‘Transport’ are ranked lower. The former two fall at the 'Proactive' level and the latter two are located at the 'Compliant' level.

Figure 8 PReSERVE environmental dimension aspects of SPM average



4.7 The Social Dimension of SPM

This section explores the level of implementation of the social dimension aspects of SPM in the JEOP and PReSERVE projects.

4.7.1 Fair Labor Practice

According to G.Silvius & Schipper (2015) fair labor practices measure the level of inclusivity and diversity in the recruitment process, how workers are compensated fairly, and how health and safety issues are managed well. These elements create a positive work atmosphere that increases productivity and retention.

The analysis notably outlines in Table 27 that from PReSERVE, 50% of respondents voted for the 'Purpose' level. Similarly, 29.6% of respondents from JEOP demonstrated fair labor practices implemented at ‘Purpose’ levels in the project. ‘Compliant’ and ‘reactive' levels notably got the lowest respondents rate across both projects. The combined analysis shows that the lowest number which accounts for 1.3% of respondents said fair labor practices were implemented at the ‘Compliant’ level, while the highest record (53.3%) of the respondents rated it at the ‘Proactive’ level.

Table 27 Response distribution for fair labor practices

		project name		
		JEOP	PReSERVE	Total
Fair labor practices	Compliant	0	1(2.1%)	1(1.3%)
	Reactive	0	2(4.2%)	2(2.7%)
	Proactive	19(70.4%)	21(43.8%)	40(53.3%)
	Purpose	8(29.6%)	24(50%)	32(42.7%)
	Total	27(100%)	48(100%0	75(100%)

4.7.2 Upholding human right

As outline by G.Silvius & Schipper (2015) upholding human rights aspect measures how much the level of human rights variables such as non-discrimination, gender equality, labor rights, and avoidance of child and forced labor is implemented in the project process.

The analysis highlights in Table 28, that JEOP's (92.6%) and Preserve's (72.9%) respondents said this aspect is implemented at the 'Purpose' level of implementation. There is no record of respondents for this aspect at the 'Compliant' level. The aggregated results from both projects demonstrate that the lowest number which accounts for 1.3% of respondents regarded upholding human rights at the 'Reactive' level, while the highest record which accounts for 80% rated it at the 'Purpose' level of implementation.

Table 28 Response distribution for upholding human rights

		project name		
		JEOP	PReSERVE	Total
Upholding human rights	Compliant	0	0	0
	Reactive	0	1(2.1%)	1(1.3%)
	Proactive	2(7.4%)	12(25%)	14(18.7%)
	Purpose	25(92.6%)	35(72.9%)	60(80%)
	Total	27(100%)	48(100%)	75(100%)

4.7.3 Ethical behavior

As described by G.Silvius & Schipper (2015) ethical behavior measures how much ethical aspects for example preventing bribery, anti-competitive behavior, anti-trust, and monopoly practices are controlled as well as promoting transparency and integrity are incorporated in the project process.

As demonstrated in Table 29, both projects have a significant lean toward to 'Purpose' driven approach, From PReSERVE (43.8%) and JEOP (44.4%) respondents said this aspect is considered as a driving factor for the project. In contrast, the lowest record is found at the 'Compliant' level across both projects. The combined results from both projects outlined that ethical behavior was rated at the 'Compliant' level by 6.7% of respondents which is the lowest count, while the highest number of respondents which accounts for 44% rated it at the 'Purpose' level of implementation.

Table 29 Response distribution for ethical behavior

		project name		
		JEOP	PReSERVE	Total
Ethical behavior	Compliant	1(3.7%)	4(8.3%)	5(6.7%)
	Reactive	4(14.8%)	9(18.8%)	13(17.3%)
	Proactive	10(37%)	14(29.2%)	24(32%)
	Purpose	12(44.4%)	21(43.8%)	33(44%)
	Total	27(100%)	48(100%)	75(100%)

4.7.4 User health, privacy, and safety

This aspect focuses on measuring society, client, and product responsibility specifically measuring the effects of the project activities on stakeholders, emphasizing effects such as healthiness, safety, and confidentiality. These aspects make sure projects not only meet operation goals but also improve societal long-term well-being through sustainable, transparent practices (G.Silvius & Schipper, 2015).

As demonstrated in Table 30, 66.7% of JEOP respondents voted for the ‘Purpose’ level and 50% of respondents from PReSERVE, voted for the 'Proactive' level of implementation. ‘Compliant’ and ‘Reactive’ levels got the lease respondent rate across both projects. The combined results from both projects depict the lowest number of respondents which accounts for 6.7% say the aspect is addressed at the ‘Compliant’ level, whereas the highest respondent record (50.7%) is situated at the ‘Purpose’ level of implementation.

Table 30 Response distribution for user health and privacy

		project name		
		JEOP	PReSERVE	Total
User health, privacy, and safety	Compliant	3(11.1%)	2(4.2%)	5(6.7%)
	Reactive	2(7.4%)	2(4.2%)	4(5.3%)
	Proactive	4(14.8%)	24(50%)	28(37.3%)
	Purpose	18(66.7%)	20(41.7%)	38(50.7%)
	Total	27(100%)	48(100%)	75(100%)

4.7.5 Involving stakeholders

This aspect tries to figure out the level of Involvement of stakeholders, including local communities and project beneficiaries, government bodies in the decision-making process (G.Silvius & Schipper, 2015).

The analysis outlined in Table 31, responses from PReSERVE that account for 83.3% rated this as a 'Purpose' level of implementation. In contrast, from JEOP (55.6%) respondents voted for the 'Proactive' level. The minimum number of respondents were recorded at the 'Compliant' and 'Reactive' levels across both projects. The combined analysis of both projects indicates that the lowest number (1.3%) of respondents rated involving stakeholders at the 'Reactive' level. The highest record which accounts for 69.3% is found at the 'Purpose' level.

Table 31Response distribution for involving stakeholders

		project name		
		JEOP	PReSERVE	Total
Involving stakeholders	Compliant	0	0	0
	Reactive	0	1(2.1%)	1(1.3%)
	Proactive	15(55.6%)	7(14.6%)	22(29.3%)
	Purpose	12(44.4%)	40(83.3%)	52(69.3%)
	Total	27(100%)	48(100%)	75(100%)

4.7.6 Developing human capital

This aspect tries to quantity the level of the development and enhancement of human capital, through education, and training to improve overall performance and support professional growth for its workers in the project process (G.Silvius & Schipper, 2015).

As demonstrated in Table 32, for PReSERVE, over half of its respondents (56.3%) voted in favor of the aspect being addressed as a core driver factor for the project. JEOP respondents (59.3%) predominantly categorize it as a 'Proactive' level of implementation. There is no response recorded under the ‘Compliant’ level in both projects. The aggregated result shows that no respondents rated developing human capital at the ‘Compliant’ level and the highest (48%) of respondents found in the ‘Purpose’ level of implementation.

Table 32 Response distribution for developing human capital

		project name		
		JEOP	PReSERVE	Total
Developing human capital	Compliant	0	0	0
	Reactive	29(7.4%)	4(8.3%)	6(8%)
	Proactive	16(59.3%)	17(35.4%)	33(44%)
	Purpose	9(33.3%)	27(56.3%)	36(48%)
	Total	27(100%)	48(100%)	75(100%)

4.7.7 Corporate governance

According to G.Silvius & Schipper (2015), this aspect tries to measure the extent to which sustainability issues are incorporated and addressed in the areas of reporting, documenting, and formulating strategies and decisions in the project process.

As illustrated in Table 33, Preserve’s (47.9%) respondents voted for the 'Purpose' level of implementation. In contrast, JEOP respondents (66.7%) exhibit a stronger focus on the 'Proactive' level. Both projects show the lowest number of respondents at the ‘Compliant’ level of implementation. on the other hand, the aggregated result from both projects illustrated the lowest number of respondents (2.7%) voted for the ‘Compliant’ level and the highest response rate (52%) is found at the ‘Proactive’ level of implementation for the aspect.

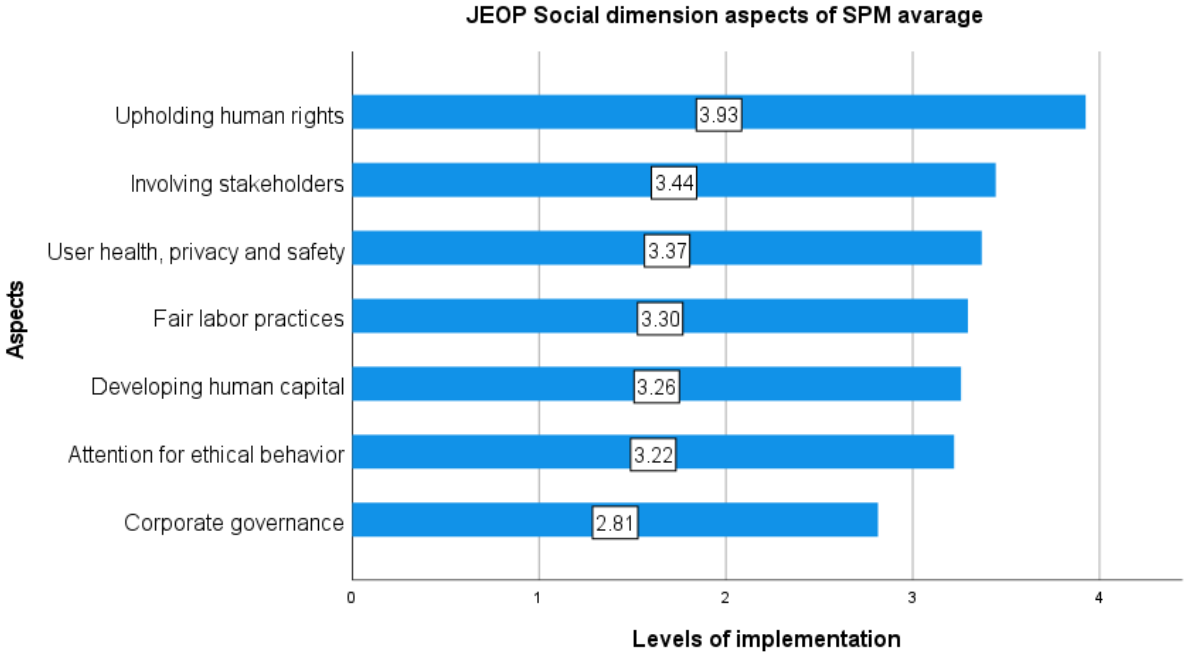
Table 33 Response distribution for corporate governance

		project name		
		JEOP	PReSERVE	Total
Corporate governance	Compliant	2(7.4%)	0	2(2.7%)
	Reactive	4(14.8%)	4(8.3%)	8(10.7%)
	Proactive	18(66.7%)	21(43.8%)	39(52%)
	Purpose	3(11.1%)	23(47.9%)	26(34.7%)
	Total	27(100%)	48(100%)	75(100%)

4.7.8 Overall level of social dimension aspects of SPM

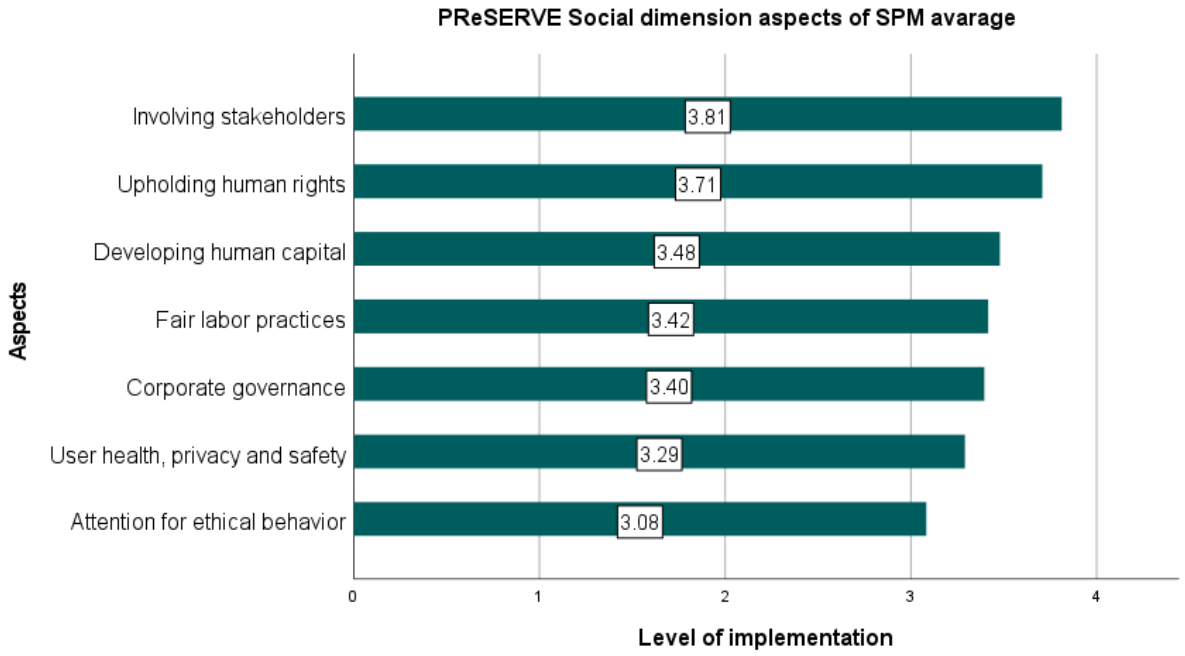
The analysis outlined the highest ranked aspect regarding the implementation level is ‘Upholding human rights’, which is addressed at the ‘Purpose’ level. As demonstrated in Figure 9, aspects such as ‘Involving Stakeholders’, ‘User health, privacy, and safety’, ‘Fair labor practices, ‘Developing human capital’, and ‘Attention for ethical behavior’ are sequentially situated in the 'Proactive' level of the implementation. The aspect ‘Corporate governance’ got the lowest rank when compared with other aspects but is still situated in the 'Proactive' level.

Figure 9 JEOP social dimension aspects of SPM average



As showed in Figure 10, for the PReSERVE project, the highest scoring aspect is ‘Involving stakeholders’, followed by ‘Upholding human rights’, both situated at the ‘Purpose’ level. ‘Developing human capital’, ‘Fair labor practices’, and ‘Corporate governance’, all landed at the ‘Proactive’ level. However, ‘User health, privacy, and safety’ and ‘Attention for ethical behavior’ are the lowest addressed elements in the social dimension sequentially.

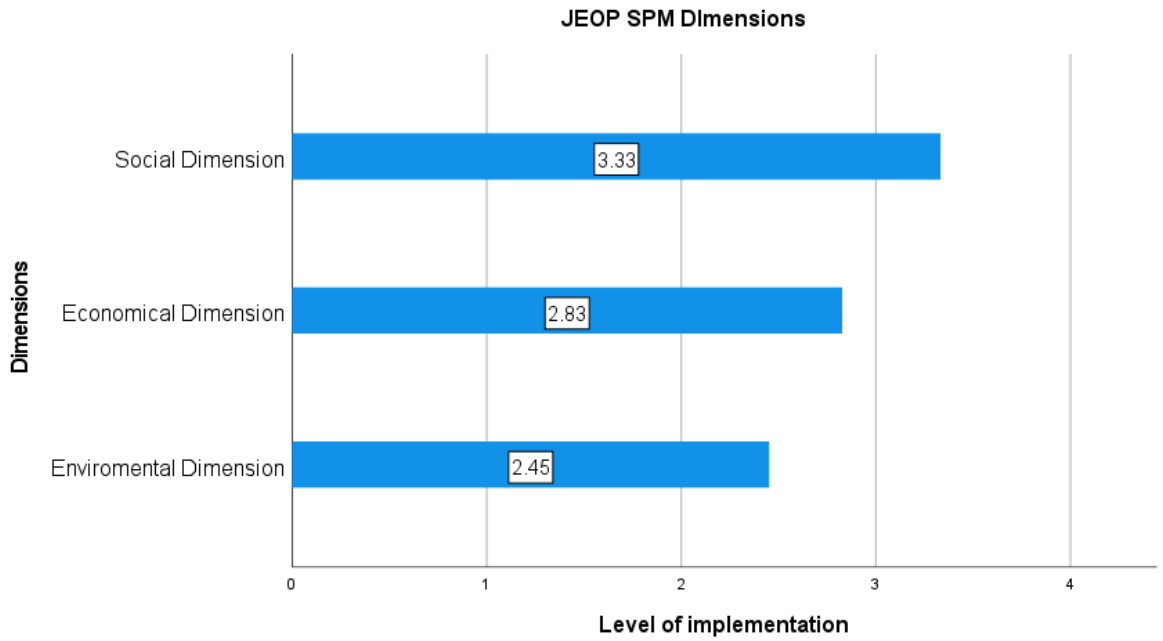
Figure 10 PReSERVE social dimension aspects of SPM average



4.8 SPM Dimension comparison

To ascertain the dimension's overall level within projects and all together, the dimensions were evaluated and compared with one another. The findings are presented in Figures 11,12 and 13 below:

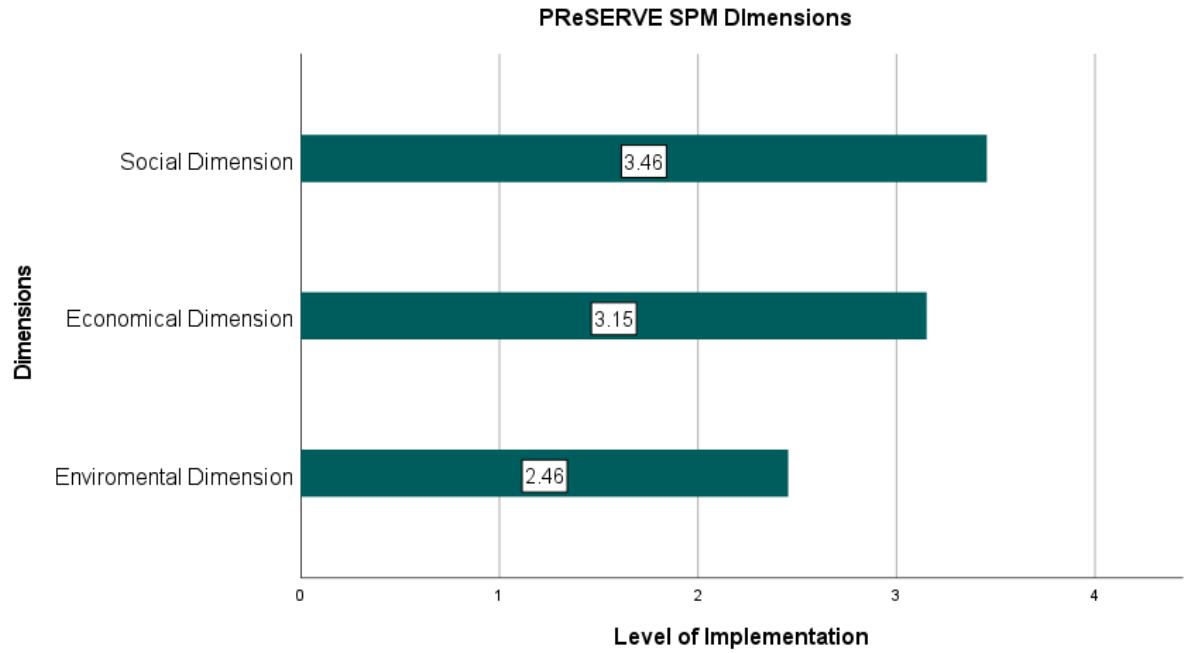
Figure 11 JEOP SPM dimensions average



JEOP's dimensions of SPM reveal varying levels of implementation, with the social dimension scoring the highest. Next to that, the economic and environmental dimension fall in the 'Proactive' level of implementation in contrast the environmental dimension falls in the 'Reactive' level of implementation and the overall JEOP TBL average is 2.87 implies a 'Proactive' level of implementation.

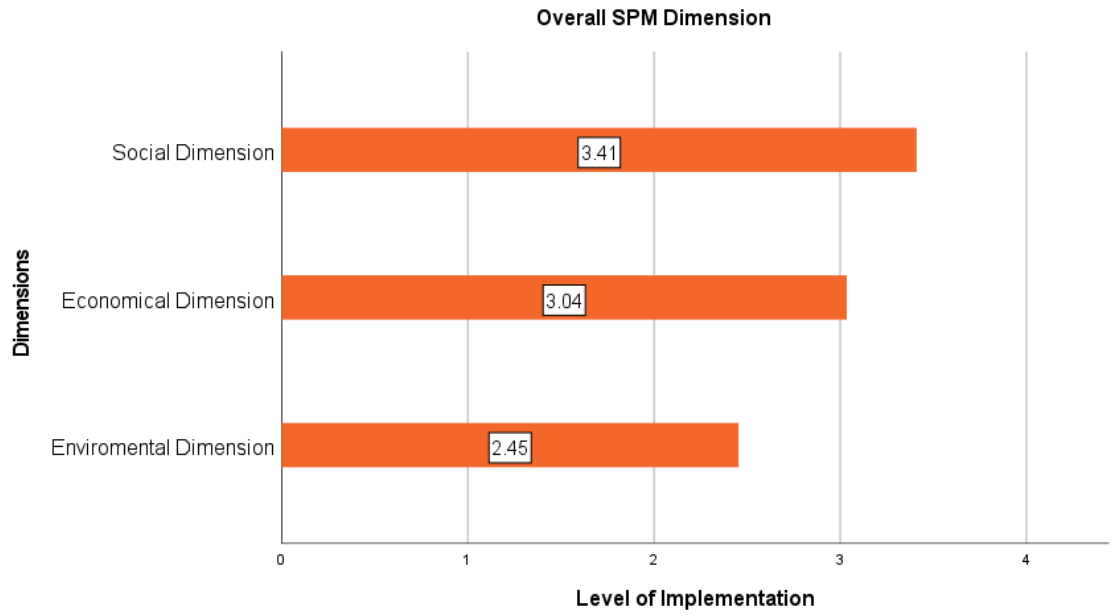
As summarized in Figure 12, The social and economic components of the PReSERVE SPM dimensions demonstrate a different level of implementation; the social dimension has the highest score followed by the economic dimension which both fall into the 'Proactive 'level of implementation. In contrast, the environmental dimension is on the 'Reactive' side. The overall PReSERVE TBL average is 3.02, inferred as a 'Proactive' level of implementation.

Figure 12 PReSERVE SPM dimensions average



As Figure 13 demonstrates, the overall SPM dimension average revealed that the social dimension got the highest score, followed by the economic dimension, both of which fall into the 'Proactive' level of implementation. In contrast, the environmental dimension is on the ' Reactive' side. The overall JEOP and PReSERVE SPM implementation average is 2.96, which implies a 'Proactive' level of implementation.

Figure 13 JEOP and PReSERVE overall SPM dimensions average



CHAPTER FIVE

5 DISCUSSION

This section discusses the primary research findings of the study with a comparison of previous publications on SPM.

5.1 Perceived importance of the aspects of sustainability

The combined findings regarding the perceived significance of sustainability aspects by project team members from both projects indicate a high priority of satisfying current needs followed by economic, environmental, social components and finally allowing future generation to fulfill their needs. The findings of the study correspond with the previous literature, in which most professionals across different industries prioritize environmental and economic aspects over the social regarding sustainability in the project (Chang et al., 2017; Haroon et al., 2021; Martins et al., 2020).

Regarding the priorities of perception on fulfilling the current need versus allowing future generations to fulfill their need, the findings outline that project teams perceived meeting the current need as far more important than allowing future generations to meet their need. The finding also corresponds with the previous studies(Clinning & Marnewick, 2017).

As noted by Panatsa & Malandrakis (2018) sustainability necessitates a holistic approach that recognizes the interconnectedness and mutual support of societal, fiscal, and ecological factors. This implies that even though the analysis's result demonstrates a priority, the balance between aspects is inevitable to address sustainability.

5.2 Dimension aspects of SPM

5.2.1 Economic Dimension of SPM Aspects

The study demonstrates aspects such as ‘Operational continuity’, ‘Adaptation of operation to changing needs’, as well as ‘Identification and managing risks’, got the highest priorities in both projects. In contrast, ‘Incentive to align with sustainability’ and ‘Adaptation to innovation & technology’ got the lowest level of implementation among the economic dimensions of SPM. Most of the findings correspond to the existing literature found in Clinning & Marnewick (2017); Magano et al.(2024), except the project financial return aspect got less priority when compared to other industry sectors. The lower prioritization of project financial return is noteworthy. This divergence can be attributed to the natures of non-profit organizations, where the primary aim is not profiting maximization but rather service delivery and social impact.

5.2.2 Environmental dimension of SPM aspects

The findings of the study illustrate aspects such as ‘Habitat conservation’, ‘Impact on land use’, ‘Water’, and ‘Waste management’ got the highest rank in both projects. In contrast, ‘Transport’, ‘Energy’, and ‘Nuisance’ aspects got the lowest rank among environmental dimeson of SPM aspects. Most of the result corresponds with previous literature Clinning & Marnewick, (2017) ; Magano et al.(2024) except for habitat conservation and impact on land use aspects got a higher priority when we compared results from previous studies. The reason might be as described by Romero-Brito et al (2016) NGOs play a significant role in purchasing or covenanting property for conservation, engaging in official and informal political advocacy, and making partnerships to carry out particular conservation initiatives. These roles influence the aspect of the ranks.

5.2.3 Social dimension of SPM aspect

The analysis demonstrates out of the seven elements of the social dimension, SPM aspects, ‘Upholding human rights’ and ‘Involving stakeholders’, got the highest rank. While ‘Attention to ethical behavior’ and ‘Corporate governance’ got the lowest ranks in both projects. The result corresponds with the previous literature Clinning & Marnewick, (2017); Magano et al.(2024) except for aspects including ‘Upholding human rights’ and ‘Involving stakeholders’ aspects got a higher rank. As outlined Omeka & Chege (2021) effectively involving stakeholders is essential to the project’s success, since it improves quality, ownership, and results. This reality is highly applicable to NGO sector projects since these projects are highly integrated with society. So, the priority is expected since the project's nature gives high priority to this aspect.

5.3 Overall level of implementation of SPM dimensions

The result of the study outline for both projects is that the social component of SPM takes the highest rank, followed by the economic, and lastly, the environmental component takes third place. The result corresponds with the previous literature Clinning & Marnewick, (2017); Magano et al.(2024) except the Social component is addressed better than the in both projects.

As demonstrated Aldashev&Vallino (2019) the prioritization of the social component can be attributed to the characteristics of the sector. The working environment of NGOs is characterized by participatory projects that combine economic development with environmental protection through the direct involvement of local communities.

Regarding the implementation level, the social and environmental components are situated at the 'Proactive' level of implementation for both projects, individually and collectively. This suggests that these aspects are considered significant contributions to the project, and measures are taken to ensure that the project makes a positive impact in this regard.

On the environmental dimension, even though there are efforts to address some aspects of environmental sustainability aspect, the average score falls behind at the 'Reactive' level for both projects, individually and collectively. The result corresponds with previous studies (Magano et al., 2024) .

The overall TBL average for both projects, individually and collectively was at the 'Proactive' level of implementation. This finding represents an advancement from the SPM level reported in previous studies, positioning it one level higher. (Clinning & Marnewick,2017; Magano et al., 2024).

The advancement of the progress in addressing SPM in FH Ethiopia projects, when compared with previous studies, can be linked to the involvement and funding structure of international donors like USAID. As Milner et al. (2016) demonstrate that donors can dictate the terms and conditions of their funding, especially when it comes to international development initiatives, used as a mechanism to control and direct project outcomes closely.

CHAPTER SIX

6 CONCLUSION AND RECOMMENDATION

6.1 Conclusion

This study intended to evaluate the level of implementation of SPM within FH Ethiopia's projects, focusing on the PReSERVE and JEOP projects. By examining the triple component of SPM, this research provides a complete comprehension of how these principles are incorporated into the project management processes of FH Ethiopia projects.

Regarding the perceived significance of sustainability, project team members from both projects prioritize fulfilling the current generation's needs, followed by economic, environmental, social aspects, and finally, allowing future generations to fulfill their needs. As they demonstrate, these factors contribute sequentially to their project's success.

The economic and societal components of SPM are situated at the ‘Proactive’ level of implementation in both projects, individually and collectively. This implies that FH Ethiopia projects try to contribute to these dimensions positively and actively look to address them, but still, there is a gap to be filled to attain the highest level of SPM.

Conversely, the environmental dimension was discovered to be at the ‘Reactive’ level of implementation in both projects, individually and collectively. This means the aspect is considered in the initiatives, but the approach is reactive, aiming to minimize the adverse effects of issues. This reactive approach indicates that environmental sustainability is not yet a core driver factor for the projects.

Although SPM highly advocates the balance of the triple component of SPM, the study results demonstrate a clear imbalance between the implementation levels of SPM's dimensions.

The overall al TBL average for both projects, individually and collectively, is at a 'Proactive' level of implementation. While each project is actively looking to implement SPM aspects in the project process, they both fall short of reaching the 'Purpose' level. This highest attainable SPM level considers sustainability as a critical project driver.

6.2 Recommendation

To address the variability of perceptions of sustainability aspects among the project team members, FH Ethiopia projects can take action by incorporating sustainability aspects into project documentation, reporting, decision-making, and strategy formulation processes. This will help team members embrace and acknowledge all aspects of sustainability as part of the organizational culture. Additionally, extensive training programs help the staff to understand the notion of sustainability and increase the capacity to implement it in the project process

To increase the level of implementation and attain the 'Purpose' level of SPM in FH Ethiopia projects, the organization should comprehensively incorporate each SPM aspect listed in the SPM3 model into every stage of the project's lifespan, starting from project initiation up to post-project closure activities such as project review and evaluation, lesson learned documentation, resource reallocation, and impact assessment activities.

Finally, to address the imbalance of dimensions of SPM in FH Ethiopia projects, Regular monitoring and evaluation assessment of SPM is recommended. Tools such as the SPM3 model facilitate tracking progress, identifying issues that need improvement, and making data-driven adjustments. This approach will help to keep the balance of the dimensions and lead towards achieving the ultimate 'Purpose' level of implementation of SPM. Therefore, projects can fulfill the current society's needs without compromising future generation's needs.

6.3 Limitations of the Study

The study has limitations, including it evaluates projects in a single NGO setting. The SPM implementation pattern can be different in different NGO projects. This is a potential area for future research.

The other limitation of the study is that it does not consider different contextual attributes of a project, such as project sizes, project types, and organization strategies. This different attribute context may give different patterns on the level of implementation of SPM within the projects. This can be another investigation area for future studies regarding the NGO context.

The final limitation is although, the data collection followed a very structured process using SPM3 model assessment, subjective assessment of individuals cannot be completely excluded.

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ANNEX: DATA COLLECTION TOOL

Dear Respondents,

You are invited to participate in a questionnaire survey which is conducted as a part of fulfillment of Master of project Management academic program at Addis Ababa university. It is conduct to study and assess the level of implementation of sustainable Project Management within FH Ethiopia projects. Your participation is voluntary and your response will be kept confidential and only used for the educational purpose only. Thank you for your valuable time and input.

Position: _____

Project Name: _____

Years of experience with the project: _____

PART 1: Please rate the level of importance you perceive for each of the following aspects in contributing to the success of your project on a scale of 1 to 5, where 1 = Not Important, 2 = Slightly Important, 3 = Moderately Important, 4 = Important, and 5 = Very Important.

Aspects	**1**	**2**	**3**	**4**	**5**
Ensuring that the project meet current needs of the society.					
Allowing for future generations to meet their needs					
Focusing on the project's internal financial health, budget management, and cost-effectiveness.					
Focusing on environmentally responsible practices within the project's operations and minimizing its internal ecological footprint.					
Focusing on promoting fairness, ethical behavior, inclusivity, diversity, and participation among stakeholders in the project process.					

Note: Adopted from Clinning & Marnewick (2017).

PART 2: Please rate how your project considers each of the following aspects presented in the table in the project process on a scale of level 1 to 4, where the level's understanding is as follows:

Leve 1 (Compliant): the aspect is not directly addressed in the project. However, it is taken into account indirectly through adherence to existing laws of the country and company regulations. There are no specific policies within the project to address this aspect.

Level 2 (Reactive): the aspect is considered in the project, but the approach is reactive and to minimize the negative impact when problem occurs.

Level 3 (**Proactive**): the aspect recognized as an important area of contribution for the project. It is considered more proactively, and efforts are made to ensure that the project positively contributes to this aspect.

Level 4 (Purpose): the aspect is a key driver of the project and it is one of the main reasons to undertake the project. The project is designed and implemented with the explicit goal of making a significant contribution to this aspect**.**

Table 34 Aspects of sustainability

No.	How the project considers the following aspects in the Project Process	Level 1: Compliant	Level 2: Reactive	Level 3: Proactive	Level 4: Purpose
1	Project's financial return and value creation for stakeholders. E.g. Increase in profit for farmers & job creation				
2	Adaptation of its operation to changing need of the surrounding project environment and maintain flexibility in decision-making				
3	Adapt to new innovation & technology and promote eco-friendly initiatives				

No.	How the project considers the following aspects in the Project Process	Level 1: Compliant	Level 2: Reactive	Level 3: Proactive	Level 4: Purpose
4	Ensuring operation continuity, both reactively (e.g., maintaining critical functions during crises) and proactively (e.g., adapting to changes such as resource scarcity), in the project process				
5	Incorporation of motivational factors and incentives for project team members to align with sustainability objectives.				
6	Identification and manage risks (e.g., financial, operational, environmental) in its process to minimize potential losses and maximize value.				
7	Environmental impacts of transporting goods, materials, and workforce members in the project to promote environmental sustainability.				
8	Balancing the use of fossil fuels and renewable energy sources, and controlling energy consumption.				
9	Project operation impact on water sources and the choice of water sources used by the project (rain water, potable water) .				

No.	How the project considers the following aspects in the Project Process	Level 1: Compliant	Level 2: Reactive	Level 3: Proactive	Level 4: Purpose
10	Habitat conservation and biodiversity preservation to support ecosystem functions.				
11	Strategies for waste management and reduction, including recycling.				
12	Evaluation and selection of materials in procurement processes, considering factors like toxicity, scarcity, reusability, origin, and the energy incorporated during sourcing, production, or use.				
13	Measuring to reduce greenhouse gas emissions and other pollutants associated with the project.				
14	The project's impact on land use and the surrounding environment.				
15	Potential annoyances such as noise, dust, and vibrations during the project process.				
16	Fair labor practices, decent working conditions, and respect for workers' rights throughout the project.				
17	upholding human rights in its processes, addressing issues such as non-discrimination, gender				

No.	How the project considers the following aspects in the Project Process	Level 1: Compliant	Level 2: Reactive	Level 3: Proactive	Level 4: Purpose
	equality, freedom of association, and prevention of child and forced labor.				
18	Attention for ethical behavior, for example preventing bribery, anti-competitive behavior, anti-trust, and monopoly practices incorporated in the project process				
19	User health and safety, user privacy, and compliance with legal and ethical standards in its processes				
20	Involving stakeholders, including local communities and project beneficiaries, government bodies in the decision-making process				
21	Developing and enhancing its human capital, through education, training to improve overall performance and support professional growth for its worker				
22	Incorporation of sustainability aspects in project documentation, reporting, decision-making, and strategy formulation processes				

Note. Adopted from G. Silvius & Schipper (2015).