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# AN EXAMINATION OF THE INTEGRATION OF SUSTAINABLE DEVELOPMENT PRINCIPLES IN GOVERNMENTAL PROJECT MANAGEMENT IN THE GOVERNMENT OF THE KINGDOM OF BAHRAIN

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University of Plymouth

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# UNIVERSITY OF PLYMOUTH

**AN EXAMINATION OF THE INTEGRATION OF SUSTAINABLE DEVELOPMENT  
PRINCIPLES IN GOVERNMENTAL PROJECT MANAGEMENT IN THE GOVERNMENT  
OF THE KINGDOM OF BAHRAIN**

by

**SHAIKHA THAJBA DUAIJ KHALIFA SALMAN AL-KHALIFA**

**A thesis submitted to the University of Plymouth  
in partial fulfilment for the degree of**

**DOCTOR OF PUBLIC ADMINISTRATION**

**December 2023**

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## ACKNOWLEDGEMENT

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## DECLARATION

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At no time during the registration for the degree of Doctor of Public Administration have the author been registered for any other University award without prior agreement of the Doctoral College Quality Sub-Committee.

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Thajba Duajj Khalifa Salman Al-Khalifa

Manama, Bahrain

21<sup>th</sup> December 2023

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## ABSTRACT

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# **AN EXAMINATION OF THE INTEGRATION OF SUSTAINABLE DEVELOPMENT PRINCIPLES IN GOVERNMENTAL PROJECT MANAGEMENT IN THE GOVERNMENT OF THE KINGDOM OF BAHRAIN**

**SHAIKHA THAJBA DUAIJ KHALIFA SALMAN AL-KHALIFA**

This study aims to explore sustainable project management in Bahrain and to identify current gaps in the field. The overall objective of project management in Bahrain is the striking of an appropriate and practical balance between social, environmental, and economic interests in order to achieve long-term sustainability. The research gap identified in this study is the lack of understanding of how to effectively integrate sustainability into project management in Bahrain. The research question that guides this study is: how can sustainable practices be effectively integrated into project management in Bahrain?

The study begins with a comprehensive literature review, which includes a background on project management, the concept of sustainability generally, and the concept of sustainability as applied to project management itself. The review also examines the factors that impact sustainable development practices, such as balancing social, environmental, and economic interests, short- and long-term orientation, local and global orientation, value, and ethics, as well as transparency and accountability. It also discusses the differences between sustainable development and project management, as well as the frameworks used to integrate project management and sustainability.

The literature review also includes a discussion of the main variables from identified frameworks, and Bahrain cultural dimensions. The thesis will draw on Hofstede's Theory of Culture to understand the influence of cultural factors on working culture in project management in Bahrain. A conceptual framework is also developed to guide the research.

The study employs a mixed methods approach, including semi-structured interviews and content analysis, to collect data from seven organizations in Bahrain. The organizations include the International Civil Aviation Organization building, Air control center building project, Al Nawras,

Bahrain International Airport, Bahrain Rail Project, Water Garden City, and Bahrain Metro. The data collected is analyzed using content analysis, with the aim of identifying emerging themes and patterns related to sustainable project management in Bahrain.

The findings of this study contribute to a deeper comprehension of the efficient integration of sustainable practices into project management in Bahrain. Specifically, the study underscores the significance of harmonizing social, environmental, and economic concerns to attain enduring sustainability. It also pinpoints the obstacles and hindrances to sustainable project management in Bahrain, encompassing a limited understanding and awareness of its objectives and conceptual framework, a fragile regulatory environment, and cultural influences.

This study provides useful insights for organizations and practitioners in Bahrain, as well as for other countries in the region, in terms of how to effectively integrate sustainable practices into project management. The findings can be used to develop policies, guidelines, and strategies for sustainable project management, and to educate and train project managers in Bahrain on the importance and benefits of sustainable practices. The study also contributes to the existing literature on the broader elements of sustainable project management and how national, regional and cultural differences can impact what are regarded as accepted frameworks and practices. It also provides an approach as to how such differences can be effectively integrated into current practice where appropriate and advantageous.

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# 1 INTRODUCTION

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## 1.1 INTRODUCTION

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Corporations create social and societal impacts, both positive and negative, through the daily operations of their value chain. Corporations and the societies they operate in are already intertwined. Corporations provide much needed employment and infrastructure, and corporations in turn need to draw on the talents, resources, and expertise of those within that society. While society looks, in many cases, to the corporate world rather than government for the provision of employment and infrastructure (not to mention goods and services), it is only a healthy society that can create the kind of productive workers that every corporation seeks to hire (Auerswald, 2009). The mutual interdependence of companies and society demonstrates that business decisions must follow the principle of shared value—choices must benefit both sides (Porter, 2006, p.5). Stakeholders—shareholders, suppliers, customers, partners, regulators, activists, labor unions, employees, community members, and government—expect companies to be accountable not only for their own performance, but for the performance of their entire supply chain and for an evolving set of sustainability issues. However, sustainability is not just a responsibility. It is an opportunity to harness human creativity and discover innovative ways to protect and enhance our shared environment, respect, and empower all people and build enduring wealth (Tharp, 2021).

While current legislation in most countries can be readily described as fit for purpose, poor enforcement can often negate or attenuate the desired force of those very laws (Murphy 2012). Over the last two decades, the concept of sustainability has gained significant recognition, traction and importance in the corporate world (Ashrafi et al., 2020). Business organizations have been under increasing pressure to improve their performance not merely based on the economic efficiency of a project, but also in relation to its long-term sustainable approach. As a result, business organizations have continuously sought to integrate sustainability concepts into their corporate and marketing structures within the broader scope of their operations (Sánchez, 2015). From the perspective of an organization, sustainability is tantamount to adopting business strategies as well as activities that are designed to meet different enterprise needs as well as those of the stakeholders, while at the same time working to ensure that a degree of balance is achieved in protecting and enhancing the natural and human resources within the company's purview (Michaelides, Bryde, & Ohaeri, 2014). Moreover, the drive to incorporate sustainability in project

management can be attributed to the significant benefits that flow from such changes in approach (Marcelino- Sádaba et al., 2015), and is not merely the result of a desire to engage in a form of virtue signaling.

Poor enforcement can often be seen to have its roots in corruption and weak institutions, while poor governance perpetuates poverty (Li, 2019). Sustainability programs therefore strive to bridge the gap between laws, which are in place and enforced, and to ensure that the fundamentals of good business, such as the avoidance of exploitative practices and the implementation of policies that require complete transparency are given proper effect. This means that risks can be more effectively assessed, and these then more proactively addressed. As a result, sustainability not only becomes a necessary value of organizations, but becomes integrated into business goals and objectives. Future business success is therefore predicated on the consideration of social, environmental, and supply issues across aspects of the business.

The temporary character of projects may seem to contradict the long-term orientation of sustainability. However, projects help firms realize long-term investment objectives. Understanding the framework in which the project takes place helps ensure that work is carried out in alignment with the goals of the enterprise and managed in accordance with the established practice methodologies of the organization (Morris, 2010)

According to Lester (2006) project management has in the past been measured using various approaches that include the project, organization, project management, sustainability, and the external environment. Besides, there are several techniques for creating a successful project, a majority of which are generic. Some of the key success indicators include performance objectives, user requirements, current software technology, and success programmes (Mellado et al., 2010). Despite the ways projects have been managed in the past, project management does not happen in a vacuum. All projects take place within a strategic context, and there are both internal and external environmental factors that surround or influence a project's success. These factors may enhance or constrain project management options and may have a positive or negative influence on the outcome (Pheng and Chuan, 2006). In much the same way that a project manager must balance cost, schedule, and scope, there are tradeoffs that must be made between the economic, social, and environmental factors surrounding a project.

Sustainable development covers a balance of the key features of development initiatives such as social, environmental, and economic factors while seeking to meet both the present and future needs of a population (Dempsey et al. 2011). The balancing act leads to compromises hence the need to implement sustainable development (Murphy 2012). The decisions for compromising on any of the three core pillars of development should depend on an analysis of net consumption of income rather than net consumption of capital. Consequently, the exhaustion of natural resources in such an arrangement will be at a rate that supports their renewal while waste resulting from the development increases at a rate that the environment can absorb (Murphy 2012). The outcomes are possible when there is a high standard of accountability, transparency, personal values, and ethics. Projects dictate that deliverables be provided that conform to the requirements of the project, which can be common or unique to specific projects (Badiru, Badiru & Badiru 2007). Within projects, different processes are implemented at certain stages of execution and the notable ones are project management, delivery, and support (Harold and Kezner 2013). Project management covers phase management, planning, control, team management, communication, procurement, and integration. Delivery processes cover issues concerning the provision of a particular outcome. Meanwhile, projects exist like temporary organizations within an organization. They offer different opportunities and areas for integration of sustainability principles (Eskerod & Huemann 2013). For sustainability, a long-term view is taken to reflect an assessment of the effects of the project activities' exertion on social and environmental contexts long after the project is over (Silvius & Schipper 2014). A sustainable development project goes beyond the satisfaction of stakeholder interests and achieving its deliverables while being subjected to constraints of time, scope, and budget. It expands to the interests of current and future generations, seeks to limit possible adversities in the long term and embraces new constraints of people, profits, and planets.

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## 1.2 SUSTAINABLE DEVELOPMENT IN BAHRAIN

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Sustainability is one of the most important challenges in modern history and projects play a vital role in the realization of a project's goals. Sustainability in project management and projects, including social, economic, environmental sustainability has emerged as one of the most noticeable issues in present times. The increased focus on sustainable business operations has completely

changed the researcher's perspective as well as the corporate community with regard to project management (Clune & Zehnder, 2018).

Bahrain, like many other nations, has taken several significant steps aimed at achieving sustainable development goals (SDGs). After gaining experience from the achievement of the Millennium Development Goals set earlier for 2015, the country has devoted considerable resources and attention to the attainment of sustainable development goals in various aspects of the economy (Mio et al., 2020). Consequently, the Kingdom of Bahrain has received much international recognition with respect to its efforts in relation to sustainable development – the United Nation's Industrial Development Organization (UNIDO) has explicitly recognized Bahrain's efforts in this regard as the country works towards achieving greater economic empowerment. These efforts reflect Bahrain's strategic priorities in the field of sustainable development for the foreseeable future (Rashed, 2022)

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### 1.3 OVERALL AIM OF SUSTAINABLE PRACTICES IN BAHRAIN

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Culture enhances and supports sustainable development in various ways. It influences consumption patterns, demonstrates the link between biodiversity and cultural diversity, and it contributes to sustainable environmental management practices through the use of traditional knowledge (Wiktor-March, 2020). Culture can be used to reduce poverty, to increase social inclusion, revitalize economies, to create jobs, and to support urban development.

Deekor and Maekae (2015) studied the relationship between culture and sustainable development in Nigeria. The authors found that culture can become an effective tool that reduces poverty in a community, increases wellbeing, and creates employment for citizens. Culture dictates the values and attitudes that motivate social interaction and sharing, so it has the ability to enhance economic development and preserve the resources and resilience in a community.

Bahrain's Vision 2030 strategy is complementary to the UNDP's Sustainable Development Goals (SDGs). 75% of the country's workforce is composed of foreigners, and this allows Bahrain to hire workers only when it needs to do so and to invest the rest of its resources in innovation (Occhiuto, n.d). However, the country still relies heavily on oil for its revenues, which presents possible

economic and environmental challenges particularly where supply cannot meet demand. Nevertheless, the government understands that it must diversify its business and economic activities in order to avert the potential challenges posed by fluctuating oil prices (Occhiuto, n.d). This economic diversity will allow Bahrain to create new avenues for job creation and help to protect the environment because there will be less reliance on resources that result in high volumes of carbon dioxide for revenue and income.

According to Al-Badi and AlMubarak (2019), the energy sector in GCC countries plays a critical role in economic and social growth, and it is also essential for generating the food and water needs of these nations, most of which have harsh climates and limited water sources. However, the region’s over-consumption of energy poses a threat to both economic diversification and export activities, and it increases energy waste. Bahrain in particular has one of the highest energy consumption rates in the world mainly due to a high population growth rate, increased industrial, urban, and commercial activities, and a higher presence of foreigners settling in the country (Ahmad, 2018). As per the statistics of Our World In Data (2021), the average electricity consumption per capita is 18,000 KWh, significantly higher than that in other countries.

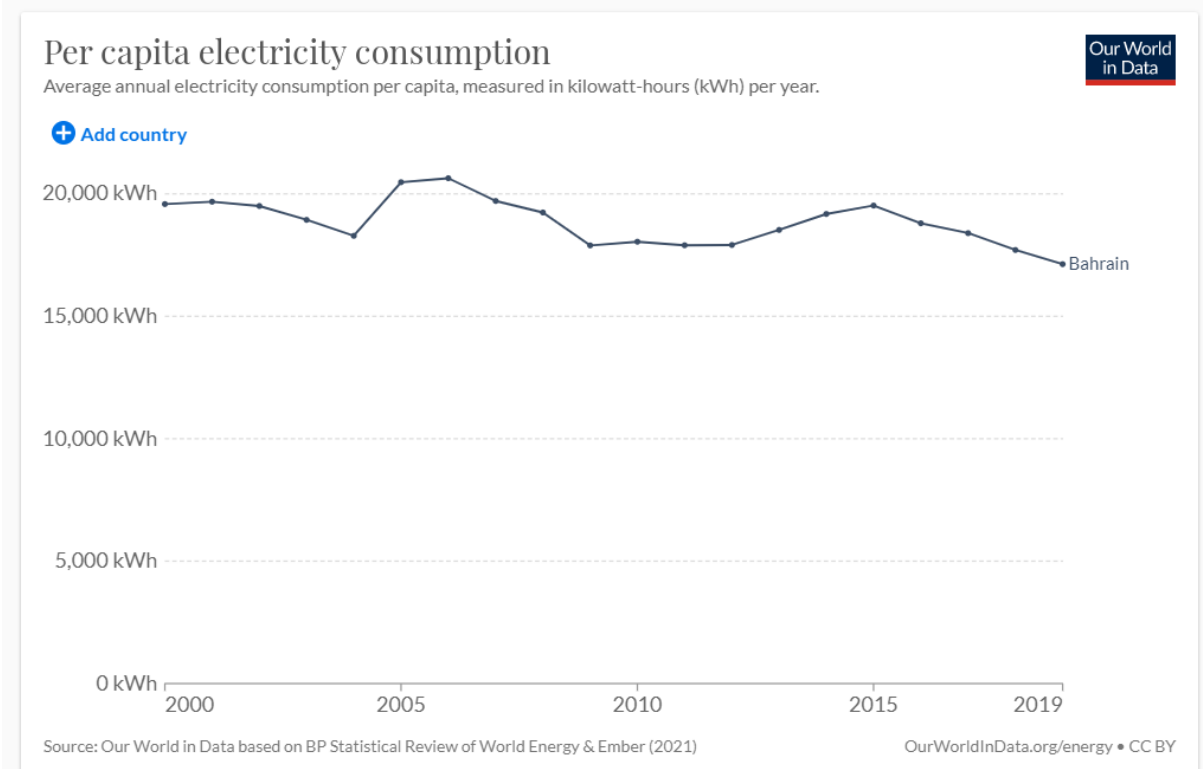


Figure 1: PER Capital Electricity consumption in Bahrain

Furthermore, higher temperatures and warming in the environment mean that most households in Bahrain require air conditioning and this together with the use of more electrical appliances, increases energy and electricity consumption. These activities have consequently put a strain on domestic energy demand and thus present challenges in energy security (OurWorldinData, 2022).

The 13th SDG is climate action, and Bahrain is implementing strategies to ensure that it preserves the environment and its natural resources in order to maintain natural resource diversity and to achieve a suitable balance between consumption and use (Kingdom of Bahrain, 2020). To achieve this, the government has put in place agencies and institutions that will develop initiatives and policies to ensure effective sustainability, and it is also committed to various multilateral agreements that focus on building national capacity and public awareness about the environment. In addition, it has enacted internationally accepted regulations and laws, which are linked to sustainable development so that the country participates in global sustainable practices.

Bahrain's planned implementation of Vision 2030 provides unique opportunities for the country to reduce its dependence on oil, to attract foreign investment, and to develop its private sector. The government understands the need for economic diversification, and it has partnered with agencies such as UNDP and other regional actors to implement a strategic partnership framework that will help it to achieve the country's SDGs (Kingdom of Bahrain, 2017).

The government's diversification efforts have also ensured that its information and communication technology (ICT) program develops effectively. The country has one of the most advanced telecommunication markets in the MENA region, and it plans to further enhance this infrastructure as part of its goals in the SDG to ensure that economic diversification is successful (Oxford Business Group, 2020). The Kingdom is also remarkably advanced in terms of gender equality compared to other MENA countries. Gender equality is one of the indicators in the SDGs, and the Bahraini government wants to leverage this equality to enhance economic development (Occhiuto, n.d). In doing so, it will help to weaken the patriarchal cultural beliefs associated with Arab countries.

Education, as outlined in the 4th SDG, will also play a critical role in enhancing the sustainability of Bahrain's economic development as outlined in the SDGs (Kingdom of Bahrain, 2020). The government realizes that education is a major factor in improving people's livelihoods and in ultimately supporting sustainable development in the country. The government has already taken



steps to increase access to all levels of education and to ensure the inclusion of women and girls in the education system. Generally, educational skills in Bahrain have greatly improved, but more effort is required to ensure that the country achieves the SDGs for education as outlined by the UNDP.

Al Daylami et al. (2015) also added that the Bahraini government aims to increase the country's competitiveness in the global market in order to meet the technological, educational, social, and economic demands of modern businesses. As the country's oil reserves decline and trade activities become more competitive, Bahrain's Vision 2030 will help to satisfy these demands by diversifying the economy and ensuring its sustainability. The authors however noted that there was a gap in access to education and in the skills that domestic and international employers in the country require. The authors concluded that because of this gap, many young people in Bahrain are unemployed and most of the available jobs in the country are performed by foreigners who have the required skills.

Therefore, implementing the SDG's objectives of investment in education based on a skills-gap analysis will be critical because it will ensure that future generations of Bahrainis understand the skills and expertise required by both domestic and international organizations. This will also ensure that Bahrainis learn how to work in teams in future and thus be able to eliminate the cultural perceptions of Bahraini employees as being unable to work in teams (Sidani & Thornberry, 2010).

Khairy (2017) studied the implementation of the Government Work Program in relation to Bahrain's Economic Vision 2030. The researcher examined its use in projects carried out within government agencies and ministries and determined that implementation of strategic project management practices was high. This meant that the country's clear vision for the future was being strategically developed and implemented. Khairy (2017) concluded that the existence of strategic and project management systems in government agencies in Bahrain means that these systems positively impact the efficiency of government work programs. Ultimately, the efficiency of these systems will help the government to achieve its long-term goals and objectives.

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#### 1.4 RESEARCH GAP

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Currently, research on sustainable project management in Bahrain can be regarded as limited - this study aims to reduce that knowledge gap and to also provide further material that can serve as a basis for future research. The results of this study can also be used as a source of hypotheses for further quantitative research on the topic. Additional research is also necessary to determine how organizations operating in Bahrain can assimilate aspects of local culture into their operations in order to attract more Bahraini nationals. This is because as the country moves towards diversification in its SDGs, it will require more Bahraini nationals to be willing to work in international companies in order to ensure that the country's economic and social growth are assured. Currently, there is limited research on sustainable project management, and this study aims to bridge this gap.

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#### 1.5 RESEARCH QUESTION

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The concept of sustainable development serves as a framework for balancing and reconciling environmental and developmental considerations. It encompasses a spectrum that encompasses ecological, social, managerial, and economic issues. When considered in isolation, these aspects can give rise to distinct concerns that often do not harmonize. The current study aims to investigate these concerns and place them within the context of development in Bahrain, with a particular focus on the government's developmental initiatives. Therefore, the research questions are as follows:

RQ1: How does the government of Bahrain integrate principles of sustainable development into the project management of its development projects,

RQ2: Does this integration conform to recommendations from the literature on sustainable development?

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## 1.6 AIMS

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The research seeks to investigate the integration of sustainable development into the project management process. It also seeks to highlight the influence of that integration on project outcomes.

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## 1.7 OBJECTIVE

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This study will be guided by the following research objectives:

- 1 To determine the extent to which sustainable development conforms to recommendations from the literature
- 2 To evaluate how well the government of Bahrain integrates principles of sustainable development into the management of its projects

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## 1.8 SCOPE

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The study explores the world of sustainable development as it is applied in Bahrain. It delves into the issue of sustainability in project management within the context of Bahrain, aligning with the existing literature. The study adopts a multidisciplinary approach with a view to identifying the advantages and opportunities for sustainable development in Bahrain. It encompasses the perspectives of practitioners and the challenges they encounter when incorporating sustainability principles into local project contexts. It also delves into the social, managerial, and ethical implications of sustainability as both a principle and an outcome of the development process. The scope of the study encompasses an assessment of the government's role in collaborating with relevant partners and stakeholders to integrate sustainable development principles into project management matters across various facets of development in Bahrain.

In order to achieve a profitable business in the light of the scarcity of natural resources and of developing uncertainties in the business environment, there is a need to address sustainability issues in the different fields of business. In project management, sustainability and project management concepts have been explored extensively by researchers, albeit separately (Silvius et al., 2013). However, only a few studies are available detailing the interaction of sustainability in project management (Silvius et al., 2013). Additional inroads have yet to be made in this promising area of research. There are opportunities for further research in this area as project managers come to realize the importance of social, financial, and environmental responsibility and work to harness resources for the current and future generations. Additionally, improving the understanding of the way policy frameworks pave the way for the integration of sustainability into development projects will be useful for the government of Bahrain. It will improve the adaptability of research findings to the country's unique development situation. While sustainability generally is undoubtedly the subject *du jour* given current discussions and efforts in relation to climate change, and the need to bequeath a livable world to future generations, Bahrain presents an interesting slant on those discussions. It is striving to facilitate a transition that will see it slough off its dependence on oil and gas revenues and look to diversify its economy as it faces the prospect of a very real fall-off in future demand. However, this transition is not without cost - social, cultural and economic. It will require significant forms of change at a fundamental level. Part of this process must look to incorporate the principle of sustainability generally, but also in a very specific, clear and clearly architected manner. While such changes have gradually been accommodated elsewhere, the incorporation or acceptance of the principle of sustainability will be just one of many new challenges within a proposed multifaceted continuum of change within Bahrain. In a country, where it could reasonably be argued that sustainability has not hitherto been to the fore at a corporate level, this need to make a new accommodation among many others intrigued the author. How would something, which from one perspective could be seen as a corporate concern, be addressed at a social and cultural level? In addition, how could the broader message of sustainability be presented within a social and cultural context? For Bahrain, what would that entail, and how might it differ from those presented elsewhere that have sought to leverage the goodwill and energy of stakeholders?

In some respects, the evolution of a sustainability dynamic within the corporate context in Bahrain could be said to be occurring *ab initio*. From this standpoint, what if anything had such contexts to offer, what could be readily learned from such efforts?

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### 1.10 STRUCTURE OF THESIS

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The thesis, therefore, will first consider the broader concepts of sustainability and project management and the concept of sustainability within the context of project management. It will also have regard to how social, environmental, and economic interests have to date been balanced against the competing demands of sustainability. It will consider the short- and long-term orientation issues and will explore how local needs and views compare to those on the wider global stage. In addition, consideration will be given to the relevant values and ethics involved, and whether local values run up against a broader more widely accepted dialectic, with reference to how these differences are negotiated and navigated. The issues of accountability and transparency will also be reviewed.

The study will also look at frameworks used and the necessary tensions and differences that lie at the heart of project management and the implementation of a sustainability agenda. More specifically, with respect to Bahraini cultural dimensions, Hofstede's Theory of Culture will be explored, as will the question of risk reduction, stakeholder participation and other cultures. Chapter 2 will also discuss the conceptual framework adopted and the primary concepts, which serve to support this research. While this study adopts a qualitative approach with respect the research undertaken, the Methodology chapter will consider the ontological underpinnings of the research approach, as well as possible alternative approaches. It will also discuss why the paradigm selected best fits the current research objectives. The chapter then assesses the possible qualitative approaches available to the author. As the research environment and strategy are critical to the overall research and aims, the chapter will also discuss the format of the surveys conducted, action research and the relevant participant organizations. With respect to the time horizon and scheduled goals, data collection, mixed method approaches and the use of semi-structured are examined. The benefit of the semi-structured format is seen to facilitate a greater degree of flexibility and to enable participants to provide additional information and insights that the researcher might have

overlooked or omitted. In addition, it enables the researcher to establish a stronger connection with the participant and to tease out nuances and subtleties that might otherwise have been lost. With respect to data collection, the chapter briefly discusses the difference between primary and secondary data in the context of the research and outlines how the approach taken was seen as optimal in eliciting the views, opinions, and perceptions of participants. The survey questions are then set out in relation to each of the principal themes of interest: balancing social, environmental, and economic interests; local and global orientation; short-term and long-term orientation; values and ethics; people, profit, or environment; and risks. The chapter then provides some background in relation to each of the seven organizations chosen for examination, their respective sizes, as well as past and current projects.

A discussion of content analysis then follows in which the researcher discusses the importance of transparency and replicability in relation to any analysis undertaken and how the adoption of a systematic procedure allows for easy replication by other researchers, an approach associated with high reliability. The chapter also considers how this technique enables researchers to structure qualitative data in a manner that enables the researcher to meet the study objectives. Consideration of the relevant codes is also examined, as are emerging themes from the data returned.

In Chapter 4, Findings and Analysis, under the rubric of *Balancing Social, Environmental, and Economic Interests*, the study examines both the findings and analysis in relation to local and global orientation; short-term and long-term orientation; values and ethics, ethics training and codes, stakeholder participation, risks, transparency and accountability, and cultures. A discussion of these themes serves to conclude the chapter. Chapter 5 sets out the thesis's conclusion and recommendations.

## 2 CHAPTER ONE: LITERATURE REVIEW

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The chapter delves into the intertwined concepts of sustainability and project management, aiming to construct a framework for subsequent examination within the unique context of Bahrain. Existing literature on this subject reflects two primary perspectives: one that perceives these domains as distinct and another that acknowledges their interdependence. However, there is consensus that a comprehensive grasp of both realms is indispensable for making informed decisions regarding project initiatives.

Sustainability boasts a multitude of definitions, but the most widely recognized stems from the 1987 Brundtland Commission report, defining it as "meeting the needs of the present generation without compromising the ability of future generations to meet their own needs." Additionally, the 2012 United Nations Conference on Sustainable Development offers another perspective, defining sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (SDGs, 2012). These definitions emphasize the core principle of ensuring the well-being of both current and future generations.

Within the realm of project management, a divergence in perspectives is evident as well. Some view it as a necessary evil, often associated with conflict and bureaucracy, while others regard it as a critical success factor due to its pivotal role in ensuring projects' timely completion, adherence to budgets, and meeting quality standards

The present chapter takes into account these varying viewpoints and elucidates the variables and critical success factors essential for formulating an integrated approach. It lays the groundwork for a comprehensive exploration of how sustainability can be effectively amalgamated with project management, particularly in the context of developmental endeavors in Bahrain.

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## 2.1 BACKGROUND

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Today, globalization has completely changed the way in which organizations conduct business. A single local business can impact other global businesses and the environment to a great extent. If a business wants to classify itself as a sustainable business, it must have both local and global orientations (Siew, 2016). There are also other factors like competitors, customers, and suppliers that pose challenges for the implementation of a sustainable business. The concept of sustainability has become popular, as business firms need to incorporate it into their culture and strategic goals. In addition to sustainability, a business must progress with great responsibility for the protection of the natural environment. It should also handle matters related to society and the economy with great responsibility (Walker, 2015). If the behavior of an organization is irresponsible towards any aspect of sustainability, future generations will not be able to survive in the manner in which the current generation is surviving (Walker, 2015).

The globalization of businesses has greatly affected the geographical locations of the Earth. Sustainability is about honoring the values of society and acting in an ethical manner. These social values are crucial for any business to become sustainable. Business leaders should become role models for other businesses in the implementation of moral and ethical values (Walker, 2015). Professionals and customers should also play their roles in promoting sustainability. In order to better achieve sustainability, organizations must also become transparent and accountable.

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## 2.2 PROJECT MANAGEMENT

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The literature on project management defines it as the systematic practice of initiating, planning, monitoring, and completing team efforts to achieve specific objectives (PMI, 2022). This field employs distinct criteria to ensure the efficient realization of projects. Quiros (2009) emphasizes that the primary goal of project management is to navigate within predefined limitations and constraints, encompassing scope, time, quality, and budget, with secondary objectives aimed at optimizing inputs to meet specified goals. Saladis and Kerzner (2009) elaborate further, noting that project management, as evidenced in studies, is oriented toward crafting projects aligned with customer needs, often involving refinement or modification of client briefs to address diverse objectives.



The successful attainment of these objectives is dependent on the seamless integration of the project with the client's business model, allowing them to leverage it for the accomplishment of strategic targets. Extant research concludes that a project is a transient endeavor created to deliver specific products or services, characterized by a defined start and end, serving the purpose of effecting positive change or enhancing the customer's portfolio (Saladis & Kerzner, 2009). Managing projects emerges as a multifaceted process demanding meticulous planning and preparation. The literature suggests that a comprehensive strategy is pivotal for organizations to reach their strategic goals when successfully achieving the desired project objectives.

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### 2.3 CONCEPT OF SUSTAINABILITY

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The concept of sustainability encompasses a range of measures and policies aimed at meeting the needs of the present generation without compromising the ability of future generations to meet their own needs (Kopnina & Blewitt, 2018). This overarching definition underscores the importance of fulfilling human needs while preserving resources for the benefit of future generations. Sustainability also involves the efficient management of natural resources and the protection of the natural environment. An additional perspective on sustainability emphasizes the integration of economic activity with the preservation of environmental resources (Kopnina & Blewitt, 2018). This implies that economic development strategies should strive for a balance that meets the needs of human communities without jeopardizing natural resources and habitats.

Another facet of sustainability pertains to promoting economic development in impoverished regions, characterized by a broad-based approach to enhancing material standards at the grassroots level (Kopnina & Blewitt, 2018). This approach assesses the development process based on indicators such as food, income, education, healthcare, and water supply. Sustainability is also defined in the context of fostering a harmonious balance between humans and nature (Kopnina & Blewitt, 2018).

In a business context, sustainability entails the incorporation of strategies and activities that benefit the enterprise while concurrently safeguarding human and natural resources (Warburton, 2018). Businesses are seen to have a responsibility to integrate economic, social, and environmental considerations into their planning activities and overall business goals.

The interconnectedness of economic, social, and environmental sustainability is emphasized, necessitating integrated and coordinated strategies for firms to achieve profitability without neglecting human and environmental needs (Warburton, 2018). Sustainability, as described in various definitions and concepts, involves the pursuit of social, environmental, and economic objectives, often framed within the triple bottom line framework (Warburton, 2018). These dimensions are interrelated, requiring a holistic approach, such as considering the potential negative impacts of a new product on the environment and society, leading to necessary modifications in both the product and associated business activities.

The multifaceted nature of sustainability is apparent in its focus on both short-term and long-term goals (Warburton, 2018). Implementing sustainability requires systemic change and addressing grassroots issues in alignment with overall corporate goals. While economic perspectives may emphasize short-term goals, social and environmental impacts necessitate long-term consideration. Another fundamental aspect of sustainability is its connection to the consumption of income, emphasizing the preservation of natural capital at all costs (Warburton, 2018). This involves maintaining the source and sink functions of the environment and ensuring that the extraction of renewable resources does not exceed their renewal rate.

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#### 2.4 CONCEPT OF SUSTAINABILITY IN PROJECT MANAGEMENT

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The concept of sustainability within the realm of project management has been the subject of diverse interpretations and definitions, lacking a singularly agreed-upon definition. Kralisch et al. (2018) defines sustainable project management as the reduction of resources utilized by firms from project initiation to completion. Conversely, a more comprehensive definition posits that sustainability in this context is concerned with meeting present needs without compromising the well-being of future generations (Turnhout et al., 2017).

In practical terms, sustainability aims to utilize environmentally friendly materials, reduce pollution, conserve energy, and minimize waste generation. An updated perspective by Turner (2010) emphasizes the promotion of positive impacts within project management processes, encompassing definition, planning, monitoring, and project delivery. Project managers, according to Turner, should strive to mitigate negative sustainability impacts by considering economic,

environmental, and social factors. Ferreira et al. (2006) align with this view, noting that project-driven change should be implemented in policies, processes, resources, and organizations with a focus on sustainability principles.

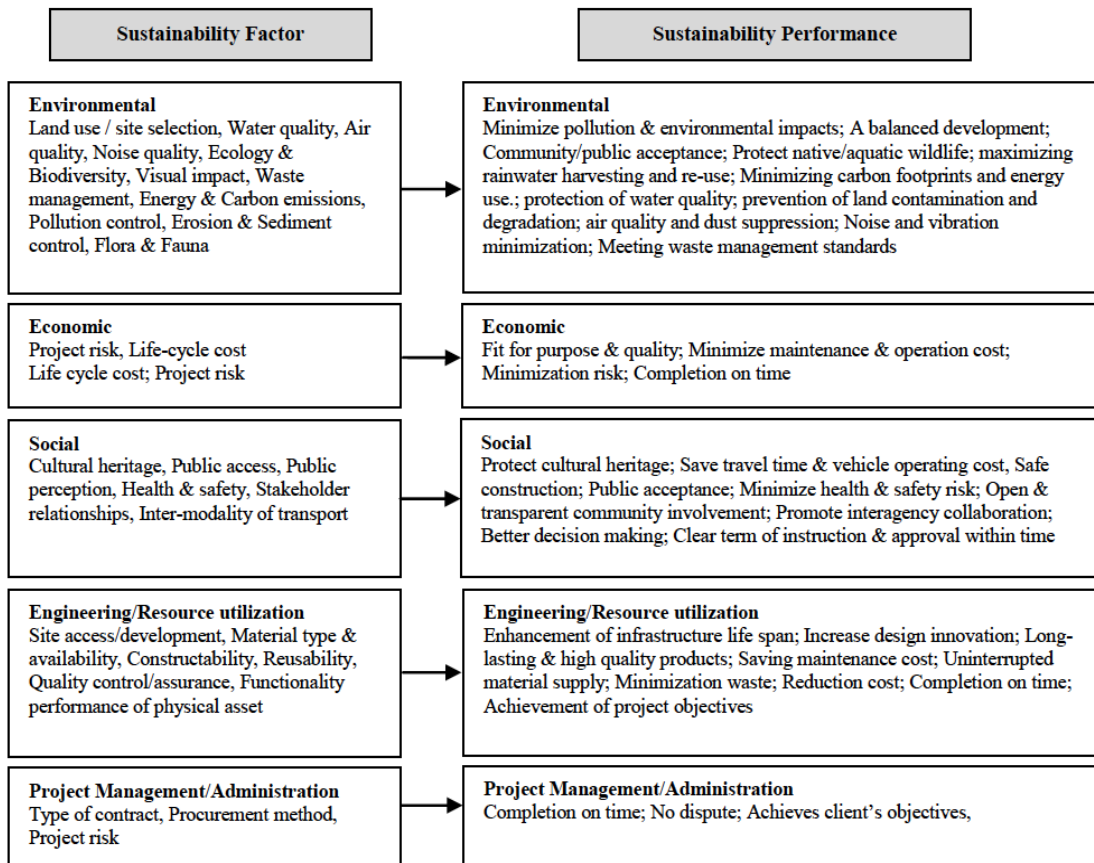
Harris et al. (2018) characterize sustainable project management as projects that induce change in policies, assets, or organizations while considering the economic, social, and environmental impact. This implies that the project's impact on current and future generations is given significant consideration during implementation. Thomas & Fernandez (2007) view sustainability in project management as an umbrella term encompassing the management of projects with changes in policies and assets. It also considers the project's effects and results, examining its relationship (both positive and negative effects) with society, the environment, and the economics of the related area, extending its considerations to future generations. The findings suggest that sustainability promotes positive effects on the environment, society, and the economy (Thomas & Fernandez, 2007), fostering projects that are goal-directed, planned, focused, monitored, controlled, and balanced.

The incorporation of sustainability principles into project management necessitates a holistic approach, diverging from the mechanical stance traditionally adopted. Traditional project management primarily focuses on aspects such as time, budget, and quality (Chawla et al., 2018), which can be analyzed and forecasted but prove inadequate in handling the complexities brought about by sustainability-induced changes. Consequently, integrating sustainability requires a paradigm shift, wherein risk management is accompanied by considerations of flexibility, complexity, and opportunity. This altered approach yields benefits that contribute to achieving key targets.

Contrasting with the traditional paradigm where project managers function as project sponsors, receiving instructions and a list of goals, a sustainability perspective necessitates a proactive role for managers, demanding a sense of responsibility (Fewings & Henjewe, 2019). This shift in perspective implies an evolution in the role of project managers, requiring them to actively pursue and identify changes, think broadly, and strive to achieve economic, social, and environmental goals during project initiation and execution. However, challenges associated with these changed responsibilities are not explicitly identified in the study, hinting at potential difficulties in implementing sustainability in certain projects.

Research underscores that a paradigm shift towards sustainability can only occur when companies and managers acknowledge the significance of complexity and uncertainty (Chawla et al., 2018). Recognizing the critical importance of these factors is essential in a dynamic and uncertain business environment, where government regulations can emerge due to international consensus, influencing firms. The ability to manage uncertainty and complexity enables organizations to foster a culture of risk-taking and innovation. In such a scenario, sustainable principles guide management in adapting projects to changing circumstances, allowing the application of contingency plans to address a wide range of challenges and opportunities. The implication of this research is that executive boards and upper management often overlook the factors of uncertainty and complexity, fostering a culture that actively promotes traditional project management approaches focused on cost control and timely project execution (Chawla et al., 2018).

According to research, the successful implementation of sustainability principles in project management hinges on clear conceptions of goals and requirements, involving the development of a comprehensive plan that serves as a blueprint for the project's objectives (Kerzner, 2019). At this stage, sustainability principles can be incorporated by defining essential parameters such as deliverables, milestones, targets, and constraints. Sustainability identifies areas where the project can benefit the company, environment, and society, ultimately allowing the project to become sustainable through the application of innovative principles (Kerzner, 2019).



The exploration of sustainability within the realm of project management extends beyond mere conceptualization, as highlighted by Kralisch et al. (2018). Their research contends that sustainability must not be confined to theoretical frameworks but necessitates practical implementation and integration into the operational landscape of organizations. This transformative approach aims to translate environmental and social policies into tangible operational activities, thereby ingraining sustainability principles into project management practices.

Concurrently, Durdyev et al. (2018) emphasize the importance of gaining knowledge regarding the establishment of sustainability targets. This imperative arises from the necessity for project managers to incorporate sustainability goals and targets during the project conception phase. Failure to acquaint oneself with sustainability objectives may result in organizations persisting with conventional project management paradigms. Durdyev et al. (2018) advocate for diverse

approaches to assist managers in establishing sustainability targets, emphasizing the need for organizations to recognize both global and local sustainability issues influencing their operating environment. This recognition, contextualized within a strategic framework, is deemed crucial for achieving success.

Furthermore, the imperative to have a clear sustainability vision aligned with the company's long-term goals in the context of environmental, social, and economic trends is underscored by Durdyev et al. (2018). Project managers, according to this perspective, should develop an implementation strategy that seamlessly integrates actions and plans capable of realizing sustainability targets. The continuous learning and adoption of sustainability principles are posited as essential for organizations striving to attain their strategic goals and ambitions.

In a related vein, Danielson & Ekenberg (2018) posit that sustainable project management necessitates a heightened focus on accountability to non-traditional stakeholders and the perpetual enhancement of reporting practices. This perspective underscores the importance of project managers considering non-traditional stakeholders, such as society and the natural environment, and recognizing their unique needs. This holistic approach to project management is believed to contribute to achieving strategic growth and success by facilitating effective responses to diverse challenges through thorough and robust reporting activities.

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## 2.5 FACTORS IMPACTING SUSTAINABLE DEVELOPMENT PRACTICES

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### 2.5.1 BALANCING SOCIAL, ENVIRONMENTAL, AND ECONOMIC INTERESTS

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Historically, firms adhered to the principle of profit maximization and meeting the needs of shareholders; however, the emergence of sustainability has revolutionized corporate objectives, requiring a delicate balance between social, environmental, and economic interests. These dimensions are intricately interconnected, exerting profound influence on a firm's goals and profitability. The foundation of sustainability lies in safeguarding the environment, as well as the economic and social interests of people. These three factors must be concurrently addressed, given their interrelated nature. Failure to provide an ideal environment for workers impacts both social and economic interests. Thus, the harmonization of these aspects is deemed highly significant

(Ferreira et al., 2006). In the context of project management, it is evident that sustainability is crucial for firms aspiring for progress. Firms should prioritize all three sustainability aspects, as the loss of any one factor can result in the failure of the other two. Therefore, sustainable growth in any business necessitates a comprehensive plan that focuses on environmental, economic, and social dimensions.

Savitz & Weber (2014) assert that success in project management requires implementation at the strategic, project, and operational levels, facilitating stronger adherence to sustainability principles. However, Martens & Carvalho (2017) present a contrasting view, indicating that sustainability practices in project management are often isolated and limited in scope. Despite the evaluation of projects based on multiple criteria, the predominant focus remains on profit, neglecting social and environmental dimensions.

Shah & Naghi (2019) emphasize the need for sustainable project management practices in social enterprise projects. Their study underscores the importance of raising awareness among various stakeholders about the dimensions of sustainability, promoting responsible behaviors and preventing environmental deterioration. However, the scope of the study is limited to social enterprise projects. Silvius (2019) advocates for the use of principles in sustainable project management, offering guidance for future behavior and providing a framework for evaluating past project impacts. While the study highlights the importance of evaluating project management processes for efficiency, it falls short in addressing the gaps between theory and practices. In synthesizing these findings, it is evident that the literature underscores the intricate interplay of environmental, economic, and social dimensions in achieving sustainability, particularly within the context of project management.

Sources	Key Findings
Silvius, 2019	Principles should be used to achieve economic, environment, and social variables because they provide guidance on future behaviors.
Shah & Naghi 2019	Different stakeholders must be given awareness about the dimensions of sustainability. This awareness must be done in profound way to help stakeholders to support sustainability dimensions
Savitz & Weber, 2014	Achieving all three dimensions is possible only when sustainability dimensions are implemented at multiple levels.
Martens & Carvalho 2017	Support for traditional Project Management (PM) paradigm is strong in many sectors.

*Table 2: Meta-Analysis of the Literatures Considered*

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**2.5.2 SHORT-TERM AND LONG-TERM ORIENTATION**

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The imperative for firms to adopt a comprehensive view of sustainability, encompassing both short-term and long-term goals, has been emphasized in the literature. Aarseth et al. (2017) contend that a harmonious integration of short-term and long-term focus is essential for achieving sustainability. This perspective challenges the notion that firms can thrive by exclusively prioritizing either short-term or long-term objectives.

Talbot & Venkataraman (2011) assert that project management often neglects both short-term and long-term orientations, revealing a gap in organizational support from senior management and a failure to effectively incorporate sustainability perspectives at the early stages of project management. Tharp (2011) further underscores this by indicating that many firms overlook the



social aspects during project management. However, there is evidence of evolving perspectives within project management, as Keeys & Huemann (2017) suggest a growing recognition of the importance of considering results, assets, systems, and behaviors over the life cycle of projects.

The integration of short-term and long-term focus poses a challenge in project management, primarily due to the brief duration of projects. Project management practices, which typically revolve around initiation, planning, execution, control, and close-out, often lack ongoing significance for the organization once completed (Tharp, 2011). Nevertheless, Wang et al. (2013) propose that project management can effectively integrate short-term and long-term goals by focusing on client retention, stakeholder satisfaction, and cost savings, thereby establishing a strategic perspective toward sustainable project management.

Maltzman & Shirley (2010) advocate for the modification of project content and business cases to align with sustainability dimensions. This involves embedding sustainability principles into project results, objectives, conditions, and success factors. Clear business cases for sustainability in project justification are considered crucial. By addressing these issues, project managers can implement sustainability principles, fostering a collaborative framework for success based on efficiency and effectiveness. This approach has significant implications for the success of project management within the sustainability context, emphasizing the alignment of sustainability goals with overall business objectives and the evaluation of benefits for stakeholders and firms. Adopting such a framework facilitates the realization of strategic initiatives for firms.

Eskerod & Huemann (2013) underscore the significance of organizational learning in the context of sustainability initiatives within project management. Given the dynamic nature of sustainability, characterized by constant evolution and the introduction of new frameworks and trends, the imperative to glean insights from past projects becomes evident. The implementation of resource management and the reuse of materials are highlighted as pivotal strategies. This study advocates for the integration of learning at all levels of project management, emphasizing the provision of training and learning opportunities for teams. Team learning, in turn, is posited to enhance commitment and engagement, fostering alignment with sustainability initiatives and a focus on strategic growth.

Silvius & Schipper (2012) posit that the integration of short- and long-term orientation in project management practices often presents challenges. The specific or temporary endeavors inherent in

different project management stages, such as initiation, planning, execution, control, and close-out, are frequently disconnected from the long-term attribution of the project once completed. Therefore, understanding the end-product or asset resulting from these projects becomes crucial for the effective integration of sustainable practices. This integration, as suggested, necessitates a strategic alignment of activities with long-term impacts on the overall project orientation.

Armenia et al. (2019) contribute to the discourse by asserting that the success of sustainable project management hinges on several factors, including effective corporate policies and practices, resource management, life cycle orientation, stakeholders' engagement, and organizational learning. The incorporation of sustainability in project management, according to Armenia et al. (2019), requires the formulation of robust corporate policies and practices, coupled with vigilant resource management. Stakeholder engagement and the establishment of an organizational learning environment are identified as critical elements for adapting project management principles in alignment with new sustainability paradigms. Additionally, life cycle orientation emerges as a pivotal consideration, allowing firms to systematically integrate sustainability throughout the entire project life cycle.

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### 2.5.3 LOCAL AND GLOBAL ORIENTATION

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Silvius & Schipper (2014) emphasize the principle of sustainability that underscores the necessity for organizations to maintain both local and global orientations. This is deemed critical as organizational behaviors exert influence at both levels, involving international stakeholders such as competitors, suppliers, and customers. The economic, social, and environmental dimensions must be comprehensively addressed through coordinated efforts at both local and global scales. Silvius & Schipper (2014) elucidate that firms operationalize local and global orientation in project management by systematically sharing knowledge and building competence in the sustainability domain. Additionally, they employ decision-making tools and incorporate a backcasting perspective from a defined success criterion. However, challenges in implementing this principle in project management are documented in existing literature. Studies indicate that the difficulty in selecting a sustainability strategy can hinder firms from adapting their business processes at both

local and global levels (Millar et al, 2012). Another study suggests that the prioritization of the needs of local stakeholders can influence firms when choosing a specific sustainability strategy (Kohler et al, 2012). Achieving stakeholder consensus on the meaning of sustainability is imperative in projects.

Yu et al (2018) scrutinize sustainability in construction engineering projects, highlighting managerial control, risk response, and work consensus as the main dimensions of successful project management. Sustainable construction management, the study contends, is achievable through appropriate managerial controls, a well-defined risk response strategy, and the development of consensus among management. Ensuring the active participation of each team member in decision-making processes and fostering high levels of bonding within work teams are deemed crucial for the success of sustainability initiatives.

Fomina & Apenko (2019) delve into the motivations of petrochemical, chemical, and engineering companies to incorporate sustainability in project management, attributing it to the influence of business partners, government legislation, and a system of sustainability indicators. The research posits that external incentives play a pivotal role in encouraging firms to integrate sustainability principles, driven by the need to respond to stakeholder demands and avert potential losses such as increased penalties and damage to reputation. Internal incentives are found to be less influential in motivating firms to introduce sustainability in project management.

Gachie (2019) investigates the impediments to the implementation of sustainability in project management, identifying the failure of teams to incorporate sustainability concepts, lack of project consistency, and end-user resistance as key challenges. The study recommends the involvement of specialized teams and leaders to facilitate the integration of sustainability. Institutional project facilitatorship, stewardship, and securing end-user buy-in are identified as crucial factors for sustainable project management. The findings underscore the necessity for a systematic and comprehensive incorporation of sustainability principles, emphasizing the role of specialized leaders in communicating these principles to key stakeholders to garner support for the project.

Martinez et al (2018) advocate for the utilization of management certifications and standards such as ISO 9001, 14001, UNE 166002, among others, as tools to promote sustainability in project management. These certifications provide detailed instructions on requirements and recommendations, enabling project managers to adopt a comprehensive approach to sustainable

project management. The research implies that companies aligned with sustainability objectives are more likely to incorporate these principles into their project management approaches, aligning with relevant certifications to achieve success.

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#### 2.5.4 VALUE AND ETHICS

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Sustainable development is inherently a normative concept, reflecting the values and ethical aspirations of society. The essence of sustainable development lies in its foundation on ethics and values, aiming to yield benefits for stakeholders and society at large. Sydow et al. (2004) assert that the incorporation of ethical considerations during project development and implementation aligns with the principles of sustainable development. The influence of personal values on project managers can significantly impact the integration of values and ethics into project processes. However, a contrasting perspective posits that the capitalist focus on business interests often leads to malpractices, resulting in resource depletion, environmental degradation, economic downturns, and other adverse outcomes (Silvius & Schipper, 2012).

Numerous professional bodies have formulated ethical codes and values to serve as guidelines for project managers. For instance, Article 2.2.1 of the PMI Code of Ethics and Professional Conduct mandates project managers to consider environmental and social dimensions when executing projects (Silvius, 2018).

Uribe et al. (2018) propose the application of stakeholder theory to incorporate sustainability principles into project management. This approach enables project managers to respond to and manage the diverse needs of various stakeholders, fostering social responsibility and inclusive policies. The study contributes by showcasing the relevance of stakeholder theory as an existing theoretical framework for evaluating the importance of sustainability in project management, emphasizing the necessity for project managers to identify stakeholders and understand their needs.

Wen-der et al. (2018) introduce a sustainability evaluation indicator system for project management, arguing that it can aid in developing sustainable project objectives and execution alternatives. The study emphasizes the importance of effective evaluation indicators, enabling managers to identify various dimensions of sustainability in project management and address risks

and challenges at the early stages of projects. However, the study is critiqued for its perceived inflexibility in the evaluation indicator system.

Clivyan & Ilka (2016) characterize sustainability in project management as an innovative and emerging discipline, highlighting ongoing challenges faced by companies due to the lack of consensus on optimal frameworks for implementing sustainability. The study identifies obstacles such as insufficient awareness about sustainability, resource constraints, and a lack of leadership support in integrating sustainability into the business environment. However, the study is constrained by its reliance on secondary analysis, neglecting primary research.

Scally (2013) explores avenues for achieving sustainability in project management, suggesting practices such as sustainable purchases, the development of analytical structures for projects, and enterprise risk management. The study emphasizes the identification of sustainability elements within project solutions, presenting a comprehensive framework for firms to respond to risks and manage projects sustainably. This broad-based approach allows firms to address problems decisively and enhances their ability to manage projects in a sustainable manner.

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#### 2.5.5 TRANSPARENCY AND ACCOUNTABILITY

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Transparency and accountability stand as integral components of the sustainability concept, necessitating organizations to offer clear policies, decisions, and actions within the context of their impact on the environment and society. Carvalho & Rabechini (2017) posit that transparency, in the context of project management, entails project managers providing comprehensive information about decisions, events, and their impact on stakeholders. The challenge lies in the emphasis of organizations' reporting protocols on enhancing stakeholder perspectives regarding the project. This underscores the importance of focusing on the needs of multiple stakeholders, such as the government and society, for achieving sustainability in project management.

Silvius et al. (2012) define accountability in project management as organizations taking ownership of their actions, decisions, and policies regarding the environment and society. The organization breakdown structure (OBS), typically used for task allocation and accountability assignment, should be extended to include environmental and social indicators (Silvius et al., 2012). Another study contends that accountability and commitment form the foundational

principles for sustainable businesses, fostering responsiveness to stakeholders' needs through the incorporation of sustainability practices in project management (Sanchez, 2015). The study emphasizes that decision-making in sustainable businesses should be conducted responsibly and ethically, adhering to global principles to mitigate long- and short-term effects on the environment and society

Conversely, Kerzner & Kerzner (2017) argue that project managers need training and heightened awareness regarding sustainability. Their findings suggest that project managers, equipped with the necessary skills and understanding of the link between sustainability and project management, can focus on eco-efficiency and the environmental impact of projects. This integration allows businesses to contribute to economic development while safeguarding the environment. The study emphasizes the importance of transparency and integration at all stages of business operations to achieve sustainability. Another study underscores the significance of stakeholder participation in sustainability (Martens & Carvalho, 2016), wherein organizations, while developing business strategies, prioritize stakeholders' interests. The study promotes proactive stakeholder engagement as a key sustainability principle, necessitating a negotiated procedure resulting in agreement among stakeholders acting as partners. This collaborative approach ensures the identification of problems, joint solution development, and implementation of consensus-based solutions, ultimately culminating in outcome analysis (Martens & Carvalho, 2016).

Marnewick et al. (2019) observe an increasing awareness of sustainability among project managers, particularly those engaged in resource-consuming projects focusing on eco-efficiency and environmental impact. While acknowledging the long-term financial benefits of adopting a sustainable approach in project planning and implementation, the study notes concerns among project managers regarding short-term cost implications related to environmental legislation compliance. However, it falls short in determining whether project managers' awareness translates into practical steps for incorporating sustainability throughout the project lifecycle.

Pasillas et al. (2019) conducted a study on water project management in Rwanda, concluding that sustainability in water project management involves cultural sensitivity and engagement with local stakeholders. This holistic approach, considering the needs and requirements of the local population while implementing project management processes, advocates for a comprehensive strategy aligned with sustainability principles.

Gunhan (2018) points out that companies may face challenges in integrating sustainability into project management due to the complex understanding and management required for the life cycle perspective. Acknowledging the various life cycle phases related to the project and their implications is crucial. The study underscores the importance of adopting a broad life cycle perspective for effective sustainable project management.

Gemunden (2016) explores project governance and sustainability as major themes in project management frameworks. The researcher concludes that project governance facilitates ethical decision-making within the project management context and seeks to incorporate transparency and accountability. This approach, aligning sustainability and project governance theoretical concepts, enables project managers to deliver projects that address not only economic profit but also the needs of society and the natural environment, emphasizing a holistic approach in project management frameworks.

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## 2.6 SUSTAINABLE DEVELOPMENT AND PROJECT MANAGEMENT DIFFERENCES

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Despite efforts to integrate sustainable development principles into project management, challenges persist due to the divergent objectives of the two domains. Sustainability, conceived as a response to issues stemming from the overuse of natural resources, emphasizes the coordination of moral, economic, and scientific principles to address these problems (Saladis & Kerzner, 2009). It aims to achieve developmental needs while ensuring the efficient utilization of environmental resources for future generations, thereby integrating social, environmental, and economic responsibilities. This necessitates a delicate balance between the social, environmental, and economic needs of humanity, with a focus on mitigating factors detrimental to the natural environment (Steger, 2004). Sustainable businesses must assess vulnerabilities related to the Earth's ecosystem and consider workers' relations to their environment, aiming for both immediate and future economic benefits (Steger, 2004).

Brones et al. (2014) highlight the contrasting goals of Project Management (PM) and Sustainable Development (SD), noting that PM manages temporary endeavors with limited goals, bringing about short-term changes, while SD aims to provide long-term benefits for society and the environment. The differing views on stakeholders and the emphasis on primary stakeholders, such

as vendors, employees, or customers, in PM pose challenges for incorporating sustainability principles (Bodea et al., 2010).

Moreover, the result-oriented nature of PM, focused on managing project complexity and dynamics, stands in contrast to the life-cycle orientation of SD, which considers short- and long-term gains (Cole, 2015). PM's concentration on completing projects based on scope, time, and budget contrasts sharply with SD's commitment to balancing environmental, social, and economic factors (Fernandez & Rodriguez, 2010). While PM mitigates complexity in project execution, SD's implementation of its principles may lead to unattainable complexities and obstacles (Fiksel et al., 2015). Decision-making processes differ, with PM relying on upper management and a linear, mathematical analysis, while SD prioritizes stakeholder consensus and a systemic approach (Gimenez et al., 2012).

Kivila et al. (2017) advocate for a holistic control package for sustainable project management, integrating internal project control with sustainable project governance to align with external stakeholders and regulations. This emphasizes the significance of controls and stakeholder engagement as success factors in sustainable project management.

Chofreh et al. (2019) underline that sustainable project management should result in changes to assets, systems, and behaviors, with a focus on the full life cycle of the produced asset. The study emphasizes the development of sustainability principles at the corporate level, outlining practices and sustainable management approaches to guide organizational conduct.

Mavi & Standing (2018) argue for a priority-based approach in sustainable project management, urging project managers to concentrate on critical success factors. This approach enables organizations facing resource constraints and a lack of knowledge to prioritize specific sustainability dimensions in their project management strategies and initiatives.

Ohiomah et al. (2019) identify barriers to sustainable project management in South Africa, highlighting a lack of expertise and training as primary obstacles. The study underscores the importance of knowledge and training in sustainability principles for project managers and team members. It emphasizes the need for specific, effective, and precise training programs to ensure the successful implementation of sustainability dimensions in project management.



The significance of sustainability in project management lies in its ability to facilitate the production of goods and services aligned with stakeholder realities. The sustainability of firms hinges on adeptly managing natural complexities and considering the interests of diverse stakeholders, along with environmental impacts. In the realm of project management, achieving sustainability involves practices such as sustainable purchases, the development of analytical project structures, life-cycle analysis utilization, and effective risk management. Consequently, scholars have proposed theoretical frameworks aimed at integrating sustainability principles into project management.

Sanchez & Lopez (2010) present a theoretical framework prioritizing sustainability indicators in building projects, leveraging standards and risk management principles. Their model advocates for the inclusion of environment-friendly materials, energy-efficient systems, environmental management systems, and safe labor practices in project management. Corder et al. (2010) introduce the SUSOP (Sustainable Operations) model, addressing the challenges faced by project managers in aligning sustainability principles with project management goals. This model incorporates economic variables like business ethics, stakeholder involvement, innovation management, service improvements, cost management, and others into project management. Xing et al. (2009) propose the Urban Development Sustainable Assessment Model (UD-SAM), integrating innovation, cost efficiency, research and development, sound labor practices, and environmental management systems to enhance project management efficiency and effectiveness.

Examining the literature reveals that the integration of sustainability principles into project management requires an integrated approach. One study underscores the importance of stakeholder involvement in the planning and implementation phases, emphasizing its crucial role in project success and credibility (Mirvis et al., 2010). Stakeholder engagement, as highlighted by Seebode et al. (2012), involves active participation in operations, with communication and stakeholder management playing pivotal roles throughout the project's lifetime.

Cruz et al. (2019) suggest leveraging lean thinking to integrate sustainability into project management principles, emphasizing the reduction of waste and inefficiencies. The study posits that lean thinking, focused on enhancing business processes, can be applied in project management to achieve environmental, economic, and social goals. However, the need for further research,

specifically case studies of organizations integrating sustainability with project management through lean thinking, is highlighted.

Aguilar et al. (2015) evaluate the Sustainability in Project Life Cycle Model (SPLC) and Sustainable Business Model (SBM). SPLC focuses on incorporating sustainability principles into project methodology, ensuring balanced resource utilization, while SBM aims to provide sustainable value across economic, social, and environmental dimensions. Both models contribute to creating sustainable business models, but SBM's long-term implementation challenges and SPLC's limited scope for specific projects are noted.

Albert & Mickel (2019) highlight that sustainable project management yields return on investment, enhances economic performance, improves resource efficiency, and allows for the reuse of materials. The study emphasizes the need for a comprehensive review of existing organizational structures to identify areas for change and innovation through sustainability principles.

Jin (2019) recommends employing sustainability rating systems such as LEED for sustainable construction management, emphasizing multiparty collaboration during early project life cycles. While life cycle assessment provides guidance, the study falls short in offering practical implementation methods for sustainability in project management.

Mohammadian & Rezaie (2019) assert that innovative sustainable project management contributes to the design of modern and livable areas. They stress the application of sustainability principles in the construction industry, advocating the use of principles and indicators to assess past practices and current project processes.

The following table summarizes the main frameworks integrating sustainability with project management.

Source	Framework	Key Features
Mohammadian & Rezaie, 2019	Innovative SPM	Innovation can be used as part of sustainable project management.
Jin 2019	Sustainability rating systems	Rating systems can be used for implementing sustainability principles in PM.
Albert & Mickel, 2019	Sustainable model	This model calls for holistic approach for implementing sustainability in project management.
Daneshpour & Takala (2017)	Multilevel approach	Recommends use of different management and organizational frameworks for integrating sustainability with project management.
Cruz et al (2019)	Lean thinking	Principles of lean thinking can integrate sustainability with project management.

*Table 3 Major Frameworks to Integrate Sustainability with Project Management*

**2.8 MAIN VARIABLES FROM IDENTIFIED FRAMEWORKS**

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The following table shows the key variables that relate sustainability to project management and derived from the frameworks considered in the earlier section 2.8:

Economic Dimensions	<ul style="list-style-type: none"> <li>● Innovation</li> <li>● Cost efficiency</li> <li>● Stakeholder participation</li> <li>● Organizational culture</li> <li>● Business ethics</li> <li>● Investments in services</li> <li>● Financial performance</li> </ul>
Environmental Dimensions	<ul style="list-style-type: none"> <li>● Efficient management of resources.</li> <li>● Water management</li> <li>● Energy management</li> <li>● Waste management</li> <li>● Environmental training and awareness.</li> <li>● Environmental audits</li> <li>● Eco efficiency</li> </ul>
Social Dimensions	<ul style="list-style-type: none"> <li>● Fair labour practices</li> <li>● Sound relationships with community</li> <li>● Human rights</li> <li>● Social reports</li> </ul>

**2.9 BAHRAIN CULTURAL DIMENSIONS – HOFSTEDE THEORY OF CULTURE**

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While Hofstede's cultural dimensions do not explicitly include Bahrain, a comparative analysis with Qatar, a listed country, provides insights into Bahrain's cultural context (Hofstede Insights, 2020). Xuewen and Yihong (2015) observe that Gulf Cooperation Council (GCC) countries,

including Bahrain, share a common Islamic culture that coexists with trade relations with Western nations, contingent upon Western companies aligning their products with Arab cultural norms. Hofstede's country comparison reveals that Qatari culture, and by extension Bahrain, emphasizes power distance, valuing hierarchical structures with an expectation for leaders to make decisions. Both Qatar and Bahrain embody a collectivist ethos, prioritizing loyalty and responsibility toward the community (Hofstede Insights, 2020). Additionally, Qatari culture emphasizes a strong aversion to unpredictability and unconventional behavior, indicating a preference for security and resistance to innovations that may yield unpredictable outcomes. Notably, the long-term orientation in Qatar is low, indicating an inclination to uphold traditional practices and approach change with suspicion.

Saqer (2019) explores intercultural communication ethics in the Arab Gulf, drawing on Hofstede's cultural dimensions. The study reveals that despite the Gulf countries, including Bahrain, moving towards modernization, they remain rooted in their cultural Islamic traditions. This duality poses challenges as individuals, driven by modern lifestyles, must reconcile individual motivations with the collective culture of the region. The study emphasizes that those engaged in business with international firms need to cultivate an understanding and respect for diverse cultures to ensure the success of their endeavors.

Demigha and Kharabsheh (2015) adopt a case study methodology to investigate the impact of a nation's culture on organizational culture and knowledge sharing, with a specific focus on Bahrain. The researchers find that knowledge-sharing capabilities are significantly influenced by an individual's cultural orientation, encompassing beliefs, attitudes, behavior, and rituals. In the Bahraini context, certain cultural attributes, such as openness to the world, a diverse workforce, and the inclusion of women in societal and workplace roles, contribute to an environment conducive to enhanced knowledge sharing within Bahraini companies.

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### 2.9.1 INFLUENCE OF FACTORS ON WORKING CULTURE (PROJECT MANAGEMENT)

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Numerous studies underscore the profound influence of a nation's culture on corporate culture, impacting leadership styles, decision-making processes, employee treatment, communication styles, motivation, information sharing, labor practices, professional advancement opportunities,

adherence to industrial regulations, perceptions within the workplace, the role of women, and collaborative approaches, ultimately influencing business success and employee well-being (Demigha & Kharabsheh, 2015; Owusu Ansah et al., 2019; Khan & Law, 2018).

Bahrain, characterized by a vibrant traditional culture and a diverse mix of nationalities, exemplifies how local culture significantly shapes corporate practices (Karolak, 2010). Reflecting Arab culture distinct from the Western paradigm, Bahrain places a high value on informality and prioritizes family, tribe, religion, and ethnicity in its social fabric, a sentiment mirrored in the workplace. Notably, an individual's status in Bahrain derives more from familial ties than wealth, position, or age, making these considerations paramount even in professional settings.

In Bahrain, the significance of teamwork differs from Western perspectives. Despite being classified as a collectivist culture by Hofstede, Arabs, including Bahrainis, tend to prioritize loyalty within existing social structures rather than embracing collaborative teamwork (Sidani & Thornberry, 2010). Autocratic and directive leadership styles prevalent in the country contribute to a preference for individual pursuits over team collaboration. Consequently, work teams in Bahrain often function more effectively when employees work alongside each other, pursuing individual goals with minimal collaboration.

This cultural orientation poses challenges in project management, where effective teamwork is integral to success. Successfully completing a project requires integrated and synchronized team efforts, leveraging individual and collective strengths while mitigating weaknesses. Achieving such collaborative dynamics is challenging in Bahraini companies accustomed to a collectivist culture that emphasizes individual loyalty over collaborative teamwork.

To foster effective projects in Bahrain, organizations must comprehend the cultural nuances and incorporate them into the corporate environment. By adopting best practices rooted in Bahraini culture, organizations can cultivate a positive and inclusive working environment that accommodates diverse cultural groups. This approach fosters a conducive atmosphere for business operations, promoting competitive advantage and long-term sustainability (Demigha & Kharabsheh, 2015).

## 2.10 SUMMARY

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In summary, the literature review navigates the evolution of the sustainability concept, emphasizing its emergence as a response to the global challenges posed by the overuse of natural resources. The multifaceted nature of sustainability is highlighted, encompassing the integration of social, environmental, and economic responsibilities to strike a delicate balance between human, environmental, and economic needs. This inclusive approach extends from the business realm to project management, emphasizing the importance of sustainability in achieving progress, on-time delivery, and effective management.

The concept of sustainability in project management extends beyond mere resource minimization; it involves using environmentally friendly materials, reducing pollution, conserving energy, and generating less waste. Despite the wealth of insights provided by the literature, a discernible gap emerges in understanding how specific project management objectives can align with the Critical Success Factor (CSF) of Sustainability and how this might apply in relation to Bahrain. This gap underscores the need for focused exploration, prompting the research to delve into the intricate interplay between project management objectives and sustainability imperatives.

The identified gap in the literature points towards a nuanced understanding of Bahrain's sustainable project management initiatives. The research seeks to address this gap systematically by adopting an extensive approach, critically analyzing existing literature, and identifying specific gaps related to Bahrain's government projects. The conceptual model, derived from the literature review, forms the foundation for the research, emphasizing critical success factors and integration challenges within the Bahraini government's project management practices.

Through a targeted literature review, this research aims to contribute nuanced insights that directly address the identified knowledge gap. By exploring how Bahrain integrates sustainability principles into project management and assessing the alignment with broader sustainable development literature, the study seeks to offer practical insights and recommendations. The justification for this research lies in its potential to fill a critical void in the understanding of sustainable project management in the context of Bahrain, providing valuable contributions to both academic discourse and practical implementation in project management initiatives.

In order to systematically address the research questions—RQ1: How does the government of Bahrain integrate principles of sustainable development into the project management of its development projects? and RQ2: Does this integration conform to recommendations from the literature on sustainable development? — an extensive literature search was conducted. The approach involved a thorough examination of scholarly articles, books, and relevant publications from databases such as PubMed, IEEE Xplore, ScienceDirect, and others. The search strategy employed keywords such as "sustainable development," "project management," "Bahrain government projects," and variations to ensure inclusivity.

The literature review focused on studies, frameworks, and models specifically addressing the integration of sustainable development principles into project management, with a particular emphasis on Bahrain. By critically analyzing the existing literature, the goal was to identify gaps in understanding how the government of Bahrain incorporates sustainability principles into its project management practices and whether these align with recommendations from the broader literature on sustainable development.

The structured presentation of key variables and sub-variables relevant to sustainable project management facilitated a nuanced exploration of the existing body of knowledge. The identified gaps in the literature emphasize the need for a more detailed understanding of the specifics of Bahrain's sustainable project management initiatives. The conceptual model derived from the literature review serves as a foundation for the subsequent research, honing in on critical success factors and integration challenges within the context of the Bahraini government's projects.

This research, by addressing the identified gap, aims to contribute valuable insights to the understanding of sustainable project management in Bahrain. Through an empirical investigation into the government's practices, the study will provide practical recommendations and considerations for aligning project management objectives with sustainability imperatives. The overarching goal is to enhance the effectiveness of sustainable project management practices in Bahrain and potentially serve as a model for other regions facing similar challenges.

In conclusion, the research's justification lies in its potential to bridge the identified gap in the literature and provide a nuanced understanding of sustainable project management within the specific context of Bahrain. By offering practical insights and recommendations, the study aims to



contribute to the advancement of sustainable project management practices, not only in Bahrain but also potentially influencing broader discussions on sustainability in project management.

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## 2.11 CONCEPTUAL FRAMEWORK

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In embarking on a journey to decipher the intricate interplay of sustainable development principles within Bahraini project management, our investigation is anchored in response to two fundamental research questions. Guided by these inquiries, our objectives are to fathom the extent to which sustainable development aligns with recommended principles from the literature and to assess the government of Bahrain's adeptness in integrating these principles into its project management endeavors.

### Principle 1: Local, Regional, and Global Orientation

At the heart of sustainable project management lies a nuanced understanding of the geographical context—be it local, regional, or global. Our exploration kicks off by delving into how Bahrain's projects align with this multifaceted orientation. The literature, a guiding beacon, underscores the significance of contextual awareness for successful project outcomes. It propels our investigation to scrutinize how well the Bahraini government, through its projects, intertwines with the broader spheres of influence.

### Principle 2: Equilibrium of Social, Environmental, and Economic Interests

Balancing the social, environmental, and economic facets is akin to orchestrating a symphony of interests in sustainable project management. The literature review eloquently advocates for this equilibrium, emphasizing that neglecting one aspect can disrupt the harmonious sustainability matrix. Our exploration, thus, entails meticulous scrutiny of Bahraini projects—evaluating how they navigate and harmonize these crucial interests to achieve a holistic and sustainable outcome.

### Principle 3: Risk Reduction

In the dynamic landscape of project management, the specter of risks looms large. Here, our research unfurls its inquiry into the principles of risk reduction. Guided by literature insights, we delve into how Bahrain's government projects navigate uncertainties. The objective is clear—to

unravel the strategies and mechanisms employed to identify, assess, and mitigate risks. Our exploration seeks to unveil how risk reduction practices contribute to the resilience and long-term sustainability of these projects.

#### **Principle 4: Values and Ethics**

Embedded within the fabric of sustainable project management are the principles of values and ethics. The literature underscores their pivotal role, asserting that responsible behaviors and ethical practices are indispensable for success. Our exploration, echoing these sentiments, turns its gaze towards Bahraini projects, discerning the ethical dimensions woven into their fabric. The objective is to unravel the extent to which values and ethics guide actions, fostering a culture of responsibility and accountability.

#### **Principle 5: Transparency and Accountability**

Transparency and accountability, twin pillars of sustainable project management, command our attention. Drawing from literature, our exploration navigates the realm of openness and responsibility, seeking to understand how these principles materialize in the context of Bahrain's projects. The objective is to unravel the significance of transparent practices in enhancing project legitimacy and accountability.

#### **Principle 6: Stakeholder Participation**

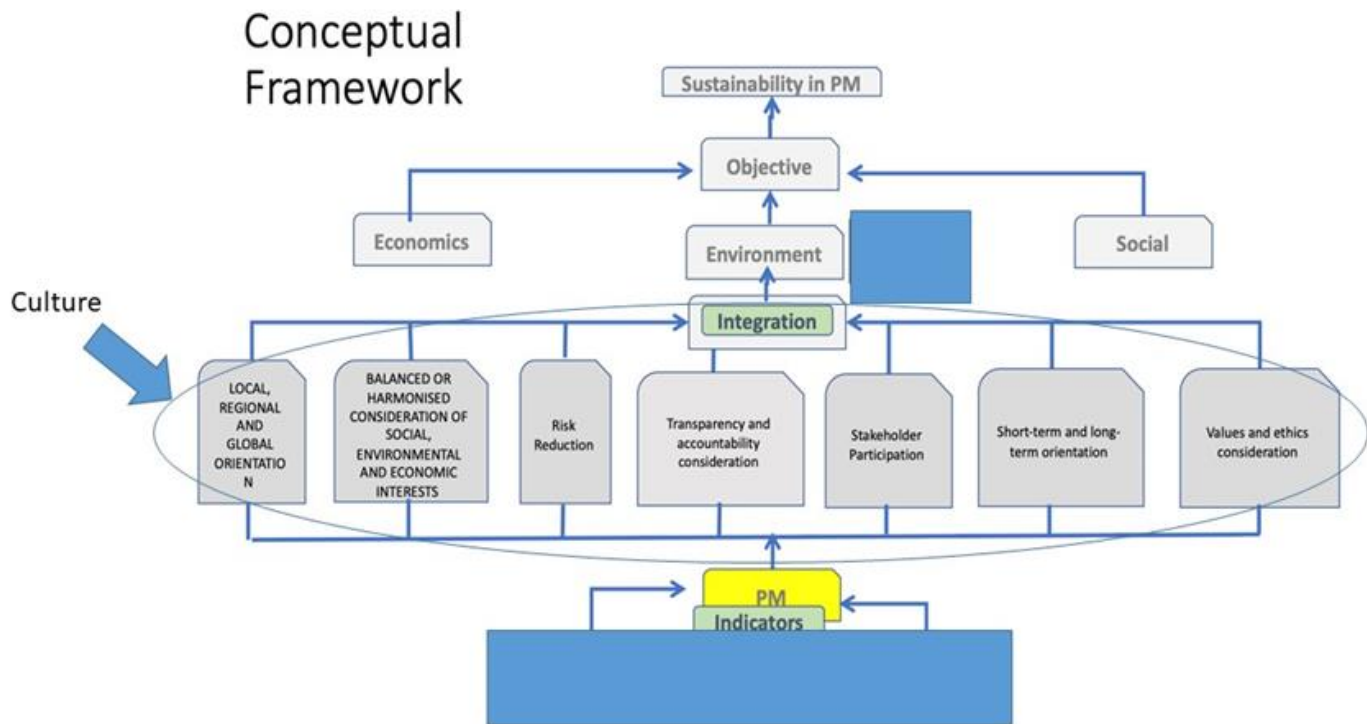
Active involvement of stakeholders is a cornerstone of sustainable project management. The literature, echoing this sentiment, advocates for the integration of diverse perspectives in the project lifecycle. Our exploration, guided by this principle, scrutinizes Bahraini projects for evidence of stakeholder participation. The objective is to uncover how involving stakeholders contributes to project value and efficiency, aligning with the literature's emphasis on the pivotal role of engagement.

#### **Principle 7: Consuming Income not Capital**

The sustainability narrative extends to resource management, urging a shift towards consuming income rather than depleting capital. Our exploration, aligned with this principle, delves into Bahraini projects to discern how resources are managed. The objective is to unravel practices that

ensure long-term sustainability, understanding how Bahrain navigates the delicate balance between consumption and conservation.

Amidst the diversity of projects and their unique contexts, a common thread emerges—a conceptual model that encapsulates the essence of sustainability in project management. While acknowledging the absence of a one-size-fits-all model, our exploration has crafted a versatile framework. It stands as a beacon for project managers, adaptable to the idiosyncrasies of each project. Through this comprehensive understanding, our study aspires to not only bridge identified gaps but also contribute invaluable insights to the integration of sustainable development principles in the dynamic landscape of Bahraini project management.



## 3 CHAPTER TWO: RESEARCH METHOD

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### 3.1 INTRODUCTION

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This chapter examines the methodological approach adopted in this study, the benefits and possible drawbacks of doing so, and considers how the selected approach compares with admissible alternatives. A research process according to William (2011) is the systematic approach to defining the objective of obtaining, managing and communicating the research findings within established frameworks according to the existing protocols. The research framework as well as guidelines offers researchers an indication of what should be included in a research, how it can be performed and the type of inferences that are probably based on the collected data. It also entails research overview methods and justifications for selecting a given method.

As indicated above, this chapter presents a research methodology of the dissertation. In this section, the author illustrates how the dissertation will be conducted and includes description for the research methodology entailing research process, research design, and the data collection approach. In the last section, the quality of study as well as ethical considerations will be discussed.

The chapter will explain first the research philosophy and give a justification on the same followed by the research approach, research strategy, horizon, data collection methods and data analysis techniques used. The chapter then goes on to explain why these methodologies were the right one of this study by comparing and contrasting with the other methodologies and data collection techniques. The chapter will concluded with a brief discussion of the ethical considerations observed during the data collection process and a summary of the chapter.

### 3.2 RESEARCH PHILOSOPHY

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The idea that there are different world views and processes operating within it constitutes the whole concept of a research philosophy. A research philosophy entails views on how the world works and focuses primarily on knowledge, reality and existence. The individual view of the world is linked closely to what each and every individual perceives as being a reality (Saunders, 2009). In a nutshell, a research philosophy simply reveals how a researcher is seeing the world through choosing a research strategy as well as methods that are part of a strategy.

In dissertation writing, the research philosophy usually deals with the nature, source and development of knowledge. It is simply a belief about the ways data is being collected on a particular phenomenon and it should be analyzed and utilized (Bajpai, 2011). Although ideas on knowledge creation are profound, completing a dissertation is part of knowledge creation because a researcher will collect primary and secondary data and conduct data analysis to respond to the research objectives and research questions, which marks the whole concept of creating new knowledge. Therefore, addressing the research philosophy during dissertation writing entails the researcher being aware and at the same time creating assumptions and beliefs (Bajpai, 2011).

According to Saunders, a research philosophy is defined as a system of assumptions and beliefs regarding the development of knowledge (Saunders, 2009). When embarking on a research process, a researcher is involved in the development of knowledge through answering specific problems in an organization or about an event or study phenomena. Whether consciously aware or not, a researcher makes a number of assumptions at every stage of the research process and this constitutes the research philosophy (Saunders, 2009). Research philosophies are different on goals and research and are used to achieve the research goals. The choice of a research philosophy is always defined by the kind of knowledge that the researcher is trying to investigate in a research project (May, 2011).

In research, the main assumptions and philosophies that could be used to shape the research design first need to be taken into account via a consideration of ontology and epistemology, respectively.

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### 3.3 ONTOLOGY

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The ontological paradigm is more of a study of reality, which a researcher uses to describe the nature of reality. The SAGE Online Dictionary of Social Research Methods (2006) defines ontology as the concept that is concerned more with existence of and relationship between different social actors, social structures and cultural norms. It entails what comes to mind during the research process and its relational impact in the surroundings and society by answering the question “what is real?” Ontology helps the researcher to get the difference between reality and how reality is perceived (Saunders, Lewis & Thornhill, 2007). Ontology helps the researcher learn about how the research phenomenon influences individual behaviors and understand reality and how it affects

the environment by differentiating actual reality and individual's perceptions of reality (Saunders, 2009). The three primary philosophical aspects of ontology include constructivism, objectivism, and pragmatism.

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### 3.3.1 CONSTRUCTIVISM

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According to constructivists, the knowledge of the world is not a mere reflection of what exists, but a set of social artifacts and reflection of what we perceive as reality (Nunes & McPherson, 2003). In simple terms, a learner tends to attach meaning to the newly acquired knowledge in relation to the environmental experiences that the learner is part. According to this paradigm, knowledge and meaning are not fixed, but are constructed by individuals via experiences of a particular object. The constructivism theory of knowledge, therefore, describes the development of knowledge through learning and the learner's experience is entrenched in the experience of the individual (Nunes & McPherson, 2003).

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### 3.3.2 OBJECTIVISM

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Objectivism is a liberal and comprehensive philosophical system that revolves around realities existing independently of the consciousness and opines that a researcher must use their logical senses and thinking to develop ideas and perceive their world while interacting with other people (Macleod, 2015). The paradigm portrays a position that social entities do exist in reality to their external social actors that are concerned with existence. The paradigm assumes that reality only exists outside or independent of the individual mind. Objectivists hold on the notion that objective realities do exist and can easily be known through the accumulation of complete information. Therefore, objectivism is an ontological view that the real world exists and is real (Hathcoat, Meixner, Nicholas & 2018).

While objectivism makes one understand the social events and how different people sees it, constructivism proposes how people create a social phenomenon. Pragmatism uses theories in identifying solutions to give social challenges.

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### 3.3.3 PRAGMATISM

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Pragmatism is defined as a philosophical tradition that understands the world as being inseparable from agencies in their existence (Saunders, Lewis & Thornhill, 2007). This philosophical movement claims that a philosophical proposition is true if it works perfectly. Pragmatism as a deconstructive paradigm tends to advocate the application of mixed methods in the research process while sidestepping the contentious issues associated with truth and reality. It instead focuses on what works as true regarding research questions that are being studied. Pragmatism, therefore, tends to reject the position that stands between two opposing perspectives and rejects choices associated with paradigm wars (Morgan, 2014).

Within the context of the current research, from an ontological standpoint, this study will adopt a subjectivist or constructivist approach, which is best suited to a qualitative study of this nature. The study will draw on the views and opinions of those within the organizations examined, and while the resource-intensive view of sustainability would tend towards measurability and a quantification of relevant resources, the researcher will consider the issue of sustainability from the perspective of culture, society and necessary change and how these factors serve to impact those charged with implementing such change. As the study will also examine these issues within the specific context of Bahrain, the subjective nature of the study and views elicited require a constructivist approach, as the researcher strives to determine how the study participants stand in relation to the issue of sustainability within the context of project management, and its ongoing and future possible impacts on accepted cultural norms and social customs.

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## 3.4 EPISTEMOLOGY

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Epistemology is the other research paradigm, which tries to identify common acceptable knowledge and is concerned more with how knowledge could be communicated to others (Saunders, 2009). Under epistemology, there are three key research paradigms: positivism, realism, and interpretivism.

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### 3.4.1 POSITIVISM

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Positivism is concerned with the use of testable questions (Bryman, 2012). This paradigm helps the researcher to seek and find explanations using the generally acceptable knowledge because it entails working with observable social realities to generate law-like assumptions or generalizations. Using this paradigm, the researcher is guaranteed unambiguous, accurate knowledge. It emphasizes the positivist focus based on strict scientific empiricist method that is designed to generate pure facts and data with minimal and no influence by human bias and interpretation. Researchers who were to adopt an extreme positivist position, would see organizations and social entities as real in the same way as the natural phenomenon and physical objects as real. Positivists tend to focus on discovering measurable and observable facts in order to realize credible and meaningful data for research (Saunders, 2009). Positivists will always try to remain as neutral as possible by detaching themselves from the research and the data collected to avoid a possible influence of the findings. This is important for a positivist because of the quantifiable, measurable nature of data collected by positivists.

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### 3.4.2 CRITICAL REALISM

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Critical realism focuses on explaining what people and experience in terms of the principal structures of reality, which shape observable events. Among critical realist, reality is the most significant philosophical consideration. They see reality as an external and independent element, but is not directly accessible via knowledge and observation. Critical realists always try to highlight how often the senses deceive humanity (Saunders, 2009). Meaning what we experience is the empirical or sensations that are manifestations of the real world things and not the actual ones. In critical realism, two major stages are involved in understanding the world. The first one is the sensation and events that people experience and second the mental processing approach, which goes after the experience. Therefore, critical realism focuses on providing explanations for observable events by examining underlying causes and mechanisms through which social structures are shaped.



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### 3.4.3 INTERPRETIVISM

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Interpretivism tends to emphasize the fact that human beings are different from physical phenomena because they create lots of meanings. As a result, the role of interpretivists is to study these meanings. Interpretivists argue that the social world and people therein cannot be studied in a similar way as the physical phenomena. Therefore, social sciences research must be different from natural sciences research instead of trying to imitate the latter. As different people from different cultural backgrounds, interpretivists tend to be critical of the positivists' attempts to discover the definite universal laws that are applicable to everyone. Therefore, according to interpretivists, rich insights to humanity are lost by reducing such complexities. The purpose of interpretivists' research, therefore, is to create richer and new understandings and interpretations of the social contexts. Interpretivist researchers make account of the complexity associated with collecting meaningful data to research participants. Business situations are not only complex, but are unique in terms of their context and reflect certain sets of interactions and circumstances that involve individuals (Saunders, Lewis & Thornhill, 2012).

Interpretivism is concerned with interpreting study elements, thus integrate the human interest into research. Moreover, interpretive researchers tend to assume that accessing reality is via social constrictions that include language, consciousness and shared meanings. According to Saunders (2009), interpretivism recommends that the researcher must understand the existing contrast between humans and the role they play as social actors.

Interpretivism was the preferred philosophy for this research because its basis is that research on the social world needs a different logic of the research procedure. A strategy that requires differences between people is needed. Therefore, in adopting this research paradigm, the researcher aims to understand the existing differences between human beings and the world. Since interpretivism is applicable for researching humans and not objects, it is suitable in studying cases such as sustainability in project management research where a deep meaning and understanding are required of the relationships between variables based on expert opinion (Saunders, 2009). Moreover, the interpretivism strategy is in line with the qualitative research which this study plans to use as the researcher wants to synthesize facts that are derived from both primary and secondary sources and are qualitative in nature. Therefore, the researcher chose the interpretivist as opposed

to the positivist and pragmatist approaches since the elements in this study are not quantifiable and measurable.

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### 3.5 RESEARCH APPROACH

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The research approach refers to the plan and procedures that a researcher follows and the assumptions that they make about data collection and the interpretation of the study findings. In most cases, a research problem is based on the nature of the research under investigation. In accordance with Saunders research onion, there are two key research approaches: inductive and deductive approaches (Saunders, 2009). Irrespective of the nature of the research, a researcher can choose either of the approaches to determine how they can frame their research.

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#### 3.5.1 KEY RESEARCH APPROACHES

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The deductive approach implies conducting a study based on ideas that are already established. This research approach is concerned with testing the theory of research, and it entails using a top-down approach. In most cases, a deductive research approach is used when the researcher wants to narrow down pre-existing approaches to formulate the hypothesis. The deductive reasoning mainly begins with a general statement and examines the chances of reaching a specific conclusion (Azungah, 2018). Therefore, this approach follows the path of logic and hence is explained as reasoning from a generalized view towards a particular hypothesis. Deductive approach in most cases is considered to be scientific and confirms the correlations between study variables. Deductive approach is in most cases used for quantitative studies.

The inductive approach usually entails firstly examining the phenomenon being investigated using preliminary approaches in order to derive meanings and insight of the study subject (Saunders, Lewis & Thornhill, 2012). The inductive reasoning tends to make broad generalizations from a given study observation. Since it entails data collection, the researcher then makes conclusions. The study helps the researcher to use the bottom-up approach and form a hypothesis from the study phenomenon. The approach is preferred by researchers who want to obtain data for the research.

The researcher, in this study adopted an inductive approach mainly for two reasons. The first prominent reason is that the interpretive nature of the current research fits well with the inductive research. The study is investigative in nature that tries to determine how the sustainability goals and project management factors are impacting the success of the project in the cultural context of Bahrain. The complexity of the project is multifaceted and cannot be looked in from one specific lens or testing a specific theory. Therefore, phenomenology may be a more appropriate methodology to consider because it aims to identify the phenomenon through actors' perceptions in a situation (Creswell, 2009).

Secondly, the generic inductive approach is selected because its purposes are in line with the researcher's envisaged mode of research. This is due to the reason that inductive approach aims to condense the raw text into a brief summary format, establish clear links between the research objectives and the summary findings and to develop a model about the underlying structure of experiences, processes or perceptions derived from the text data (Thomas, 2006).

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### 3.6 RESEARCH STRATEGY

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According to Saunders (2007), a research strategy is a description of how the researcher plans to conduct their research. It is a systematic process showing how a research will be conducted to solve an inquiry. A research strategy includes different approaches such as case study, action research, interviews, experimental research, surveys, and systematic literature. This also entails a strategy that a researcher chooses to integrate the different aspects of a research process, which allows the researcher to address a study phenomenon. The research strategy is thus a blueprint a researcher uses to measure and analyze data. A researcher needs a well-made research design, which can facilitate data collection (Saunders, Lewis & Thornhill, 2012). A properly selected and designed strategy gives the researcher the necessary direction on how the research will be conducted in order collect appropriate data and make it easier for the researcher to address the research questions. To be effective, the research strategy adopted by the researcher should be aligned with the research question. Therefore, after verifying the research question, the researcher determines the study problem, and this helps him/her determine what kind of research design is

appropriate. In this regard, the research strategy is an important aspect in that it gives the researcher an opportunity to justify why they selected a certain study approach (Saunders, 2009).

The most commonly used research strategies include experimental, surveys, cross-sectional, action research, and Organizations.

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### 3.6.1 EXPERIMENT

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Experimental study design entails using scientific approaches to manipulate the variables of a given study and measure desired changes (Creswell, 2009). the design is mainly applied in strict adherence to the scientific research design and includes a variable and hypothesis that can be manipulated by researchers. experiments allow the researcher to identify existing relationships between the study variables studied intensively through arranged designed laboratory situation using quantitative analysis techniques with view of making generalizable conclusions that can be applied to real-life situations. the major weakness is the laboratory experiments is its limited extent to which identified relationships existing in real world are representative because experimentations seems to oversimplify the experiment situation thus not reflecting the real-life situation (Saunders, Lewis & Thornhill, 2012).

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### 3.6.2 SURVEYS

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Surveys include a process where the researcher recruits a study sample and uses techniques such as face-to-face interviews, questionnaires, or online forms to collect data. Surveys allow the researcher to acquire data about situations, practices, or views and the researcher then uses quantitative or qualitative analytical techniques to make inferences from the data about the relationships. Using surveys allows the researcher to study several variables at the same time compared to when field or laboratory experiments are used (Slattery et al., 2011).

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### 3.6.3 ACTION RESEARCH

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This is another form of applied research that involves the researcher attempting to develop leads to a result or solution that is practically valuable to people with whom the researcher is working while at the same time developing a theoretical knowledge. It entails applying direct intervention in issues, and the researcher will create practical often emancipatory benefits. Similar to Organizations, the action research approach is restricted to a single organization making it hard for the generalization of findings while the different researchers might interpret study events differently. In this strategy, however, the issue of personal ethics of the researcher becomes critical, since opportunities for direct intervention from the researcher are present (Avison et al., 1999).

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### 3.6.4 CASE STUDY

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A case study design is chosen for this research, offering an in-depth exploration of how the government of Bahrain integrates principles of sustainable development into the project management of its development projects. This design is particularly advantageous when examining specific issues, situations, or individual organizations. Case studies, whether exploratory or descriptive, focus on a single unit of analysis, providing insights into the studied phenomenon and establishing relationships between variables in specific cases (Creswell, 2009).

The case study approach proves effective for studying sustainability aspects in project management as it enables detailed comparisons between organizations or study areas, facilitating the formulation of generalizations. However, it has limitations, primarily related to the challenge of generalizing findings due to the restricted focus on a single entity. Additionally, interpretation bias can be introduced when different researchers analyze and interpret the same data (Silverman, 2013).

Several factors guide the use of a case study approach, including studying a phenomenon in its natural setting. In cases where the study involves controlling and manipulating variables, this approach may not be suitable. Organizations are particularly useful in qualitative studies to investigate contemporary phenomena, especially when boundaries between study phenomena are not clearly evident. For this research, the case study method is chosen based on the nature of the

study, aiming to generate hypotheses, validate the study method, and examine the phenomenon in its natural setting using multiple data collection methods (Bryman, 2012).

The complexity of the phenomenon under investigation, coupled with the need for a deep understanding of organizational idiosyncrasies, aligns with the case study approach. Utilizing this method allows the researcher to delve into the "why" and "how" questions, essential for grasping the intricate processes involved. The absence of prior research in the specific area emphasizes the case study's suitability for theory creation, providing a conducive environment for data collection and theory construction (Robson, 2007).

Accordingly, the case study design is apt for investigating how the government of Bahrain integrates sustainable development principles into its project management practices. This approach allows for a nuanced exploration of the phenomenon in its natural setting, considering the intricacies of organizational dynamics and contributing to theory creation in an area where prior research is limited.

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### 3.7 TIME HORIZON

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Triangulation, as a methodological approach, plays a crucial role in enhancing the robustness and validity of research findings. In the context of this research, triangulation involves the use of multiple sources of data, methods, and perspectives to examine the research questions from various angles. The integration of triangulation is evident in the careful selection of the cross-sectional time horizon, interviews, and a combination of qualitative and quantitative methods within the case study design.

The choice of a cross-sectional survey as the primary data collection method, focusing on a designated point in time, allows for a comprehensive snapshot of the population's characteristics. This method aligns with the time constraints of the research and provides a valuable understanding of the relationships between variables, such as sustainable development principles in project management. Triangulation is at play here as the researcher employs interviews, conducted within short time periods, to gather in-depth insights from selected professionals in the study area.

The use of interviews as a primary method for collecting firsthand data from study participants introduces a qualitative dimension to the research. This qualitative approach allows for a deeper exploration of the intricacies and nuances surrounding the integration of sustainable development principles into project management. By engaging directly with professionals in the field, the researcher can gain rich and contextualized information, contributing to a more comprehensive understanding of the research questions.

Furthermore, the consideration of both primary and secondary data collection methods reflects another layer of triangulation. While primary data collected through interviews offers direct and specific insights, the inclusion of secondary data from existing sources adds a broader perspective. Secondary data, obtained from scholarly articles, books, and relevant publications, serves to complement and validate the primary data, reinforcing the reliability and credibility of the findings.

The researcher's decision to adopt a case study approach, incorporating a mix of qualitative and quantitative methods, adds another facet to triangulation. This comprehensive strategy allows for a multifaceted exploration of how the government of Bahrain integrates sustainable development principles into project management. By employing triangulation, the study aims to enhance the overall rigor of the research, mitigate potential biases, and provide a more robust foundation for drawing conclusions and making informed recommendations.

The careful combination of cross-sectional surveys, interviews, and a blend of qualitative and quantitative methods enables the researcher to triangulate findings across different dimensions. The triangulation of methods not only provides a more holistic view of the research problem but also helps in corroborating and validating results through the convergence of evidence from diverse sources.

Triangulation in this research is particularly valuable due to the complexity of the phenomenon under investigation. Sustainable development principles in project management involve intricate

processes and multifaceted considerations. By triangulating data from various sources and perspectives, the study aims to capture the richness and diversity inherent in the integration of sustainability into project management practices.

Moreover, the combination of qualitative and quantitative methods within the case study design allows for a comprehensive exploration of both the depth and breadth of the research questions. Qualitative insights from interviews offer a nuanced understanding of the contextual factors, while quantitative data from surveys provide statistical rigor and generalizability. This methodological triangulation ensures a more balanced and robust analysis, contributing to the overall validity of the research.

The concept of triangulation is closely tied to the idea of ensuring the trustworthiness and dependability of the study findings. By cross-verifying results obtained through different methods, the researcher can strengthen the reliability of conclusions. This becomes particularly crucial when addressing research questions related to the alignment of government practices with recommendations from the literature on sustainable development.

In essence, triangulation is a strategic methodological choice employed in this research to enhance the credibility, validity, and comprehensiveness of the study. By weaving together diverse data sources and methods, the study aims to provide a more nuanced, well-rounded, and robust understanding of how the government of Bahrain integrates sustainable development principles into project management, and whether these practices align with established recommendations in the literature on sustainable development.

In summary, triangulation in this research involves the integration of multiple data sources, methods, and perspectives to enrich the exploration of sustainable development principles in project management within the government of Bahrain. This methodological approach enhances



the credibility and reliability of the findings, contributing to a more nuanced understanding of the research questions and their implications.

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### 3.7.1 QUANTITATIVE RESEARCH

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Quantitative research is one of the most applied methodologies in science and a dominant methodology in investigative studies. Quantitative methods are generally aligned with positivist paradigm (Mukhopadhyay & Gupta, 2014). This method deals with quantifying and analyzing variables so as to obtain study outcomes. It entails the utilization and numerical data via statistical definition. It is a method that gathers data in numerical form and analyzes it using mathematical models. The aim of quantitative methods is to test and search for cause and effect and use the information to make predictions. The primary intention of using this approach is to create and establish or validate relationship and arrive at generalizations that can positively contribute to theoretical development.

According to Creswell (2003) quantitative research mainly entails gathering data that can easily be enumerated and aligned to statistical analysis so as to contradict alternative knowledge. Quantitative research is thus a science where the research practices mathematical methods to obtain and analyze data. Thus the key element of quantitative research includes research design, measurements and test and statistical analyses. In quantitative research, the researcher gathers data that is numerical and hence utilizes mathematical approaches and examination methods to create an alliance with statistical data collection.

The quantitative reach design mainly describes factors, including data type, sample size, data collection procedures, data management and data analysis approach. They describe and measure levels of occurrence based on calculations and numbers. Researcher using this method aim at answering the “how many?” and “how often?” research questions. These data collection methods are also based on mathematical calculations and numbers (Bryman & Bell, 2015).

Quantitative methods are mainly used when the researcher wants to investigate a study phenomenon where the relationship between variables needs to be measured. It is mainly concerned with hypothesis testing from theory. Quantitative methods are associated with high levels of reliability as the responses given by study participants are usually coded, and reduced to

numbers for easy manipulation and statistical analysis. The research also investigates existing relationships between different variables (Hox & Boije, 2005). This method relies on sampling as well as unstructured data collecting methods that fit in the diverse experiences into prearranged response groups. Some of the quantitative data gathering strategies include observation, experiments, and administering surveys.

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### 3.7.2 QUALITATIVE RESEARCH METHODS

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This research method involves collecting and analyzing non-numerical data such as audio, text and video in order to understand the various research concepts, experiences as well as opinions. This method is used in gathering in-depth insight into a study problem with the aim of generating new research ideas. Qualitative research methods are commonly applied in social sciences and humanities where the researcher seeks to understand how individuals experience the world (Hammarberg, Kirkman & de Lacey, 2016). Qualitative research techniques include holding small group discussing investigating attitude, beliefs, and normative behavior concepts as well as semi-structured interviews for seeking views on specific focused topics in order to understand the experience, condition or events from the personal perspective and analyzing texts (Kovacs et al., 2012).

Qualitative research is a clarifying model that takes place in a selected natural setting, thus allowing the researcher to develop important details regarding a study phenomenon due to the high involvement of the participants in the actual experiences. Several kinds of research models use qualitative research methods as a tool for framing the research approach. These diverse methods tend to possess a huge influence on research strategies. Therefore, qualitative research is an active research model since it happens in its natural setting and allows the investigator to develop valuable detail that is highly elaborated in real experiences (Williams, 2011).

Qualitative research methods are exploratory and are mainly concerned with seeking insight as well as understanding underlying motivations and reasons (Saunders, Lewis & Thornhill, 2007). This data collection approach is regarded as a rich method of data collection, especially for real-life situations and people and is able to make sense of and understand behavior in a wider context. Qualitative data is gained through observations, interview questions or open-ended surveys. The

method is mainly applied in answering the “Why?” and “how?” research questions (Saunders, 2009). They mostly give descriptive answers with little or no numerical values. It is an excellent way of gaining insight into the thoughts of the audience. The data that is obtained via this method can be used in finding new opportunities, problems ideas and testing their accuracy, value and at the same time formulate predictions while exploring certain fields in-depth (Polonsky & Waller, 2011).

The qualitative method is used to collect textual data, including focus groups, interviews, observation, and conversational analysis. The method is used when the researcher wants to investigate a study phenomenon through collecting attitudes, views, and perceptions of study participants. It is the most appropriate method for obtaining detailed explanation regarding a study phenomenon through interviews and based on the experiences of the study participants (Hox & Boije, 2005). For the purpose of this study, data collection was done using both the primary and secondary methods. For the primary data, qualitative strategies in the form of interviews were used. The researcher used this method because they wanted to understand the attitudes, perceptions and opinions or ideas of the study participants. This method also easily applies the structured and semi-structured interview methods that allows for observations and participation in the research. In using this method, the researcher was able to collect detailed data and diversity of views. Interviews are superior to other methods such as focus groups because the participants in latter approach are unlike to express or give honest opinions regarding the topic at hand.

Qualitative research is oriented towards exploring, discovering and the inductive logic. It is based more on the inquiry process than specific quantitative measures, goals and hard results. People’s beliefs, qualitative research, opinions, and understanding and views are examined through the researcher’s perspective (Saunders, 2009).

The qualitative research tends to accept that there is a multitude of different realities as well as methods and it assumes that reality is subjective and must be interpreted as opposed to being measured. Among the different categories of qualitative research, the researcher chose the Organizations approach due to its explorative and dynamic nature that could help the researcher collected adequate knowledge to address the research problem. Moreover, a case study is appropriate in examining the contemporary study phenomenon and helps the researcher answer the question of” how” and “why (Silverman, 2000). This method is, however, associated with

limitations in the sense that results are obtained using interviews can be unreliable due to bias and cannot be generalized to represent larger study population. Given the choice of the interpretivist research paradigm, the qualitative research approach as used to facilitate the understanding of how study process could be executed and study elements could be interpreted (Silverman, 2000).

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### 3.7.3 MIXED METHODS

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The mixed research method entails the researcher combining data gathering approaches from both qualitative and quantitative research methods in a single study. The researcher often must understand both approaches in order to practice the mixed research method more effectively. It incorporates the tools used in qualitative and quantitative research in order to deliver a more comprehensive study, which is aimed at improving the accuracy of results (Saunders, 2007). This approach came into existence after the realization that the qualitative and quantitative approaches exhibited certain weaknesses. Presently, however, this approach is considered to be much superior than when the qualitative and quantitative methods are used separately.

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### 3.7.4 DATA COLLECTION APPROACH FOR THE CURRENT RESEARCH

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As discussed above, the research has the choice of using any of the above approaches or a combination of both to deliver a robust study with more accurate results. Choosing a research framework and methodology is, however, essential in order to deliver the right and most accurate responses towards a research question (Saunders 2009). After investigating differences between research methods, weighing on the appropriateness of each method in meeting the research's aims and objectives, the researcher settled on the qualitative approach in the form of a structured interview. A structured interview was preferred in the current study instead of focused group interviews as the focus of the project is very high level projects where objectives are set. The main objectives are set by the leaders of the projects and thus interviews are the right approach. Structured interviews are less susceptible to bias than focus group interviews. This is because the interviewer is not influenced by the opinions of other participants and can more easily keep the conversation on track. Finally, structured interviews are less time-consuming and expensive than

focus group interviews. This is because they require fewer resources to administer and can be completed in a shorter amount of time. Overall, structured interviews offer a number of advantages over focus group interview the interviews were recorded and transcribed. The analysis of the interview data was done by researcher independently. The themes emerging from the interviews were analysed and coded.

According to Denzin & Lincoln, qualitative research is a multifaceted approach that involves naturalistic and interpretive approach to the subject matter. The multifaceted nature of qualitative research allows researchers to develop the holistic picture of the study phenomenon since qualitative research allows one to look at the bigger picture and starts with a search in order to understand the whole study subject. It is based on understanding a social setting and not concerned with making predictions of the setting. Moreover, in qualitative research, the researcher is the research instrument and allows the researcher to incorporate their ideological differences and own biases. The other most important factor considered in selecting the qualitative approach is the objectivity of a qualitative research is more of descriptive and explorative as opposed to being explanatory. Qualitative method allows for open-ended questions, which exemplifies the interviewees knowledge as opposed to the straight responses that are synonymous with quantitative research. The structured interviews are in most case administered verbally in the form of questionnaires containing a list of predetermined questions (Silverman, 2000). They do not have variation and scope for follow-up. These types of interview questions are, however, quick and easy to administer and are important when clarifying questions. The major limiting, however, is that they only allow a limited number of responses and hence of little use, especially where depth is needed. On the other hand, unstructured interviews do no present any preconceived ideas or theories and hence are performed with minimal organization. These types of interviews are time-consuming and often last for many hours. In some instances, they can be difficult to handle and manage owing to their complexity. The semi-structured interviews mainly consist of a number of key questions, which might help to define the key areas to be explored (Silverman, 2000). They give the interviewer the opportunity to diverge from the main topic and allow them pursue a new response or idea and present it in more detail. This format provides significance to the interviewee because of being highly flexible hence allows for the discovery and elaboration of information regarding a study phenomenon.

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### 3.7.5 SEMI-STRUCTURED INTERVIEWS

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The goal of research framework selection and design is to select the most appropriate research method to facilitate obtaining satisfactory results and answer the research question more effectively. In this regard examining the strengths as well as weaknesses of different methods of data collection and how they align with the study paradigms is crucial before implementing the method that has been selected (Silverman, 2000). In order to satisfy the study's objective, the research used the qualitative research method in the form of semi-structured interviews. This method is mainly used especially when the researcher wants to conduct research on small samples and where the researcher does not want to measure and quantify the results (Saunders, 2009).

Kumar (2008) argues that interviews are important tools for data collection in qualitative research. Through the one-on-one interview, the researcher interacts closely with the participants, allowing the observation of non-verbal cues during the entire interview process. In this research, the semi-structured interview method was used to facilitate in-depth and more open discussion of the study topic. This method allows researchers to understand the complex nature of the study phenomenon from the responses given by the participants.

In choosing the interview method to collect data, the researcher aimed at gaining a deeper insight into the constructions of the selected participants through language use and dialogue as they construct different discourses associated with the study phenomenon. The other factor that informed the choice of this method is that there is a limited number of persons who can accurately provide factual answers that could help understand the sustainability and integration of project management in Bahrain. However, this method can be unreliable as researchers using semi-structured interviews have a tendency to control and guide interviewees during the interview process, introducing the element of bias and unfairness. Moreover, the effectiveness of this method is based on the abilities and skills of the researcher while the outcomes might be considered reliable because they result from the personal judgments of the researcher. The results of qualitative results may not reflect the opinions of individuals in the wider population.

For the purpose of this project, the primary challenge is examining contemporary approaches, which in this case include sustainability and integration in the context of project management. The

other major challenge is to align the scope of the selected research methods and approaches with time scales. The study on sustainability in project management benefits from contributions from wide areas including environmental sciences, social sciences, management, and engineering. All these disciplines are associated with their body of knowledge as well as research methodologies, which are influenced by epistemological positions that a researcher will adapt. The research design will thus follow an inductive approach that is oriented towards interpretivist thinking (Silverman, 2000). Organizations in most cases tend to source data or evidence from multiple sources and combine different methods of data collection to reduce potential bias. For the purpose of this dissertation, data was obtained from selected study participants through semi-structured interviews supported by secondary data obtained through the analysis of over 20 public documents, archival records, peer-reviewed articles, journals, and books.

In the context of this dissertation, the data collection process involves a multifaceted approach, combining primary data gathered from semi-structured interviews with study participants and secondary data obtained through a meticulous analysis of various sources. This mixed-methods approach is designed to provide a comprehensive and well-rounded understanding of the research questions and objectives.

The primary data collection method employed is semi-structured interviews, conducted with selected study participants. This approach allows for a nuanced exploration of participants' insights, experiences, and perspectives related to the integration of sustainability principles into project management in Bahrain. The semi-structured format provides a flexible framework, enabling the researcher to delve deeper into specific topics while allowing participants the freedom to express their thoughts and experiences.

Complementing the insights derived from the interviews, secondary data is a crucial component of the research methodology. The analysis draws on a diverse range of sources, including over 20 public documents, archival records, peer-reviewed articles, journals, and books. The inclusion of such a varied array of secondary sources contributes to the richness and depth of the data analysis.

Public documents and archival records offer historical perspectives and contextual background, shedding light on past projects, initiatives, and policies related to sustainable project management in Bahrain. Peer-reviewed articles, journals, and books provide scholarly insights and theoretical frameworks that inform and contextualize the empirical findings derived from the primary data.

The use of secondary data serves multiple purposes in this research. Firstly, it enhances the depth of the literature review by incorporating a diverse range of authoritative sources, enriching the theoretical foundations of the study. Secondly, it facilitates a comparative analysis, allowing the researcher to juxtapose the empirical findings from interviews with existing knowledge in the academic and public domains. This triangulation of data sources strengthens the validity and reliability of the study's conclusions.

Moreover, the inclusion of secondary data provides a broader context for understanding the integration of sustainability principles into project management practices in Bahrain. By drawing on established theories, frameworks, and empirical evidence from previous studies, the research gains a more nuanced perspective on the challenges, opportunities, and best practices associated with sustainable project management in the specific socio-cultural and economic context of Bahrain.

In essence, the integration of secondary data, alongside primary data from interviews, forms a robust and comprehensive research methodology. This mixed-methods approach ensures that the research captures firsthand experiences and perspectives while placing these insights within a broader theoretical and empirical context. The meticulous analysis of both primary and secondary data contributes to a more thorough understanding of sustainable project management in Bahrain.

The research design selected for this study was inductive. Given the nature of this study, it was vital to adopt a qualitative data analysis method. Qualitative analysis entails two methods that are mainly considered to construct a database, which can be used in identifying study patterns (Saldaña, 2015). This includes qualitative content analysis and coding. Content analysis entails the categorization, taking as well as thematic analysis of qualitative data. This might include combing data analysis results in behavioral data to facilitate deeper insights

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### 3.8 DATA COLLECTION

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In the context of this study, the secondary data collection process was a meticulous and comprehensive effort, aimed at enriching the research with a diverse array of authoritative sources. The researcher employed a mixed-methods approach, incorporating both primary and secondary



data collection methods to ensure a thorough exploration of the research questions and objectives. The secondary data collected for this study encompassed a range of sources, including public documents, archival records, peer-reviewed articles, journals, and books. Each category of secondary data played a specific role in contributing to the depth and breadth of the research findings.

Public Documents and Archival Records were instrumental in providing historical perspectives and contextual background related to sustainable project management in Bahrain. These documents offered insights into past projects, initiatives, and policies, tracing the evolution of sustainability practices within the region. Archival records, in particular, provided a valuable source for understanding the historical trajectory of sustainable development in the context of project management.

The inclusion of Peer-Reviewed Articles and Journals served to incorporate scholarly insights and theoretical frameworks into the research. These sources contributed to the theoretical foundations of the study, offering established theories and frameworks related to sustainable development and project management. The synthesis of scholarly perspectives from these sources enriched the analytical framework used to interpret primary data.

Books were utilized to gain a comprehensive overview of key concepts, theories, and debates in the field of sustainable project management. These texts, written by experts and researchers, provided in-depth discussions on various aspects of sustainability, project management, and their intersection. The information gleaned from books contributed to a nuanced understanding of the broader context in which the research was situated.

The secondary data collected underwent a rigorous Analysis Process that involved synthesizing information from various sources. Comparative analysis was conducted to juxtapose empirical findings from primary data (interviews) with existing knowledge in the academic and public

domains. This triangulation of data sources served to validate and corroborate the insights derived from primary data, strengthening the overall reliability of the study.

The secondary data played a crucial role in Integration with Primary Data by contextualizing the primary data within established theories and empirical evidence. By drawing on existing literature, the researcher could situate the findings from interviews within a broader theoretical framework. This integration allowed for a more robust interpretation of the primary data, enhancing the depth of understanding regarding sustainable project management in Bahrain.

In addition to the deliberate inclusion of various sources such as academic journals, books, conference papers, and online resources like Our World in Data, there is a contribution to a mosaic of perspectives. Academic journals bring scholarly depth, books offer comprehensive insights, conference papers provide cutting-edge discussions, and online resources ensure real-time relevance. This diversity, therefore, should be seen as not only broadening the scope of information but also as enhancing the overall reliability and richness of the secondary data.

Moreover, the selection process prioritized sources that carefully explore the intersection of sustainability and project management. This deliberate focus ensured that the information gathered was not merely peripheral but deeply applicable to the research objectives. The relevance of the sources can be seen as a strategic choice to fortify the study's foundation with directly relevant insights.

Furthermore, the deliberate curation of sources spanning different publication years reflects a conscious effort to encapsulate a temporal spectrum of perspectives. Historical perspectives provided a contextual understanding of the roots of sustainable practices, while contemporary viewpoints offer insights into the current state of affairs. This time-based diversity aided in unraveling the evolutionary trajectory of ideas and practices in sustainability and project management, providing a holistic view of the subject.

Additionally, the inclusion of sources specifically mentioning GCC countries, Bahrain, and other pertinent geographical areas serves as a geographical compass for the research. Recognizing the influence of local contexts on sustainability initiatives, this specificity adds layers of depth and applicability to the findings. The research acknowledges that sustainability is not a one-size-fits-all concept and embraces the diverse elements of different regions.

Moreover, the source titled "Understanding the conceptual evolutionary path and theoretical underpinnings of corporate social responsibility and corporate sustainability" serves as more than just a theoretical framework. It acts as a guiding beacon for the research, providing foundational concepts that anchor the study in established theoretical perspectives. This source is not merely chosen; it is strategically placed to shape the very fabric of the research endeavor.

In terms of practical guidance, works like "Project Management: A Systems Approach" and "Industrial Project Management: Concepts, Tools, and Techniques" transcend theoretical abstraction. They offer pragmatic insights and tools that bridge the gap between theory and application. These sources can be viewed as instrumental in providing actionable guidance for the incorporation of sustainable practices into actual project management scenarios.

References to reports such as "The Kingdom of Bahrain's FIRST VOLUNTARY NATIONAL REVIEW (2018)" and "Bahrain's Environmental Legal Tools for Giving Effect to Sustainable Development Goals" elevate the research's credibility. This approach sought to ground the research in data emanating from authoritative and official channels. This deliberate choice reinforces the reliability and robustness of the research findings.

Furthermore, the inclusion of a source on "A Practical Guide to Surveys and Questionnaires" goes beyond acknowledging the potential need for primary data collection. It signifies a proactive approach to ensure that, if surveys are conducted, they are methodologically sound and aligned

with best practices. This source isn't chosen arbitrarily; it's a strategic move to enhance the research's methodological rigor.

Additionally, sources such as "Sustainable Project Management: A Conceptualization-Oriented Review and a Framework Proposal for Future Studies" and "Project Sustainability Strategies: A Systematic Literature Review" underscore the degree of context and depth applied to the literature review. They can be seen as part of a wider structured and systematic approach.

Moreover, the inclusion of sources discussing ethical approaches, such as "An Ethical Approach Towards Sustainable Project Success," emphasizes the ethical underpinning of the research, acknowledging that sustainability in project management goes beyond environmental concerns; it encompasses a commitment to ethical practices.

Lastly, sources like "The Need for Innovation Management and Decision Guidance in Sustainable Process Design" signify a conscious effort to explore cutting-edge approaches. The research looks to the integration of innovative practices.

The secondary data, therefore, should be viewed as a deliberate and thoughtful curation that integrates perspectives, theories, practical insights, and ethical considerations into a cohesive and comprehensive narrative. This comprehensive approach to data collection, encompassing both primary and secondary methods, ensured a well-rounded exploration of sustainability in project management within the specific socio-cultural and economic context of Bahrain.

Embarking on a research journey within the context of sustainability and project management in Bahrain presented not only methodological challenges but also raised profound ethical considerations. As an insider researcher, being intimately connected with the cultural and organizational landscape under investigation, I was acutely aware of the potential power dynamics

and conflicts that could emerge during the data collection process. This insider status, while affording unique insights, necessitated a vigilant approach to maintain ethical integrity throughout the research.

One of the primary ethical considerations was the potential influence I could wield as an insider. Being embedded in the community and having pre-existing relationships with participants, there was a risk of unintentional coercion or bias in responses. Participants might feel compelled to align their views with mine, creating a distorted representation of their authentic perspectives. To address this, I took deliberate steps to emphasize the importance of candid and open dialogue. Assuring participants of the confidentiality of their responses and stressing the value of diverse opinions helped mitigate the influence I might inadvertently exert.

Furthermore, the dual role of being both a researcher and a member of the community introduced complexities in managing potential conflicts of interest. Striking a balance between the responsibilities to the research objectives and the ethical duty to respect the well-being of participants required constant reflection and self-awareness. I maintained transparency about my role and objectives, fostering an environment where participants felt comfortable expressing dissenting opinions or concerns. This transparency aimed to minimize any power differentials and create a collaborative research atmosphere.

Navigating the ethical intricacies also involved a conscientious effort to avoid favoritism or bias in participant selection. Convenience sampling, though practical, had inherent limitations in terms of representation. To counterbalance this, I employed a purposive sampling strategy, ensuring diversity in the selection of participants based on their roles, experiences, and perspectives. This approach aimed to capture a spectrum of opinions, mitigating the risk of unintentional bias in the data collected.

Throughout the data collection phase, reflexivity played a pivotal role. Regular self-reflection allowed me to critically examine my assumptions, values, and potential biases that could influence the research process. Acknowledging and challenging these personal predispositions became an ongoing practice, contributing to the transparency and rigor of the study.

Ethical considerations extended to the dissemination of findings as well. Maintaining confidentiality and anonymity in reporting results was paramount to protecting participants. I

committed to presenting the data in a way that preserved the integrity of individual contributions while contributing to the collective understanding of sustainability in project management in Bahrain.

Conducting research as an insider required a meticulous approach to ethical considerations, with the foremost being the need for informed consent. It was imperative to ensure that participants comprehended the study's nature, their voluntary involvement, and the potential implications. Transparent communication about the research purpose and the participants' right to withdraw at any stage without consequences was paramount.

Reflexivity played a crucial role, extending beyond acknowledging biases to involve an ongoing critical examination of my positionality as an insider. This process entailed recognizing how my cultural background, experiences, and affiliations might shape the research. Regular reflexive journaling and discussions with peers provided a mechanism for scrutinizing and addressing these influences.

Inherent in insider research are power dynamics that can influence participant responses and compromise study validity. To counteract this, a collaborative approach was adopted, encouraging participants to actively contribute to the co-creation of knowledge. Open dialogues and feedback sessions allowed participants to express their views on the research process.

Maintaining transparency in data collection and analysis was fundamental to ethical research. Allowing participants to review and confirm their statements during interviews, a practice known as member checking, contributed to data accuracy. Additionally, rigorous data analysis techniques were employed, ensuring that interpretations were grounded in the data and not swayed by preconceived notions.

As an insider researcher, being part of the community necessitated understanding its nuances, cultural sensitivities, and potential concerns. Sensitivity to the community's values and norms was crucial in framing research questions, conducting interviews, and interpreting findings. Striking a balance between insider knowledge and an objective research stance required continuous reflection and adaptability.

Establishing mechanisms for participant feedback after data collection and analysis allowed participants to comment on the research outcomes. This iterative feedback loop contributed to the

refinement and validation of findings, ensuring that the study's representation resonated with participants' experiences.

Ethical considerations were not confined to the initial stages but were woven into the entire research process. Regular check-ins with an ethics committee, where applicable, and seeking external ethical advice when facing dilemmas provided an additional layer of oversight to maintain the highest ethical standards.

Collectively, these considerations underscore the multifaceted nature of ethical considerations in insider research. By addressing these aspects thoughtfully, the study aimed not only to contribute valuable insights to the field but also to uphold the ethical principles that underpin responsible and respectful research practices.

Accordingly, navigating the ethical dimensions of insider research demanded a conscious and meticulous approach. From participant engagement to data analysis and reporting, a commitment to transparency, reflexivity, and fairness was embedded in the research process. While the insider role introduced complexities, it also enriched the study with nuanced insights, emphasizing the importance of ethical reflexivity in research endeavors.

### 3.9 INTERVIEW DESIGN

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The interview questions were based on a review of existing literature on the topic as well as on the expertise of the researchers. The questions were structured around seven themes which both include sustainable development practices and Project Management variables as identified in the literature review section 2.6 and 2.7 respectively. Further, the cultural dimension is an important attribute determined while integrating practices of PM and SDP and thus interview questions are added in accordance with the section 2.10

Themes	Questions	Representing Variable
Balancing Social, Environmental, and Economic Interests		Sustainable Development Practices

	1. What were the success evaluation criteria of the project and was the project successful?	
Local and Global Orientation		Sustainable Development Practices
	2. Which stakeholders (local/global; non-profit/for-profit) did you interact with and with what purpose?	
	3. Which geographical area did the project have an impact on and how? If it was a negative impact what measures were taken to correct it (if any)?	
Short-term and Long-Term Orientation		Sustainable Development Practices
	4. What are the short/long term benefits of the project (if any) and when were they/will they be realised?	
	5. How does being an ethical individual differ from being an unethical one?	



	6. Does the organisation you work for have any value statements and ethical code of conduct/trainings and what are they?	
Values and Ethics		Sustainable Development Practices
	7. Can you think of an instance where you were challenged ethically?	
	8. Did the organisation's value and ethical code of conduct specifically highlight transparency and accountability?	
	9. How does the project promote transparency in the activities, decisions and reports of the project?	
People, profit or environment		Project Management Practices

	10. Can you give an instance where you were held accountable for a negative impact on the people, profit or environment? What were the reactive measures that were taken to curb the recurrence of this?	
	11. What were the interests of the different stakeholder groups and how did you give equal consideration to all interests?	
	12. Can you give an instance where the project consulted with stakeholder groups and built consensus before taking project related decisions?	
Risks		Sustainable Development Practices
	13. Did the project have a risk register and what were the main categories of high impact risks that were pointed out?	

	14. What were the economic, environmental and social risks that the project identified and what were the response actions planned?	
Transparency and Accountability		Sustainable Development Practices
	15. Did the project see loss in the productivity of any stakeholder group? What do you think were the reasons for the same?	
	16. Can you point out an instance where the project consumed scarce resources?	
	17. What sources were used to fund the project?	

Questions related to Cultures

1. How do you define the culture of the organization you are working in?
2. How did project shareholders share a clear understanding of the objectives and values of the project.
3. How did shareholders identify the roles and duties and responsibilities within teams?
4. How are the roles and responsibilities within the project maintained so that the sustainable goals mentioned in SDG are reached?

5. What is the influence of leadership on project management?
6. How does leadership influence the attainment of sustainable goals within the project?
7. How are disputes and conflicts resolved within the context of the project?
8. What is the working relationship like among shareholders and how is adherence to sustainable practices ensured?
9. To what extent do Project Managers communicate, assist, and support their subordinates in attaining sustainable goals?

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### 3.10 SUMMARY OF RESPONDENTS

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Job Title	Number of Respondents
Chief Executive Officers	3
Managers	4
Total	7

In the context of this research, the decision not to conduct online interviews was deliberate and grounded in several considerations aimed at ensuring the validity and reliability of the data collection process. The choice to refrain from online interviews was influenced by the nature of the study, which focused on the integration of sustainable development principles into project management within the specific socio-cultural and economic context of Bahrain.

Firstly, opting for face-to-face interviews was deemed essential to establish a deeper connection with participants and foster a more nuanced understanding of their perspectives. Face-to-face interactions allow for non-verbal cues, such as body language and facial expressions, to be observed and incorporated into the analysis. These subtle indicators can provide valuable insights into participants' emotions, attitudes, and the context surrounding their responses, enriching the qualitative data collected.

Secondly, considering the cultural context of Bahrain, where personal relationships and trust play a significant role, face-to-face interviews were expected to facilitate a more open and candid dialogue. Building rapport is often crucial in this cultural setting, and the physical presence of the researcher can contribute to establishing a level of trust that might be challenging to achieve in an online environment.

Additionally, the research involved engaging with professionals and stakeholders from various organizations in Bahrain. Conducting interviews in person allowed the researcher to adapt to the preferences and schedules of participants, potentially increasing the willingness to participate and ensuring a more flexible and accommodating approach.

Furthermore, the avoidance of online interviews was a conscious decision to mitigate potential technical issues and disruptions that could compromise the quality of data collection. In-person interviews offered a more controlled environment, reducing the likelihood of connectivity problems, audiovisual glitches, or other technological challenges that may arise during online interactions.

While online interviews can offer convenience and flexibility, the unique context of this study, coupled with the importance of establishing trust, obtaining nuanced responses, and minimizing technical disruptions, led to the deliberate choice of face-to-face interviews. This decision aligns with the research goals and objectives, emphasizing the significance of cultural sensitivity, participant engagement, and data quality in the pursuit of a comprehensive understanding of sustainable project management in Bahrain.

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### 3.11 SAMPLING

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The sampling strategy employed in this research is integral to its overarching goal of comprehensively understanding the sustainability and integration of project management in Bahrain. The chosen approach is a case study methodology, providing an in-depth exploration of the phenomenon within the specific context of various organizations in Bahrain. The sampling process involves a careful selection of cases to ensure a representative and rich exploration of sustainable project management practices.

The sampling technique utilized is convenient sampling, a method where cases are selected based on their accessibility and suitability to the study's objectives. In the context of this research, the focus is on organizations in Bahrain actively engaged in projects that align with the study's scope. The use of convenient sampling allows for a practical and feasible selection process, considering the complexities and intricacies involved in accessing organizations and obtaining relevant data.

The inclusion criteria for selecting cases involve identifying projects within Bahraini organizations that explicitly incorporate elements of sustainable development in their project management practices. This criterion ensures that the chosen cases align with the research focus, providing meaningful insights into the integration of sustainability principles.

Conversely, exclusion criteria are applied to eliminate cases that do not meet the predefined parameters of the study. Projects lacking clear evidence or documentation of sustainable project management practices are excluded to maintain the coherence and relevance of the selected cases.

In total, six organizations are included in the sample, each representing a distinct project. The selection of multiple organizations enhances the diversity of the cases, allowing for a more robust and generalized understanding of sustainable project management in Bahrain. The variation in organizational structures, industries, and project scopes contributes to a comprehensive exploration of the integration of sustainability principles.

The concept of saturation is also considered in the sampling process. Saturation refers to the point in qualitative research where new data ceases to provide additional insights or perspectives, indicating that the research has achieved comprehensive coverage of the phenomenon under study. In this research, the inclusion of six organizations aims to reach a point of saturation where the

collected data sufficiently captures the diversity and depth of sustainable project management practices in Bahrain.

By strategically selecting cases, applying inclusion and exclusion criteria, involving multiple organizations, and considering saturation, the sampling strategy of this research seeks to ensure a thorough and representative examination of how sustainability is integrated into project management practices within the Bahraini context.

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### 3.11.1 ORGANIZATION ONE: ICAO BUILDING IN BAHRAIN

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The International Civil Aviation Organization (ICAO) is a United Nations agency that sets standards for civil aviation. The organization has its headquarters in Montreal, Canada.

In December 2014, it was announced that the ICAO would be building its regional office in Bahrain. The project is being undertaken by the Bahrain Ministry of Works.

The ICAO building will be located in Bahrain International Airport. The project is estimated to cost BD 5 million (US\$ 13.2 million). The ICAO regional office in Bahrain will serve as the organization's base of operations for the Middle East and North Africa region.

The project is still in the planning stages and no completion date has been announced yet.

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### 3.11.2 ORGANIZATION TWO: AIR CONTROL CENTER BUILDING PROJECT IN BAHRAIN

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Within the framework of the strategic plan of the Ministry of Transport and Communications to develop aviation services in the Kingdom of Bahrain and enhance safety and raise their efficiency to ensure the provision of air navigation services at the highest levels of safety and quality in accordance with the standards and requirements of the International Civil Aviation Organization, the Ministry of Transport and Communications launched the project of the new air control center building in mid-2018, which will be one of the most modern centers in the region, supported by the latest technology in the field of air traffic management systems, in order to serve the aviation

sector and keep pace with the rapid growth of air traffic transiting the Kingdom's airspace. And systems programmers, engineers, technicians and other important related disciplines, which enhances the position and reputation of the Kingdom in the field of air navigation.

As the construction works of the new air traffic control center building and its facilities have been 100% completed, in cooperation with the Ministry of Works, Municipalities Affairs and Urban Planning. With the latest technologies and equipment in the field of air control, nearly four times the area of the current center, in addition to a special room for the equipment operating the devices and systems.

The new building is also equipped with an integrated air traffic management system using the latest technology in this field and with high and accurate specifications to provide air traffic control services at the highest levels of air safety. Where the ministry has contracted with Andra - a pioneer in the development of air navigation systems - to provide an integrated system for air traffic management, in addition to very advanced systems for processing radar information and flight data, in addition to a voice communication system and a system for recording air traffic operations, which includes audio and radar communications recordings. The new air traffic management system includes 16 dual duty stations for air traffic control and 6 worksites for oversight assistance to keep pace with the steady growth of air traffic over the coming years.

Training of system engineers, programmers, and technicians working in the ministry on how to manage, operate and maintain the new air traffic management system has also been completed. The program for training air traffic controllers and qualifying them to use the new system is proceeding according to the set plan and with the highest levels of professionalism and craftsmanship in line with the standards and requirements of the International Civil Aviation Organization. The new system is expected to be put into service during the second quarter of this year, and the current air traffic control center will be maintained as an alternative center for use in case of emergency and also as an air traffic simulation center to qualify and train air traffic controllers to acquire the necessary skills and practical experience for air traffic management in the region. Kingdom of Bahrain Flight Information. External communications to ensure the safe and continuous conduct of navigational operations without interruption of service around the



clock.

It is worth noting that this new center is expected to contribute to strengthening the leading role of the Kingdom of Bahrain in the field of air navigation, as it is currently providing air traffic services to more than 600,000 transit flights annually in the Bahrain Aeronautical Information Region, as air traffic control services constitute the main nerve of the industry. Air transport and safety valve for aircraft safety, which is the main artery for air traffic between East and West.

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### 3.11.3 ORGANIZATION THREE: AL NAWRAS

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“Al Nawras” is a flight permission and scheduling system and the first aviation approval online system in the Middle East; completely developed and led in-house by women staff members in the Information Systems Directorate in the ministry in cooperation with the Air Transport Directorate. The project automates the entire manual paper-based flight approval and scheduling process done by the Air Transport Directorate to an efficient, reliable, highly available, accurate, environment friendly and cost-cutting electronic system. The main goal is to simplify and streamline the aviation services offered to all airlines, agents or private aircraft owners worldwide and establish higher levels of convenience, support and access for the international aviation community.

Al Nawras provides the means to apply for Flight Landing Permits, Flight Overflying Permits and Flight Scheduling Permits online from any electronic device at any time. Any aircraft landing to Bahrain, overflying through Bahrain’s flight airspace/region, or operating a seasonal flight schedule must get a flight permit through Al Nawras.

The system integrates several internal and external entities involved in the flight approval process and allows them to automate their part of the approval process, do their tasks and take decisions all through one central system saving cost, time and efforts. The internal entities using the system are the Air Transport, Aeronautical Licensing, Air Navigation and the Financial Resources Directorates. The external entities are Bahrain Airport Company and Bahrain Airport Services.

The system also provides monitoring screens for Air Traffic Controllers to monitor flights permitted to land or overfly. It currently provides services to around 1,600 users and has reduced the processing time significantly from days to minutes provided that all the needed requirements

are submitted correctly. It also focuses on improving the safety and security of aviation by making sure the e-services have the checks and controls that adhere to international laws and regulations

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#### 3.11.4 ORGANIZATION FOUR: BAHRAIN INTERNATIONAL AIRPORT

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The Bahrain International Airport Phase 1 is an airport development project located in the Kingdom of Bahrain. The project includes the construction of a new terminal building, apron and taxiway expansion, and the renovation of the existing terminal building. The new terminal building will have a capacity of 20 million passengers per year. It will include 120 check-in counters, 60 self-service check-in kiosks, 30 immigration counters, 10 security screening lanes, and 10 boarding gates. The building will also have a retail area of approximately 40,000 square meters.

The apron expansion will involve the construction of a new runway and associated taxiways, as well as the expansion of the existing runway. The project also includes the construction of a new control tower. The renovation of the existing terminal building will include the upgrade of the check-in counters, security screening lanes, and boarding gates. Construction work on the Bahrain International Airport Phase 1 was started in the first quarter of 2019 and has first phase has been completed and operating since 2021 . The total investment for the project is estimated at US\$1.1 billion. The project is being developed by Bahrain Airport Company (BAC), a subsidiary of Bahrain Mumtalakat Holding Company (Mumtalakat).

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#### 3.11.5 ORGANIZATION FIVE: BAHRAIN RAIL PROJECT

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The Bahrain Rail Project is a proposed light rail system in Bahrain. The project is being undertaken by the Bahrain Ministry of Transportation and is expected to be completed in 2019.

The project will consist of two lines: a 23 km (14 mi) line from Salmaniya to Isa Town and a 16 km (9.9 mi) line from Riffa to Muharraq. The project is estimated to cost BD 1.6 billion (US\$ 4.2 billion).

In December 2014, the Bahraini government announced its intention to build a light rail system in the country. The project is being undertaken by the Bahrain Ministry of Transportation with the

aim of reducing traffic congestion in the capital city of Manama. The project is expected to be completed in 2019.

The rail system will comprise of two lines: a 23 km (14 mi) line from Salmaniya to Isa Town and a 16 km (9.9 mi) line from Riffa to Muharraq. The total length of the system will be 39 km (24 mi). The project is estimated to cost BD 1.6 billion (US\$ 4.2 billion). The first line of the Bahrain Rail Project, which runs from Salmaniya to Isa Town, is expected to be operational by 2019. The second line, running from Riffa to Muharraq, is expected to be operational by 2020. However, the project is still under process and has been halted for a while.

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#### 3.11.6 ORGANIZATION SIX: WATER GARDEN CITY IN BAHRAIN

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Water Garden City is a proposed mixed-use development in Bahrain. The project is being undertaken by the Bahrain Ministry of Housing and is expected to be completed in 2025.

The project will consist of residential, commercial, and retail units. The project is estimated to cost BD 2 billion (US\$ 5.3 billion). In December 2014, the Bahraini government announced its intention to build a mixed-use development called Water Garden City in the country. The project is being undertaken by the Bahrain Ministry of Housing with the aim of providing housing for Bahraini citizens. The project is expected to be completed in 2025.

The development will comprise of residential, commercial, and retail units. The project is estimated to cost BD 2 billion (US\$ 5.3 billion). Water Garden City is expected to be a self-contained community with its own schools, hospitals and other amenities.

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#### 3.11.7 ORGANIZATION SEVEN: BAHRAIN METRO

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The Bahrain Metro Plan is a proposed rapid transit system for the island nation of Bahrain. If completed, the metro would be the first in the Persian Gulf region. The project was first announced in 2008, but has since been put on hold due to financial difficulties

The metro plan calls for two lines: a red line running from Muharraq to Bahrain International Airport, and a green line connecting Seef District to Isa Town. The two lines would intersect at a central station in downtown Manama.

The total length of the proposed system is 36 kilometers (22 miles), with 27 stations. The estimated cost of the project is BD 1.6 billion (US\$ 4.3 billion). The Bahrain Metro Plan is part of a larger transportation initiative that also includes an expansion of the Bahrain International Airport and a new Causeway linking Bahrain to Saudi Arabia.

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## 3.12 DATA ANALYSIS

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### 3.12.1 CONTENT ANALYSIS

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Embarking on the thematic analysis of the qualitative content in my research, I initiated the process by delving into the transcribed interviews. Reading through them meticulously, I kept the overarching aims and objectives of the study at the forefront. This initial phase required me to jot down my impressions and meticulously break down the extensive text into smaller, more manageable meaningful units.

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### 3.12.2 FAMILIARIZING SELF WITH THE DATA

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Following this reading and familiarization step, I proceeded to identify meaningful units within the text. This involved a meticulous process of dividing the text into these units while ensuring the preservation of the central meaning in each.

The sources of data for coding were diverse, ranging from open-ended questions and interviews to conversations, field research notes, and occurrences of communicative language. However, for effective analysis, this text needed to be coded or broken down into different categories.

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### 3.12.3 FORMULATION OF CODES

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The coding process itself was a crucial aspect of the analysis. It involved developing descriptive codes derived from the condensed meaning units. These codes served as descriptors, facilitating the identification of connections between the various meaning units.

All recorded interviews, including those that interviewees failed to confirm, underwent manual transcription into MS Word documents. Subsequently, these transcribed files found their way into the NVIVO 11 software, providing a structured environment for analysis.

The coding process within the NVIVO 11 software was comprehensive, involving the classification of variances and similarities in the responses given by the interviewees. This coding played a vital role in systematically detecting and recording content, ultimately aiding in the identification of various themes within the collected data.

The coding process encompassed three major steps: coding, axial coding, and main themes coding. The initial coding step involved the abbreviation of gathered data into different groups, discovering themes, and conveying codes throughout the process. The themes generated from this open coding were instrumental in identifying emerging themes.

Given the voluminous data generated through the interview process, an essential step was the reduction of codes. Initially coded into 30 categories, the subsequent identification and elimination of redundant and overlapping codes reduced the list to 15. These 15 codes were further collapsed into seven themes, forming the major headings of the research findings.

To avoid the potential overload of descriptive codes hindering the identification of relevant data, I meticulously ensured an appropriate balance. This approach aligned with the deductive nature of the research, as questions were categorized into predefined themes.

Axial coding, as a qualitative research technique, involved relating data to expose existing codes, categories, or subcategories within the collected data. This method allowed for the construction of linkages between data to make theoretical claims. Investigating the relationship between research concepts and categories developed during open coding, I refined and modified categories constantly as more data was examined.

In essence, this systematic approach to thematic analysis facilitated the identification of emergent themes and patterns related to sustainable project management in Bahrain, ensuring a comprehensive exploration of the research questions and objectives.

As I embarked on the analysis of the data collected through interviews for this research, I followed a meticulous and systematic process, employing thematic analysis to unravel the intricate layers of sustainable project management in Bahrain.

Reading through the transcribed interviews, my focus was not only on understanding the content but also on aligning it with the study's aims and objectives. I aimed to capture the essence of the participants' responses, identifying recurring themes and patterns that would become the foundation for subsequent coding.

Breaking down the extensive text into smaller, meaningful units was the next logical step. This involved maintaining a balance—ensuring granularity while preserving the central meaning within each unit. Various data sources, including open-ended questions, interviews, conversations, field research notes, and communicative language, added diverse perspectives to the dataset.

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#### 3.12.4 CODING

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Coding became a pivotal part of the analysis, involving the development of descriptive codes that succinctly encapsulated the meaning within each unit. These codes served as shorthand, facilitating the systematic identification of connections and themes within the data. It was a delicate process of condensing extensive information into manageable and meaningful categories.

The decision to manually transcribe all recorded interviews into MS Word documents was driven by a commitment to meticulousness. Once transcribed, the data transitioned into the NVIVO 11 software, providing a structured digital environment for categorization and theme development.

The NVIVO 11 software played a critical role in the analysis process. It allowed for the classification of variances and similarities in interviewee responses, ensuring a systematic and organized approach to identifying patterns and themes within the data.

Reducing the number of codes was a crucial step, considering the substantial amount of data generated through the interviews. Starting with 30 codes, I systematically identified and eliminated redundancies and overlaps, resulting in a more manageable list of 15 codes to maintain clarity and relevance in the subsequent analysis.

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### 3.12.5 AXIAL CODING

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Axial coding involved delving deeper into the relationships between various codes and categories. This process was fundamental in constructing linkages between data points, allowing for a more nuanced understanding of emergent themes. It required constant refinement and modification of categories to align with the evolving understanding of the dataset.

Maintaining a deductive approach throughout these coding processes was crucial, especially considering the predefined themes in the research questions. The deductive approach ensured a structured and systematic mapping of data, ensuring relevance to the research objectives.

In essence, this detailed and systematic approach to thematic analysis aimed to unravel the complexity of sustainable project management in Bahrain. Each step contributed to a richer understanding of the data, ensuring that the final themes and patterns derived were robust, meaningful, and aligned with the overarching research goals.

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### 3.12.6 EMERGING THEMES

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In this research, a thematic analysis approach was employed to analyze the collected data, with a focus on understanding emerging themes and patterns related to sustainable project management in Bahrain. Thematic analysis is a flexible and widely used qualitative research method that aims to identify, analyze, and report patterns (themes) within the data. It provides a systematic yet interpretive approach to examining qualitative information.

The text discusses different theoretical perspectives that can be applied in thematic analysis, such as grounded theory, phenomenology, and hermeneutics. The chosen theoretical perspective for this research is phenomenology, aligning with the focus on understanding how individuals experience

and make sense of sustainable development integration through project management practices in the Kingdom of Bahrain. Phenomenology, as a theoretical perspective, is well-suited for the research question and the qualitative nature of the data collected through in-depth interviews.

The subsequent phase involves a careful review and reading of the data, followed by coding and axial coding procedures. The researcher then adapted the main themes guided by key dimensions extracted from literature reviews, assumptions for the conceptual framework, and alignment with the research objectives and aims. This adaptation process reflects a thoughtful and systematic approach to organizing and categorizing the data.

The researcher chose the 'emergent themes' approach, considering the open-ended nature of the interview questions. This approach allowed participants the freedom to respond and provide insights on the study phenomenon without predefined categories, fostering a more organic and participant-driven exploration of sustainable development integration.

The data collected were categorized into main themes and sub-themes, aligning with the goals of facilitating the analysis process. This categorization aids in organizing and interpreting the rich qualitative data, providing a structured framework for identifying key patterns and insights. Overall, the thematic analysis used in this research involves a careful and iterative process, incorporating theoretical perspectives, literature insights, and participant-driven responses to uncover and elucidate the complex landscape of sustainable project management in Bahrain. Furthermore, thematic analysis is a qualitative research method that involves identifying, analyzing, and reporting patterns (themes) within the data. In the context of this research, the choice of thematic analysis aligns with the qualitative nature of the study, aiming to explore the lived experiences and perspectives of project managers regarding sustainable development integration in Bahrain.

Theoretical perspectives, as mentioned in the text, offer different lenses through which researchers can approach thematic analysis. Phenomenology, the chosen perspective for this research, is particularly well-suited for investigations focused on understanding the essence of lived experiences. This aligns seamlessly with the research question, which centers on unraveling how individuals in Bahrain experience and make sense of the integration of sustainable development principles into project management practices.



The process of thematic analysis involves several key steps. After data collection through in-depth interviews, the researcher embarks on a meticulous review and reading of the transcripts. This step is crucial for familiarizing oneself with the data and gaining a nuanced understanding of participants' responses. Following this immersion in the data, coding and axial coding procedures are applied. Coding involves identifying meaningful segments of the text, while axial coding involves the creation of categories and their relationships.

The researcher adapts the main themes guided by key dimensions extracted from literature reviews, assumptions for the conceptual framework, and alignment with research objectives and aims. This adaptation ensures that the emergent themes are not arbitrary but are grounded in both existing knowledge and the specific goals of the study.

The 'emergent themes' approach, as chosen by the researcher, signifies an openness to participant responses. Given the open-ended nature of the interview questions, this approach allows participants the freedom to express their thoughts and experiences without predefined categories. It embraces the richness and diversity of participants' perspectives, fostering a more organic exploration of sustainable development integration within the Bahraini context.

The final step involves categorizing the data into main themes and sub-themes. This categorization serves as a structural framework for the analysis, facilitating the identification of recurrent patterns and insights. It brings order to the qualitative data, enabling the researcher to draw meaningful conclusions and contribute to the understanding of sustainable project management in Bahrain.

Accordingly, the thematic analysis approach adopted in this research is a deliberate and systematic process that combines theoretical perspectives, literature insights, and participant-driven responses to unravel the complexities of sustainable development integration within the specific socio-cultural and economic context of Bahrain.

For an example of how the coding was undertaken, please refer to Appendix 1.

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### 3.13 ETHICAL CONSIDERATIONS

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Ethical consideration for this research includes showing how study participants were approached. Based on the nature of this researcher, ethical protocols entailed seeking approval from relevant

study areas and permission from participants who would take part in this study. All the study units and participants were sufficiently informed about the purpose of the study and required to sign a consent form before interviews were conducted (Saunders, 2009). The protocol included procedures for ensuring anonymity, confidentiality, and privacy of study participants as well as data protection and security.

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## 4 CHAPTER THREE: FINDING & ANALYSIS

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This section presents the findings of the interviews. As earlier presented in the details of the questionnaire a total of seven themes have been detailed which include Balancing social, environmental and economic interest, second theme is Local and Global orientation of the organization being interviewed. Third theme focuses on the understanding of the organizations short term and long-term orientation. Later barriers and challenges are explored within sustainable development practices and finally ethical stance, risk understanding, and transparency themes were detailed. Thus overall, twelve themes that emerged during the literature review (section 2.3) and conceptual framework are detailed with the respondents' quotes. The respondents are not named and they are quoted as RSPS1 (respondent 1), RSP2 (respondent 2), RSP3 (respondent), RSP4 (respondent4), RSP5 (respondent 5), RSP6 (respondent 6) and RSP7 (respondent 7).

The results from the semi-structured interviews with the respondents from the seven selected Bahraini organizations will be thematically coded and analyzed as per the conceptual model

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### 4.1 BALANCING SOCIAL, ENVIRONMENTAL, AND ECONOMIC INTERESTS

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#### 4.1.1 PEOPLE PILLAR

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In this chapter, the findings derived from surveys conducted with relevant organizations and respondents will be presented, organized around principal themes and supplemented with quotes that elucidate the main views, opinions, and ideas expressed by respondents. Following this, we will delve into the analysis of the returned data, exploring how these findings contribute to answering the research questions and advancing the project objectives.

The responses obtained from the interviewed participants underscore a conscientious consideration of social, economic, and environmental aspects during the project planning process. Notably, safety emerges as a prevalent theme, with a consensus among respondents, including RSP1, RSP2, RSP3, RSP4, RSP5, and RSP6, on prioritizing safety when working with heavy machinery and engaging in construction activities. RSP2 succinctly highlights this emphasis: "The safety of workers employing heavy machines and doing construction work was given priority. A detailed plan for workers' safety was outlined during the planning phases of the project."

Furthermore, all respondents acknowledged the significance of conducting surveys to comprehend employees' perspectives on project work and working conditions. As articulated by RSP4, "We conducted surveys to determine employees' views about the project work and working conditions. Employees were given online and offline methods to communicate their suggestions and grievances."

RSP2 and RSP3 elaborated on the company's commitment to promoting employee training, allocating safety equipment and resources, identifying hazards, and implementing hazard mitigation approaches. RSP3 encapsulates this commitment: "Worker safety was promoted with employee training, allocation of safety equipment and resources, hazard identification, and hazard mitigation approaches."

Several interviewees, including RSP4 and RSP6, emphasized that their projects featured measures for community development, such as training young people or hiring individuals from marginalized groups. As articulated by RSP6, "Our project included the training of young people as part of the community development strategy. The project hired women and people from lower income groups as part of the social dimension of sustainability."

RSP1, RSP2, and RSP3 also highlighted the implementation of environmental protection measures in their projects, incorporating practices like conducting environmental impact assessments and adhering to environmental regulations.

While social, economic, and environmental interests were acknowledged to some extent during the project planning process, the findings suggest areas for improvement, echoing the sentiments of Armenia et al. (2019). Companies could enhance their approach by engaging stakeholders more

frequently to gather input on balancing these interests. The recommendation extends to developing detailed plans addressing social, economic, and environmental concerns throughout the project life cycle and implementing monitoring and evaluation mechanisms to track progress and identify areas for improvement.

In conclusion, the company is encouraged to persist in consulting with stakeholders to ensure a balanced consideration of social, economic, and environmental interests during the project planning process. It is imperative to develop and implement detailed plans that comprehensively address these concerns, utilizing monitoring and evaluation mechanisms to track progress and identify areas for improvement (ibid).

Integral to the project planning and implementation process is the acknowledgment of social issues, underscoring their importance for the welfare and well-being of individuals and communities. As articulated by RSP5, "The social criteria were an integral element of the project planning and implementation process. The final project had to promote gender equality, human rights, safety, and contribute towards community development." RSP7 further emphasized this perspective: "The project discussed the social issues during the initial stages. The impact of the project on local communities was evaluated, and steps were taken for a positive impact on local communities."

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#### 4.1.2 PLANET PILLAR

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In addressing the planet pillar of sustainable development, which emphasizes environmental aspects, respondents from various projects highlighted the critical importance of preserving and protecting natural resources, ecosystems, and biodiversity. This aligns with the overarching objective of promoting environmentally friendly production and consumption patterns. RSP1 emphasized the significance of sustainability by noting, "Sustainable structures were developed by selecting environment-friendly materials, LEDs, and other materials. Moreover, efforts were undertaken to reduce the carbon footprint during the implementation stages."

In accordance with this, RSP2 contributed to the discussion by highlighting waste reduction strategies, stating, "Identifying wastes and contributions towards environmental deterioration was done during the project management planning stage. We identified several areas where waste can

be reduced. For instance, transportation was done efficiently to reduce the release of greenhouse gas emissions." This underscores the practical measures taken during the planning phase to address environmental concerns.

Furthermore, RSP3 shed light on the adoption of environmental protection standards, stating, "We identified several environmental protection standards like ISO 140001 and ISO 50001 for environmental and energy management. These standards helped us to audit the drivers of environmental deterioration in our processes and functions. Project management incorporated various strategies to reduce environmental deterioration." This reveals a proactive approach in aligning project practices with established environmental standards.

RSP4 expanded on the commitment to international environmental standards, asserting, "The project has been developed to meet international environmental standards. Environment protection is part of the project planning phase. Moreover, the plan is flexible so that it can incorporate new environmental problems and develops flexible solutions to protect the environment." This emphasizes the adaptability of the project plan to address evolving environmental challenges.

Similarly, RSP5 provided insights into a comprehensive focus on reducing carbon footprint, stating, "We have a comprehensive focus on reducing carbon footprint in transport, energy, water, waste, and materials and resources. For instance, we have encouraged water conservation and recycling at the site. Recycling of waste is also done to protect the environment." This highlights a multi-faceted approach to environmental sustainability within the project.

RSP6 emphasized the project's adherence to environmental regulatory frameworks, stating, "The project is being done using environmental regulatory frameworks. We are working according to Bahrain's environmental protection laws to create a sustainable project." This indicates a commitment to legal and regulatory compliance as part of the sustainability strategy.

RSP7 contributed to the discussion by highlighting various sustainability initiatives, stating, "There are many initiatives designed to promote sustainability. For instance, local suppliers have been contacted to gain raw materials. An energy audit was carried out to identify ways that energy consumption could be reduced." This showcases a holistic approach involving collaboration with local stakeholders and active energy management practices.

Transitioning to the discussion on energy conservation and alternative sources, RSP1 outlined specific measures taken, stating, "LED lighting was installed in the structure. Solar energy was used to partially meet the power needs of the structure." This exemplifies the integration of renewable energy sources into the project design.

RSP4 reinforced the commitment to energy conservation through efficient equipment and policies, noting, "Energy conservation was done by purchasing energy-efficient equipment. Policies were implemented to ensure that energy usage during peak demand was reduced. Employees are trained to promote energy efficiency." This emphasizes the role of policies and training in achieving energy efficiency goals.

RSP5 provided insights into the alignment of the metro project with principles of reducing greenhouse gas emissions, stating, "Electric and hybrid engine buses will be used in the project." This underscores the adoption of sustainable technologies in the transportation aspect of the project.

In summary, the integrated quotes from the respondents highlight a comprehensive approach to environmental sustainability, incorporating measures such as waste reduction, adherence to environmental standards, legal compliance, and the integration of renewable energy sources. The discussions around these quotes provide a nuanced understanding of the practical strategies employed by the projects to address environmental challenges.

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#### 4.1.3 PROFIT PILLAR

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Profit is a key element in the planning and implementation of projects, with all respondents emphasizing the crucial role of time, cost, and scope criteria during the project evaluation phase. As RSP1 highlighted, "Our team has focused on milestones and timelines. We also ensure that milestones are achieved with minimum hassle and reduced costs." This emphasis aligns with the broader consensus among respondents that reducing costs is a pivotal aspect of effective project management.

RSP2 further emphasizes the critical nature of meeting success criteria, outlining that "The success of the project is dependent on time, budget, and functionality. The project must meet the success criteria. That's the most important aspect of our project management approach." This sentiment is echoed by RSP6, who asserts that "Business agility and profitability were taken into account throughout the project lifecycle."

The focus on profitability is explicit in the statements of RSP3 and RSP4. RSP3 notes that "The project is designed to provide financial benefits to stakeholders. It provides strategic value. The above variables were taken into consideration during the design and planning phases of the project." The consideration of financial variables is underscored by RSP4, who investigates cost, time, and schedule during the planning processes with a core aim of promoting business agility and flexibility.

Resource management takes precedence in the approach outlined by RSP5, emphasizing the need for "a balanced workforce which facilitates support and resource usage." This aligns with the broader acknowledgment that resource efficiency and project effectiveness are key aspects of project planning.

RSP7 explicitly articulates the overarching aim of the project as profitability and meeting shareholder expectations. "The aim of the project was to be profitable and meet the expectations of shareholders. Economic and financial value were estimated and evaluated throughout the project lifecycle." This emphasis on economic outcomes further underscores the central role of profitability in the project's objectives.

While environmental and social responsibility are acknowledged by the interviewees as important considerations, there is variance in their perceived importance, depending on the project. The differing opinions on how to balance these interests with economic objectives reflect the complexity of decision-making in project management. RSP2 sees the possibility of having all

three objectives in mind simultaneously, emphasizing a holistic approach. In contrast, RSP5 argues for the consideration of each objective separately. Divergent perspectives continue, with some interviewees (RSP4, RSP6) asserting the compatibility of social and environmental goals with economic ones, while RSP3 maintains that trade-offs between these objectives are inevitable.

In conclusion, the interviews reveal a lack of consensus on how to balance social, environmental, and economic interests in project planning and implementation, particularly when profits are a primary focus. However, the unanimity among respondents in recognizing the importance of each objective and the discretion afforded to individual project managers underscore the nuanced nature of decision-making in achieving success in project management.

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#### 4.1.4 LOCAL AND GLOBAL ORIENTATION

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Projects involve resources and stakeholders from multiple geographical locations. It becomes important to have local and global orientation during the project management approaches used to complete the projects.

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##### 4.1.4.1 LOCAL ORIENTATION

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Emphasizing a local orientation as a cornerstone of effective project management, all seven organizations/projects stressed its vital role in various aspects, including employee satisfaction, workforce health and safety, and comprehensive employee training. RSP1, noting that employee satisfaction is a critical component within the organization's project matrix, asserted, "An important approach was to engage the employees by sharing information and opening communication channels. We devised team-building exercises and tried to improve bonding in the team members. Social activities were designed to help employees respect and know each other."

This sentiment was echoed by RSP2, who highlighted a holistic approach to employee engagement: "Our approach was holistic – we consider employees to be part of a large family. We



try to anticipate their needs. The company focused on opening communication channels, providing mechanisms for employees to state their grievances, and team-building exercises." Furthermore, RSP3 emphasized the organization's commitment to employee well-being: "The company focused on areas like stress management and promoting work-life balance of the workforce. Supervisors or team leaders were empowered to investigate individual needs and to find ways that the company can accommodate such needs."

While health and safety considerations were central to RSP4's approach, as highlighted in the quote, "Our focus on employee safety and health was to conduct hazard assessment of the environment. We provided safety equipment and safety training to the workforce. Workforce engagement was done by providing consistent feedback to the workers. Their concerns were addressed by using informal or formal means. Complaints procedures were simplified so that their work could be done easily."

Sustainability and environmental responsibility were integral components, with RSP5 stating, "A sustainability and environment protection session is held for every employee. This was done to increase the sense of responsibility towards the environment. Employee engagement was done through by empowering workers and recognizing their achievements." Additionally, RSP6 emphasized the importance of tailored training programs: "Our training program focuses on individual and team needs. Regular assessments of the workforce help to identify gaps in skills. Employee training is structured to make the work easy and to maximize the potential of the workforce. We have an extensive employee engagement strategy so that successful outcomes can be attained."

Acknowledging the unanimous agreement among interviewees, it is evident that a local orientation plays a pivotal role in the success of projects. By considering the unique features of the project's location, such as natural resources, climate, and social aspects, organizations can optimize their approaches, contributing to cost reduction, improved work quality, and positive community

relations. This aligns seamlessly with existing literature, highlighting the strategic importance of a local orientation in achieving sustainable project outcomes and positive community impact.

#### 4.1.4.2 GLOBAL ORIENTATION

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Global thinking emerges as a pivotal element in the effective management of projects, with respondents consistently underscoring its role in fostering a shared understanding among diverse stakeholders about project goals and objectives. This aligns seamlessly with the recognized definition of global orientation, emphasizing that project goals extend beyond local considerations and contribute to a broader global effort without compromising local sustainability objectives.

RSP2 articulated the importance of global thinking by noting its role in creating a shared understanding among stakeholders and preventing potential risks: "Our approach was to identify the economic, social, and environmental variables so that the project could be completed according to sustainability practices." This insight emphasizes the proactive consideration of multiple dimensions, ensuring a holistic approach to project management that aligns with global sustainability objectives.

Similarly, RSP3 and RSP5 emphasized the significance of global thinking in risk identification associated with project implementation. RSP3 highlighted that global thinking "allows for proper identification of risks associated with the project and its implementation," underlining its strategic role in anticipating and addressing potential challenges on a global scale.

Respondents, notably RSP4, emphasized the impact of global thinking on the communication process within projects: "Global thinking helps to ensure that all stakeholders are on the same page regarding the project goals and objectives. In addition, it also facilitates effective communication between different team members and stakeholders." This underscores the crucial role of global thinking in enhancing communication and collaboration, essential components for successful project outcomes in an interconnected world.

RSP7 reinforced the idea that global thinking contributes to a shared understanding among stakeholders about project goals and objectives. This perspective extends beyond traditional project management boundaries, emphasizing a broader awareness of social, environmental, and economic variables.

The practical application of global thinking was exemplified by RSP2 from Bahrain Airport Company, who regarded global practices of sustainability as integral to successful project management. This respondent emphasized the company's adherence to sustainable development guidelines to mitigate environmental impact and enhance stakeholder well-being.

Quoted perspectives from various respondents further illustrated the integration of global practices into project management. RSP1 highlighted the necessity to collaborate with airlines and consultants from different countries, emphasizing the identification of economic, social, and environmental variables for sustainable project completion: "We had to work with airlines and consultants from different countries. Our approach was to identify the economic, social, and environmental variables so that the project could be completed according to sustainability practices." This quote underscores the strategic approach to international collaboration, ensuring that project goals align with global sustainability criteria.

RSP3 provided insight into the rigorous scrutiny of raw material suppliers, ensuring no labor malpractices and procuring environmentally friendly materials from overseas sources for sustainable projects: "The raw materials suppliers were thoroughly checked and reviewed so that there were no labor malpractices. Moreover, environment-friendly materials were procured from overseas suppliers to ensure that the project is sustainable." This demonstrates a proactive approach to global supply chain management, aligning project practices with global sustainability standards.

RSP4 emphasized adherence to international standards in sustainability practices, aligning with global partners to review and ensure compliance with all three dimensions of sustainability during project implementation: "We work with large international firms and consultants. Our sustainability approach is according to international standards. The international partners also review our sustainability standards and ensure that they are practicing all three dimensions of sustainability when they work on the project. Our management also identified suppliers that have sustainable supply chain management systems and use sustainable practices for providing raw materials." This showcases a commitment to global best practices in sustainability, with collaboration and alignment at its core.

RSP5 highlighted the importance of evaluating labor practices in collaboration with partners to create synergy and awareness about sustainability at the project management level: "We evaluate the labor practices with that of our partners. This helps in creating synergy and awareness about sustainability at the project management level. Our efforts are to talk with the stakeholders and identify sustainability issues during the beginning of the project. This helps us to be flexible and respond to problems in a decisive manner." This quote emphasizes a collaborative approach to sustainability, ensuring that stakeholders are aligned in their commitment to ethical labor practices.

RSP6 discussed addressing sustainability issues in consultation with international partners, emphasizing the consideration of social and environmental dimensions during planning and implementation phases: "The project addressed the sustainability issues in consultation with our international partners. Social and environmental dimensions were taken into consideration during planning and implementation phases." This holistic approach ensures that sustainability is an integral part of the project life cycle, aligning with global standards and practices.

RSP7 provided a comprehensive perspective, emphasizing the consideration of sustainability throughout the total life cycle of the project: "We considered sustainability for the total life cycle of the project. Moreover, we studied international standards to ensure that project results also contribute towards sustainability. This involves change in products, assets, systems, processes, and

behaviors." This demonstrates a commitment to holistic sustainability practices that extend beyond individual projects to contribute to broader global objectives.

Collectively, these cited quotes and insights from the respondents offer a nuanced view of how global thinking is actively integrated into project management practices. The emphasis on collaboration with international stakeholders, adherence to global sustainability standards, and proactive evaluation of labor and environmental practices exemplify a strategic and comprehensive approach to global project management. This aligns with the evolving landscape where organizations recognize the interconnectedness of local and global elements in achieving sustainable project outcomes.

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#### 4.1.5 SHORT-TERM AND LONG-TERM ORIENTATION

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Projects have a short-term orientation as they are temporary endeavors. However, sustainability has a long-term orientation because it involves systematic change at multiple levels of the organization. These changes impact the organization's processes, people, culture, supply chain, leadership, customers, and other parts of the business. Consequently, the challenge for project managers is to incorporate the long-term orientation of sustainability in their projects. All seven participants agreed that long-term orientation must be accomplished in the projects. They also identified some aspect of long-term orientation together with short-term orientation in their respective projects.

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##### 4.1.5.1 SHORT-TERM ORIENTATION

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The participants underscored the multifaceted nature of short-term benefits derived from their projects, emphasizing not only financial gains but also environmental and social considerations. According to RSP1, "The short-term benefits of the project were to improve revenues. However, we also focused on employee satisfaction and having reduced our carbon footprint by using sustainability practices." This reflects a nuanced approach where financial success is intertwined

with sustainability practices and employee satisfaction, demonstrating a commitment beyond immediate financial gains.

RSP2 echoed a similar sentiment, stating, "Financial success was an important short-term achievement. However, we also wanted to increase our reputation for implementing sustainable practices." Here, the respondent highlights the integration of financial success with the broader objective of enhancing the organization's reputation through the implementation of sustainable practices.

RSP3 emphasized the dual focus on financial viability and reputation enhancement: "We wanted the project to be financially viable. However, there was an emphasis on increased reputation and recognition for implementing sustainable principles." This perspective aligns with contemporary notions of project success, where financial viability is complemented by the positive recognition gained through sustainable initiatives.

RSP4 articulated a goals-centric approach, noting, "Our goals were financial, but we also focused on reducing costs and improving productivity by incorporating sustainability principles." This quote underscores the interconnectedness of financial goals with sustainability practices, emphasizing the role of sustainability in enhancing operational efficiency and reducing costs.

RSP5 emphasized a broader societal goal, stating, "The goal of the project is to be financially viable and provide sustainable transportation to the people." This quote expands the discourse beyond organizational benefits, highlighting a commitment to providing sustainable solutions that benefit the broader community.

Similarly, RSP6 noted, "The project had to be successful in financial variables. The short-term benefits of sustainability were also highlighted in the project." This perspective reinforces the idea that financial success is not pursued in isolation but is complemented by a focus on the short-term benefits derived from sustainability initiatives.

RSP7 articulated a comprehensive vision, stating, "We want the project to be profitable and meet the transportation needs of the people. We also want to improve our image as being socially and environmentally responsible." This quote encapsulates a holistic approach where profitability, societal impact, and environmental responsibility are seen as interconnected elements contributing to project success.

The interview analysis reveals a diversity of perspectives regarding the main orientation of projects. While some respondents (RSP1, RSP2, RSP3, RSP4) prioritize financial performance, others (RSP5, RSP6) underscore the importance of environmental and social benefits in the short term. The emphasis on timely completion and financial success is a common thread among respondents, reflecting the prevalent project management focus on efficiency and economic viability.

Despite the widespread emphasis on financial goals, the acknowledgment by some respondents (RSP5, RSP6) that their projects also prioritize environmental and social benefits in the short term suggests a growing recognition of the broader impact of projects beyond financial metrics. This aligns with evolving perspectives in project management that emphasize a triple bottom line approach—considering economic, social, and environmental factors.

Furthermore, RSP7's assertion that their project is focused on both short-term and long-term benefits underscores the importance of a balanced and sustainable approach to project management. This holistic perspective aligns with the understanding that projects should not only deliver immediate gains but also contribute to long-term societal and environmental well-being.

As such, the participants' insights highlight the evolving landscape of project management, where the traditional focus on financial outcomes is complemented by an increasing emphasis on sustainability and social responsibility. The integration of short-term benefits with environmental and social considerations reflects a nuanced understanding of project success that extends beyond financial metrics. This diversity of perspectives underscores the complexity of project management in contemporary contexts, where organizations navigate multifaceted objectives to achieve holistic success.

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#### 4.1.5.2 LONG-TERM ORIENTATION

Questions were designed to identify the ways in which project managers incorporated long-term orientation into their projects by using the sustainability approach. The respondents highlighted social and environmental benefits of the project. Some participants identified some aspect of long-term orientation together with short-term orientation in their respective projects. The long-term orientation was evident in two forms: 1) as an ultimate goal of the project and 2) as an important

consideration during project planning and execution. With respect to the first point, RSP2, 4, and 6 stated that long-term orientation had been explicitly factored into the organization's project design from the outset. RSP3 and RSP1 claimed that it was consistently accessed across the span of their projects and with respect to its specific execution.

RSP1 "The long-term benefits of the project are to demonstrate importance of sustainability practices in structures and work processes. The structure incorporates sustainability practices and helps to reduce the carbon footprint". RSP1 "We encountered supply and demand issues with respect to human resourcing. Keeping employees satisfied was done efficiently, but finding the right people for the job is also an issue".

RSP2 "Our goal is to promote the welfare and well-being of employees. Consequently, the project implements a formal program to identify employee needs, enhance their working conditions, and support them in various matters. The project's long-term benefits were to conserve energy and reduce energy, water, and gas consumption". "We discussed sustainability solutions. But we didn't have criteria to measure and evaluate various sustainability solutions. This meant that we might have implemented an expensive solution".

RSP3 "Our long-term focus was to create disciplined and cohesive work teams. We wanted the workforce to know and understand each other". Having a reference point to measure sustainable solutions is needed for enterprises. This will help in incorporating sustainability principles into the project".

A number of different challenges and barriers were identified by some of the respondents. RSP4 "The project will cater to the needs of the stakeholders. Passengers will receive excellent transportation services. The workforce will work in a congenial and positive work environment". "We had problems discussing sustainability principles with other stakeholders. Changing minds becomes an expensive and tedious process. Moreover, there were difficulties in defining project scope and incorporating sustainability principles."

RSP5 "The goal of the project is to provide excellent and comfortable services to customers. Employees will be given training on sustainability and sustainability practices will be reinforced and encouraged in the work environment". RSP5 "We can't give much time for employee engagement as there is need for completing project deliverables".



Identifying the best sustainable solutions was a challenge for some respondents. The enterprise did not have expertise to evaluate various sustainability solutions and select the best one. “Transportation difficulties occur as we had to look at alternative sources of fuelling trucks. Implementing sustainable practices to reduce carbon footprint was difficult as it delayed some project activities”.

RSP6 “The aim of the project is to support the employees’ and meet their personal needs. We also aim to incorporate sustainability principles that promote energy efficiency and reduce the carbon footprint”. “There was an increase in financial costs related to procurement of sustainable materials. This created problems with stakeholders. Justifying the extra costs was a difficult cost in some areas of the project.”

RSP7 “Environmental and social benefits will be the long-term benefits of the project. We want to work with all the stakeholders in accordance with the triple bottom line model”. “Lack of control over the supply chain system was a major constraint. It was difficult to monitor the supply chain partners even though they were committed to the sustainability principles”.

It is clear from the participants’ comments that long-term orientation is an important part of social entrepreneurship. In fact, all seven participants identified some aspect of long-term orientation together with short-term orientation in their respective projects.

Participants also discussed how sustainability principles were incorporated into their projects with a long-term orientation. Long-term orientation was evident when participants spoke about organizational change, supply chain management, and leadership development. Most of the respondents (RSP3, RSP4, RSP5, RSP6) consider that their projects have a long-term orientation in order to bring some systematic changes at multiple levels of the organization which eventually result in benefits for the organization in the future. Furthermore, some respondents (RSP1, RSP2) also mentioned about their projects having an impact on people and culture within the organization which would be beneficial in the future.

The participants' insights shed light on the multifaceted nature of incorporating long-term orientation and sustainability principles into project management. RSP1 emphasized that the long-term benefits of their project extended beyond financial gains, aiming to showcase the significance of sustainability practices in structural and procedural aspects. Simultaneously, they acknowledged

challenges related to human resourcing, highlighting the delicate balance between employee satisfaction and finding suitable candidates for the job.

RSP2, reflecting a commitment to employee welfare, detailed a formal program addressing the needs of their workforce and aiming to enhance working conditions. Their focus on energy conservation and reduced consumption of resources aligns with a broader commitment to sustainability. However, challenges emerged in evaluating sustainability solutions, indicating the complexity of implementing environmentally conscious practices without clear criteria.

For RSP3, the long-term focus extended beyond tangible outcomes to the creation of disciplined and cohesive work teams. Recognizing the importance of measuring sustainable solutions, they highlighted the need for a reference point, indicating the significance of benchmarking in the incorporation of sustainability principles.

The challenges faced by RSP4 emphasized the complexity of incorporating sustainability into stakeholder discussions and defining project scopes. Balancing stakeholder interests and navigating the integration of sustainability principles showcased the intricate nature of long-term orientation in project management.

RSP5's project goals encompassed providing excellent services to customers while emphasizing employee training in sustainability. The struggle to allocate sufficient time for employee engagement amid project deliverables showcased the inherent tensions in balancing short-term demands with long-term sustainability goals.

RSP6 acknowledged the aim to support employees and meet personal needs while incorporating sustainability principles. Financial challenges related to the procurement of sustainable materials underscored the difficulties in justifying extra costs within certain project areas.

RSP7 articulated a commitment to long-term environmental and social benefits, aligning with the triple bottom line model. Supply chain constraints highlighted the difficulties in exerting control over partners committed to sustainability principles.

Collectively, the participants' experiences underscore the nuanced approach required for successfully integrating long-term orientation and sustainability principles into project

management. These challenges and successes provide valuable insights for project managers seeking to navigate the complex landscape of sustainable project development.

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#### 4.1.6 BARRIERS AND CONSTRAINTS

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Respondents identified various barriers and constraints in simultaneously focusing on short-term and long-term orientation in project management. These challenges arise due to business conditions and factors, forcing enterprises to adopt a pragmatic approach to survive and maintain profitability. Consequently, integrating sustainability orientation into project management becomes a complex task.

RSP7, for instance, displayed a lack of interest and awareness regarding the importance of sustainability in project management. When probed further, the respondent cited reasons such as a lack of knowledge, the absence of readily identifiable benefits, and an overall disinterest in organizational change.

RSP2 and RSP4 emphasized the significant barrier of insufficient resources, encompassing human resources, financial constraints, and time limitations. Sustainability demands a long-term perspective and investment, which is perceived as a risk by many organizations. RSP4 specifically highlighted the complexity associated with sustainability, noting its multidisciplinary nature, making it challenging to define and operationalize in project management.

However, despite these barriers, some respondents identified opportunities for integrating sustainability into project management. These opportunities are closely linked to the benefits of sustainability, such as improved reputation (RSP3), enhanced customer satisfaction (RSP4), and minimized risks (RSP1). Moreover, other respondents see potential in the growing awareness of sustainability issues and the evolving trend towards corporate social responsibility.

Now, let's seamlessly integrate the quotes into the text, maintaining a logical flow:

RSP1 argued that, “The focus on sustainability in the long-term can become superficial as the project results focus on profitability and viability. The commitment towards sustainability can be easily sidelined once the project ends.” This highlights the challenge of maintaining sustained

commitment to sustainability beyond immediate project goals, especially when financial and viability concerns take precedence.

RSP2 pointed out that, “Global factors can lead to neglect of sustainability principles in the long-term. There is a trade-off as the stakeholders demand performance and operational excellence.” This quote underscores the tension between global demands for operational excellence and the potential neglect of long-term sustainability goals.

RSP3 emphasized, “Adopting sustainability practices helps in promoting reputation. However, the long-term focus on sustainability will need to be evaluated.” Here, the importance of reputation-building through sustainability practices is acknowledged, but with a call for a critical evaluation of long-term sustainability goals.

RSP4 expressed concern, stating, “We are concerned that investments in sustainable technologies might become obsolete in the long-term. We are also concerned about costs of sustainable solutions in the long-term.” This quote articulates the apprehension about the long-term viability and relevance of sustainable technologies, coupled with worries about the enduring costs of sustainable solutions.

The findings indicate therefore that the integration of sustainability into project management faces multifaceted challenges, from the potential superficiality of long-term commitments to the global trade-offs demanded by stakeholders. However, opportunities arise from the recognized benefits of sustainability, encouraging a more nuanced approach to project management that balances short-term imperatives with long-term environmental and social considerations.

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#### 4.1.7 VALUES AND ETHICS

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The interviews delved into an assessment of business values and ethics, exploring both personal values and those embedded within the organization. Respondents engaged in discussions about ethical challenges, emphasizing the critical responsibility organizations bear to stakeholders. Upholding ethical values across all facets of operations, including project management, is imperative. Consequently, organizations should embrace ethical principles in project management to establish a sustainable business model.

The exploration of business values and ethics during the interviews brought forth nuanced insights from the participants, delving into both personal and organizational dimensions. As RSP1 articulated:

“We emphasize on personal and organizational ethics. My personal ethics are compassion, understanding, empathy, and respect for each other. This is aligned with the project’s values that are accountability, passion, innovation, respect, and open communication. Open communication channels help foster understanding and respect for each other. We emphasize our values in all our communication strategies.”

This comprehensive alignment between personal and organizational ethics emphasizes the importance of cultivating a shared value system to guide project management practices.

RSP2 further contributed to this discourse, emphasizing the ethical values embedded in stakeholder interactions and project delivery:

“Working with stakeholders and understanding their needs is an important ethical value. Delivering value is important for the project. Honesty, courage, confidence, autonomy, team strength, humility, and excitement are our organizational values.”

This dual focus on stakeholder engagement and the overarching organizational values highlights the multifaceted ethical considerations in project management.

RSP3 introduced a perspective that extends beyond judgment, fostering a supportive environment:

“Our values are to foster understanding and respect with each other. Failure is not considered as a way to judge people. On the contrary, we try to understand causes of failure and try to rectify by supporting employees and giving them the resources. The project also emphasizes on safety, quality, people, and environment. The ethical values are oriented towards meeting the above objectives.” Here, ethical values are positioned as integral to creating a supportive and learning-centric culture within the organization.

RSP4 brought attention to a customer-centric approach and the creation of an inclusive environment:

“We have a customer-centric approach. My personal values are competence, professionalism, knowledge, and respect. The organization respects everyone and wants to create an inclusive environment.”

This highlights the crucial role of ethical values in shaping organizational culture, especially in terms of inclusivity and customer focus.

RSP5 emphasized the importance of eliminating waste and responding to stakeholders’ needs: “Eliminating waste is an important value. Responding to stakeholders’ needs is of paramount importance in the project. We strive to be courteous, professional, and innovative to meet our commitments.”

This value-centric approach aligns project activities with environmental responsibility and stakeholder satisfaction. RSP6 broadened the scope to encompass employee welfare, environmental protection, and customer respect:

“Supporting employee welfare, protecting the environment, respecting customers, and promoting an inclusive environment are our organizational values.” By intertwining values related to employees, the environment, and customers, RSP6 highlights a holistic ethical framework for project management. RSP7 encapsulated the core organizational values, emphasizing professionalism, knowledge, and competence:

“Our core values are honesty, courage, professionalism, knowledge, and competence. We want to be a top-quality service that matches international standards. We want to promote an environment where everyone can work without any stress or burnout.”

This articulation underscores the role of ethical values in defining the organization’s identity and the commitment to creating a conducive work environment.

In conclusion, the integration of personal and organizational values forms the bedrock of ethical considerations in project management. As participants articulated their ethical principles, a narrative of alignment, challenges, and overarching significance emerged, painting a comprehensive picture of the intricate interplay between values and successful project outcomes.

Ethical considerations stand at the forefront of successful project management, as emphasized by the insights from the participants. RSP1 underscored the pivotal role of trust in project endeavors:

“Trust is important because it implies that the stakeholders have confidence in our ability to deliver value. Our project management processes are designed to foster trust. We have an obligation towards employees, customers, vendors, suppliers, contractors, government entities, and others to pursue an ethical approach towards business activities.”

This articulation highlights trust as a cornerstone for successful project outcomes, and the acknowledgement of obligations toward various stakeholders underscores the broad spectrum of ethical considerations.

RSP2 further delved into the ethical intricacies associated with material procurement, a critical aspect of project management:

“Ethical consideration was taken during material procurement. There are lots of opportunities for malpractices in material procurement as inferior quality material can be utilized for construction of the project. However, our monitoring mechanisms were done to prevent such malpractices and ensure that the project would be safe, profitable, and meet the needs of stakeholders.”

This insight emphasizes the proactive measures taken to mitigate ethical risks, ensuring the project's safety, profitability, and alignment with stakeholder needs.

Workplace diversity and inclusivity emerged as significant ethical considerations, as highlighted by RSP3:

“The company has a philosophy where everyone collaborates and promotes workspace diversity. The aim is to foster an inclusive environment for individuals irrespective of age, gender, sexual orientation, ethnicity, and race.”

This perspective reinforces the ethical imperative of fostering an inclusive environment, aligning with broader principles of diversity and respect.

RSP4 reinforced the organizational commitment to ethical practices, embedding them in the mission statement and operational decisions:

“Ethical practices are embedded in the organization’s mission statement. They are reinforced at all levels. Supervisors and managers convey the values while making decisions. Employees are encouraged to act ethically. Complete disclosure is done according to Bahrain’s ethical code of conduct. We also follow international ethical codes of conduct.”

Here, the alignment of ethical practices with the organizational mission statement and their integration at all levels exemplifies a holistic approach to ethical management.

Training as a mechanism to ensure ethical decision-making was emphasized by RSP5:

“We believe in an ethical approach that guides everyone to make ethical decisions. It is mandatory for employees to be trained in ethics. This helps in making ethical decisions. Moreover, ethical dilemmas or problems can be evaluated in order to achieve strategic success.”

This viewpoint underscores the importance of continuous training to instill ethical values, aiding employees in navigating ethical dilemmas for strategic success.

RSP6 brought forth a tangible example of an ethical strategy with practical measures:

“Our ethical strategy focuses on practical measures. For instance, we have an employment fund that provides support for employees like tuition fees waiver for further education, medical assistance, counseling, and others. We update the ethical strategy so that it reflects our policies.”

This practical application of an ethical strategy, demonstrated through initiatives like an employment fund, showcases the dynamic nature of ethical considerations within the organizational framework.

RSP7 highlighted the pivotal role of an ethical framework in guiding decisions and engaging stakeholders:

“Having an ethical framework helps in guiding decisions. We can also engage with stakeholders based on ethical principles.”

This perspective underscores the ethical framework as a navigational tool, steering decisions and interactions with stakeholders in alignment with ethical principles.



Accordingly, the incorporation of these diverse ethical perspectives underscores the multifaceted nature of ethical considerations in project management. Trust, transparency, diversity, training, and practical measures emerge as integral components, collectively contributing to the ethical fabric that underpins successful project outcomes.

The integration of ethical considerations in project management serves as a cornerstone for ensuring the success and sustainability of projects. RSP1's emphasis on trust as a vital element underscores the intricate relationship between stakeholders and the project team. This trust, built on ethical principles, extends to a myriad of stakeholders, ranging from employees and customers to vendors, suppliers, and government entities. The acknowledgment of an obligation to pursue an ethical approach resonates with the overarching responsibility organizations bear in the ethical realm, ensuring that their activities align with a broader sense of accountability and responsibility.

RSP2's insights into ethical considerations during material procurement shed light on the potential pitfalls in project execution. The acknowledgement of opportunities for malpractices in material procurement underscores the need for vigilant monitoring mechanisms. By doing so, organizations not only safeguard against unethical practices but also reinforce the commitment to safety, profitability, and meeting stakeholder needs. This proactive approach exemplifies a commitment to ethical practices that extend beyond theoretical considerations to practical implementation.

The ethical philosophy highlighted by RSP3, focusing on collaboration and promoting diversity in the workplace, adds another layer to the ethical fabric of project management. The commitment to fostering an inclusive environment, irrespective of demographics, aligns with broader societal values and positions the organization as a champion of diversity and equality. This not only contributes to ethical workplace practices but also has the potential to enhance team dynamics and project outcomes through varied perspectives.

RSP4's emphasis on embedding ethical practices in the organizational mission statement and daily decision-making processes further reinforces the holistic integration of ethics into the organizational culture. The commitment to complete disclosure according to Bahrain's ethical code of conduct and adherence to international ethical codes positions the organization as one that upholds global ethical standards. This approach not only fosters transparency but also underscores the organizational commitment to ethical conduct at all levels.

Training emerges as a key theme in RSP5's insights, highlighting the mandatory nature of ethics training for employees. This commitment to continuous training not only instills ethical values but also equips employees to navigate ethical dilemmas effectively. The strategic approach to evaluating ethical dilemmas further exemplifies a forward-thinking perspective, positioning ethics as a dynamic aspect that evolves with the strategic direction of the organization.

RSP6's practical measures, such as the employment fund, provide a tangible manifestation of ethical strategies. By supporting employees with initiatives like tuition fee waivers, medical assistance, and counseling, the organization extends its ethical commitment beyond rhetoric to impactful, real-world measures. The regular updates to the ethical strategy showcase a commitment to adaptability and responsiveness to changing organizational needs and societal expectations.

Finally, RSP7's acknowledgment of the role of an ethical framework in guiding decisions and stakeholder engagement encapsulates the overarching theme of this ethical discourse. The framework serves not only as a guiding light for decision-makers but also as a basis for principled interactions with stakeholders. This resonates with the broader idea that ethical considerations are not isolated events but integral components woven into the fabric of project management.

In conclusion, these diverse perspectives on ethics in project management collectively contribute to a comprehensive understanding of the role ethics play in shaping organizational culture, decision-making processes, and stakeholder relationships. Trust, transparency, diversity, training, and practical measures emerge not as isolated components but as interconnected threads that collectively strengthen the ethical foundation of project management. The commitment to ethical practices is not only a moral imperative but also a strategic choice that can contribute significantly to the long-term success and sustainability of projects.

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#### 4.1.8 ETHICS TRAINING AND CODES

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Within the realm of project management, the profound significance of ethics is not merely acknowledged but actively woven into the operational fabric of organizations. A panorama of diverse perspectives emerges from the narratives of various respondents, each offering a unique insight into the ethical landscape they navigate.

RSP1 lays the foundation by advocating for a comprehensive ethics training approach. They assert, "Informal ethics training is done at periodic levels by supervisors and team leaders. We have a formal ethical code of conduct that highlights values and responsibilities of the work teams. Formal ethical training is done for new employees so that they are oriented with various aspects of the job." This nuanced approach signifies a commitment to instilling ethical principles at every organizational tier.

In resonance with the digital age, RSP2 introduces a technologically-driven dimension to ethics training: "We have online courses for orienting new and existing employees in ethics. Other measures are to informally convey knowledge about ethics. An ethical code of conduct helps in establishing accountability and transparency. It generates trust among the stakeholders." Here, technology not only imparts knowledge but becomes a tool to fortify accountability and transparency, crucial elements in an ethical framework.

RSP3 introduces a layer of complexity to the ethical discourse, stating, "An ethical code of conduct helps in regulatory and legal compliance. However, the code is also to go beyond regulatory and legal compliance by encouraging employees to behave ethically and demonstrate appropriate behaviors. They are also empowered to take actions according to ethical principles." This multifaceted perspective views ethical guidelines not as mere regulatory checkboxes but as instruments to instigate genuine ethical behavior and empower employees to act ethically.

Intricacies of ethical governance unfold with RSP, who provides a glimpse into the specifics of their code of conduct: "Our code of conduct exists on several aspects. For instance, we have an anti-corruption code that ensures good practices in dealings with vendors and suppliers. Employees are given online copies so that they can understand and comply with the code. Ethics training is imparted on specific topics at frequent intervals. A general ethics training course exists for all new employees." This reveals a meticulous and targeted approach to addressing ethical challenges, encompassing various facets like anti-corruption measures.

The narrative takes a dynamic turn with RSP5, portraying ethics as an evolving entity: "The ethical code exists to address specific issues. We try to update the code of conduct to reflect anti-discrimination laws, corruption, malpractices, and fair employment practices. All employees are

informally oriented about these updates. We try to train them when they enter the organization." Here, the code of conduct is a living document, adapting to the ever-changing landscape of ethical considerations.

RSP6 reinforces the periodic nature of ethical education: "We complete training periodically. We have an ethical code of conduct to guide managers and employees." The cyclical nature of training underscores the continuous commitment to ethical education, ensuring that it remains a constant presence in the organizational consciousness.

Closing the discourse, RSP7 articulates a perpetual commitment to ethics: "There is always focus on ethics whether by formal or informal means. Ethical code of conduct is based on different regulatory and legislation. Furthermore, professional ethical codes are used for decision making." This encapsulates the enduring ethos of ethics, embedded in both formal structures and everyday practices.

In essence, these narratives collectively paint a vivid picture of how organizations are actively engaging with ethics. From a foundational approach to comprehensive online courses, from legal compliance to empowerment, and from targeted anti-corruption measures to continuous adaptation, these diverse strategies reflect the dynamism required to navigate the intricate landscape of ethics in project management.

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#### 4.1.9 STAKEHOLDER PARTICIPATION

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The conversation commences with RSP1, who initiates a proactive engagement strategy: "We addressed the stakeholders during the project life cycle, aiming to create shared value through information sharing." This sets the tone for a collaborative journey where information serves as a currency for fostering understanding and alignment among stakeholders.

Building upon this foundation, RSP2 underlines the critical importance of acknowledging stakeholders' needs: "Acknowledging the stakeholders' needs is a vital aspect of project

management." Here, a systematic and integrated approach towards stakeholder consultation is introduced, laying the groundwork for transparent communication and mutual understanding.

However, RSP3 introduces a note of caution, acknowledging that stakeholder engagement is not devoid of challenges: "We do encounter difficulties when stakeholders seek their own benefits." This necessitates a balanced approach, navigating the intricate landscape of stakeholder interests with equilibrium.

Taking the narrative into the future, RSP4 envisions reduced conflicts by working collaboratively with stakeholders: "Working with stakeholders in the future means reducing conflicts and accommodating every request." Collaboration and communication emerge as key elements for creating shared values, emphasizing stakeholder input throughout the project's lifecycle.

Adding depth to the discussion, RSP5 introduces the notion that, despite difficulties, strategic approaches can lead to positive outcomes: "Engaging with stakeholders to create shared value is important." This perspective underscores the importance of adaptability and strategic acumen in overcoming challenges.

RSP6 reinforces the central role of communication, advocating for a holistic approach: "Our holistic approach is to identify stakeholders and prioritize their needs." This comprehensive strategy goes beyond information sharing to prioritize stakeholders' diverse needs, adding depth to the engagement process.

RSP7 ties this narrative together with a problem-solving approach: "We work with stakeholders based on dialogue and consultation." This emphasis on dynamic problem-solving adds a layer of resilience to the stakeholder engagement process, ensuring adaptability in the face of challenges.

Transitioning to the practical mechanisms of stakeholder engagement, RSP1 orchestrates frequent business meetings, creating a collaborative space for stakeholders: "Business meetings were frequently done with multiple stakeholders." This approach fosters collaboration and aligns diverse perspectives toward common objectives.

RSP2 spotlights the critical role of communication as a preventive measure against conflicts: "Our focus is on communication with stakeholders." Early communication becomes a crucial instrument, setting the tone for a successful engagement process.

Adding depth to this, RSP3 stresses the importance of good quality presentations: "We have business meetings with stakeholders. Presentations are conducted to give ideas about projects." Quality presentations become a linchpin for effective communication, reducing the likelihood of conflicts.

In a pre-project engagement scenario, RSP5 emphasizes the significance of initiating stakeholder engagement early: "Stakeholder engagement started before the project by identifying the groups and their interests." Early engagement, coupled with effective approaches, sets the tone for successful collaborations.

RSP6 reinforces the central role of communication, advocating frequent discussions to address concerns proactively: "Communication is a crucial part of stakeholder engagement." Frequent discussions become a proactive measure, ensuring challenges are addressed promptly.

RSP7 adds a final note, advocating a holistic approach: "We use a holistic approach towards stakeholder engagement." This holistic approach encompasses positive engagement, clarity in communication, and adaptability, tying together the diverse strategies discussed by the respondents.

Shifting to stakeholder consultation in decision-making, the discourse takes on a nuanced tone. RSP1 introduces the concept of consulting stakeholders on significant problems: "We carry out daily activities on our own." Here, a balance is struck between decision-making autonomy and strategic stakeholder involvement.

RSP2 echoes this sentiment, recognizing the value of stakeholder involvement: "We do most of the decisions so that we can expedite our work." Decision-making autonomy is maintained, but the importance of analyzing ground realities is acknowledged.

RSP3 emphasizes close cooperation from stakeholders: "Close cooperation is always welcome from the stakeholders." This cooperative spirit becomes integral, acknowledging the role of stakeholders in achieving strategic goals.

RSP4 strikes a balance, retaining control over decision-making while offering consultation: "We do consult with stakeholders by stating that such a decision will be done on specific activities." This dual approach acknowledges stakeholder input while maintaining decision-making control.

RSP5 introduces the element of relationship development to improve trust levels: "We develop relationships to improve trust levels." Trust becomes a cornerstone, facilitating meaningful consultation in decision-making processes.

RSP6 synthesizes the perspectives, emphasizing the importance of decision-making autonomy while acknowledging that stakeholder input contributes to the decision-making process.

RSP7 adds a final note, underlining the importance of effective engagement with stakeholders to reduce uncertainty and improve outcomes while retaining control over decision-making processes.

Yet, as with any business narrative, there are challenges. Some responses highlight barriers to sustainable stakeholder participation. RSP1 points to the challenge of meeting diverse stakeholder needs, introducing a note of caution and the need for adept balancing.

RSP2 sheds light on the resource allocation challenge, adding a layer of pragmatism to the narrative.

RSP3 introduces a global perspective, acknowledging challenges when working with consultants and partners from different countries. This global lens adds complexity to the discourse, recognizing the need for flexibility in the face of diverse work practices.

In the final analysis, the discourse on stakeholder engagement underscores not only its importance but also the need for a strategic, transparent, and collaborative approach that navigates challenges with finesse and adaptability. The narratives flow seamlessly, each respondent's perspective contributing to a rich tapestry of stakeholder engagement in the context of business sustainability.

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#### 4.1.10 RISKS

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Risk reduction served as the cornerstone of effective project management, acting as the nexus where social and environmental considerations seamlessly intertwined with sustainability principles. Insights gleaned from the respondents shed light on a spectrum of practices deeply rooted in the holistic tool of the risk register—a document that not only recorded identified risks but also evaluated their likelihood and impact while prescribing mitigation strategies.

A distinctive approach surfaced, as one respondent emphasized a proactive methodology, stating, “We used a proactive approach to identify risks. Root causes were identified, and a corrective action plan was implemented for success” (RSP1). Beyond the conventional use of risk registers, this respondent underscored the necessity of identifying root causes and implementing corrective action plans—a strategic move that underscored a commitment to comprehensive success.



Moving further, another respondent introduced a comprehensive risk management ethos, weaving sustainability into the fabric of project considerations. “The adverse impact on the environment and social variables was identified using appropriate methods and strategies. Safety, quality, cost, delivery, people, and environment were prioritized to ensure sound outcomes” (RSP2). This comprehensive outlook ensured a well-rounded strategy aimed at securing sound outcomes.

In the realm of environmental impact, a respondent propounded a preventive approach to manage the carbon footprint generated by business activities. “Risk management involved identifying the ways that business activities are increasing the carbon footprint. A preventive approach was utilized to implement measures to reduce the carbon footprint by the project” (RSP3). This respondent highlighted the significance of identifying ways in which these activities contribute to carbon emissions and strategically employing measures to curtail the project's carbon footprint—a commitment that echoed a proactive and forward-thinking stance.

Anticipating and addressing sustainability challenges at various stages, as articulated by another respondent, reflected a proactive stance. “Sustainability problems were identified at various stages. Some problems were anticipated. Contingency plans were in place to reduce the impact of social and environmental risks” (RSP4). This underscored a foresighted approach to risk management.

Another respondent introduced a proactive investigative approach to environmental and social risks. “We tried to be proactive so that we could respond to environmental and social risks. Our approach was to investigate or anticipate possible threats and develop flexible strategies to eliminate or mitigate such risks” (RSP5). By anticipating potential threats and developing flexible strategies, this respondent exemplified adaptability—an essential quality when dealing with the dynamic nature of risks in project management.

A meticulous methodology surfaced in another response, where a detailed assessment involved calculating greenhouse gas emissions and conducting audits. “Calculating greenhouse gas emissions was done before project activities. An audit was also undertaken to evaluate sustainability issues and risks to the project. Corrective measures were implemented to reduce the severity of the risks” (RSP6). This thorough evaluation informed corrective measures, providing a blueprint for reducing the severity of sustainability-related risks.

Finally, another respondent adopted a dynamic risk management approach that identified the causes of environmental and social risks. “Our risk management approach identified the causes of environmental and social risks. We prioritized the risks and adopted various measures to achieve success” (RSP7). This respondent not only identified risks but also prioritized them strategically, adopting various measures to ensure success—a testament to a thoughtful and proactive strategy.

In the collective narrative, opportunities for refinement emerged. While Bahraini organizations showcased proactive risk management, there was a call to elevate awareness regarding sustainability risks and crystallize risk management strategies. The interplay between risk reduction and sustainability principles, as unveiled through these responses, formed a sophisticated mosaic—a testament to the nuanced landscape of risk management within the realm of business sustainability. The journey of Bahraini organizations was characterized by resilience, foresight, and an unwavering commitment to enduring success.

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#### 4.1.11 TRANSPARENCY AND ACCOUNTABILITY

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*Transparency and accountability are crucial for the triple bottom line model. The aim is to give an accurate and comprehensive depiction of the effect of activities and decisions of the project. Moreover, it involves identifying and documenting the corrective and preventive measures undertaken for reducing the impact on social and environmental variables.*

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##### 4.1.11.1 TRANSPARENCY

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The respondents emphasized diverse strategies to implement transparency in their projects. RSP1 notes, "We implement transparency by sharing information about financials. There are regular project review reports for the key personnel. Weekly updates are also given. We also use informal meetings or calls with clients to promote transparency." This multifaceted approach ensures that key personnel and clients are consistently informed about the project's financial aspects, fostering a high level of transparency.

In contrast, RSP2 contends, "Consulting with stakeholders is a crucial method for promoting transparency. Documents are available for various aspects of the project. This helps to give an

added layer of transparency and meets the needs of stakeholders. Information sharing provides another layer of transparency in the project." This approach underscores the importance of tailoring transparency methods to address specific stakeholder expectations.

Moving beyond financial aspects, RSP3 introduces the idea of transparency through presentations, providing a comprehensive understanding of the project and its objectives to all concerned parties. They state, "Transparency is crucial because it helps to create good relationships. It also reflects our commitment towards reducing environmental and social risks."

In alignment with a formalized transparency process, RSP4 introduces the use of software to share documents with key stakeholders, reinforcing the importance of complete transparency through regular document sharing. They emphasize, "Complete transparency is important as documents are regularly shared with the concerned personnel." This contrasts with RSP2's emphasis on stakeholder consultations, showcasing the diversity in approaches employed by different organizations.

The documentation of incidents and problems takes center stage in RSP5's strategy for transparency. They mention, "All incidents or problems are documented. We provide accurate information through documentation and communication approaches. Online and offline methods are utilized to promote transparency." This methodical approach aims to provide a clear and detailed account of the project's challenges and resolutions.

Stakeholder meetings and regular communication are central to RSP6's transparency strategy, highlighting the importance of direct engagement. They state, "The aim of transparency is to show that we are responsible for project completion according to milestones and objectives. We use different methods to promote transparency such as specific documents." Presentations and online documents serve as additional tools to augment transparency layers, creating a robust framework for information dissemination.

While the respondents collectively prioritize transparency in financial matters, project documentation, stakeholder engagement, and communication, there is a notable gap in explicitly addressing sustainability elements. The emphasis on financial transparency, while crucial, needs to be complemented by a dedicated focus on environmental and social risks to foster a more

comprehensive and sustainable approach to transparency in project management. This broader perspective aligns with the overarching goal of business sustainability, ensuring that transparency extends beyond financial considerations to encompass the holistic impact of projects on the environment and society.

#### 4.1.11.2 ACCOUNTABILITY

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In the realm of project management, accountability emerges as a linchpin that not only curtails risks and malpractices but also ensures that organizational personnel adhere to established standards and regulations. Delving into the documented practices of project managers, the significance of accountability becomes glaringly evident for the success of projects. The establishment of checks and balances, highlighted by respondents such as RSP2, RSP3, and RSP4, underscores the integral role accountability plays in steering work activities towards the goals and objectives of the project.

Deadlines, as emphasized by respondents like RSP1, RSP5, and RSP6, surface as another pivotal aspect in the accountability framework. Establishing a timeline for various project activities and maintaining regular monitoring mechanisms are crucial components. RSP4 encapsulates this essence by noting, "Deadlines are created for various project activities. Management and supervisors continue to monitor the work activities. Accountability is promoted when actions are taken to rectify problems or errors." This holistic approach ensures that work progresses smoothly within defined timeframes and deviations are promptly addressed.

A comprehensive understanding of accountability is paramount, as echoed by respondents like RSP1, RSP5, and RSP6. RSP6 particularly emphasizes, "We have a comprehensive approach towards accountability. It involves evaluating risks and ensuring that everyone understands their job activities." This holistic perspective extends beyond mere adherence to deadlines, encompassing risk evaluation and fostering a shared understanding of individual roles within the broader project context.

Moreover, the connection between accountability and transparency becomes evident in the respondents' comments. RSP3, for instance, emphasizes accountability through checks and balances while working with key stakeholders and providing regular updates. This aligns with

RSP7's viewpoint that "implementing accountability is crucial for the success of our initiatives" and involves tracking work activities and collaborating with stakeholders. In this symbiotic relationship, accountability acts as a catalyst for transparency, ensuring that actions are aligned with standards and communicated effectively to relevant stakeholders.

Despite the fundamental role of accountability, the detailed outcomes of accountability measures remain implicit in the responses. RSP1 sheds light on one aspect by noting, "Decision logs are used for identifying decisions made by personnel. They can be evaluated to check if things were done according to standards and regulations. Corrective action plans are done if there are errors in work activities." This highlights a meticulous approach to evaluating decisions and implementing corrective measures when necessary.

However, a notable gap exists in explicitly addressing sustainability within the context of project management in Bahrain. None of the interviews make explicit mention of sustainability considerations within the accountability framework. While the fundamentals of accountability, such as outcomes and deadlines, are present in the comments, there is a degree of vagueness regarding finer points and the linkage between accountability and sustainability. This suggests a potential area for further exploration and development within the project management practices of organizations in Bahrain. Integrating sustainability considerations into the accountability framework could potentially enhance the overall impact and longevity of projects, aligning them more closely with principles of business sustainability.

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#### 4.1.12 CULTURES

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Understanding the intricacies of work cultures is crucial for assessing the degree to which sustainability principles are embedded in organizational practices. As articulated by RSP1, "Our organizational culture is healthy. We value freedom and respect for everyone. Dialogue and discussions help in incorporating sustainability principles in the project." This emphasizes the importance of a healthy work environment characterized by values such as freedom and respect for everyone. The emphasis on open dialogue and discussions within this cultural context becomes instrumental in seamlessly incorporating sustainability principles into projects. This suggests that

the organizational culture actively contributes to shaping the ethos of sustainability within projects, emphasizing that it is not merely a superficial layer but an integral part of the organizational fabric.

Stakeholder engagement, as emphasized by RSP2, becomes a critical avenue for promoting sustainability. According to RSP2, "We worked with stakeholders and identified sustainability issues and principles. Constant communication and consultation help in overcoming problems." The collaborative process of working with stakeholders becomes a mechanism for identifying and addressing sustainability issues and principles. The stress on constant communication and consultation highlights the iterative nature of sustainability integration, emphasizing that ongoing dialogue is essential for overcoming challenges and aligning project goals with sustainability principles. This demonstrates that stakeholder engagement is not just a procedural step but a dynamic process that actively contributes to the integration of sustainability.

Roles and responsibilities, as outlined by RSP3, form a pivotal dimension in achieving sustainability goals. According to RSP3, "Different personnel were entrusted to monitor and evaluate sustainability principles. They reviewed and gave back reports to me about the project's commitment towards sustainability principles." This reflects a strategic approach to ensuring tangible and measurable sustainability within projects. This hands-on involvement contributes to cultivating a culture where sustainability is actively monitored and reported upon. It underlines the notion that roles and responsibilities are not merely functional assignments but crucial components in the broader framework of sustainability governance.

Leadership, as highlighted by RSP4 and RSP5, emerges as a driving force in committing to sustainability within projects. According to RSP4, "Leadership was in contact with me. They asked for updates. They also asked about the project's approach towards sustainability." RSP5 adds, "Leaders were involved in evaluating the project. They were given frequent reports and updates." This underscores the top-down influence that leadership exerts. This alignment between leadership priorities and sustainability goals signifies that leadership commitment significantly shapes the trajectory and success of sustainability initiatives within projects. It emphasizes that leadership is not just a hierarchical position but a key influencer in embedding sustainability in the project's DNA.

While the responses touch upon broader dimensions of organizational culture and its intersection with sustainability principles, a more explicit exploration of how cultural dimensions impact

decision-making, stakeholder engagement, and leadership dynamics could provide a comprehensive understanding. The nuanced awareness of cultural dimensions, such as power distance and masculinity versus femininity, suggests a degree of sensitivity to contextual factors influencing project outcomes.

In essence, the quotes illuminate the multifaceted relationship between organizational culture and sustainability in project management. Beyond superficial adherence, they reveal that sustainability is woven into the very fabric of project conception, execution, and evaluation. This holistic integration is essential for Bahraini organizations, signaling a need for continued exploration and understanding of how cultural nuances influence the intricate dance between culture and sustainability in the realm of project management.

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## 4.2 ANALYSIS

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### 4.2.1 BALANCING SOCIAL, ENVIRONMENTAL, AND ECONOMIC INTERESTS

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The analysis of the findings in response to Research Question 1 (RQ1), "How does the government of Bahrain integrate principles of sustainable development into the project management of its development projects?" aligns with Objective 2: "To evaluate how well the government of Bahrain integrates principles of sustainable development into the management of its projects."

The results indicate a commendable level of awareness among organizations in Bahrain regarding sustainability and its significance in project management. Organizations demonstrate a commitment to integrating sustainable development principles into their business goals, consistent with literature suggesting that projects serve as mechanisms for implementing organizational strategies (Chawla et al., 2018). Respondents emphasize the importance of sustainability in project management, highlighting its role in successful strategy execution. Furthermore, the data underscores the potential benefits of sustainable project management, such as value creation, business agility, operational and project excellence, and long-term sustainable business.

Moving to Research Question 2 (RQ2), "Does this integration conform to recommendations from the literature on sustainable development?" in conjunction with Objective 1: "To determine the extent to which sustainable development conforms to recommendations from the literature," the

findings reinforce the alignment between organizational practices and sustainable development recommendations.

Analyzing the individual organizations provides deeper insights. For instance, Organization RSP1 exhibits a range of initiatives promoting sustainability, including employee empowerment and a reduction in carbon footprint. The second organization emphasizes sustainability for worker safety and empowerment, incorporating waste management and greenhouse gas reduction. The third organization focuses on employee training and safety, aligning with sustainability principles and international environmental frameworks.

The fourth organization adopts a flexible strategy, engaging employees during project implementation to identify and address environmental concerns. The fifth organization integrates social issues like gender equality and human rights into project goals, emphasizing energy and water consumption reduction. The sixth organization prioritizes community development and diversity in its workforce, adhering to environmental regulatory frameworks. The seventh organization identifies social and environmental issues, implementing strategies to mitigate impacts.

These organizational initiatives underscore the incorporation of environmental and social concerns into project planning and implementation in Bahrain. The balanced consideration of social, environmental, and economic interests aligns with literature recognizing the implementation of sustainable principles by organizations (Linnenluecke & Griffiths, 2010). Organizations are strategically addressing regulatory requirements and enhancing their image, demonstrating a clear link between sustainable project management and organizational strategy.

The implications of these findings indicate that organizations in Bahrain recognize the strategic importance of sustainable project management. The decisions made at the project management level can have far-reaching implications for the overall organizational strategy, highlighting the interconnectedness of sustainable practices and strategic objectives (Hwang & Tan, 2012).



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#### 4.2.2 LOCAL AND GLOBAL ORIENTATION

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Globalization, shaping local business practices through international collaborations, emphasizes the need for a dual local and global orientation in project management (Gareis et al., 2013).

In scrutinizing the organizations, each adhered to both local and international standards, fostering collaboration with stakeholders on both fronts. The seven organizations showcased their local orientation by prioritizing the well-being and conditions of employees, demonstrating responsiveness to stakeholder needs. Employee-centric measures, encompassing orientation, training, safety, and empowerment, align with the literature advocating for sustainable project management's responsiveness to employee needs and empowerment strategies (Chofreh et al., 2019). Recognizing the extensive impact of organizational actions on economic, social, and environmental aspects at local and global levels, these organizations implemented a coordinated strategy, addressing nested processes at multiple levels (Chofreh et al., 2019).

The organizations also exhibited global orientation through transparent communication with international partners, engagement with global workforces, and sustainable supply chain management practices. Collaborating with workforces from different countries, these organizations ensured compliance with labor laws and safeguarded workers' rights. Some also emphasized sustainable supply chain management, selecting suppliers aligned with sustainable principles. This holistic approach aligns with literature recommendations, emphasizing the consistent application of sustainable project management across local and global levels (Moehler et al., 2018). Organizations acknowledged the necessity to evaluate sustainability issues and environmental risks at all levels, developing mitigation strategies for achieving sustainable project management.

Incorporating the research questions and objectives into the analysis, it is evident that the government of Bahrain, through these organizations, is actively pursuing the integration of sustainable development principles into project management. The local and global orientation of organizations aligns with broader objectives, ensuring responsiveness to local needs, employee engagement, and comprehensive efforts to address environmental risks. The findings suggest a positive trajectory towards the research objectives, assessing the extent of conformity to sustainable development recommendations and evaluating the effectiveness of integration in Bahrain's project management practices.

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### 4.2.3 SHORT-TERM AND LONG-TERM ORIENTATION

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The analysis of the results showcases a dual focus on short-term and long-term orientations in project management across all organizations, aligning with the sustainability paradigm. Initial financial benefits, a common short-term goal, coexist with considerations of economic and people-centric dimensions. This shift resonates with literature advocating for a broader approach to project goals, encompassing flexibility, complexity, and opportunities beyond mere monetary value (Moehler et al., 2018). The transformation is not merely for specific goals but entails a holistic approach, acknowledging diverse impacts, outputs, and opportunities.

The results further reveal a commitment to a long-term perspective by projects and organizations. Identification of environmental and social variables, long-term benefits, and opportunities underscores a strategic shift toward sustainability. Ethics and decision-making reflect a principled and values-based perspective, emphasizing social, ecological equity, and economic goals as long-term project outcomes. Each organization demonstrates strategic alignment through the development of enduring client relationships, ensuring financial stability, and systematic integration of sustainability in the long-term. However, inherent barriers and constraints in adopting sustainable project management are exposed, echoing existing literature (Hwang and Tan, 2012).

The analysis also uncovers organizational awareness regarding ethics and decision-making processes. A principled and values-based perspective is evident, emphasizing social, ecological equity, and economic goals as long-term project outcomes. Strategic alignment is demonstrated through the development of enduring client relationships, ensuring financial stability, and systematic integration of sustainability in the long term. Nevertheless, identified barriers and constraints reveal challenges in achieving sustainability when there is only superficial commitment, emphasizing the need for genuine organizational commitment (Araujo et al., 2020). Organizations must navigate trade-offs between sustainability and stakeholder performance and address these barriers by identifying opportunities and resources for systematic implementation of sustainability in project management processes. Effective rules, processes, and decisions must transform strategy into projects, necessitating robust corporate policies and practices to embed sustainability principles in project implementation (Araujo et al., 2020).

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#### 4.2.4 VALUES AND ETHICS

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The analysis reveals that values and ethics play a pivotal role in sustainable project management, encompassing fairness, inclusion, participation, and trust. Integrity, credibility, and reputation are identified as critical elements for organizations (Dasovic et al., 2020). Examining the organizations under study, it is evident that each one actively implements values and ethics in project management. For instance, Organization 1 and Organization 2 emphasize open communication, honesty, courage, autonomy, and team strength. Organization 3 and 4 exhibit understanding and respect for each other, fostering a congenial environment to support the workforce and address challenges. Similarly, Organization 5 focuses on environmental protection through waste reduction and stakeholder management, while Organization 6 prioritizes employee well-being, customer respect, and environmental safeguarding. Organization 7 emphasizes values such as honesty, courage, professionalism, knowledge, and competence. These findings align with literature suggesting that values guide project managers in achieving strategic goals (Dasovic et al., 2020).

Furthermore, the analysis indicates that the studied organizations have established ethical frameworks and codes of conduct, consistent with literature promoting transparency, accountability, and change efforts in response to ethical considerations (Mishra et al., 2011; Kim, 2008). These ethical codes contribute to the protection of employee rights and the prevention of unethical actions or malpractices within the business environment. For example, Organization 2 employs strict monitoring mechanisms during material procurement to mitigate malpractices, and Organization 1 underscores the importance of trust with stakeholders in fostering an understanding and ethical environment. This aligns with literature emphasizing that sustainable project management facilitates continuous learning, enabling organizations to identify ethical violations, train their workforce in ethical decision-making, and prevent mistakes and inefficiencies. Ethical and transparent organizations, as demonstrated by strong ethics and values, are positioned for strategic success upon project completion (Mishra et al., 2011).

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#### 4.2.5 TRANSPARENCY AND ACCOUNTABILITY

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The analysis underscores the significance of transparency in sustainable project management, defined as the disclosure of policies, decisions, and activities along with their environmental and

societal impacts (Rolstadas & Johansen, 2021). It involves providing a clear, realistic, and comprehensive portrayal of facts to a reasonable and sufficient degree. Examination of the organizations in the study reveals that transparency was actively implemented during project activities. Project managers took measures to establish elaborate reporting structures, conducted meetings to share findings with stakeholders, and leveraged technology for efficient information dissemination. This practice aligns with literature emphasizing the need for firms to communicate information about their activities, decisions, and procedures to all stakeholders, particularly in the context of sustainability, where environmental, social, and economic dimensions must be clearly articulated and implemented by project managers (Rolstadas & Johansen, 2021; Yazici, 2020).

Accountability, as another key element, holds project managers and other stakeholders responsible to ensure the interests of stakeholders are maintained and actions are taken to prevent the recurrence of negative impacts on the environment and society in the future (Vrchota et al., 2021). Integrating environmental and social indicators in work progress reports is identified as an essential aspect of promoting accountability. The analysis of the organizations in the study provides evidence of various approaches to implementing accountability. For example, Organization 1 uses decision logs to identify decisions made by personnel, while Organization 2 employs standards to ensure that work activities align with goals and objectives. These findings align with literature emphasizing that accountability is crucial for sustainable project management, enabling organizations to focus on all three dimensions of sustainability and facilitating efficient reporting and engagement with stakeholders (Vrchota et al., 2021).

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#### 4.2.6 RISK REDUCTION

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The analysis delves into the challenges faced by project managers, emphasizing the need for a proactive and efficient framework to mitigate risks and reduce complexity and uncertainty in project management (Taylor, 2010). In sustainable project management, risk reduction is evaluated with respect to social and environmental considerations in risk assessments. The incorporation of social and environmental dimensions into risk registers and assessment processes becomes pivotal in achieving sustainability goals. The findings from the study indicate that risk registers were

actively utilized throughout the project management process, with preventive and corrective actions taken in response to identified risks. This aligns with the literature's emphasis on the complexity, nonlinearity, and irreversibility of society-environment interactions, making the use of risk registers crucial for preventing adverse impacts (Chawla et al., 2018).

Furthermore, the organizations in the study demonstrated a commitment to including social and environmental risks in their risk registers. Proactive measures were taken to address risks related to reducing carbon footprint, energy consumption, and promoting sustainable business practices. The organizations showed evidence of a formal and systematic process for evaluating risks associated with social and environmental dimensions, indicating a proactive approach to preventing issues in these areas. This alignment with literature suggests the importance of incorporating sustainability dimensions into project risk assessments, outlining effective response actions, and investing time and resources in quality risk assessment processes (Taylor, 2010; Linkov et al., 2006). This proactive risk management approach not only mitigates potential negative impacts on social and environmental dimensions but also contributes to the overall success of projects with sustainable objectives.

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#### 4.2.7 STAKEHOLDER PARTICIPATION

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The analysis underscores the significance of stakeholder participation as a mechanism for creating shared value and extending the focus beyond short-term shareholder benefits (Dubois & Silvius, 2020). The organizations studied demonstrated a recognition of the importance of short-term investments for long-term benefits, striving to create shared value for their stakeholders. This was achieved through aligning project aims and processes with organizational objectives

For instance, organization 1 identified stakeholders throughout the project life cycle, actively engaging in information-sharing practices to demonstrate effective stakeholder participation. Similarly, organization 2 identified stakeholders during goal-setting, milestones, and deliverables phases, integrating stakeholder needs into the project. Organization 3 focused on balancing the needs of various stakeholders and communicated ways to accommodate their interests. Collaboration and communication were instrumental for organization 4 in reducing conflicts and working effectively with stakeholders. The diverse approaches of organization 5 in stakeholder

participation were evident, emphasizing the multifaceted nature of stakeholder engagement. In organization 6, a holistic approach toward stakeholders was adopted, prioritizing efforts to focus on the most important stakeholders. Finally, organization 7 showcased stakeholder participation as a strategic tool for project success.

These findings align with literature emphasizing the role of management in motivating and promoting stakeholder participation to enhance the likelihood of project success (Dubois & Silvius, 2020). Actively involving stakeholders in all project management procedures is crucial for sustainability, fostering bilateral and open communication frameworks. Developing a common agenda transforms stakeholders into partners, enabling them to identify project problems and collaboratively develop solutions. The involvement of stakeholders emerges as a pivotal factor for project success, supporting the objectives of creating shared value and ensuring sustainable project management practices.

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#### 4.2.8 CULTURES

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The work culture of an organization plays a pivotal role in influencing the implementation of sustainability principles in project management, emphasizing the need for a healthy and proactive work environment that encourages employees to align with sustainability principles (Eskerod & Huermann, 2013). Leadership's active participation and awareness of sustainability further contribute to the effective incorporation of sustainability principles in project management.

The analysis of the findings indicates that the organizations under study cultivate healthy work cultures that promote freedom and respect. Additionally, sustainability awareness and training initiatives are implemented to ensure that employees adhere to sustainability principles in project management. The crucial role of upper management in the success of sustainability in project management is underscored by the findings.

These observations align with the literature highlighting the significance of organizational culture and leadership in the successful implementation of sustainability in project management (Eskerod & Huermann, 2013). The findings suggest that companies must maintain clarity and accountability in their policies, procedures, decisions, and actions related to sustainability implementation.

Accountability extends to the company being liable for its policies and procedures, emphasizing the importance of a comprehensive and responsible approach to sustainability integration.

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### 4.3 DISCUSSION

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#### 4.3.1 BALANCING SOCIAL, ENVIRONMENTAL, AND ECONOMIC INTERESTS

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Sustainability in project management has become increasingly crucial, both theoretically and practically. This discussion aims to delve into the findings in light of the research questions and objectives, establishing connections with existing literature and identifying areas of alignment or divergence. By exploring the ways in which organizations incorporate sustainability principles, we can gain valuable insights into the effectiveness of sustainable development integration within the government of Bahrain's development projects.

The organizations under study reveal a profound connection between sustainability orientation and the various phases of the project lifecycle. As delineated in the literature (Zaman et al., 2020), the incorporation of sustainability principles requires a holistic consideration of the deliverable and final product life cycles. All organizations recognize the significance of aligning short-term and long-term objectives with sustainability goals. Their application of sustainability principles is motivated by diverse factors, including regulatory compliance, resource optimization, and fostering sustainable growth (Martens & Carvalho, 2017; Mehmet, 1995; Wolf, 2013). However, despite their commitment, challenges such as staffing issues, lack of engagement, and the occasional prioritization of profit over sustainability persist, echoing concerns raised in previous literature (Hwang & Tan, 2012). Overcoming these challenges demands a paradigm shift and the institutionalization of sustainability at various organizational levels (Martens & Carvalho, 2017).

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#### 4.3.2 LOCAL AND GLOBAL ORIENTATION

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A pivotal theme emerging from the analysis is that sustainability in project management must transcend a singular orientation. It should extend across the project's scope, milestones, objectives, and outcomes. The organizations involved in this study engage with stakeholders beyond the

borders of Bahrain, underscoring the importance of not only a sustainability orientation but also an acute awareness of stakeholder needs and expectations. This aligns seamlessly with existing literature emphasizing the collaborative and trust-building aspects of sustainable project management (Martinsuo & Killen, 2014). Respondents' comments further underscore the importance of collaboration, long-term and short-term orientation, and a balance between individualism and collectivism.

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#### 4.3.3 SHORT-TERM AND LONG-TERM ORIENTATION

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The analysis reinforces the notion that sustainability in project management necessitates a dual orientation, embracing both short-term and long-term goals. Traditional project management often centers on short-term objectives, while sustainability seeks long-term human development and environmental preservation. Respondents' comments affirm the need for project managers to integrate short-term and long-term goals using a triple bottom line framework (Orouji, 2016). This integrated approach ensures that project activities contribute not only to immediate goals but also align with broader, sustainable objectives.

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#### 4.3.4 VALUES AND ETHICS

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The evolving role of businesses in the 21st century, from profit-centric to socially responsible, aligns with the adoption of sustainability principles. Values and ethics serve as guiding principles for organizations, steering them toward responsible behaviors that avoid negative impacts on stakeholders. Sustainability allows firms to engage in self-regulation, making them accountable and transparent to stakeholders and the public (Sanchez, 2015). The importance of values and ethics in sustainable project management lies in their ability to prevent malpractices that could harm an organization's reputation and image. Such malpractices might also result in financial losses and legal liabilities for the firm. The respondents emphasized the importance of incorporating an ethical code related to sustainability practices, guiding and directing project execution in alignment with sustainability objectives. By adjusting the power index and striking a balance between individualism and collectivism, organizations foster responsible behaviors and



promote an inclusive and focused work culture where sustainability is integral to the overall project framework.

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#### 4.3.5 TRANSPARENCY AND ACCOUNTABILITY

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Transparency and accountability emerge as fundamental values in the successful execution of projects. Project managers must ensure transparency in the management of project activities (Dubois & Silvius, 2020). To guarantee transparency, the sharing of information must be done openly and honestly. Critical and invaluable information should be shared through regular meetings and other forums. The evaluation of key performance indicators must be reported to all concerned stakeholders, demonstrating openness in management engagement. Full and timely disclosure of pertinent information to stakeholders is vital for enhancing the legitimacy and credibility of the project. The respondents emphasized the significance of transparency and accountability, seeing them not only as matters of principle but as tangible elements with a measurable impact on project outcomes and success.

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#### 4.3.6 STAKEHOLDER PARTICIPATION

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Project managers can coordinate efforts to develop a robust response to problems and challenges when they consult with stakeholders. Moreover, project managers that share information and work with stakeholders can identify solutions to many problems. The input from stakeholders can also provide diverse perspectives and views that can modify project processes or apply innovative strategies to complete work efficiently (Taylor, 2010). Nevertheless, project managers might ignore real goals of solving the problem in favor of consulting and communicating with stakeholders. In other words, it might become difficult to satisfy the needs of every stakeholder in any given situation. This can create bottlenecks and problems for the success of combating any problem (Taylor, 2010). The challenges and tensions for project managers are the need to prioritize the stakeholders and their importance to the project. This can become a difficult task as it might lead to accusations of unfairness and impartiality. As the respondents made clear, stakeholder participation added value to a project and facilitated the overall flow of information. In addition,

it was seen that an acknowledgment of stakeholder needs served to clarify goals, deliverables, and milestones and to facilitate the overall process of consultation. It was also apparent from the comments that a fuller engagement led to a reduction in conflicts and implementation tensions. The benefits of a holistic approach were also noted in which communication and consultation were to the fore.

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#### 4.3.7 RISK MANAGEMENT AND RISK REDUCTION

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Another theme that emerged from the study was that risk management in project management must include social and environmental dimensions. Sustainable project management evaluates risks based on all three dimensions, adopting a preventive approach since the risks related to social and environmental variables can be known in advance (Yazici, 2020). It is evident that project managers prioritize the identification of risks, assessment of their impacts, and defining the most suited responses to mitigate the impacts of such risks. The management of the risks that face projects is a continuous process undertaken during the lifecycle of the project, as some risks and their severity are specific to certain stages of the project (Yazici, 2020). It is vital for the project manager to determine the tolerance levels for each of the identified risks so as to determine the level or stage when the identified interventions to mitigate the risk should be undertaken. Further, it is vital for the members of the project team to demonstrate awareness of the risks that face the project activities as the project progresses (Yazici, 2020). The risks that are found to have meaningful impacts on the project should be documented and then brought to the attention of the other members of the project team and also the project manager. The nature of such risks

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#### 4.3.8 ORGANIZATIONAL CULTURES AND LEADERSHIP

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In addressing the research questions and objectives, it becomes evident that the success of sustainable project management within the government of Bahrain hinges on the interplay between organizational culture, leadership involvement, and the integration of sustainable development principles. Drawing insights from the literature and comparing these findings with established knowledge allows us to delve into the nuances of sustainable project management practices.

The study underscores that the integration of sustainable development principles within the government of Bahrain is intricately tied to the organizational culture. Eskerod and Huermann (2013) posit that organizational culture plays a pivotal role in promoting freedom, openness, and awareness of sustainability benefits. In the context of Bahrain's government projects, the findings suggest that a culture fostering freedom and openness serves as a catalyst for embedding sustainable development principles. Employees, operating within such a culture, become not just stakeholders but active participants in the sustainability agenda.

Moreover, the organizational culture must actively promote the benefits of sustainability, aligning with the first objective of determining the extent to which sustainable development conforms to recommendations from the literature. Eskerod and Huermann (2013) assert that a culture embracing sustainability principles goes beyond mere compliance, creating an environment where individuals are not only aware but enthusiastic contributors. In the Bahraini context, this implies that the integration of sustainable principles is not merely a checkbox exercise but a cultural shift that permeates decision-making, daily practices, and long-term strategic considerations.

Comparing the findings with the literature on sustainable development, the study aligns with Eskerod and Huermann's (2013) assertion that leadership plays a crucial role in the success of sustainable project management. The second research question probes into the evaluation of how well the government of Bahrain integrates principles of sustainable development into the management of its projects. Eskerod and Huermann (2013) highlight that leadership involvement is crucial for such integration.

The findings here indicate that leadership is not just a passive overseer but an active participant in various sustainability initiatives. Leadership's systematic and integrated approach echoes the literature's emphasis on a top-down commitment to sustainability. By allocating resources strategically and mobilizing project teams, leadership ensures that sustainability is not a peripheral consideration but an integral part of project execution. This aligns with the second objective of evaluating the government's effectiveness in integrating sustainable principles into project management.

In offering new insights, this study sheds light on the practical dynamics of sustainable project management within the government of Bahrain. While literature provides a theoretical foundation, the findings enrich this understanding by showcasing how these principles manifest in a specific governmental context. The emphasis on organizational culture, the active involvement of leadership, and the tangible integration of sustainable principles into project execution offer actionable insights for policymakers and project managers.

In summary, the success of sustainable project management in the government of Bahrain is contingent on the orchestration of a culture that promotes freedom and openness, coupled with proactive leadership involvement. Aligning with literature recommendations, this integration is not just a theoretical pursuit but a cultural transformation that permeates every aspect of project management.

## 5 CONCLUSION AND RECOMMENDATIONS

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While the concept of sustainability is widespread and generally well understood, Bahrain presented a number of interesting differences with respect to the acceptance and integration of sustainability in a project management context. From an economic, cultural and social standpoint, as this study has sought to show, there were a number of factors that could readily have impinged on the acceptance, integration and successful implementation of projects in which sustainability is a core component. As the study shows there is a continuum of ecological, social, managerial and economic issues that when considered in isolation can give rise to concerns where there is a clear lack of alignment and a degree of mismatch. The present study looked to tease out these concerns and to explore them in the context of development generally and project management specifically in Bahrain. The researcher decided to examine the governmental development process through the lens of seven different government organizations. The research question was therefore as follows:

How does the government of Bahrain integrate principles of sustainable development into project management related to its development projects, and does the integration conform to recommendations from the literature on sustainable development? The research aims were to

investigate the integration of sustainable development models into the project management process. The study also sought to highlight the influence of that integration on project outcomes. This underpinned the objectives, which were:

1. To determine the extent to which sustainable development conforms to recommendations from the literature
2. To evaluate how well the government of Bahrain integrates principles of sustainable development into the management of its projects

The study showed that the discussion in relation to sustainability in project management is both complex and involved, admitting of multiple factors. This study examined all of these with respect to seven individual themes.

These were the balancing of social, environmental and economic interests; the local and global orientation of the organization in question; the understanding of the organizations' short and long-term orientation. Later barriers and challenges were explored within the context of sustainable development practices; the remaining themes were the ethical stance of the organization, the understanding of project management risk, and the question of transparency and accountability.

The first theme, the balancing of social, environmental and economic interests was seen in the way that the respondents sought to balance their responsibilities to different stakeholders. In addition, they had a clear understanding of the impact of organizational and project processes on the environment and the steps needed to reduce that impact. Furthermore, it was apparent that respondents constantly tried to negotiate the tensions that existed between the consumption of resources and the demands which sustainability within the project context imposed. Respondents' awareness of this inherent tension was also notable and a source of concern for them. This, and the findings in relation to the other themes served to provide necessary consideration of Objective 1 in relation to the state and extent of sustainable project management in Bahrain.

The findings in relation to the second theme, local and global orientation of the organization showed that organizations were striving to maintain a global perspective. They explicitly

recognized that their actions could have an impact beyond their immediate surroundings and worked to ensure that they were taking into consideration the needs of all stakeholders. In addition, they also worked to build relationships with local organizations in order to better understand the needs of their community. It was also clear that there was recognition of the cultural and social constraints faced and how the successful integration of sustainability would necessitate a degree of adaptation.

With respect to the third theme, understanding of the organizations' short term and long-term orientation, this was evident in the projects' planning phases and processes. There was a clear understanding of the goals, objectives and work required to achieve them in both the short and long terms. In addition, the findings indicated that there was a willingness to make sacrifices in the short term in order to achieve greater success over the longer timespan.

In relation to findings concerning the fourth theme, barriers and challenges within sustainable development practices, it was evident that respondents had sought to overcome difficulties in implementing sustainable practices and were aware of what these were and what was demanded. It was seen that this entailed not just changes in the way operations were conducted in order to reduce their impact on the environment, but how product and services could be produced that were readily affordable and

As to the remaining themes, values and ethics, risk understanding, and transparency, findings again highlighted levels of awareness that were consistent with the ability to harness these elements to give appropriate effect to sustainability. A clear understanding on the part of respondents of the risks involved in their respective businesses was in evidence, as were efforts undertaken to mitigate these risks. The value of transparency and accountability also came through clearly in respondents' answers and were in keeping with the myriad other elements that in their totality highlighted the efforts to address the issue of sustainability within a project management context.

However, the conflicting issues between the demands of project management and sustainable development were also highlighted by the interviews including deadlines, financial obligations, and organizational structures. Managers argued that it was essential not to lose sight of the fact that the organization's primary responsibility is to its shareholders rather than any other parties (stakeholders). Therefore, findings also indicated that a clear recognition of these competing

demands between the two should be maintained in order that a successful partnership might be achieved.

Viewed through the lens of Hofstede's cultural dimensions theory, it was evident that the tensions inherent in the power distance index, collectivism versus individualism, masculinity versus femininity, long and short term orientation, and indulgence versus restraints were being played out and negotiated within the separate contexts of these organizations. Respondents spoke of the importance of individual freedoms, stakeholder accountability, transparency, as well as values and ethics, each of which was seen as contributive to the overall success of a project and the necessary acceptance and incorporation of sustainability into that project and the changing mindset and approach that such integration demanded. There was also requisite awareness of the contribution of sustainable development overall and what that would entail from an economic, social and cultural perspective. In this sense, the views set forth by the respondents aligned well with those in the literature in relation to the incorporation of sustainable development, but also gave evidence of a Bahraini slant on those endeavors. In effect, the issues particular to Bahrain were recognized and what was more, the findings showed that respondents knew not only what these were, but how to navigate them. While the findings with respect to the need for cultural and social change that would be contributive to sustainability are not unique, it could be argued that the particular Bahraini concerns and considerations highlighted in the study lend themselves to an element of uniqueness. Each country's social and cultural dimensions are unique to them and when the overall negotiations involved in relation to sustainability are viewed through the lens of Hofstede's cultural dimensions, the case could be made that the requisite gloss of uniqueness is there.

More generally, the academic impact of research focused on integrating sustainability principles into project management is significant and far-reaching - such work can contribute to academic advancement in a number of different ways:

1. **Theoretical Advancement:** This research contributes to the theoretical foundations of project management by introducing a multi-dimensional perspective that extends beyond traditional economic considerations. It enriches the academic literature by developing a more holistic understanding of the complexities and intricacies involved in sustainable project management.

2. **Interdisciplinary Collaboration:** Sustainability-oriented project management inherently involves a multidisciplinary approach. This research can be viewed as encouraging collaboration between various academic disciplines, including management, environmental science, ethics, economics, and sociology, fostering an interdisciplinary academic community that can address complex sustainability challenges.

3. **New Metrics and Measurement Tools:** Academic research can result in the development of novel metrics and measurement tools for assessing sustainability in project management. In this context, these tools could provide academics with standardized instruments for evaluating and comparing the sustainability performance of different organizations and projects.

4. **Ethical Frameworks:** The exploration of ethics and values within project management contributes to the ethical decision-making literature. Researchers could look to develop new ethical frameworks that not only apply to project management but also have broader applicability in other areas of business and management.

5. **Environmental Impact Assessment Model:** Research that focuses on environmental impact assessments within project management can lead to the creation of advanced models and methodologies for evaluating ecological footprints. This academic work can contribute to environmental sciences and management studies.

6. **Cross-Cultural Studies:** Investigation into the influence of culture on sustainable project management enhances cross-cultural management and international business research. This could serve to offer insights into how cultural factors can shape organizational strategies and practices in diverse global contexts.

7. **Legal and Regulatory Studies:** Academic work examining the role of legal and regulatory frameworks in sustainability-oriented project management could contribute to policy studies and legal research. It could help lawmakers and scholars understand the effectiveness and implications of environmental and social regulations.

In addition to its academic impact, research in this field also has practical implications for organizations, project managers, and policymakers:



1. **Organizational Practice:** The findings offer practical guidance for organizations seeking to implement sustainability principles in their project management processes. They can learn from best practices, optimize their approaches, and develop strategies that lead to more sustainable and responsible project execution.
2. **Project Management Efficiency:** The research provides insights into how project managers can enhance efficiency by integrating sustainability principles. It helps project managers make more informed decisions that consider the economic, social, and environmental dimensions, ultimately leading to better project outcomes.
3. **Stakeholder Engagement:** Practically, organizations can improve stakeholder engagement strategies, ensuring that projects are conducted in ways that align with the expectations and values of various stakeholders. This, in turn, can lead to greater stakeholder support and cooperation.
4. **Transparency and Accountability:** The research emphasizes the importance of transparency and accountability in project management, offering practical solutions for organizations to implement these principles. This can result in increased trust and credibility, both internally and externally.
5. **Policy Making:** The research provides policymakers with valuable insights into the impact of regulations and how they can be crafted to support sustainability goals without hindering economic growth. Policymakers can use these findings to develop more effective and balanced policies that encourage sustainable practices.
6. **Long-term Impact:** Understanding the long-term sustainability outcomes of projects allows organizations to make more informed strategic decisions. This can lead to greater financial stability, enhanced brand reputation, and a stronger competitive position.

In conclusion, research on integrating sustainability into project management has academic significance by expanding theoretical knowledge and practical implications for organizations, project managers, and policymakers. It contributes to the development of more sustainable and responsible project management practices that align with the goals of economic prosperity, social well-being, and environmental stewardship.

Beyond academia and practical application, the research on integrating sustainability into project management can also have broader societal and global implications:

1. **Societal Impact:** As organizations adopt sustainability principles in their project management processes, it can lead to positive societal impacts. This includes creating healthier and safer working environments for employees, respecting stakeholder rights, and fostering community well-being. Societal well-being is a central goal of sustainability, and the research findings can contribute to achieving this objective.

2. **Environmental Stewardship:** The practical implications of this research extend to the preservation of the environment. By considering the environmental impact of projects, organizations can reduce their carbon footprint and resource consumption. This translates into a reduced ecological footprint and contributes to global efforts to combat climate change and environmental degradation.

3. **Global Sustainable Development:** The sustainable project management practices advocated in this research align with the United Nations Sustainable Development Goals (SDGs). By promoting sustainable project management, organizations contribute to the global agenda of ending poverty, protecting the planet, and ensuring prosperity for all. Such alignment is crucial for international cooperation and progress.

4. **Economic Resilience:** Implementing sustainability principles can enhance economic resilience by promoting long-term stability and competitiveness. Organizations that integrate sustainability are better equipped to adapt to changing market conditions and evolving consumer preferences. This, in turn, contributes to broader economic sustainability.

5. **Global Best Practices:** Research findings that demonstrate the effectiveness of integrating sustainability into project management can be shared internationally. By disseminating these best practices and lessons learned, organizations across the world can benefit, leading to a more widespread adoption of sustainable project management.

6. **Cultural Exchange:** The cross-cultural aspects of this research can facilitate cultural exchange and understanding. Organizations that work across borders can learn from diverse cultural perspectives on sustainability and adapt their strategies accordingly, fostering international collaboration.

7. **Public Perception and Reputation:** Practically, by embracing sustainability in project management, organizations enhance their public perception and reputation. Positive public

perception can lead to increased customer loyalty, stakeholder support, and brand value, contributing to business success.

8. Global Collaboration: Sustainability is a global challenge that requires global collaboration. The practical implications of this research encourage organizations to collaborate with stakeholders, both locally and internationally, to achieve sustainable project outcomes. This fosters a sense of shared responsibility for global sustainability.

In summary, research on integrating sustainability into project management has far-reaching implications for society and the world as a whole. It aligns with broader global sustainability goals and fosters a sense of responsibility for economic, social, and environmental well-being. The research serves as a catalyst for positive change, inspiring organizations, policymakers, and individuals to embrace a more sustainable and responsible approach to project management that benefits not only the present but also future generations.

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## 5.1 LIMITATIONS OF THE RESEARCH

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The outcomes of this research carry substantial potential in various dimensions, primarily pertaining to the development of a comprehensive framework for the seamless integration of sustainability principles into the realm of project management. Such a framework serves as a strategic guide that organizations can embrace to effectively navigate the intricate landscape of sustainability initiatives. It can serve as a beacon of guidance, aiding organizations in surmounting the numerous challenges and complexities that often arise during the implementation of sustainable practices.

In a broader context, the experiences garnered by organizations in this endeavor, particularly in terms of adapting to the multifaceted cultural, social, and economic barriers they encountered, constitute a valuable source of knowledge. These experiences can transcend geographical boundaries, offering insights to organizations worldwide facing similar social and cultural challenges. The lessons learned from these case studies are not limited by borders and can be a source of inspiration, paving the way for global collaboration in the quest for sustainability.

Additionally, this research delves into the perspectives and sentiments of the respondents involved, providing a unique window into the interplay between the imperatives of sustainability implementation and the often-opposing forces of cultural and social pressures. Understanding the dynamic tension that can exist between these aspects is crucial for organizations seeking to strike a balance between their commitment to sustainability and the realities of their operating environments. These insights can lead to more empathetic and culturally nuanced sustainability strategies, making them more likely to be embraced by diverse stakeholder groups.

Looking ahead, an exciting avenue for future research involves a deeper exploration of how environmental regulations impact the capacity of organizations to enact sustainable practices. By delving into this dimension, researchers can offer policymakers invaluable insights into the effects of regulatory measures on an organization's ability to adopt and implement sustainability initiatives. Consequently, policymakers can fine-tune regulations to encourage, rather than hinder, the pursuit of sustainable practices, fostering an environment where sustainability becomes an achievable goal for all organizations.

Lastly, the ever-evolving landscape of communication in the digital age brings to the fore the significance of examining the influence of social media on organizations' ability to convey their dedication to sustainable development. As organizations increasingly turn to social platforms as powerful tools for outreach and engagement, future research can shed light on the dynamics at play. Understanding how social media affects the perception and adoption of sustainable practices by stakeholders is essential in crafting effective communication strategies. By exploring this dynamic, researchers can provide organizations with the knowledge to effectively leverage the potential of social media in their sustainability efforts, potentially creating a more widespread and impactful movement towards sustainable development.

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## 5.2 FUTURE STUDY RECOMMENDATIONS

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Building on the recommendations for integrating sustainability principles into project management, there are several avenues for future research that can contribute to advancing the field. Here are some future research recommendations:

1. **Impact of Sustainability Integration:** Investigate the actual impact of implementing sustainability principles in project management. Research could focus on case studies and empirical studies to measure the tangible benefits, both short-term and long-term, that organizations experience when they fully embrace sustainability in their projects.
2. **Quantifying Sustainability:** Develop metrics and methodologies for quantifying the economic, social, and environmental dimensions of sustainability within the project management context. This research could lead to the creation of standardized tools that help organizations measure their sustainability performance accurately.
3. **Risk Assessment Models:** Explore and develop comprehensive risk assessment models that incorporate the three dimensions of sustainability. Research can help organizations better understand and mitigate the risks associated with social, economic, and environmental factors in their projects.
4. **Stakeholder Engagement Strategies:** Investigate effective stakeholder engagement strategies in sustainability-oriented project management. Research should focus on how organizations can involve stakeholders in a manner that enhances project efficiency and aligns with sustainability goals.
5. **\*Ethical Decision-Making:** Delve deeper into ethical decision-making in project management. Research could provide insights into the challenges project managers face when adhering to a code of conduct and how ethical considerations impact project outcomes and stakeholder trust.
6. **Transparency and Accountability Mechanisms:** Study the most effective transparency and accountability mechanisms in project management. This research could identify best practices in reporting, document sharing, and decision logging that facilitate greater transparency and accountability.
7. **Environmental Impact Assessment:** Investigate advanced methodologies for conducting environmental impact assessments in project management. Explore how organizations can comprehensively evaluate and reduce their ecological footprint during project implementation.

8. Cultural and Cross-Cultural Analysis: Examine how cultural and cross-cultural factors influence the integration of sustainability in project management. Research should investigate how organizations in different cultural contexts perceive and address sustainability challenges.

9. Legal and Regulatory Frameworks: Explore the role of legal and regulatory frameworks in shaping sustainability in project management. Research can investigate the impact of evolving environmental and social regulations on project management practices and how organizations adapt to them.

10. Long-term Sustainability Outcomes: Assess the long-term sustainability outcomes of projects that integrate all three pillars of sustainability. This research can provide valuable insights into the enduring impact of sustainability-oriented projects on organizations, communities, and the environment.

11. Knowledge Transfer and Best Practices: Investigate mechanisms for knowledge transfer and the dissemination of best practices in sustainability-focused project management. Understanding how organizations share their experiences and insights can foster broader adoption of sustainability principles.

12. Technology and Project Management: Examine the role of technology in facilitating sustainability in project management. Research can explore how emerging technologies, such as AI and blockchain, can be leveraged to enhance sustainability practices in project management.

These research directions can provide a robust foundation for advancing the field of sustainability in project management and contribute to a more sustainable and responsible approach to project execution in various sectors and industries.

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### 5.3 RECOMMENDATIONS

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To successfully integrate sustainability principles into project management processes, organizations should consider a range of strategies and approaches that encompass all three pillars of sustainability. These strategies are crucial for fostering a holistic approach to project management that takes into account not only economic considerations but also social and

environmental aspects. The following are recommendations for implementing sustainability in project management:

1. **Comprehensive Sustainability Integration:** Ensure that all three dimensions of sustainability – economic, social, and environmental – are an integral part of the project plan. This means considering not only profit and economic growth but also general aspects such as employee satisfaction, health and safety, and stakeholder rights. Simultaneously, be vigilant about avoiding any actions or practices that might have a negative impact on the environment. This holistic approach will lead to long-term benefits and help organizations implement project management sustainably.

2. **Economic Dimensions:** Achieve economic sustainability by adhering to project timelines, staying within budget constraints, and delivering within the defined scope of the project. This commitment to fiscal responsibility contributes to economic sustainability while enhancing the organization's reputation for reliability and financial prudence.

3. **Local and Global Orientation:** Organizations should identify and consider all parameters relevant to the project and align them with overarching goals. This approach allows for project alignment with both local and global objectives, ensuring that the project benefits the organization and the broader community in which it operates.

4. **Systematic Evaluation:** Every project should undergo careful and systematic evaluation by project managers. This evaluation should encompass all variables, including the potential local and global impacts of project activities. This systematic approach aids in strategic decision-making and minimizes unintended consequences.

5. **Short-term and Long-term Orientation:** Managers can incorporate both short-term and long-term perspectives by soliciting stakeholder views on the project's current state. Additionally, projects should be evaluated from the company's strategic outlook, identifying the long-term benefits and sustainability contributions that will be realized through successful project completion.

6. **Ethical Considerations:** Improving values and ethics within project management is vital. Project managers should strive to adhere to a specific code of conduct, and ethical training and awareness programs should be implemented for all employees. These programs should encompass various

ethical factors such as collaboration, integrity, honesty, professionalism, modesty, quality, safety, cost-effectiveness, commitment, environmental responsibility, confidentiality, and compliance.

7. **Transparency and Accountability:** Enhance transparency and accountability by implementing robust reporting structures and using effective presentation techniques. Project managers can collaborate with multiple stakeholder groups and utilize accessible platforms to share important project documents. Maintaining detailed decision logs and utilizing organizational breakdown structures can also facilitate transparency and accountability in project management.

8. **Risk Reduction:** Moving beyond traditional profit-centric approaches, organizations should employ a comprehensive risk assessment methodology that incorporates all three dimensions of sustainability. This broad risk assessment framework helps in identifying potential risks related to economic, social, and environmental factors, reducing the likelihood of project disruptions.

9. **Stakeholder Participation:** Foster stakeholder participation in a balanced and coordinated manner. The approach should aim to solve problems and ensure that stakeholder consultation is conducted in a manner that maximizes project efficiency. Engaging stakeholders from diverse backgrounds and perspectives can provide valuable insights and support sustainability objectives.

By adopting these strategies, organizations can promote sustainability as an intrinsic part of their project management processes, thereby not only achieving their project goals but also contributing to the broader well-being of society and the environment.



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## 7 APPENDIX 1

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The qualitative analysis undertaken involved a meticulous process of coding a transcript derived from responses to specific questions posed to project managers (RSP1 to RSP7). This step-by-step approach aimed to unveil prevalent themes related to transparency and accountability within project management. The analysis commenced with the transcription of interview responses, followed by open coding, where initial descriptive codes were assigned. These codes were then organized through axial coding, leading to the identification of broader categories and themes. Simultaneously, accountability-related themes were derived from a separate set of responses. The subsequent steps involved selective coding, comparative analysis between transparency and accountability themes, and drawing comprehensive conclusions. This systematic approach facilitated a nuanced exploration of how project managers conceptualize and implement transparency and accountability in their projects.

Note: Questions and respondents' responses are set out below.

### Step 1: Data Transcription

- The responses from the interviews were transcribed verbatim. Each response to the respective question became a unit of analysis.

### Step 2: Initial Open Coding

- The coding process began by reviewing the responses and assigning preliminary codes to meaningful segments of text.
- Open codes were descriptive, capturing the essence of the content.

Example:

- For Question 2 on transparency, RSP1's response was coded as "Financial Transparency," and RSP2's response was coded as "Stakeholder Consultation for Transparency."

Step 3: Axial Coding

- Related open codes were grouped into broader categories. This involved identifying relationships between codes and organizing them into themes.

Example:

- The codes "Financial Transparency," "Stakeholder Consultation for Transparency," and "Presentations for Transparency" were grouped under the theme "Communication Methods for Transparency."

Step 4: Selective Coding

- Codes were refined and integrated into overarching themes that reflected the main concepts in the data.

- Selective coding involved identifying core themes that connected various codes.

Example:

- The themes "Communication Methods for Transparency" and "Formal Processes for Transparency" were integrated into a broader theme named "Approaches to Transparency."

Step 5: Identifying Accountability Themes

- The same process was repeated for responses related to accountability.

- Codes were created, grouped into categories, and overarching themes were identified.

Example:

- RSP4's response was coded as "Formal Accountability Processes," and RSP6's response was coded as "Comprehensive Approach to Accountability."

Step 6: Comparative Analysis

- Transparency and accountability themes were compared to identify intersections or divergences.
- The goal was to understand how these themes were interconnected or distinct in respondents' perspectives.

Example:

- Exploring how "Communication Methods for Transparency" and "Formal Accountability Processes" might have overlapped or complemented each other in the project context.

Step 7: Drawing Conclusions

- Based on the coded transcript, conclusions were drawn about the prevalence and significance of transparency and accountability in the project management context.
- Reflection was made on how these themes contributed to the overall understanding of the research questions.

Following these steps systematically allowed for a neutral and analytical interpretation of the qualitative data within the coded transcript.

### Questions:

1. Did the organisation's value and ethical code of conduct specifically highlight transparency and accountability?
2. How does the project promote transparency in the activities, decisions and reports of the project?

### Quotes

RSP1 "We implement transparency by sharing information about financials. There are regular project review reports for the key personnel. Weekly updates are also given. We also use informal meetings or calls with clients to promote transparency".

RSP2 "Consulting with stakeholders is a crucial method for promoting transparency. Documents are available for various aspects of the project. This helps to give added layer of transparency and meets the needs of stakeholders. Information sharing provides another layer of transparency in the project".

RSP3 "Presentations are given for transparency. Every concerned person has knowledge about project and its objectives. Transparency is crucial because it helps to create good relationships. It also reflects our commitment towards reducing environmental and social risks".

RSP4 "We promote transparency using a formal process. Software is used to share documents with key stakeholders. Complete transparency is important as documents are regularly shared with the concerned personnel".

RSP5 “All incidents or problems are documented. We provide accurate information through documentation and communication approaches. Online and offline methods are utilized to promote transparency”.

RSP6 “Transparency is done with stakeholder meetings and regular communication. Presentations and online documents provide added layers of transparency for the project”.

RSP7 “The aim of transparency is to show that we are responsible for project completion according to milestones and objectives. We use different methods to promote transparency such as specific documents”.

RSP1 “Decision logs are used for identifying decisions made by personnel. They can be evaluated to check if things were done according to standards and regulations. Corrective action plans are done if there are errors in work activities”.

RSP2 “Accountability is done with compliance with standards and measures. Work activities are monitored to ensure that they comply with the goals and objectives of the project”.

RSP3 “We work with key stakeholders and give them regular updates. We also take feedback from the stakeholders. Accountability is in place by having checks and balances”.

RSP4 “Deadlines are created for various project activities. Management and supervisors continue to monitor the work activities. Accountability is promoted when actions are taken to rectify problems or errors”.

RSP5 “Accountability is essential for the success of the project. It involves developing checks and balances for success”.

RSP6 “We have a comprehensive approach towards accountability. It involves evaluating risks and ensuring that everyone understands their job activities”.

RSP7 “Implementing accountability is crucial for the success of our initiatives. We track work activities and work with the stakeholders”.

RSP1 “Our organizational culture is healthy. We value freedom and respect for everyone. Dialogue and discussions help in incorporating sustainability principles in the project”.

Working with stakeholders shows that organizations work to promote sustainability in their projects.

RSP2 “We worked with stakeholders and identified sustainability issues and principles. Constant communication and consultation help in overcoming problems”.

Project managers also outlined the ways that they assign roles and responsibilities. These roles and responsibilities were related to achieving sustainability goals.

RSP3 “Different personnel were entrusted to monitor and evaluate sustainability principles. They reviewed and gave back reports to me about the project’s commitment towards sustainability principles”.

The role of leadership in the project was highlighted by the respondents. Their commitment towards sustainability can have an impact on project success.

RSP4 “Leadership was in contact with me. They asked for updates. They also asked about project’s approach towards sustainability”.

RSP5 “Leaders were involved in evaluating project. They were given frequent reports and updates”.