

REPUBLIC OF TURKEY
ISTANBUL GELISIM UNIVERSITY
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Department of Business Administration

**STRATEGIC PLANNING IN THE LIGHT OF THE
MAIN FACTORS FOR SUSTAINABLE DEVELOPMENT
IN THE FUTURE OIL AND GAS MANAGEMENT**

Master Thesis

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DECLARATION

I hereby declare that in the preparation of this thesis, scientific ethical rules have been followed, the works of other persons have been referenced in accordance with the scientific norms if used, there is no falsification in the used data, any part of the thesis has not been submitted to this university or any other university as another thesis.

Ali AL- SAEDI

/ /2024



TO ISTANBUL GELISIM UNIVERSITY
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The thesis study of Ali AL- SAEDI titled as Strategic Planning In The Light Of The Main Factors For Sustainable Development In The Future Oil And Gas Management has been accepted as MASTER in the department of Business Adminstaration by out jury.

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Dedication

I dedicate my thesis to my family and many supporters who have encouraged me in various ways throughout the journey. I dedicate this work to my dear father, who was a pioneer and influencer in my life when I left our dear country, Iraq, to complete my academic career.

I extend my sincere thanks to my dear wife and my wonderful children who have been the best cheerleaders and supported me in every step of this long journey.

I would like to thank my many friends and supporters who were interested in hearing me talk about my research topic, which enabled me to increase my knowledge of the topic.

I dedicate this work to all adult learners who are pursuing their degrees and juggling life at the same time while setting a great example to their children that you are never too old to achieve your dreams.

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SUMMARY

This study aims to explore the impact of strategic planning on sustainable development in its various dimensions (leadership, environment, economy, and social aspects) in the Maysan Oil Company in Iraq.

This study used a quantitative approach by using a survey to collect data from respondents at the Maysan Oil Company in Iraq. The survey included 370 employees from various levels in the company. The study used a five-point Likert scale to measure the variables of this study after collecting the data. The researcher relied on the SPSS program, a statistical program. Exploratory factor analysis and regression analysis were used in order to find out whether there is a positive role for strategic planning in building development. Sustainability in Maysan Oil Company.

The study found a statistically significant effect of strategic planning in enhancing the role of leadership skills on sustainable development in Maysan Oil Company. In general, the study found that strategic planning has a positive impact on each of the dimensions of sustainable development (leadership, environment, economic, and social).

Key Words: Sustainable leadership development, sustainable economic development, sustainable environmental development, sustainable social development, strategic planning.

ÖZET

Bu çalışma, Irak'taki Maysan Petrol Şirketinde stratejik planlamanın sürdürülebilir kalkınma üzerindeki etkisini çeşitli boyutlarda (liderlik, çevre, ekonomi ve sosyal yönler) araştırmayı amaçlamaktadır.

Bu çalışma, Irak'taki Maysan Petrol Şirketi'ndeki katılımcılardan veri toplamak için bir anket kullanarak nicel bir yaklaşım kullandı. Ankete şirketin çeşitli kademelerinden 370 çalışan katıldı. Araştırmada veriler toplandıktan sonra bu çalışmanın değişkenlerini ölçmek için beşli Likert ölçeği kullanılmıştır. Araştırmacı istatistiksel bir program olan SPSS programından yararlanmıştır. Bina geliştirmede stratejik planlamanın olumlu bir rolünün olup olmadığını ortaya çıkarmak için keşfedici faktör analizi ve regresyon analizi kullanılmıştır. Maysan Petrol Şirketinde Sürdürülebilirlik.

Çalışma, Maysan Petrol Şirketinde sürdürülebilir kalkınmada liderlik becerilerinin rolünün artırılmasında stratejik planlamanın istatistiksel olarak anlamlı bir etkisi olduğunu buldu. Genel olarak çalışma, stratejik planlamanın sürdürülebilir kalkınmanın her bir boyutu (liderlik, çevre, ekonomik ve sosyal) üzerinde olumlu bir etkiye sahip olduğunu buldu.

Anahtar Kelimeler: Sürdürülebilir liderlik gelişimi, sürdürülebilir ekonomik kalkınma, sürdürülebilir çevresel kalkınma, sürdürülebilir sosyal kalkınma, stratejik planlama.

TABLE OF CONTENTS

SUMMARY	i
ÖZET.....	ii
TABLE OF CONTENTS.....	iii
LIST OF TABLES	v
LIST OF FIGURES	vi
THE INTRODUCTION	1

CHAPTER ONE

STRATEGIC PLANNING

1.1. The Meaning Of Planning	6
1.2.The Concept of Strategy.....	7
1.3. An Overview of Strategic Planning	9
1.4. The Strategic Planning Formation Process	12
1.4.1.Initiating and agreeing on the strategic planning process	13
1.4.2. Clarifying organizational mandate	14
1.4.3. Establishing an effective vision.....	15
1.4.4. Establishing an effective statement	17
1.4.5 Assessing and scanning the environment	17
1.4.6.Strategic issues identification	19
1.4.7.Employee participation.....	20
1.4.8.Monitoring, evaluation and control	21
1.4.9.Strategy implementation.....	22
1.4.10.Evaluation and control.....	23
1.5.Drivers For The Adoption Of Strategic Planning	24
1.5.1.Environmental dynamism.....	25
1.5.2.Business ownership motivations	27
1.5.3.Globalisation	27
1.5.4.Innovation and technological advancement	28
1.6.Strategic Planning For The Oil And Gas Industry	29
1.6.1.Strategic planning – Deterministic approaches	30
1.6.2.Strategic planning – Stochastic approaches	32

CHAPTER TWO

SUSTAINABLE DEVELOPMENT IN THE OIL AND GAS INDUSTRY

2.1.The Meaning of Development	34
2.2.Sustainable Development.....	35
2.3.Oil and Gas Industry	37
2.4.Oil And Gas Industry And Sustainability	39
2.5.Challenges Of Sustainability In Oil And Gas Industry	42
2.6.Sustainable Drivers	46
2.7.Sustainability Indices	47
2.7.1. Economic indicators	48
2.7.2. Environmental indicators	49
2.7.3. Social indicators	53
2.8. Literature Review On The Relationship Between Strategic Planning And Sustainable Development.....	55

CHAPTER THREE

METHODOLOGY AND RESULTS OF THE STUDY

3.1.Research Methodology.....	58
3.2. The Study Population And Its Sample	58
3.3. Data Collection Tool Of The Study	60
3.4. The Statistical Used Methods.....	61
3.5. Research Hypotheses.....	62
3.6. Study Variables.....	62
3.7. Model Of The Study.....	63
3.8. Demographic Analyses	63
3.9. Factor Loading analyses.....	67
3.10. Cronbach's Reliability Analysis	68

CHAPTER FOUR

HYPOTHESES TEST

4.1. Mean and Std. Deviation analyzes	69
Table 8: Mean and Std. Deviation analyzes.....	69
4.2. Correlation Analysis.....	70
4.3. Regression Analysis	71
CONCLUSION AND RECOMMENDATIONS.....	75
REFERENCES.....	80

LIST OF TABLES

Table 1. Gender Distribution.....	62
Table 2. Education Level Distribution.....	62
Table 3. Age Distribution.....	63
Table 4. Position Distribution.....	63
Table 5. Experience Distribution.....	64
Table 6. Factor Loading analyses.....	64
Table 7. Analysis of Cronbach's Reliability.....	65
Table 8. Skewness and Kurtosis analyzes.....	66
Table 8. Correlation Analysis	67
Table 9. Regression Analysis between Strategic Planning and Sustainable Leadership Development.....	67
Table 10. Regression Analysis between Strategic Planning and Sustainable Economic Development.....	68
Table 12. Regression Analysis between Strategic Planning and Sustainable Environmental Development.....	69
Table 13. Regression Analysis between Strategic Planning and Sustainable Social Development.....	69
Table 14. Regression Analysis between Strategic Planning and Sustainable Development	70

LIST OF FIGURES

Figure 1. Strategic planning objectives.....	9
Figure 2. Strategy implementation process.....	23
Figure 3. Drivers The Adoption Of Strategic Planning.....	25
Figure 4. Oil and Gas value Chain.....	38
Figure 5. Oil and gas raw materials process chain.....	40
Figure 6. Study model	65
Figure 7. Gender Distribution.....	66
Figure 8. Education Level Distribution	67
Figure 9. Age Distribution.....	68
Figure 10. Position Distribution	69
Figure 11. Experience Distribution	70

THE INTRODUCTION

Strategic planning is the formalization of planning, which entails developing long-term strategies for the accomplishment of organizational objectives in an effective and efficient way. Strategic planning is "a method by which leaders create and put into action plans focused at maximizing the accomplishment of strategic goals, provided the internal and external variables that are already in place." Strategic planning is necessary for a company to prosper and generate revenue. Due to the fact that the development incorporates a society or socio-economic system, it suggests that both the overall system's state and certain of its constituent pieces have improved (Ali, Vahid and, 2018, 628).

Some claim that a consensus definition of sustainable development is not necessary and that the phrase should instead be used to describe a transformative process that heavily depends on local circumstances, requirements, and objectives. The three pillars of economic growth, environmental preservation, and social justice are the foundations upon which the idea of sustainable development is founded in contemporary society. The pursuit of new economic growth models should not come at the expense of long-term sustainability.

In economic development, the environmental load should be balanced and buffered, and the natural resources and environments needed by human beings should be well protected, instead of abusing environmental resources. Development should be accompanied by contribution to the society; thus, there should be a balanced model of sustainable development based on the economy, environment, and society in order to accomplish sustainable development in human society. Any organization needs the strategic planning to maintain the development. the sustainable development as it has been discussed has many dimension like (Jui-Che, Pi-Lien, Yu-Chen, and Chuan-, 2013, 12-26):

Economic: To sustain manageable levels of internal and external debt and to prevent excessive sectoral imbalances that harm the economy, a system must be able to create products and services continuously.

Environmental: A sustainable environmental system should preserve its resource base, avoiding over-exploitation of both renewable and nonrenewable resources in a way that makes investment a reasonable replacement.

Social: To be sustainable, a social system must promote gender equality, equitable distribution of resources, the delivery of social services including health and education, and political and participatory obligations.

- **The Problem Of The Study**

in light of the more competitive activities in these industries, this industry should have the suitable strategy for lowering the total cost of production of hydrocarbons. Over the past few years, the petroleum industry has faced a number of complex challenges related to sustainable development. Strategic planning is therefore crucial to achieving and maintaining progress. The oil and gas sector has also been asked to consider environmental protection in recent years (Ali, et al , 2018, 630).

Numerous societies have suffered significantly as a result of the severity of environmental problems and climate change caused by the extraction of oil and gas. Global policymakers and the general public have criticized major oil firms for their trustworthiness and accused them of causing chaos in global environmental concerns. The usage of fossil fuels in daily life is being reevaluated by people all around the world. Numerous incidents, such the Santa Barbara oil leak in 1969 in California and the Deepwater Horizon tragedy in the Gulf of Mexico in 2010, serve as foundations for this pessimistic mindset. The public is now looking for quantifiable performance improvements as well as more openness and efficiency in the oil and gas industry with regard to sustainability as a result of these environmental catastrophes (Jui-Che Tu, et al , 2013, 14).

The oil and gas sectors, like other businesses, have revised their corporate development strategies in order to promote sustainable growth, with some of them also becoming more receptive to operational concerns. In order to assure safety measures in exploration and production activities, the oil firms are establishing supporting policies for environmental protection. As a result, concepts like "green economy, " "sustainable development, " "social responsibility, " and "risk management" have become standard in lectures and seminars given by oil firms. This is how the idea of sustainable development entered the literature of the oil and gas sector. Similar to this, senior executives at oil companies are increasingly in favor of implementing innovative and smart solutions in areas like performance assurance, operation risk management, contaminated site management, and air quality and climate change (Wagner, 2010, 540).

However, there is frequently a discrepancy between what oil firms claim to be doing in terms of sustainability and what they really do. Due to this, extensive research has been done, and the overall finding suggests that major oil and gas producing companies have seriously incorporated sustainable development into their decision-making processes, despite the fact that the oil industry still contributes significantly to environmental degradation and climate change.

In the light of what we mentioned above this study try to investigate the impact of strategic planning on the sustainable development in the oil industry through its the three dimensions (social, economic and environmental).

- **The importance of the study**

The need for the study in the petroleum sector in Iraq arises from pressures facing oil companies worldwide and particularly in Iraq to change their mode of production and marketing according to the strategic planning to achieve the sustainable development. These pressures necessitate corresponding changes in the method of producing goods and services. Over the years there has been evolution in the mode of planning from traditional

planning to strategic planning and agile supply chain and to the present day sustainable development (Wagner, 2010 , 553-58).

The concept of s strategic planning to achieve the sustainable development is receiving increased attention in Iraq as a means of becoming and remaining competitive in a globally challenging environment. Studies have shown that there are a positive relationships between the strategic planning and the sustainable development, but this study will focus on the role of strategic planning in achieving the sustainable development (Ali mojarad, et al , 2018, 632).

- **The Aims Of The Study**

This study focus on the strategic planning in light of the main factors for sustainable development taking the Missan oil company in Iraq as a case study .

This thesis focus on the petroleum industry because, The oil industry should be using strategic planning to invest proportionately to the rising demand for energy around the world.

The purpose of this research is to determine the role that strategic planning can play especially in the light of the main factors for sustainable development in the future management of oil and gas in the light of the three dimensions of sustainable development (social, economic and environmental)

- **The Sturcture Of The Study**

The organization of this study will be as follows: In the first chapter, after the introduction, the literature related to the concept of strategic planning, measuring strategic planning, and strategic planning in the oil industry was reviewed. In the second chapter, the concept and meaning of sustainable development, the scope of sustainable development, and the dimensions of sustainable development were highlighted. The relationship between strategic planning and sustainable development, and the relationship between strategic planning and sustainable development in the oil industry. The third chapter is the methodology and includes the population, sample, data collection method,

analyses, and results. In the fourth chapter, the hypotheses and the results of testing the hypotheses were discussed through correlation and regression analyses, and in the fifth chapter, the results and recommendations for the research were highlighted.



CHAPTER ONE

STRATEGIC PLANNING

1.1. The Meaning Of Planning

Planning is one of the primary managerial activities that includes an organization's capacity to look ahead and prepare for an action that will enable the attainment of the goals put forth. An organization will be successful if its management can forecast future occurrences. This function is defined as "the process through which an organization defines its objectives, conducts due diligence, and develops its strategic, tactical, and operational operations." In other terms, planning is the creation of a desirable future and effective methods for achieving it. In truth, planning is selection; so, planning is conceivable and possible only when different courses of action are available (Arasa, 2008, 53-56).

Thus, planning may be defined as the methodical construction of the enterprise's future, which includes the process of generating and implementing plans. The significance of planning is generally associated with the fact that it helps to continue increasing the level of effectiveness and efficiency in an enterprise, which, in turn, reveals and reduces potential enterprise risks, enables a focused cooperation of all processes occurring in an enterprise, helps streamline and reinforces these processes, and increases the capability to be flexible and adapt to shifts occurring in the external environment. In a broader sense, planning might be defined as the methodical preparation of choices affecting future occurrences. However, this is the most contentious function since it is hard to forecast an unpredictable future and control a changing environment by planning (Armstrong, 1982, 205-210).

One of the most intricate sorts of human activity is planning. 'Planning is concerned with the validation and organization of projected actions. Considerate and sensible judgments can be made as a result of planning, and vice versa improvising on these concerns leads to inconsiderate and unjustified conclusions. An business manager might save time on decision-making by efficiently organizing the planning process. Although planning is a

decision-making process, not all decisions may be classified as planning (Dyson, 2000, 638-640).

1.2.The Concept of Strategy

Because of its significance, the term "strategy" has always been connected with and prominent in any discussion of organizational management. According to Zare, Shahraki, Safari, Khalilzadeh. (2012), it is to guarantee that a company uses its strengths and specific competencies in such a manner that it achieves a competitive edge over its competitors in any given context. However, the firm should be aware of its limitations in order to position itself better ahead of its competitors. Strategy is the framework that governs the decisions that shape the firm's character and direction. According to, strategy is a game plan, a pattern in a stream of decisions and activities, a stance and a stratagem designed to outsmart competitors while meeting stakeholders' expectations within the limits of the organization's business.

In his paper "Strategy, Strategic Management, Strategic Planning, and Strategic Thinking, " David Fred (2008) emphasized that it is important to analyze the words independently before getting to a solid grasp of the phrase "strategic planning." Thus, he asserts that strategic denotes "of or pertaining to strategy" and "of significant significance or influence." As a result, his statement emphasizes the causes why strategies exist or must exist at various levels of the company to provide a clear direction (where it is heading) and goal.

Strategic thinking has been around since ancient times when historians used life-and-death tactics to create knowledge and guidance for human welfare. As communities grew and conflicts emerged, strategy became predominantly associated with military applications, as suggested by Lenin, Napoleon, and other leaders. Armstrong (1982) defines strategy as a plan or pattern that combines an organization's goals with policies, programs, and actions to form a unified whole. Brian emphasizes that a well-crafted strategy takes into account not only an organization's internal strengths but also its weaknesses and expected environmental changes.

Traditionally, strategy has been studied in terms of content, procedure, context, and outcomes. The substance of strategy addresses three issues: the firm's general aims, the breadth of strategy, and the character of individual strategies. The firm's aims might be explicitly articulated in objective statements or revealed as part of an evolving strategic purpose. The scope of strategy denotes the breadth of control and the extent to which strategies are pursued at each level of the organizational hierarchy. Strategies, whether explicitly agreed upon or emerging as patterns in decisions and actions, can be analyzed in a variety of ways, including programs, action plans, archetypes, or phases of a firm's growth and evolution. Although strategy substance is crucial, this study focuses on the method through which strategies are developed (Pearson, and Robinson, 2004, 121-130).

The context of strategy, or the organizational settings in which strategies are produced and implemented, refers to the internal and external organizational elements that affect strategy's content and methods. Both anecdotal and empirical evidence suggests that the strategy process is influenced by a variety of contextual factors, including the firm's size and maturity, organizational culture, as well as the demographics, personal characteristics, and leadership styles of the main players involved in the process (Kantabutra, and Avey, 2010, 40-45).



Figure 1. Strategic planning objectives

1.3. An Overview of Strategic Planning

Various authors have characterized strategic planning differently. The fundamental challenges, however, remain the same; they focus on creating plans and implementing measures now to ensure a firm's future success and competitiveness in its environment while making the best use of existing resources. According to Boyne, (2001), some of the primary actions that are similar to all strategic planning processes include completing a strategic analysis, determining the strategic direction, action planning, that is, meticulously spelling out how the strategic goals will be achieved, and so on.

Strategic planning is a methodical process through which an organization formulates feasible policy objectives for long-term growth and development, based on the plan's mission, vision, and goals, as well as a realistic appraisal of the people and material resources available to carry it out. It includes all actions that lead to the formulation of goals and objectives, as well as the selection of methods to attain them. It is a view into the future that specifies an organization's purpose, vision, goals, and objectives, as well as the prescribed activities required to attain the vision (Chavunduka , Chimunhu 2015, 52-59).

Maleho and Nkomo, (2012) define strategy as the analysis of the external and internal contexts. The strengths, weaknesses, opportunities, and dangers that an organization faces are then identified through the study. The discovered strengths and opportunities are then used to overcome the identified weaknesses and threats. The private sector has evolved a viable strategic planning methodology throughout the years. The strategy contains the following components (Craig Robinson, 2016):

- a. Defining mission and values;
- b. Creating a future vision;
- c. Examining external problems and opportunities
- d. Identifying intrinsic strengths and shortcomings
- e. Creating strategic goals and objectives
- f. Developing action plans

Kraus, Harms, and Schwarz, (2006, 336) add to this approach by proposing a holistic strategic planning model that implies the aspects are connected to and supportive of one another. These elements are as follows:

- a. creating a strategic vision with participation from personnel and the general public;
- b. identifying and prioritizing strategic goals and efforts that are in line with the vision;
- c. creating departmental business strategies that are consistent with the strategic plan; and assessing and reporting outcomes

According to Debrah (2012, 9), strategic planning is a management approach that involves analyzing the environment, creating a vision and mission, and developing strategies to enhance organizational performance. This process establishes a connection between a company's purpose, goals, decisions, and resources. Strategic planning helps define company objectives, gather information systematically, prioritize projects, promote teamwork,

increase environmental awareness, communicate strategic purpose to stakeholders, and improve performance. It involves identifying long-term objectives and implementing formal strategies to achieve them. As a key tool for strategic management, strategic planning enables practitioners to identify critical circumstances and future opportunities. The literature suggests that strategic planning is a regulated endeavor that organizations undertake to make crucial decisions and actions that shape their operations and future activities. It is viewed as a way to prepare for all future possibilities and account for the complexity and volatility of the environment (Allexander and Schwanenflugel, 1994, 709).

The essential components of strategic planning encompass the creation of an enterprise's mission statement, establishment of objectives, formulation and execution of strategies, and monitoring and regulating the progress of strategy implementation. Eight aspects of strategic planning were identified, including sources of information, environmental analysis, business goals and vision, participative management, time horizon of strategy development, formality of planning process, strategy implementation rewards, and evaluation and control. A review of existing literature indicates that strategic planning serves as a unifying concept that provides coherence and direction to an organization's activities and choices, while guiding executive decisions towards improved performance (Basel Shahin, 2011, 11-14).

Alternatively, Boulter (1997) views strategic planning as a means of adhering to and aligning the organization with policy. According to him, strategic planning is "a technique for constructing a long-term and policy-oriented device." It involves leadership and management decisions on what the organization aims to achieve and how its resources will be deployed to accomplish its objectives. It is a process through which an organization identifies its objectives, formulates actions to achieve them within a specific timeframe, implements those actions, and evaluates progress and outcomes.

Furthermore, strategic planning serves as a mechanism for organizations to comply with policy and ensure alignment with their objectives (Boulter, 1997). It involves leadership and management decisions regarding the organization's desired achievements and the allocation of resources to attain those objectives. This process entails identifying objectives, formulating actions to accomplish them within a defined timeframe, implementing those actions, and evaluating progress and outcomes.

The planning approach discussed in this context is closely related to the strategic planning aspect. This is because it considers the correlation between decisions and the formalization of procedures, which are both fundamental elements of this research. Strategic planning comprises two key components: the objective that the organization is striving to achieve and the most appropriate methods and techniques to accomplish it. The subsequent section aims to elucidate the concept of "strategy" as the ultimate goal of strategic planning is to devise plans that will facilitate the organization in reaching its intended destination. (Kabui Anne and Christine Wanjiru, 2018, 8-12).

1.4. The Strategic Planning Formation Process

The phases provides a comprehensive examination of the different stages involved in the strategic planning creation process. These stages encompass the following: initiation and consensus-building for the strategic planning process, establishment of the organization's mandate, formulation and communication of the vision, development and communication of the purpose, evaluation of the external environment, identification of strategic issues, formulation of strategies and plans, and monitoring and evaluation. It is important to recognize that although these stages are presented in a specific order, the strategic planning process is not strictly linear. The steps may overlap, occur simultaneously, or the entire process may move back and forth. Each phase of the strategic planning creation process will be explored, including a description of its key elements, its significance within the overall planning process, and the expected advantages (Raynold and Chikwama, 2016, 10-12) .

1.4.1. Initiating and agreeing on the strategic planning process

The strategic planning process begins with recognizing the need for strategic planning; once the need is recognized and the significance of strategic planning is conceptualized, an initial agreement about the overall strategic planning effort, as well as an agreement on the main steps of the planning process, should be developed. The goal of this stage is to reach an agreement that strategic planning is necessary and desirable, and that all participants are "on board," committed to, and supportive of the planning process and its many parts. To put it another way, agreement on the "plan to plan." Because this phase necessitates the consent of key participants, including external stakeholders, stakeholder analysis will be useful at this early stage to decide who should be included in the negotiation process. The engagement of numerous stakeholders will increase the strategic plan's quality. In order to establish a successful strategic plan, organizations must seek input from all stakeholders (Andrews, Boyne, Law and Walker 2011).

The initial agreement phase is likely to yield a variety of benefits. First, the primary players in the process must recognize the aim and worthiness of the planning process, which will lead to wide sponsorship and legitimacy. The second anticipated advantage is the establishment of a communication mechanism throughout the organization, such as a strategic planning task force or coordinating committee, to coordinate, discuss, and resolve issues related to the planning process. Conflicts may emerge throughout the planning phase if such measures are not in place. The third advantage of the original agreement is that it offers a comprehensive outline of the procedures involved in strategic planning. The process itself is characterized by procedural rationality, meaning that the planning technique employed is logical, coherent, and follows a set of stages that are interconnected. Additionally, the agreement secures the political backing of important decision-makers, who can address strategic problems that may arise during the planning process. Moreover, coalitions can be formed around these concerns, enhancing collaboration and problem-solving capabilities. (Kantabutra, and Avey, 2010, 37-39).

A fifth advantage of the original agreement is access to the resources required for planning. Financial resources are required to put strategy and plans into action. Although this may appear to be a long time in the future, the implementation phase must still be considered in order for planners to plan within the assigned budget. However, financial resources are not the most significant resources required for strategic planning; decision-makers' time and devotion are more crucial. The last benefit of this initial step in strategic planning is that it prepares the organization for substantial changes. If large organizational changes are required, the first consensus among key participants will help build the framework for big strategic changes such as changing core technologies, shifting alliances, or even having a new set of talents and competencies (Jennings, and Disney, 2006, 598).

Another advantage of the original agreement is that it provides access to the necessary resources for effective planning. While financial resources are essential for implementing strategies, the commitment and time of decision-makers play a more critical role. It is crucial to consider the implementation phase and plan within the allocated budget. However, financial resources are not the sole focus of strategic planning; decision-makers' dedication and involvement are equally important. Lastly, the initial step in strategic planning prepares the organization for significant changes. By establishing a consensus among key participants, the agreement lays the groundwork for major organizational transformations. This includes adapting core technologies, forming new alliances, and acquiring new talents and competencies.

In summary, the original agreement offers advantages such as procedural rationality, political support, resource accessibility, and readiness for change. These benefits contribute to the effectiveness and success of strategic planning. (Sandada, 2015, 9-16).

1.4.2. Clarifying organizational mandate

The ultimate aim of a government is to enhance the quality of life of its people. Governments are accountable for advancing the public interest or "public value" by developing policies, programs, initiatives, services, and

infrastructure that increase public wealth and promote the common good at a justifiable cost. Governments can generate public value through a range of overlapping activities, some of which are more closely linked with a particular public organization than others. The state authorizes public sector organizations to pursue specific public goals. Consequently, the mandates of these organizations should define the value they offer, as well as the societal rationale and legitimacy they depend on. (Wang, Walker, and Redmond, 2007, 1-4).

An organizational mandate specifies what the organization is obligated to do or not do by external parties, both formally and informally. Formal requirements are often formalized in the legal framework of laws, rules, charters, and articles of incorporation that control the activities of an organization. Furthermore, organizations must satisfy a range of informal mandates expressed in important stakeholders' conventions or expectations (Paterson, 2009, 63-70).

This stage in the strategic planning process has two advantages: first, it clarifies what is mandated, what is clearly and tacitly required or prohibited. The capacity of planners to build unambiguous goals will improve as the organization's requirements become clearer. The more detailed and obvious the objectives, the more likely they will be met. The ability of launching fresh strategic initiatives to serve public value in areas not specifically prohibited is the second anticipated advantage. (Strickland, 2004, 90-93).

1.4.3. Establishing an effective vision

David Fred (2008, 80-83). define an organization's vision in a number of ways. Describe vision as "an image of a desirable future state of an organization." O'Regan, and Ghobadian, (2007), defined four vision characteristics: ideality, distinctiveness, future orientation, and imagery. Despite the fact that writers make a variety of claims when defining an organization's vision, two themes are commonly present in vision definitions: "desirability" and "future orientation" .

A lot of advantages are anticipated as a result of obtaining an effective vision. These advantages may be summarized into six advantages reported in the literature. The vision, for example, assists organizational members and stakeholders in understanding the general direction of the organization as well as why and how things should be done. According to a poll done by Wang, (2007), the major purpose for having a vision statement is to establish organizational direction. Second, the vision will inform the organization's members about what is expected of them, how they fit into the bigger picture, and give a framework for creativity in pursuit of organizational goals.

Fourth, in conjunction with the third advantage, a shared vision may lead to a large reduction in organizational conflict. When employees understand the overarching direction of the organization, disagreements about specific issues may be handled based on their relevance to the organization's mission. Fifth, a well-articulated vision would assist individuals in identifying present or potential hurdles to achieving that goal. Recognizing obstacles is the first step toward conquering them. The last benefit mentioned in the literature is that a well-developed vision will give a fundamental framework if the organization is to adapt to changes in its environment intentionally but flexibly. In other words, a good vision will allow the organization to cling to its core while remaining open to change (Jennings, and Disney, 2006, 605).

As highlighted by Paterson (2009, 52), in order to reap the benefits described above, the vision statement must be meticulously crafted and effectively communicated. It should be disseminated among both internal organizational members and external stakeholders of significance on a regular basis. Keeping organizational members uninformed would undermine the impact of a successful vision. Mission statements hold great importance within a company as they establish a shared purpose, guide decision-making, and ignite enthusiasm among individuals. The company's purpose fosters employee commitment by providing a clear understanding of the business area in which the organization operates. While a mission statement outlines the organization's business, a vision statement elucidates its aspirations. The vision encompasses the firm's ideology, guiding philosophy, and reflects its

values, purpose, and direction through the mission and corporate objectives. A business requires a vision to lead, remind of its history, motivate, and regulate its operations. (Craig Robinson, 2016, 15-18).

1.4.4. Establishing an effective statement

While the vision statement is a general description of an organization's anticipated future state, the mission statement refers to the organization's planned particular contributions to the vision's realization. An successful mission statement. According to Jennings, and Disney, (2006), a mission statement is a broad yet brief explanation that explains why an organization exists. The mission of a government agency states the reasons for the organization's existence. As a result, the mission statement for a government agency is often developed from the department's legislative foundation. According to Craig Robinson, (2016), defining and expressing a successful mission has a variety of advantages. The most essential advantage is that it focuses attention on what is genuinely vital for the organization to attain its goal. A consensus on an organizational objective that includes social desirability and purpose will increase the organization's internal and external credibility. The second significant advantage is the definition of organizational mission. Clarifying organizational purpose will reduce disagreements among decision-makers and improve leadership effectiveness, which is the third projected advantage. The clarity of an organization's purpose will assist leaders in articulating an effective organizational structure, developing aligned processes, and allocating resources based on the organization's intended goals (Sandada, 2015, 60-63).

1.4.5 Assessing and scanning the environment

In the process of strategic planning, strategic tools play a crucial role in examining both the internal and external environment of an organization. These tools, which include concepts, analytical frameworks, procedures, and processes, assist strategic managers in making informed decisions. Numerous authors have highlighted the importance of strategic tools in the literature. The use of formal strategic processes and tools is significant in developing a clear sense of organizational direction. Additionally, due to the cognitive limitations

of managers, the employment of strategic tools becomes critical. Dyson (2000) emphasizes the limitations of human cognition and the presence of bias or subjectivity in strategic decision-making, as managers try to rationalize the irrational aspects of their operating environment. Lastly, Paterson (2009) considers strategic tools as essential in focusing stakeholders' attention on strategic issues and gaining their commitment. (Strickland, 2004, 23-28).

The process of strategic planning encompasses the analysis of internal and external business environments to pinpoint the strengths, weaknesses, opportunities, and threats faced by an organization. By studying the business environment, organizations can define their goals and determine the most effective tactics to accomplish them. To achieve competitiveness, strategic planning necessitates an organization's understanding of its own capabilities and the operational environment.

The process of conducting an environmental scan involves analyzing the internal workings of a company, examining the industry in which it operates (known as the task environment), and assessing the external macro-environment, which includes political, environmental, social, and technological factors. According to O'Regan and Ghobadian (2007), the corporate environment can be divided into three parts: the micro-environment, the economic climate, and the macro-environment. The micro-environment consists of the business itself and other components that the business has complete control over, such as its purpose and goals, organizational departments, organizational culture, and organizational resources like human expertise and financial resources. The market or task environment encompasses the external factors that directly impact the business, including consumers, suppliers, middlemen, competitors, substitute products, potential new entrants, and labor unions. On the other hand, the macro-environment consists of elements that the business cannot control, but still have an impact on its operations. These elements include political, economic, social, technological, ecological, and international considerations. (O'Regan, and Ghobadian, 2007, 18-22).

A thorough environmental assessment requires a corporation to thoroughly study, analyze, and disseminate information from both its internal and external surroundings. By examining both the internal and external environments, a corporation can gain a comprehensive understanding of the factors that impact its business. The internal and external environments can be described using the Strengths, Weaknesses, Opportunities, and Threats (SWOT) framework. Through strategic planning, an organization can identify current opportunities and threats, assess its resource capabilities, and consider the strengths and weaknesses of its resources. This allows the organization to better align itself to address environmental challenges. A successful strategic planning process can result in a robust strategy that effectively neutralizes threats, capitalizes on opportunities, leverages strengths, and addresses weaknesses. Additionally, conducting an industry study using Porter's five forces framework, which includes entry barriers, supplier bargaining power, consumer bargaining power, threat of replacement products, and industry rivalry, can provide further insights. (Dyson, 2000, 635).

1.4.6.Strategic issues identification

Issues management is a continual activity concerned with identifying issues that may have an influence on the organization's strategic orientations, predicting their occurrence, and developing suitable solutions to these issues. In addition, the problems management process is a component of the strategic planning process . This concept says that the problems management process has three stages: (1) scanning the external environment to find strategic issues; (2) analyzing these issues for strategic effect and likelihood of occurrence; and (3) devising appropriate actions for managing them. Based on the strategic analysis performed in the preceding stage, this step in the strategic planning process identifies strategic concerns. The following stage, "creation of strategies and plans, " is responsible for developing effective answers to strategic concerns (Jennings, and Disney, 2006, 600-610).

As Armstrong, (1982) pointed out, the issues treated in this stage are those having strategic implications: "The key to success for issue management must be its capacity to surface and monitor actual concerns that impact the

strategic direction of the firm or business unit". Strickland, (2004) defines strategic problems as occurrences or factors (with either good or negative consequences) that occur within or outside of an organization and have the potential to influence its capacity to fulfill its goals. As a result of the foregoing, the following definition of strategic problem was adopted: An external development that may have an impact on the organization's performance and to which the organization must respond in a timely manner, and over which the organization may fairly anticipate to have some control . Identifying an organization's strategic challenges is supposed to have the following benefits: concentrating attention on what is genuinely essential to the organization; defining the difficulties or possible problems that the organization may face and driving organizational transformation. (David Fred , 2008, 82-85).

1.4.7.Employee participation

Employee participation is a term used frequently in management literature (Arasa, 2008). Strategic planning allows several enterprise members to engage in the planning process and so plays a key role in setting an organization's direction. According to several writers and experts, employee participation empowers organization members to actively question, experiment, and establish discussion, allowing managers to influence organizational results. Most experts believe that employee engagement in the strategic planning process is crucial to strategy implementation effectiveness. A participative strategic planning approach, according to Arasa, (2008), is encouraged since it leads to unity of purpose, cooperation, and employee enthusiasm.

Existing literature indicates that if organizations adopt a more conscious approach to strategic planning, it will result in clearer organizational goals and better pursuit of these goals by individual workers. To ensure that tactical and operational decisions are in line with the desired strategic orientation, it is essential for employees or members of the enterprise to be actively involved. Carolina Diniz Melo (2019) emphasizes the importance of employee engagement as it enhances the overall understanding of the strategy,

fosters consensus within the firm regarding strategy execution, and boosts employee morale, providing them with strong motivation to implement the strategies..

1.4.8. Monitoring, evaluation and control

Over the last decade, performance measurement in public organizations has piqued the interest of scholars and practitioners in a variety of domains, including measurement system design, implementation, system usage, and measurement system content. Despite the fact that balanced performance assessment is relevant in both private and public organizations, there appears to be a widespread belief that public and private organizations are distinct in terms of measurement. This might be due to the fact that there are numerous stakeholders in the public sector with varied and competing requirements. This causes two issues for the performance evaluation system. First, taking into consideration all stakeholders may result in a plethora of performance indicators that satisfy no one. Second, because several stakeholders have competing goals, it may be difficult to define targets or make choices based on measurement results. Other particular hurdles have been discovered in addition to the two fundamental issues (Boyne, 2001, 80-84).

Despite the aforementioned hurdles and concerns, integrating performance management systems with organizational strategy is projected to yield a number of benefits. Some of these advantages include: conveying strategic goals; monitoring and tracking strategy execution; assessing outcomes; aligning short-term activities with long-term strategy; and encouraging synergy across multiple organizational processes. Furthermore, the performance assessment system is designed to focus change activities and allow for organizational learning (Maleho and Nkomo, 2012, 60-67).

The evaluation and monitoring of plans and strategies are vital aspects of performance management systems. This evaluation process occurs throughout and after the execution of the plans and strategies. Despite being

categorized as a single step in the strategic planning creation process, it holds immense importance. The outcomes of this evaluation serve as valuable input for the development and formulation of strategies and plans for the subsequent period. According to Bryson's "strategy change cycle" method, the ultimate goal of this stage is to maintain robust strategies, modify or eliminate less successful ones, and carefully analyze policies, plans, and projects to determine the most suitable course of action for the upcoming period. (Basel Shahin, 2011, 22-30).

1.4.9.Strategy implementation

Strategy implementation is a vital element of the strategic management process that entails translating the formulated strategy into a series of actions that ensure the organization's vision, mission, strategy, and strategic objectives are accomplished as planned. This process is considered dynamic, iterative, and complex, involving a range of decisions and activities made by managers and employees, influenced by several interrelated internal and external factors, to transform strategic plans into reality and achieve strategic objectives. (Kabui Anne and Christine Wanjiru, 2018, 12-19).

According to Raynold and Chikwama, (2016), the implementation task entails the coordination of a variety of initiatives aimed at translating strategic intentions into actions. Strategy implementation determines how a company should construct, exploit, and integrate organizational structures in order to achieve competitive advantage and increased performance . Strategy execution is a viable path to organizational performance, therefore managers must not only establish competitive strategies, but also develop competencies that function as essential mediators in their pursuit of competitive advantage. Strategy execution has remained a major difficulty for the majority of today's organizations. Not how excellent the plan is created, but how effectively it is implemented, determines corporate success (Raynold and Chikwama, 2016, 13-16).

The manner in which organizations execute strategy becomes a key contributor to performance, hence it is critical to develop methodologies for

successful strategy implementation. According to the literature, management challenges are at the heart of good strategy execution and should be prioritized by Company ' owners and managers if they are to thrive. Business performance is determined not just by how well plans are developed, but also by how well they are implemented. Strategy implementation is important to an organization's competitiveness and defines its evolution. Organizations must intentionally consider how they will adopt strategies for increased performance rather than becoming victims of circumstance when it comes to strategy execution. Having a plan does not guarantee organizational success. One might have the best plan in the world, but if it cannot be implemented, it is not worth the paper it is written on. A variety of elements (soft, hard, and mixed) impact strategy implementation success, ranging from individuals who communicate or implement the plan to systems or methods for coordination and control (Maleho and Nkomo, 2012, 70-74).



Figure 2. Strategy implementation process

1.4.10.Evaluation and control

The significance of strategy evaluation and control cannot be overstated as it allows a company to monitor its progress towards meeting milestones and objectives. By keeping a close eye on their projects, a company can quickly identify any deviations and take corrective measures in a timely

and cost-effective manner. According to Craig Robinson (2016), assessment and control are crucial to ensure that a company tracks its progress against completion deadlines, expenses, and quality standards. Regular review of a company's strategic decisions is necessary to remain relevant in the ever-changing market.

According to Carolina Diniz Melo, (2019), Company may maintain a competitive advantage by continual monitoring and management. Kantabutra, and Avey, (2010) offer similar comments, stating that strategy evaluation and control tell managers about the factors that contribute to a failure to fulfill a specific aim, performance standard, or other performance indicator. The core idea is that control keep strategy execution in check, allowing organizations to determine the fit between strategies and objectives. Operational control systems must follow four processes in order to be effective: defining performance criteria, assessing actual performance, finding deviations from set standards, and implementing remedial action. Company are likely to monitor their plan implementation progress and take corrective action to address violations from the standards specified (Kantabutra, and Avey, 2010, 40-43).

1.5.Drivers For The Adoption Of Strategic Planning

Different variables influence Company ' use of strategic planning in their operations. According to a review of the literature, the main primary motivational reasons or drivers for Company to engage in strategic planning include environmental dynamics and unpredictability, company ownership motives, globalization, and the introduction of new technology. Globalization, new technology, growing new markets, and deregulation are just a few of the variables that are continually posing problems for today's businesses. They also recommend that organizations must be proactive in developing solid strategies in order to address these issues. Globalisation, technical innovation, deregulation, the emergence of new markets and sectors, and economic restructuring, are some of the drivers encouraging organizations to participate in strategic planning (O'Regan, and Ghobadian, 2007, 20-22).

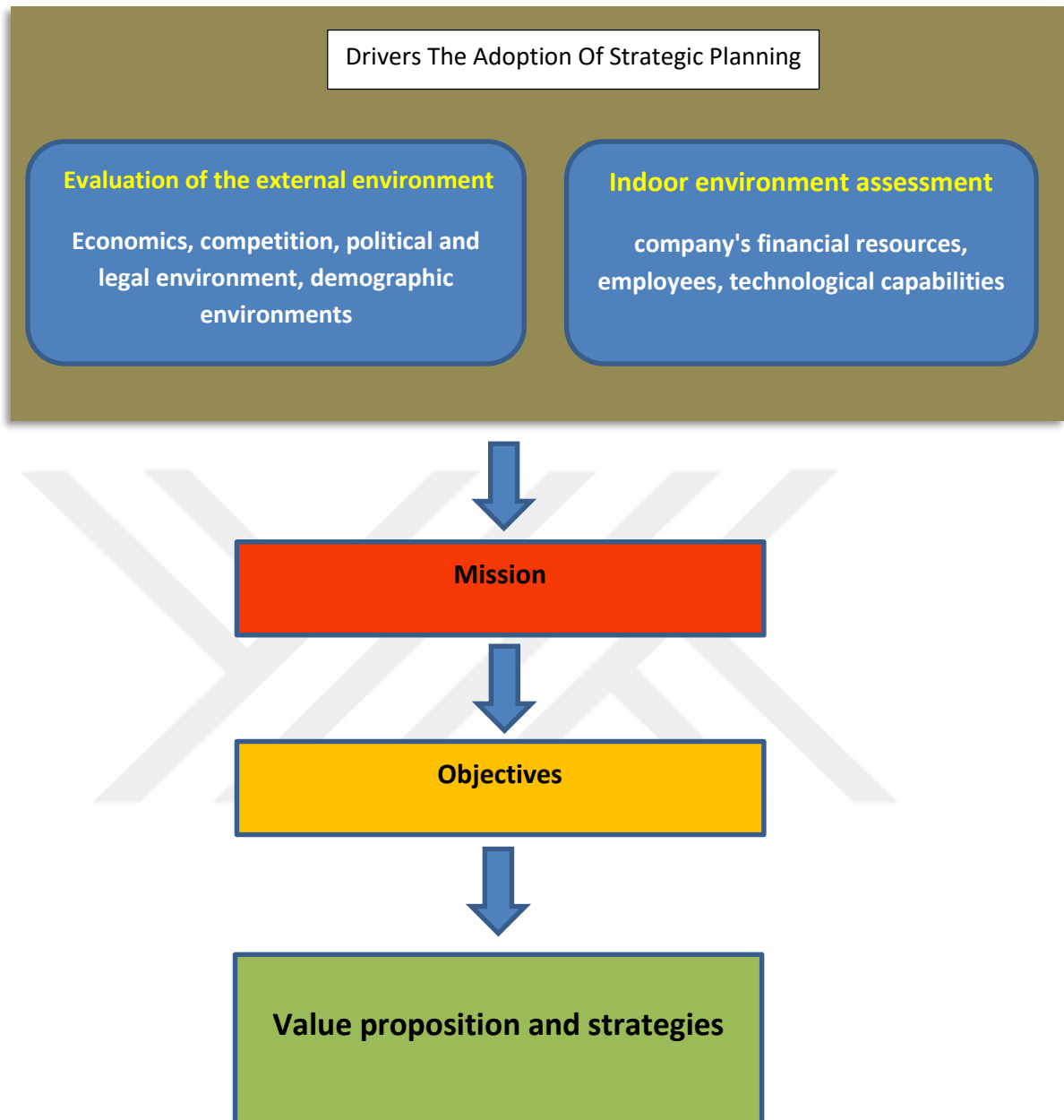


Figure 3. Drivers The Adoption Of Strategic Planning

1.5.1.Environmental dynamism

In light of the current economic climate being tumultuous, intricate, and unpredictable, businesses of all kinds are seeking novel ways to conduct business and increase their profit margins. However, the relevance of the company's operating environment is perceived differently by company owners and managers. Wang et al (2007) provide further evidence that company

owners and managers approach business opportunities and challenges differently. Environmental dynamism creates uncertainty, which leads managers to make inaccurate forecasts. Volatility, complexity, and ambiguity are the three key components of uncertainty. Since a company's performance is based on its environmental and market conditions, it is essential for an organization to conduct a thorough analysis of market complexity and turbulence while devising plans. (Wang, et al, 2007, 14)

The degree of difficulty or challenge that companies face when operating in different marketplaces is known as market complexity. This complexity is heightened when there is an increase in the number of competitors, especially if these businesses offer a wide range of products or services, or if the firm operates in multiple markets. To overcome market complexity, organizations must regularly update their strategic processes and engage in significant planning efforts that are supported by monitoring and gradual adjustments. Market turbulence is indicated by instability and a lack of clarity in the market. Market turbulence creates uncertainty by impeding the expected outcomes of corporate actions while also denying the knowledge and direction required for risk management. Market volatility enhances the demand for quick innovation while also forcing owners and managers to make hazardous investment decisions. Market turbulence frequently leads to the quick entry of businesses and items into marketplaces, while also leading to the withdrawal of certain organizations and products (Kantabutra, and Avey, 2010, 38-42).

Enterprises worldwide are encountering difficulties in comprehending and adapting to a wide range of both detrimental external and internal market changes. These changes encompass market shifts that impact production processes, intensify competition, undermine existing customer bases, modify market dominance patterns, and alter the potential of companies. In order to avert the failure of both existing and new products, as well as the potential devaluation or collapse of organizations, companies must promptly seek solutions and adjust to the swiftly changing market conditions. This necessitates managers to adopt a more proactive stance and enhance their

understanding of the operating environment in which their organizations function. (Sandada, 2015, 32).

1.5.2.Business ownership motivations

Despite the fact that ownership incentives and strategy planning are commonly viewed as separate topics of study in small business literature, the two ideas are inextricably intertwined . Individuals are inspired to be in business for a variety of reasons, and small business ownership is sometimes intricately linked with the personal lives of business operators and their families. People are either pushed or pulled into starting a firm. Small company ownership is the result of a mix of pull and push pressures. In terms of small company ownership, operators are primarily driven by the prospect of a good improvement in their own circumstances that owning a firm will offer (Zare , et al, 2012, 140).

In small organizations, the owners are the driving force behind the business's strategic vision as they often view their business as an extension of themselves. This is why business ownership is considered crucial in strategic planning. Although most businesses prioritize profitability and growth to ensure longevity, small business owners may not prioritize financials as their decision to start a business may have been based on emotional or non-financial reasons. (David 2008, 82-85).

1.5.3.Globalisation

One of the problems of the twenty-first century for Company is global competitiveness, as the globe becomes "smaller" and more of a global marketplace. This implies that clients must be given with consistent and dependable products and services of recognized quality, notwithstanding the market environment's worldwide competitiveness. As a result of increased competition, businesses all over the world are creating comparable products or providing similar services . However, organizations must fully comprehend and effectively manage the dynamics, complexity, and interdependences involved with global economic integration. As a result of globalization, customers nowadays are accustomed to a wide range of options, and the

complexity of product portfolios adds to the numerous obstacles that strategic planning faces, as organizations regularly launch new goods and line expansions. As a result, organizations of all sizes must consider a wide range of elements in their strategic planning (Kabui Anne and Christine Wanjiru, 2018, 20-26).

As commercial institutions continue to enter the twenty-first century, the realities of globalization will become more apparent, and the conversation between the organization and the environment will grow more strategically complicated. The complexity inherent in strategic planning models has spurred recent research endeavors, aiming to address uncertainty and adapt to evolving circumstances. To effectively tackle the global challenge, companies must establish dependable, balanced, and high-quality operations. In the future, globalization will accelerate as exports and foreign direct investments outpace GDP growth, enabling enterprises to tap into a broader array of global markets. Organizations engaged in cross-border activities increasingly prioritize capturing global economies, optimizing cost reduction or quality enhancement through strategic location selection, capitalizing on technological advancements, and leveraging specialized skills, labor advantages, and access to natural resources in specific geographic regions. (Craig Robinson, 2016, 5-12).

1.5.4. Innovation and technological advancement

The advent of new technology has revolutionized the global sphere, reshaping the way people interact and businesses function. Self-scanning machines, video displays in stores, ATMs, the Internet, and mobile phones are just a few examples of how technology has influenced both companies and customers. Enhanced telecommunications networks have compelled organizations in diverse industries to adapt to a wide range of communication changes. The integration of information and communication technology, coupled with the adoption of new technological applications, has resulted in substantial alterations in the structures, goals, and capabilities of organizations in the twenty-first century. (Maleho and Nkomo, 2012, 60-63).

Enterprises have strong incentives to engage in inventive and technology that benefits their customers. They initiate innovation and employ cutting-edge technology to meet the minimal needs of consumers and society. In environmentally sensitive industries, creative organizations prioritize environmental consciousness. According to evidence, small businesses aiming for growth must focus on innovation through new product creation. This is reliant on the firm's ability to understand the value of strategic planning, particularly in marketing, for achieving success. Consequently, organizations must align their strategic planning with current innovation and technology. This includes allocating a larger portion of their promotion funds to online commercials and mobile marketing, rather than relying solely on conventional print media such as newspapers and magazines. (Kraus, et al, 316-320)

Market volatility is caused by the rapid spread of new technology, which is why innovation, along with technical development, is considered as one of the primary reasons that inspire an organization to participate in strategic planning. The confluence of the underlying technologies of telephone, computer, and media creation is therefore providing significant opportunities for enterprises, challenging current goods and services, and generating a wide range of potential strategic responses by corporations. As a result, if organizations are involved in innovation and market expansion, more strategic level planning is required (Sandada, 2015, 24)

1.6.Strategic Planning For The Oil And Gas Industry

In recent decades, the big oil organizations have shifted their focus. They embarked on catastrophic diversifications after losing control of oil production in OPEC concessions in the 1970s. They then learned that oil extraction in non-OPEC areas was their strongest and most profitable industry. Simultaneously, there was a surge in interest in natural gas. Small upstream enterprises, such as much of the Lower 48 United States, were sold by the 1980s. Oryx Energy purchased a portfolio of modest upstream businesses from BP for \$1 billion. Asset management became popular; if assets provided a low return, they should be sold. The downstream activities trailed behind the upstream. There have been multiple refinery closures over the previous 25

years, but it was only lately that BP said that it would be satisfied with having only 60% of its oil products produced by its own refineries. Reducing owned refinery capacity is quite similar to reducing owned tankers. While the integrated method is not dead, it is now submissive to profitability. The large corporations have never been interested in acquiring modest retail service stations.

In the oil industry there are many models created by incorporating Strategic planning takes into account long-term and medium-term decisions, such as supply chain structure and material flows . In this section the strategic planning deterministic approaches and the stochastic approaches will be highlighted.

1.6.1.Strategic planning – Deterministic approaches

Kim et al. (2008) devised an integrated supply network and production planning model, referred to as the MILP model, for oil products using strategic planning. This deterministic model factored in distribution center relocation and cost savings when making decisions. Furthermore, by merging the MILP model with a non-linear production model, a MINLP model was formulated. The primary objective of both models was to maximize profit. The model's validity was established by applying it to a real-world scenario in South Korea, involving three refineries and four products. To evaluate the approach, three case studies were conducted: individual refinery planning, collaborative network planning among all refineries, and network integration across all refineries. The findings indicated the potential benefits of collaborative planning for oil product production and distribution, both in single refinery and multiple refinery models. Additionally, the results underscored the necessity of designing the supply network and production for each oil product independently to ensure the most efficient routes from sources to markets. (Kim, et al., 2008, 238).

Misni and Lee (2017) explored a deterministic MILP model that was implemented in GAMS to plan for downstream petroleum supply chain strategies and tactics. Their objective was to minimize fixed and distribution

costs across refineries, fulfillment centers, transportation modes, and demand nodes, while also determining the optimal locations and capacities of distribution hubs, selecting transportation modes (pipeline, waterway carriers, rail, and truck), allocating products, and transferring volumes. The strategic component focused on defining distribution center sites and capacity, while the tactical component focused on flow allocation and transportation modalities. The study specifically examined three fuel products: gasoline, diesel, and jet fuel. Finally, the authors presented a case study based on real data from the oil sector and transportation networks in the United States. (Misni, and Lee, 2017, 88-91).

This model has a significant aspect that compares the usage of multimodal transportation with single-mode (pipeline) transportation in strategic planning. The subset of this multimodal model only includes pipeline transportation. The research revealed that using pipeline-based planning led to a 2% increase in costs. Therefore, it is crucial to use multimodal transportation to make cost-effective decisions in strategic planning (Sahebi, Nickel, and Ashayeri, 2014, 60-65).

Fiorencio et al. (2015) devised a decision support system aimed at guiding investment decisions and enhancing the distribution of oil products. This system was constructed based on a deterministic approach. The initial case study compares two projects: one focusing on expanding vessel capacity and the other on expanding pipeline capacity between a marine terminal and a distribution base. The second case study examines a pipeline expansion project that serves multiple distribution centers. The objective was to reduce expenses by deducting national commercialization revenue and foreign commercialization profit from the total of five factors: investments, freight, holding, operation, and demurrage charges.

Strategic planning encompasses investments in logistical infrastructure, such as storage and product-handling capacity for terminals, while tactical planning addresses concerns related to transportation modes and

flow allocation. To facilitate decision-making, the authors conducted a sensitivity analysis of the net present value, which takes into account investment expenses in both case studies. The first case study demonstrated that expanding vessel capacity alongside pipeline development increased the net present value, indicating that these investments complement each other effectively. The second case study revealed that expanding pipeline capacity would reduce transportation costs by minimizing truck traffic. However, the sensitivity analysis of the net present value highlighted that the investment cost for each section of the pipeline varies. (Shiva Rezvani, and Dariush Eslami, 2020, 2-7).

1.6.2.Strategic planning – Stochastic approaches

MirHassani (2008) devised a stochastic model that integrates oil demand uncertainty and strategic planning. This comprehensive model encompasses various transportation modes for oil products, including pipelines, ships, railways, and trucks. Its primary aim is to minimize the costs associated with transporting oil products through each mode, encompassing fines for shortages and overages, inventory expenses, and overall transportation costs. Moreover, the model seeks to determine the optimal range of imported and exported oil derivatives, while also accounting for the worst-case scenario of a shortage. By successfully addressing a real-world problem, the model demonstrated its efficiency in handling large-scale situations.

Lima (2018) introduced a two-stage stochastic Mixed-Integer Linear Programming (MILP) model to optimize the investment planning process for an oil product distribution logistics infrastructure in the face of uncertain demand levels. Considering numerous scenarios, this model tackles the challenges of tactical planning in evaluating strategic decisions. To approximate the ideal solution, the Sample Average Approximation (SAA) approach is employed. The primary objective of this model is to minimize investment costs, inventory expenses, freight charges, operational costs,

demurrage fees, commercialization expenses, and backlog in marine terminals. The model's effectiveness was validated through a real-world case study conducted in northern Brazil

In their study, Tong et al. (2014) devised a MILP model to tackle the complexities of hydrocarbon biofuel supply chain design and production planning. To account for uncertainties related to fuel demand (gasoline, diesel, and jet fuel) and biomass availability, they employed robust optimization techniques. These approaches led to the development of a single Mixed-Integer Linear Fractional Programming (MILFP) model that integrated strategic planning. The objective function aimed to minimize the economic performance per functional unit by dividing the annual cost by the total biofuel quantity sold to consumers. The supply chain design considerations encompassed various factors such as reconversion facility location, size, quantity, and technology selection. Additionally, the planning decisions involved choices regarding harvesting, production, and distribution. The model's effectiveness was assessed using a real-world scenario based in the state of Illinois.

Oliveira and colleagues (2014) proposed a two-stage stochastic MILP model that utilizes stochastic Benders decomposition to address the investment planning problem, where the source of uncertainty is the demand for oil products. The model requires both strategic and tactical decisions, with the former involving the selection of facility locations, storage and product-handling capacity, and transportation mode expansion, while the latter pertains to flow allocation. The first stage of the model determines which projects to implement and when, while the second stage calculates the optimal product flow, inventory, and supply levels. The objective function in both stages is to minimize investment and logistical costs. (Oliveira, et al., 2014).

CHAPTER TWO

SUSTAINABLE DEVELOPMENT IN THE OIL AND GAS INDUSTRY

2.1.The Meaning of Development

Most people agree that development has a positive meaning; That is, development is linked to a brighter future. However, deciding whether a particular change is good or bad involves value judgments that are often difficult to reach agreement on. Not least, what we consider to be good or undesirable changes over time and is subject to varied interpretations based on different viewpoints. Economists have traditionally judged progress in terms of rising per capita income or gross domestic product. However, if the income distribution is skewed and the poor continue to fall even as average incomes rise, many people, including many economists, will be reluctant to describe this as progress. According to Tantau, Khorshidi, and Mojarad, (2017), development is defined as procedures that promote people's freedom of choice. Ecologists, on the other hand, would consider practices that undermine environmental robustness to be harmful, even if they help people.

Others may argue that the level of education and health in a society are crucial to meeting basic necessities. Education enhances knowledge, skills, and talents, allowing for greater individual choice and freedom, and is thus an essential component of growth. Finally, institutional structures and governance have significant implications for human freedom and choice, and some consider them to be critical characteristics for determining the amount of progress. All of these concepts have one thing in common: they all aim to make people better off in some way. As a result, for the purposes of this study, development should be defined as the improvement of the well-being of members of a society between two time periods. While this definition is useful, it raises the secondary question of what constitutes happiness (Tomlinson, 2017, 92-99).

2.2.Sustainable Development

It appears plausible to define sustainable development as development that can last "forever" or at least for a very long time, say several generations. Given the preceding reasoning, this assertion may be stated more simply: sustainable development increases well-being over a long period of time. More fundamentally, long-term sustainable development involves expanding consumption in its broadest economic sense. It is clear that the time dimension is important in sustainable development; It is a dynamic idea. It is a developmental path that may or may not be followed for an extended period of time. It would be difficult, if not impossible, to describe any particular point along the way as sustainable. The reason for this is that there are many distinct growth paths that can be taken from a certain point. Some of these methods will be viable, while others will not (Pérez-Lombard, Ortiz, and Pout, , 2008, 399-404).

It is also important that this is the kind of growth path that society desires, which is determined by what determines the well-being of its members. Measuring well-being over time reveals whether the current growth path aligns with society's goals and is therefore worth continuing. All participants in the Working Group agreed on these basic themes. However, it should be noted that the group's views ranged greatly on other issues. There have been controversies, particularly over the link between short- and long-term well-being and sustainable development. These distinctions are not made to exaggerate the focus on issues of disagreement within the group, but instead to provide an understanding of the environment in which the group conversations took place. One view within the group, referred to as the integrated perspective in this study, asserted that the purpose of sustainable development is to ensure the well-being of the people currently living and the potential well-being of future generations (Tijiani Abubakar, 2014, 22-26).

The second, known as the future-oriented approach, claimed that the focus of sustainable development should be limited to the latter only; This means that sustainable development must be concerned with ensuring the potential for the well-being of future generations. Each of these perspectives is

discussed briefly below, starting with the integrative point of view. The terms sustainability and sustainable development are often used interchangeably . With market-driven sustainability practices in the oil and gas sector as a key point, this thesis selects the term sustainability broadly from sustainable development. It is widely recognized that sustainability is the only path to long-term growth (Ammar Irhoma, 2017, 40-49) .

Sustainability is the twenty-first century guiding concept of organizational policy. It has evolved into a significant marketing force. financial viability and competitiveness in the long run . A significant sustainability issue has focused on operations management as a fundamental source of value addition. Apart from its benefits, industrialization is associated with many environmental and social issues that have a detrimental impact on the world. Some of these environmental issues are: land degradation, global warming, emissions, resource depletion, ozone layer depletion, habitat destruction, and agricultural land-eating deserts . These spillovers have fueled global protests that industrialized nations' growth methods are unsustainable . Based on these protests about the difficulties of industrialization, sustainability has been advocated as an alternative development path to industrialization (Ameer, and Othman, 2012, 68-70).

At the outset, sustainability was defined as 'long term, ' 'durable, "sound, ' and 'systematic' . It is regarded as a dynamic, dependable, and comprehensively new field that requires individual, corporate, and public joint efforts .Sustainability is seen to be a relationship between development and the environment . Resource conservation, long-term continuity, company survival, and competitiveness are all related with sustainability. Sustainability refers to the unique systems, goals, and ways of doing corporate operations . It entails transforming a set of technical principles into policy and institutional policies and practices that are directly related to organizational performance (Baumgartner, and Rauter, 2017, 81-84).

2.3.Oil and Gas Industry

To adequately grasp the role of the oil and gas sector in terms of sustainable development, as well as to analyze the problems and functions of each component of the oil business chain, a thorough understanding of the industry's structure is required. Upstream, midstream, and downstream are the three key segments of the oil and gas industry (Álvarez, Bárcena, and González, 2017).

-The upstream sector is known as "Eand P, " where "E" means for exploration and "P" represents for production, and each of them may be further classified based on the features of the reservoir and the conditions of the field. Upstream, possible on-shore or off-shore crude oil and natural gas are searched for, and then exploring and appraisal wells are drilled.

- The downstream and midstream sectors augment the upstream part in order to get items to consumers. Midstream consists mostly of transportation from the well to production plants and finally to refineries.

However, the largest component of the downstream industry is crude oil refining and natural gas processing. In addition to petrochemicals, this process produces gasoline or petrol, kerosene, diesel, fuel or jet oil, lubricating waxes, asphalt. The downstream sector also includes delivery to the end user.



Figure 4. Oil and Gas value Chain

National oil corporations (NOC) and international oil companies (IOC) are the two primary petroleum sector developers. This industry's core structure is formed by these enterprises operating in an integrated way, spanning both upstream and downstream. There are several small firms that contribute to the primary operations of the oil and gas sector or provide services to National oil corporations, international oil companies, and other types of enterprises

participating in this industry. The raw resources of the petroleum industry are crude oil and natural gas. Crude oil production can take place either in the deep sea or at sea . Petroleum is the world's second largest consumer resource, after only water . Oil and gas are such an integral part of people's daily lives that their global importance is hard to ignore. Oil and gas are currently among the world's most vital resources. Because oil is a commodity closely linked to national strategies, global politics, and power. The oil and gas sector is very interested in the development of their country by enhancing their resources to make it more competitive. The world's oil and gas reserves, production, and consumption are distributed relatively unevenly between regions (Bell, and Morse, 2008, 102-109).

This explains why countries with large reserves of crude oil are among the richest in the world. Publicly traded oil and gas companies produce nearly three quarters of the world's oil, while private sector organizations rank in the top ten of all companies and in the top ten of all oil companies . Without oil and gas, there can be no contemporary society. Because the functioning of contemporary society depends on an adequate supply of oil. There is great demand for oil and gas in the industrial, commercial and residential sectors. Goods are used to operate machinery used in the manufacture of plastics and fertilizers . Due to strong demand for oil and gas products, its exploration and production expenditures are among the highest in the world .Increases in the prices of oil and gas products affect the prices of other commodities in the market. This makes it necessary to maintain the stability of oil and gas prices in order to maintain the stability of prices for other goods and services (Bernardo, Simon, Tarí, and Molina-Azorín, 2015).

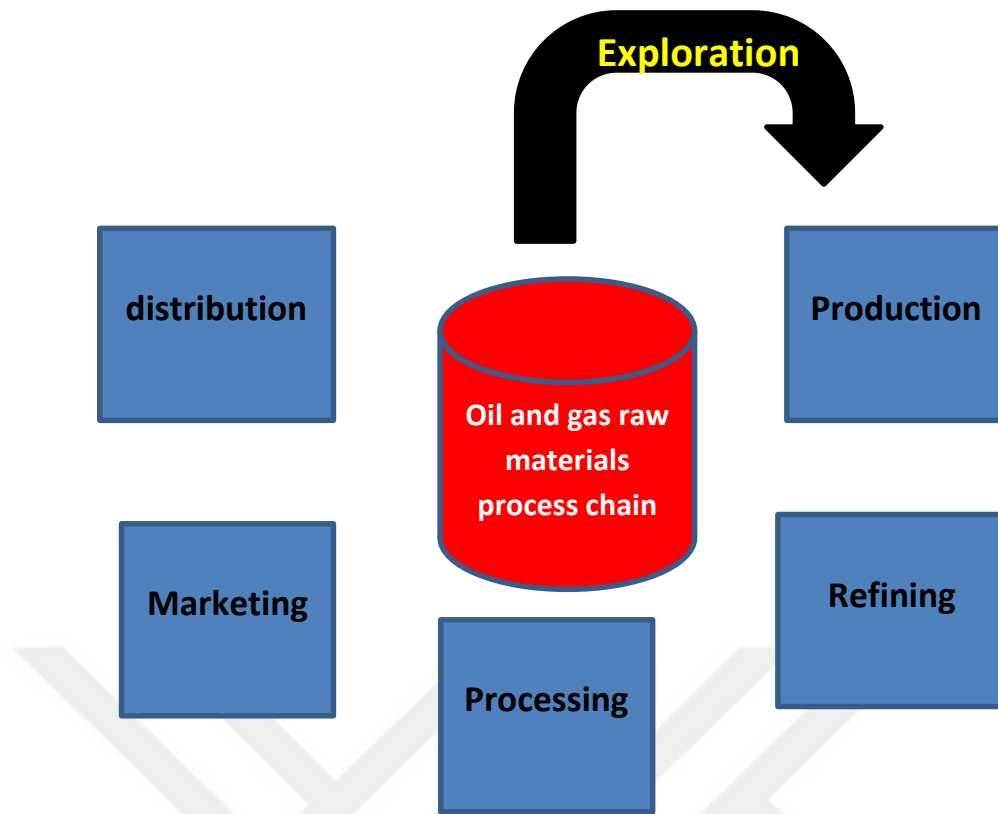


Figure 5. Oil and gas raw materials process chain

2.4.Oil And Gas Industry And Sustainability

These environmental disasters have prompted the public to demand demonstrable improvements in performance as well as greater openness and accountability in the oil and gas industry in terms of sustainability. As a result, oil and gas companies, like other companies, have reshaped their business growth strategy around sustainable development, while some have become more receptive to operational complaints. Oil companies implement environmentally friendly rules to enhance safety in exploration and production activities. This is how the idea of sustainable development entered the literature of the oil and gas industry, and concepts such as green economy, sustainable development, social responsibility and risk management are now common in oil companies' lectures and seminars (Bond, and Morrison-Saunders, 2011, 3-6).

Similarly, in oil companies, senior executives support deployments and innovations of smart solutions such as performance assurance and operational risk management, polluted site management, air quality and

climate change. However, there is always a gap between what oil companies say about sustainability and how they really deliver. As a result, extensive research has been carried out, and the general conclusion shows that sustainable development has seriously made entry into the decision-making stages of major oil and gas producing companies, despite the fact that the oil industry remains one of the primary industries. Causes of environmental degradation and climate change (Boron, and Murray, 2004, 65-67).

Green, sustainable, ecological, renewable, conservable, and environmentally conscious words and phrases may have obvious meanings in various contexts and circumstances, but in others, such as the oil business, their meanings and consequences are complicated. Because of pressure from many organizations, oil companies realize the importance of implementing sustainable practices. However, there is a lack of understanding of how to integrate sustainability into the policies and strategies of these organizations. As defined in the previous sections, sustainability is the term "forever." Therefore, in the context of the petroleum business, and understanding that oil and natural gas are non-renewable resources that will be depleted in the near future, sustainability is an abstract concept; It is hard to imagine the petroleum sector being fully sustainable (Adams, 2006, 31-36).

The author prefers Bartlett's concept since it is more practical and feasible in the context of the petroleum business. However, it is unclear how to combine shareholder expectations and economic goals with environmental conservation, regulatory compliance, and social welfare. This appears to be the most difficult aspect of adopting sustainable ideas into this sector. As a result, the author regards this definition as valid and the foundation of this research; nonetheless, the research will look into methods to fill the holes that this definition leaves.

The World Commission on Environment and Development (1987) defined sustainable development as "meeting the demands of the present without jeopardizing the ability of future generations to meet their own needs." As reported in the literature study, oil companies may find it difficult

to distinguish between the concepts of being “sustainable, ” “green, ” or “environmentally sensitive.” The above concept of sustainability can be used by oil companies to analyze their current business strategy as it drives them to conserve resources for future generations while also reducing their environmental impact (Abdulrahman, Huisinigh, and Hafkamp, 2015, 116-120).

This will help oil companies achieve long-term growth and development, particularly in terms of reducing the environmental impact of their activities. However, Tomlinson, (2017). expressed concern about the overemphasis on the environmental pillar of sustainability while ignoring the other two pillars. According to Tomlinson, (2017)., the oil sector “tends to view sustainability primarily in terms of environmental concerns and activities.” This trend limits sustainability discourse and view of what sustainability really is, causing confusion and misleading illusions that a process, organization or supply chain is sustainable, when in fact the social component has not been fully examined. “This means that industries have more duties to nature and society that must be fulfilled in order to be successful and sustainable.

Corporate social responsibility is related to sustainability because it integrates economic, environmental and social factors into decision-making processes. Corporate social responsibility is described as a company’s ongoing commitment to operating ethically and contributing to economic development while improving the quality of life of its employees and their families, as well as the local community and society. Corporate social responsibility and sustainability have grown to become important global concepts in global conversations, hotly debated and, at times, followed by many efforts launched by stakeholders in the industrialized world .Despite the growing awareness about the difficulties facing developing economies, the volume of discourse varies from region to region and country to country (Hyrije Abazi-Alili, and Tanevska, 2017, 527-530).

As a result, corporate social responsibility has expanded to include not just business practices that impinge on environmental, social, and economic concerns, but also the corporate involvement in poverty reduction in the developing countries . Petroleum firms are clearly at the top of the list for undermining public trust in sustainability and corporate social responsibility talks for a variety of reasons, including environmental scandals, globalization, environmental concerns, human rights issues, global warming, and climate change. As a result, businesses are "under enormous pressure to repair public trust and maintain competitiveness in a global market". Without a doubt, sustainability and corporate social responsibility are expanding in the developing world; nevertheless, these notions differ from nation to country and area to region . Iraqi petroleum firms do not prioritize sustainability and corporate social responsibility . According to this study, the notion of sustainability encompasses a corporate strategy to optimizing and improving environmental, social, and economic factors in a balanced manner (Hyrije Abazi-Alili, and Tanevska, 2017, 535-539).

2.5.Challenges Of Sustainability In Oil And Gas Industry

The petroleum sector is perhaps the most important to the global economy. Oil and gas products are without a doubt the world's primary energy source, and this is projected to continue for several decades . Petroleum businesses face a variety of economic risks when they engage in new exploration agreements and operate huge and sophisticated plants : This means that oil companies must analyze how their environmental performance relates to their financial and strategic results. In the context of sustainability, Bell, and Morse, (2008). has described strategic management as “economically competitive, socially responsible and balanced processes with natural cycles.” Whereas in traditional strategic management the term “sustainable” refers to a company’s ability to constantly renew itself in order to survive over time, we take a broader global view of the term, referring not only to the survival and renewal of the company, but also to the survival and renewal of the economic system the largest, the social system, and the ecosystem of which the company is an integral part.”

Furthermore, concerns relating to sustainability and corporate social responsibility, such as climate change, energy policy, ecosystem preservation, emissions, social welfare, and human rights, are becoming the most argued and discussed issues. This is owing to recent increases in consumer knowledge of sustainability concerns, as well as involvement by governments, non-governmental organizations (NGOs), and other stakeholders. They refer to these concerns as "sustainability" or "corporate social responsibility" in general, and they are urging that firms exhibit and report on their actions and progress in dealing with these crucial difficulties (Benner, and Veloso, 2008, 614-622).

There is no doubt that the global petroleum business faces significant sustainability concerns. However, they were heavily criticized for not doing enough to improve their procedures. Boron, and Murray, (2004) for example, did a comprehensive study of three major oil companies: BP, ExxonMobil, and Royal Dutch Shell. These three companies are the largest oil and gas companies in the world. The author conducted a thorough examination of companies' sustainability reports to see if companies are adopting a sustainability strategy and increasingly "green" language. The author used word count analysis to illustrate what each company declares and what it actually does in its annual reports, operational statistics, spending data, and company reports.

It is crucial to note that an organization's claims do not always represent its actions; This is especially true of petroleum conglomerates, as described by them. Petroleum companies, particularly those in the developed world, may have launched projects to reduce emissions and waste, but this does not mean that their goods and procedures are as sustainable as they claim. This is referred to as "green washing". According to Álvarez, et al (2017) a New York ecologist, "Greenwashing" is a word used to describe the fraudulent use of marketing in which companies falsely claim that their policies, goods, and processes are sustainable and environmentally beneficial (Sullivan, 2009). Exxon Mobile, Shell and BP have been accused of green washing.

These corporations, on the other hand, have been lauded for their rising interest in and attention on ecologically and socially responsible parts of their strategy. One of these factors is the investment of oil companies in renewable energy sources. Part of BP, Shell, and Exxon Mobile's objective is to change their businesses to be more sustainable. Several oil and gas firms have already made investments in renewable energy. Wind, sun, tides, and geothermal heat are all examples of renewable energy sources. These forms of energy are considered environmentally friendly and sustainable because they are not diminished and can be renewed. Unlike non-renewable energy sources such as oil, natural gas and coal. Despite the fact that renewable sources are great solutions in terms of environmental impact and emissions, there are significant limitations associated with their use, which makes it difficult for petroleum companies to become a major participant in investing in renewables. One such drawback is the fact that renewable energy, in its current capacity, cannot provide even a small portion of global energy consumption (Ammar Irhoma, 2017, 55-60).

Another barrier is the financial viability of renewable energy programs and projects. Renewable energy investment, according to Weaver, (2003), is not profitable in the short or medium term. Profitability is the ultimate objective of a greedy petroleum firm, and this contrasts with their corporate interests. As a result, this indicates further corporate social responsibility concerns and business culture changes that are required. To be honest, the three major petroleum firms mentioned above have been making reasonable increases in their investments in renewable energy sources, but the repercussions of these investments are unknown (Ali, Vahid and Adrian, 2018, 627-630).

Petroleum companies in the developing world, particularly those in Iraq, have made modest investments in renewable energy. They do not even provide sustainability reports on their activities and operations. As a result, it may be thought that the time has come for the Iraqi National Corporation and its subsidiaries to show a real intent in improving sustainability performance and implementing sustainability systems. The company's culture and history

are believed to have an impact on the company's activity . To understand the words and actions of oil companies, it is necessary to study the historical roots of each organization separately, and we should not generalize the statements and actions of one company to the entire industry. Although the structure and business of each firm are similar, each organization's historical experience may impact its thoughts on sustainability issues. Exxon Mobile, for example, has undergone various modifications throughout the preceding decades, most notably a merger between Mobil and Exxon in 1999. (Gupta, and Grossmann, 2017, 3-12).

The petroleum business has faced a number of significant problems in recent years. The oil industry must invest in proportion to the increasing global demand for energy, and in light of the more competitive activities in these sectors, the industry must reduce the overall cost of manufacturing hydrocarbon resources while complying with environmental laws and social responsibilities. Among the major issues facing the oil and gas business are the following (Gupta, and Grossmann, 2017, 20-27).

- Price fluctuations
- Increased shareholder pressure on managers to focus on value creation rather than production due to lower investment returns
- Drilling and production process complexity
- Growing demands for oil and gas in most areas
- Compliance remains vital, particularly in this climate of unpredictable pricing and cost cuts
- The safeguarding of the social license to operate and corporate social responsibility
- Changing fiscal regimes
- Research and development
- Managing rising amounts of data and information

The above-mentioned issues are a group of effective elements that have affected the major oil and gas producing companies as they adopt sustainable development plans. As mentioned earlier, the production of every barrel of crude oil, refining and transportation of petroleum goods to consumers is a polluted and polluted industry due to the high pressure and temperature conditions of underground reservoirs and the use of a variety of chemicals to safely drill and produce hydrocarbons.

In the past, each of the above-mentioned difficulties has caused many environmental issues and, at times, environmental disasters. Of course, some major oil firms have made decisions on each of these issues, and billions of dollars are spent each year on enhancing methods and technologies, as well as dealing with indigenous communities near oil and gas facilities. Furthermore, in recent years, national oil corporations under government pressure and international oil and gas businesses under public and legislative pressure have made a number of steps to address the issues of sustainable development in the petroleum sector (Hall, and Vredenburg, 2003, 61).

2.6.Sustainable Drivers

As the world's population grows, the demand for more economical and accessible energy increases. Price fluctuations have led to intense competition in the power supply industry, which has led to lower prices. Regional, cultural, and security tensions have gradually escalated over the past decades, reaching new highs in recent years. In such fundamental conditions, the provision of sustainable energy significantly increased the potential risks in the company's activities, which led to an increase in investment expenditures. Every year, climate change exacerbates itself. The planet is facing catastrophic repercussions as a result of global climate change. Sea level is rising, putting more villages and towns at risk from floods and storms. This is one of the difficulties that requires long-term efforts to overcome (Schweitzer, 2010, 66-68).

Meanwhile, as manufacturing costs continue to grow, so do the expectations of shareholders and business owners. The stockholders prioritize

economic gain in their actions and anticipate a continual growth in profitability through company leaders. All of the many elements, such as expanding population, intensifying competitiveness, global climate change, and shareholder expectations, regional trade patterns, are Sustainable Drivers that have instilled risks and stress in the business environment. Identifying and managing difficulties is a continual fight for oil and gas firms, and they are always updating their business plans to be as thorough and consistent as possible (Schweitzer, 2010, 68-70).

2.7.Sustainability Indices

Indices are referred to in various contexts as: sustainability indicators, sustainability metrics, performance indicators, sustainability report indicators, and environmental performance indicators. Sustainability indicators and matrices are used interchangeably. Furthermore, sustainability indicators emerged from the 1992 Rio Earth Summit, which recognized the critical role that sustainability indicators may play in assisting governments and organizations in making informed decisions about sustainability. Indicators, according to Tantau, et al (2017), are basic, and mostly quantitative, assessments, with the ultimate goal of assessing key sustainability concerns. Sustainability indicators, While Tomlinson, (2017). describe indicators as basic, most commonly quantitative measurements that indicate the condition of economic, social, and/or environmental development in a specific region at the national or organizational levels.

Indicators are tools for reporting and monitoring progress in an organization's sustainability performance. The goal is to find out whether the company's actions have a positive or negative impact on meeting sustainability criteria. Sustainability measurement entails tracking the progress of indicators (pieces of information) that, when combined, provide an overview of the organization's operations. This will allow organizations to see their progress, set goals, and assess the value of their company. Many international organizations now use sets of indicators to monitor and report on their sustainability policies. Economic indicators, environmental indicators, and social indicators are the three primary categories of sustainability indicators.

There are a variety of composite indicators under each of these main groupings (Pérez-Lombard, e et al , 2008, 406).

2.7.1. Economic indicators

Economic indicators are those that show fluctuations in the financial capabilities of the system under study. Economic indicators are financial indicators that represent all elements of the organization's activities in relation to stakeholders; They demonstrate the organization's financial system, financial viability, and other aspects of economic relations . They are indicators of economic trend that are analyzed using two approaches: assessment of resource depletion discount rates and total factor productivity (TFP). Tijiani Abubakar, (2014).introduced the concept of discount rates in the context of sustainability. Discount rates are derived from the concept of intergenerational equality, or more specifically from the concept of finite, non-renewable resources Among the economic indicators (Ammar Irhoma, 2017, 50-56):

Economic Sentiment Indicator (ESI)

The European Commission's economic sentiment indicator (ECESI) combines company surveys into a single cyclical indicator. This indicator decreases the possibility of erroneous signals and is used as a prediction and monitoring tool to evaluate individual parts . The economic sentiment indicator (ESI) is made up of four elements: industrial confidence, construction confidence, customer confidence, and share price index .

Green Net National Product

Green net national product accounts for both environmental deterioration and profits flow. This corrects the problems in GD Baumgartner, and Rauter, (2017) provide three alternative variants of the net domestic product(EDP-I- , EDP-II- EDP-III) namely the EDP-I, which is calculated by deducting natural resource depreciation from net national income. The EDP-II is calculated by subtracting the net national income costs necessary to achieve the same environmental state at the end of the period as it did at the

beginning of the period. Using the willingness-to-pay technique, the EDP-III is derived by deducting the costs of environmental pressure and destruction.

Index of Sustainable and Economic Welfare

The Index of Sustainable and Economic Welfare was created by the Centre for Environmental Strategy and the New Economics Foundation. The primary purpose of this index is to assess the component of economic activity that leads to societal wellbeing. It is intended to replace GDP as a measure of development due to its capacity to demonstrate the link between economic activity and their direct consequences on quality of life. Moreover, the index consists of seven economic activities divided into twenty sub-indices. The seven major components of economic activity are as follows: adjusted consumer spending, services from domestic labor, services from consumer durables, services from streets and highways, public spending on health and education, net capital growth, and net change in the international hub (Álvarez, et al, 2017).

The thirteen indicators related to the reduction of welfare are: consumer durables (the difference between spending and the value of services), private expenditures on health and education, transportation costs, personal pollution control, car accidents, water pollution, air pollution, noise pollution, the loss. Natural habitats, loss of agricultural land, depletion of non-renewable resources, costs of climate change and costs of ozone depletion .

2.7.2. Environmental indicators

These metrics are used to assess the rate at which manufacturing enterprises take resources and degrade the environment. Environmental indicators indicate the effects of organizational actions on living and non-living species such as the environment, land, water, and aid . After the founding of the United States Council on Environmental Quality (CEQ) in the early 1970s, environmental indicators became popular .

The approach used to analyze environmental indicators is to estimate discount rates for resource depletion. Calculation of resource depletion and pollution discount rates can be used as an indicator of environmental and economic trend. In this case, the dimension will be physical units rather than monetary values (for example, tons or parts per million). Likewise, this method is mostly used for large-scale resource exploitation and long-term pollution, such as gaseous emissions or global warming. These physical accounts are frequently used as a basis for economic evaluation, particularly for estimating the potential and limitations of industrial progress. Physical signs should be prioritized, with monetary data used as a complement. Here are some examples of environmental indicators (Bell, and Morse, 2008, 109-105):

Sustainability Performance Index (SPI)

Narodoslawsky and Krotscheck created the sustainability performance index in 1994 to quantify sustainability in the process sector. It makes use of process data and data on natural concentrations of chemicals early in the planning process (not on their presumable impact which is usually not known). The SPI evaluation includes calculating the acreage required to thoroughly embed a process into the earth. Furthermore, the SPI for the unit process is equal to the entire space necessary for raw material production, process, energy, and process installation, as well as area required for personnel and product and by product accommodation (Bell, and Morse, 2008).

Living Planet Index (LPI)

WWF (1998) created the Living Planet Index (LPI), which is used as a worldwide bio-diversity indicator. Living Planet Index tracks changes in over 2000 populations of over 1100 vertebrate species in derestricted, freshwater, and saltwater habitats. The Living Planet Index computes the sub-index for each of the three spheres. Living Planet Index is the population ratio for each sphere for each succeeding year. The biodiversity index for each sphere is calculated by multiplying the geometric mean of all ratios of distinct species

by the index value of the previous year. The base year is 1970, and the index value on the scale for 1970 is one

Triple Bottom Line Index

This is a composite index that measures a company's sustainability performance. Sustainability is the balance of economic development, environmental betterment, and ethical equality (Bernardo, et al , 2015).

Ecological Footprint (EFP)

The ecological footprint (EFP) estimates the mutually exclusive, biotical productive space that must be continuously used by any given population to furnish its resource supplies and absorb its wastes. Bio productive area is the unit of measurement used by ecological footprint. The footprint takes into consideration resource supply networks as well as waste management choices. This research determines whether the land and sea area required annually to maintain current consumption with current technology is within the available resources. Biologically productive land, biologically productive seas, energy land, built land, and non-human species biodiversity land are the five components of land and water. Footprints are estimated using the compound or component technique, or a mixture of the two. Ecological footprint is used to measure national and global environmental sustainability (Bell, and Morse, 2008).

The ecological footprint is a global and country assessment of consumption and waste in relation to the Earth's ability to generate new resources and absorb waste. It is built from impact measurements for managing farmland, pastures, forests, fisheries, infrastructure, and fossil fuels.

Life Cycle Index (LCI)

The life cycle index (LCI) is a composite index established for process and product decision making that takes into account the whole life cycle features. The goal of this index is to assist businesses in providing decision support systems for different design and technology concerns of processes and

products . The life cycle index (LCI) has four components: environment, cost, technology, and sociopolitical aspects. It addresses both aspects in which objectives must be accomplished independently (fixed) and trade-offs between distinct consequences are permitted (flexible). This approach allows for greater flexibility in accomplishing the objective by accounting for the additional cost of preference information gathering and modeling (Bond, and Morrison-Saunders, 2011, 7-9).

Environment Sustainability Index (ESI)

The 2002 Environmental Sustainability Index (ESI) was developed for 142 countries to measure overall progress towards environmental sustainability. The Environmental Sustainability Index is a composite index derived from 68 indicators for 148 countries . Moreover, these indicators are grouped into 5 components and 21 basic indicators: ecosystems (air quality, water quantity, water quality, biodiversity and land); Reducing environmental stresses (air pollution, water stress, ecosystem stress, waste and consumption stress, population growth); Reducing human vulnerability (basic human sustenance and environmental health); Social and institutional capabilities (science and technology, freedom of discussion, environmental management, private sector response, environmental efficiency). As well as global sustainability (participation in international collaborative efforts to reduce greenhouse gas emissions and transboundary environmental pressures). Each variable in the data set was measured between 0 and 100 (low to high sustainability) (Bell, and Morse, 2008).

Environmental Performance Index (EPI)

The Environmental Performance Index (EPI) was created to assess the impact of policies on reducing environmental pressures on human health, enhancing ecosystem vitality, and promoting sustainable management of natural resources . The objectives of the environmental performance index are to assess a range of environmental challenges that are monitored through six policy areas that all governments need to address . Environmental performance indicators (EPIs) may be able to enhance environmental

performance . Expanded immunization programs are more important for public companies than private ones. Moreover, larger companies may pay more attention to environmental performance index measurement in order to better manage environmental challenges . Large organizations may have greater resources to invest in the creation of environmental performance index; however, those resources are not always directed to environmental concerns. Top management may instead allocate those resources to other organizational objectives or important uncertainties . All of the indicators have a scale of 0 to 100. The weights of indicators are analyzed using principal component analysis before being aggregated as a weighted total (Bond, and Morrison-Saunders, 2011, 14-22).

2.7.3. Social indicators

Social indicators are designed to transform characteristics of intergenerational equity into measurable sums or, at least, practical concepts. The Social Impact Index indicated the organization's overall engagement with employees, suppliers, contractors, and consumers . On the other hand, approaches to the quantification and operationalization of social dimensions must be limited to those traits that can be meaningfully expressed through numerical or analytical tools and procedures . The simplest basic way to measure equity is to calculate the distribution of wealth in a society (Tomlinson, 2017)

It seems that such a numerical statement has various drawbacks that must be evaluated. This is due to the fact that it is founded on a static assessment of social and cultural norms and conditions and presupposes absolute homogeneity of individuals, which is plainly not true. People differ in how they use and value their resources, in their endowment, and in their awareness of social fairness. In the literature, some common social indicators include:

Well-Being Assessment (WBI)

Prescott-(2001) Allen's Well-being Assessment consists of an arithmetic mean of the Human Well-being Index (HWI) and an ecological

well-being index (EWI). Human Well-being Index has five subcomponents, but ecological well-being index has six subcomponents. Human Well-being Index has several subcomponents, including health and population, welfare, knowledge, society, and equity indexes. The ecological well-being index is divided into sections for resource deployment, land, water, air, species, and genes. Human Well-being Index contains 87 indicators separated into 36 indications, whereas EWI has 51 indicators. Indicators are evaluated subjectively, standardized using a closeness to target approach, and aggregated using a weighted arithmetic mean (Hyrije Abazi-Alili, and Tanevska, 2017, 532).

Wellbeing Index

The World Conservation Union (IUCN) funded the creation of the "Wellbeing Assessment," which was released in the Wellbeing of Nations: a Country-by-Country Index of Quality of Life and the Environment. The Wellbeing Index is made up of 88 measures from 180 nations. The indicators are classified into two sub-indices (human wellbeing and ecosystem wellbeing). The human wellbeing index is a combination of health and population indices, wealth, knowledge and culture, community, and equality indices. The ecosystem welfare index is a combination of land, water, air, species and genes, and resource use indexes (Benner, and Veloso, 2008, 625).

Human Development Index (HDI)

The UN devised the human development index (HDI), which consists of three core components: long and healthy life, GDP per capita, and knowledge. Life expectancy at birth is used to determine how long and healthy a person's life will be. GDP per capita is expressed in US dollars. The adult literacy rate (with two-thirds weight) and the combined elementary, secondary, and postsecondary gross enrolment ratio are used to assess knowledge (with one-third weight). All indices are valued using minimum and maximum values for each indicator, and performance in each component is represented as a number between 0 and 1 (Álvarez, et al, 2017).

2.8. Literature Review On The Relationship Between Strategic Planning And Sustainable Development

Many researchers have discussed the relationship between strategic planning and sustainable development within the framework of institutions, regions and countries.

According to Metaxas (2002), developing strategies for the development of the agro-industrial complex adapted to the capabilities of each region is a very important direction among the potential areas of strategic planning. These strategies can develop environmental factors and make the economy stronger in terms of gross domestic product. These plans can also be reflected in the process of social development and developing the cultural structure of individuals.

Brooks and Schultz (2006) also referred to strategic planning and its relationship to sustainable development from the perspective of representing the art of formulating and implementing business strategies and making a final evaluation of their impact based on organizational goals. In addition, strategic planning includes accounting, finance, research and development, production, marketing, information systems, management, etc. to ensure that specific organizational goals are achieved. It focuses on integration between different business departments and different regions.

Plaziak and Rachwal (2014), who study the advantages of strategic planning at the institutional level, also point out evaluating the documentation process and determining the direction of the work by evaluating where we are now and what we will do. They point out that the strategic plan will ensure the achievement of sustainable development at the institutional level and thus at the country level, in line with the economic and social dimension.

Meanwhile, Klimenko et al. (2016) conducted research on current approaches to organizing strategic planning and indicated that the method of developing a strategic plan depends on the nature of leadership, the culture of the planning object, the complexity of its environment, and its size. object etc. The academic noted that today it is difficult to find organizations that ignore

the benefits of using strategic planning in their activities. However, the implementation process must necessarily include the stage of viewing, clarifying, and creating the organization's message according to the needs of the parties concerned.

Karpenko (2016) also pointed out, in the context of studying the relationship between sustainable development and strategic planning, that strategic planning acts as an integrative force that organizes and coordinates the process of setting strategic goals and provides the basis for further allocation of resources at the level of regional governments. In addition, strategic planning focuses on issues of socio-economic development of regions and provides the basis for the formation of interaction between managers and individual employees in the process of creating and implementing a strategy for the development of regions.

Both economic researchers Albrecht et al. have pointed out. (2017), in their research at the end of the last century, stated that the development of a strategic plan should take into account the use of public control mechanisms to achieve the goals set by the development strategy for a specific region, country or sector. Moreover, the list of specific tools for managing the country's local development should include economic, legal and incentive mechanisms conducive to ensuring the country's progressive economic development.

Also Jerzy et al. (2019) point out that for the successful development of regions, a policy must be put in place that will encourage the formation of a strong middle class in the regions. However, the development of the middle class can only be achieved by increasing the economic standard of living of the population, which requires eliminating imbalances between regions, ensuring sustainable economic growth of regions, and increasing their competitiveness through development. Implementing an effective public policy aimed at creating favorable conditions in the regions for their economic growth and taking full advantage of their economic potential.

Strozek (2019) also pointed out in his study on strategic planning and its relationship to sustainable development that strategic planning for regions, the economy, and social relations is the starting point for successful development. Long-term regional strategies should ensure sustainable development of the regions. However, during its development, it is necessary to use qualitatively prepared analyzes and clear and professionally defined long-term goals.

On the other hand, Arabadzhiev et al. argued. (2020) argue that strategic planning often occurs at the city and regional levels as a tool to address economic, social and environmental issues. It was also concluded that the development of strategic plans and the development of intellectual infrastructure and intellectual capital in organizations and countries will be reflected positively in the relationship between planning and development from social, economic and environmental aspects.

As discussed by Rabadjiev et al. (2020) highlighted the importance of communication between communities. In addition, he pointed out that it is important to provide financial support for the process of creating economic, social and environmental incentives to promote sustainable development within the framework of strategic planning thought and defining the correct vision and mission for companies and organizations as well as countries.

Corporate Social Responsibility Indicators

This is a set of indicators that were introduced in 2002 to assist companies in “learning and evaluating company management in terms of corporate social responsibility practices, business strategy and monitoring of the company’s overall performance” . It is a self-assessment and reporting guide that focuses primarily on the social elements of sustainability and looks at corporate social responsibility as a management strategy while addressing competitiveness, sustainability and societal criteria . The corporate social responsibility index for measuring sustainability has not been fully established and encounters problems (Álvarez, et al , 2017).

CHAPTER THREE

METHODOLOGY AND RESULTS OF THE STUDY

3.1. Research Methodology

Researchers in the social sciences use either quantitative or qualitative analysis. Or the two analyzes together with the so-called mixed method or the analytical descriptive approach, which in itself embodies a set of the two methods at the same time. According to Miles and Huberman (1994) in this type of technique qualitative research can serve as an indicator for quantitative research. In our research, the mixed approach will be used, which is called the analytical descriptive approach, which depends on studying the reality or phenomenon, describing it accurately, and expressing it qualitatively and quantitatively by using the applied method by collecting data through a questionnaire distributed to the study sample and then analyzing this data and test the study hypotheses.

In this research, the scope of the theory used in the research is related to strategic planning and its relationship to sustainable development through its various dimensions within the framework of the oil industry sector in Iraq. To understand the framework of the study, where the academic literature was used in the context of a general description of the study variables, and the collection and analysis of questionnaires within the framework of the quantitative method.

3.2. The Study Population And Its Sample

The study population is represented by the administrative, technical and financial workers in the Missan Oil Company in Iraq, as the Missan Oil Company is a state-owned oil and gas company located in the Misan Governorate in Iraq and it was part of the South Oil Company until 2008.

Then the company was formed for the purpose of expanding oil activities in Misan and establishing joint ventures with international companies to develop oil fields in the province.

There are approximately 5, 000 employees in the Misan Oil Company, including permanent staffing, contracts and daily wages. They are distributed among all administrative, technical and financial departments of the company.

For the purpose of achieving its objectives, the company carries out the following activities:

1. Production and processing of crude oil and isolation of associated gas.
2. Storing and pumping crude oil and preparing it for refineries and consumption sites within the country and for export outlets.
3. Producing and processing gas, compressing it and delivering it to the gas manufacturing plants in its area of operations and to the Qatar gas network and export outlets.
4. Carrying out exploratory operations, reclaiming oil wells, re-completing them, and carrying out the works associated with drilling operations.
5. Operation and maintenance of crude oil storage and transportation systems.
6. Developing oil and gas fields for the purposes of sustaining production and raising its rates according to the plans of the Ministry of Oil.
7. Managing and implementing all technical and service works to support its activities.
8. Carry out any activities in its area of operations in line with the plans of the Ministry of Oil.

The questionnaire was randomly distributed to the company's employees after the sample size was determined according to the following equation: (Sekaran and Roger, 2016).

$$n = \frac{N}{(1+Ne^2)}$$

n: Sample Size

N:Population Size: according to this equation from approximately 5000 workers in the missan oil company in iraq.

e: Level of Precision/Sampling of Error “the level of repeatability of measurements”: 0.05 (Sekaran and Roger, 2016).

According to this Formula I will study with about 370 workers.

3.3. Data Collection Tool Of The Study

The questionnaire was adopted as an important field tool for collecting data from the From employees of the Missan Oil Company to study the impact of strategic leadership in promoting sustainable development in the oil sector

The questionnaire for the study includes the following sections:

1- The first section: consists of five questions that include some preliminary information about the respondents working in the Misan Oil Company, which are (gender, age, educational level, job experience, and job specialization).

2- The second section: consists of 20 questions distributed in two axes aimed at the relationship between strategic planning and sustainable development.

The first variable: It includes 7 questions that include strategic planning, as these questions were taken from the study (Weerasooriya W.M.R.B, 2015).

The second variable: It includes 13 questions about sustainable development distributed in four dimensions: leadership, economy, environment and society. The questions were taken from the study of the study of Julio Nichioka and Osvaldo Luiz Gonçalves Quelhas in (2010).

A Likert scale with five graded options was used in the following form to measure the study variables:

Strongly agree	Agree	Neutral	Disagree	Strongly disagree
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3.4. The Statistical Used Methods

To achieve the objectives of the research, the researcher used the Statistical Package for Social Sciences (SPSS) program, in order to carry out the analysis process, test hypotheses, and achieve the goals set within the framework of this research. A level of significance (5%) was also used, which is an acceptable level in the social sciences. In general, it corresponds to a level of confidence equal to (95%) to interpret the results of the study that will be conducted by the researcher. The following statistical methods were used:

- Cronbach's alpha test to see the stability of the questionnaire items.
- Test percentages, frequencies, arithmetic averages and standard deviations.
- Exploratory factor analysis to configure out the if the variabls are suitable or not fot analysis
- Correlation test to see if there is a correlation between the independent variable (strategic planning) and the dependent variable (sustainable development).
- Regression test to find out the effect of the independent variable on the dependent variable.

3.5. Research Hypotheses:

The study relied on a set of hypotheses, and we present them as follows

H1 :There are a positive role of strategic planning in building sustainable leadership development

H2: There are a positive role of strategic planning in building sustainable economic development

H3: There are a positive role of strategic planning in building sustainable environmental development

H4: There are a positive role of strategic planning in building sustainable social development

H5: There are a positive role of strategic planning in building sustainable development

3.6. Study Variables

The study variables are divided into two variables, one of which is an independent variable (strategic planning), and the other is a dependent variable (sustainable development). We will discuss their definition procedurally:

1. Strategic planning: “It is the process of coordinating the available resources and opportunities available to the economy in the long term to achieve long-term strategic goals based on a strategic vision that is intended to be achieved in the long term.”

2. Sustainable development: - Sustainable development is the development that takes into account the social and environmental dimensions as well as the economic dimensions for the proper use of the available resources to meet the needs of individuals while preserving the rights of future generations.

3.7. Model Of The Study

For the purposes of this study, the researcher reviewed the previous literature, and build the following study model which shows the relationship between its variables:

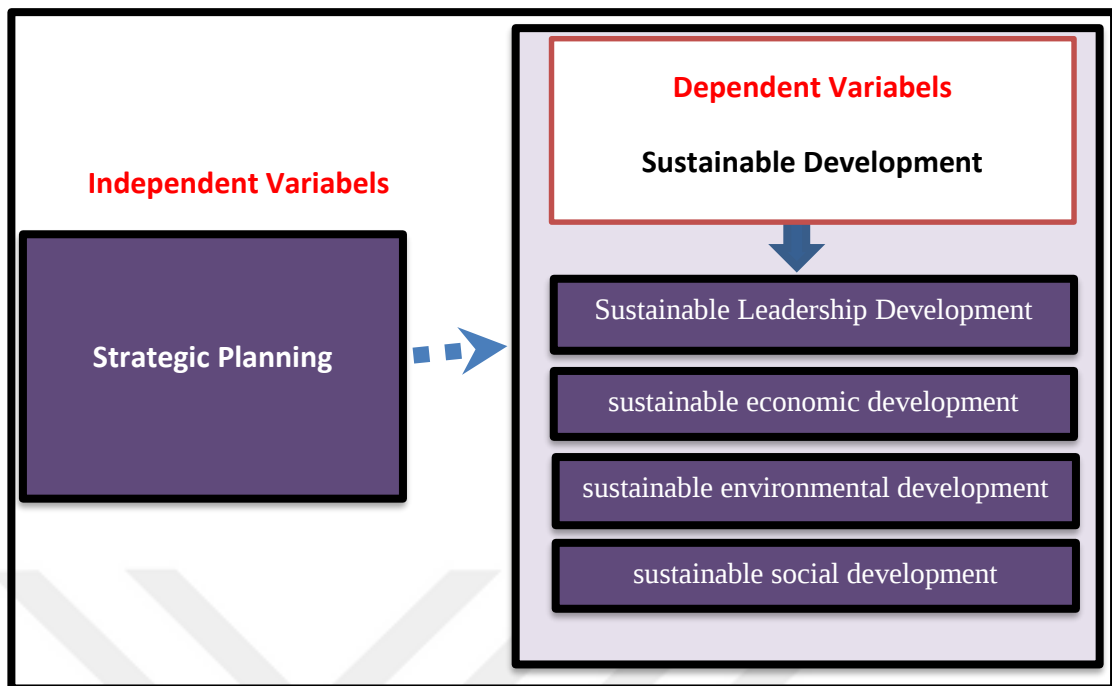


Figure 1. Study model

3.8. Demographic Analyses

Demographic analyzes sought to describe the characteristics of the sample items and not to predict or study the relationship between variables, as these analyzes allow understanding the characteristics of the statistical population through the sample in terms of, for example, gender, educational level, and others.

Table 1. Gender Distribution

Variable	Classification	Frequency	Percent %
Gender	Male	220	59.5
	Female	150	40.5
	Total	370	100.0

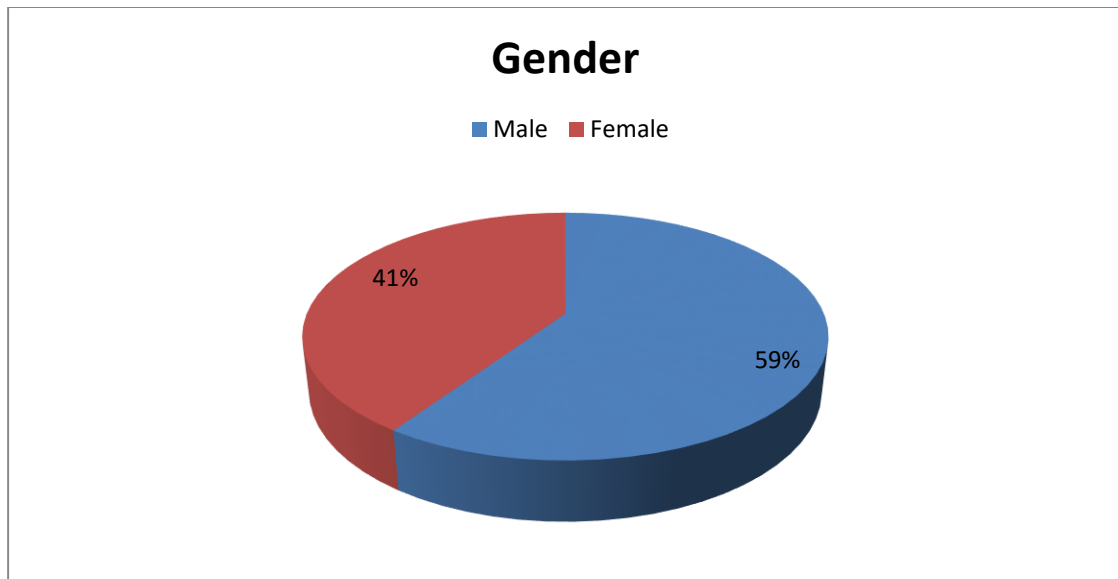


Figure 2. Gender Distribution

By looking at table No. 1, we find that the percentage of males in the sample is 59.5% and the percentage of females in the sample is 40.5.

Table 2. Education Level Distribution

Education Level	Bachelor's degree	185	50.0
	Under Bachelor's degree	79	21.4
	Master's degree	68	18.4
	Doctorate degree	38	10.3
	Total	370	100.0

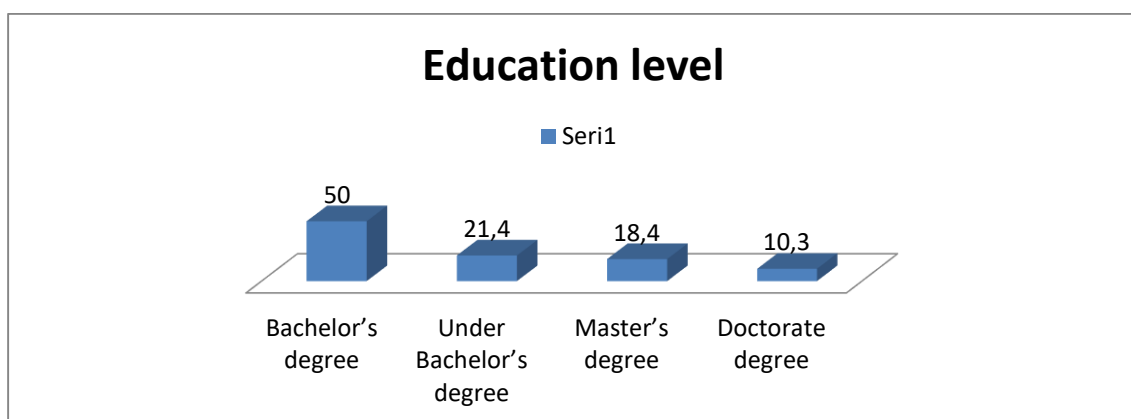


Figure 3. Education Level Distribution

From table above we notice that the largest percentage of the respondents are those with a university degree by 50%, while the results show that the percentage of those

with a degree is less than The university degree is 21.4%. We also find that the percentage of those with a postgraduate degree is 28.7%.

Table 3. Age Distribution

Age	21-30 year	132	35.7
	31-40 years	59	15.9
	41-50 years	77	20.8
	51-60 years	87	23.5
	61 and more	15	4.1
	Total	370	100.0

We note from the results obtained that 35.7% of the respondents are between the ages of 21 and 30 years, 15.9% of the respondents are between the ages of 31 and 40, and 20.8% of the respondents are between the ages of 41-50. We also find that about 27.5% of the respondents The sample is over 50 years old.



Figure 4. Age Distribution

Table 4. Position Distributio

Position	Operating Management	47	12.7
	Finance And Accounting	28	7.6
	Production	30	8.1
	Environmental Health And Safety	37	10.0
	Planning And Controlling Management	41	11.1
	Engineering And	65	17.6

	Maintenance		
	Materials And Stores	31	8.4
	Research And Development	40	10.8
	Human Administrative Department	51	13.8
	Total	370	100.0

We find from the table above that the percentage of the sample members working in the production department is 12.7%, in the finance department it is 7.6%, and the safety and health environment is 10%. 11% of the sample members work in the planning department, 17.6% work in the maintenance and repair department, and 10.8%. % of the sample members work in the research and development department.

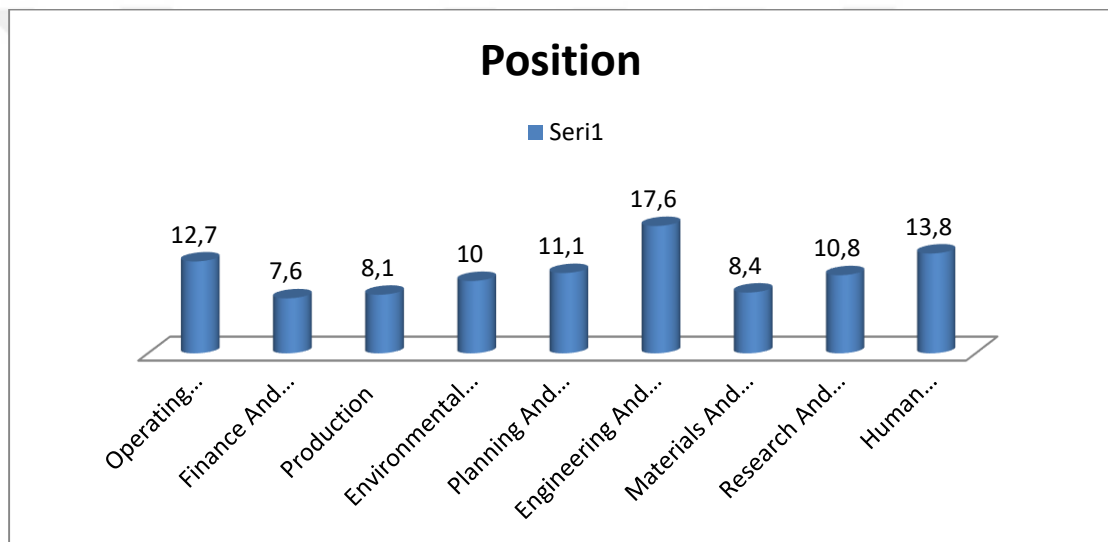


Figure 5. Position Distribution

Table 5. Experience Distribution

Experience	Less than 5 years	39	10.5
	5-10 years	102	27.6
	11-15 years	116	31.4
	16-20 years	71	19.2
	More than 20 years	42	11.4
	Total	370	100.0
	Less than 5 years	39	10.5

Looking at the job experience table, we find that 10.5% of the sample members have less than 5 years of experience, 27.6% of the sample members have job experience between 5 and 10 years, 31.4% of the sample members have job

experience between 11 and 15 years, and 19.2% They have between 16 and 20 years of experience, and 11.4% have more than 20 years of job experience.

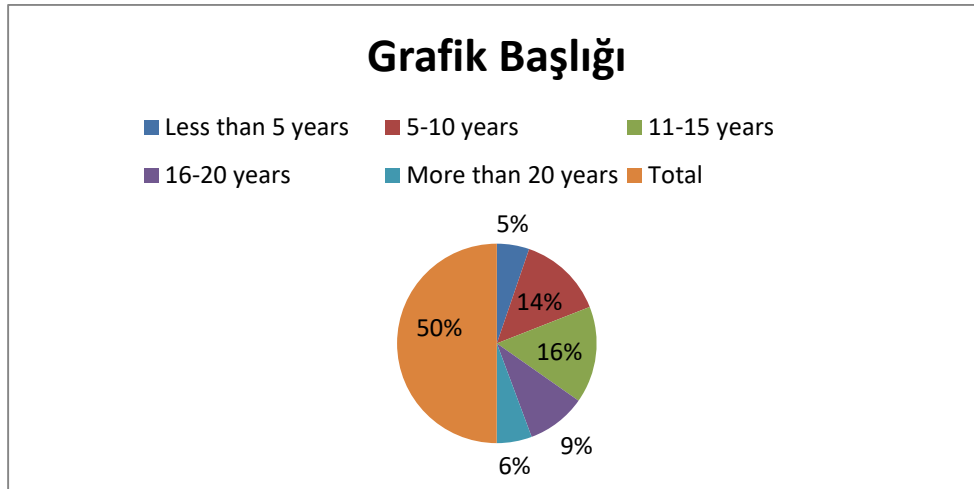


Figure 6. Experience Distribution

3.9. Factor Loading analyses

Table 6. Factor Loading analyses

Factor's Name	Variables	Factor Loading	Eigen-value	Variance Explained	KMO
Strategic Planning	SP1	.944	2.164	51.54	0.773
	SP2	.856			
	SP3	.834			
	SP4	.927			
	SP5	.894			
	SP6	.783			
	SP7	.956			
Sustainable Leadership Development	SLD1	.938	2.25	51.33	0.783
	SLD2	.920			
Sustainable Economic Development	SED1	.845	1.44	55.74	0.784
	SED2	.911			
	SED3	.845			
Sustainable Environmental Development	SVD1	.944	1.83	62.10	0.675
	SVD2	.928			
	SVD3	.918			
	SVD4				
Sustainable Social Development	SSD1	.784	2.63	51.24	0.728
	SSD2	.855			
	SSD3	.864			
	SSD4	.835			

The 20 items in the questionnaire were subjected to exploratory factor analysis using SPSS 22. To enhance the reliability of the scale, exploratory factor analysis identifies inappropriate items. The factor analysis value for each variable is more

than 70%, which indicates that all items in the questionnaire are suitable for analysis. The Kaiser-Meyer-Olkin scale indicates the adequacy of the sample for analysis, as the KMO value is more than 0.5 for all factors. The five basic variables had eigenvalues greater than one, and the proportions explained for each factor were more than 50% as shown in the table above. All results obtained indicate the adequacy of the sample and study instrument for analysis.

3.10. Cronbach's Reliability Analysis

Table 7. Analysis of Cronbach's Reliability

Factor's Name	Cronbach's Reliability Coefficients
Strategic Planning (ST)	.834
Sustainable Development (SD)	.788
Sustainable Leadership Development (SLD)	.866
Sustainable Economic Development (SED)	.784
Sustainable Environmental Development (SVD)	.768
Sustainable Social Development (SSD)	.824
TOTAL	.894

Cronbach's alpha analysis indicates the reliability of the data collection tool, which is the questionnaire, where the value of the Cronbach's alpha coefficient must be greater than 0.7, as the results obtained in Table 2 show that the value of the Cronbach's alpha coefficient for all axes of the questionnaire is between 0.768 and 0.866, which indicates. The table shows the Cronbach's alpha coefficient value for the independent variable, which is .834, for the dependent variable, which is .788, and for the total variables, which is .894. The degree of reliability is high and therefore the results obtained are suitable for analysis.

CHAPTER FOUR

HYPOTHESES TEST

This chapter refers to the results of testing the hypotheses developed by the researcher in the study. In the beginning, analysis of mean, and standard deviation was conducted to ensure that the data obtained were distributed around the mean and in the acceptance area. Then the researcher conducted correlation analysis to ensure the existence of a relationship between the variables. Finally, regression analysis was conducted to confirm the effect of the independent variable on the dependent in order to accept or Rejecting the study hypotheses.

4.1. Mean and Std. Deviation analyzes

Table 8: Mean and Std. Deviation analyzes

Factor's Name	Variables	Mean	Std. Deviation
Strategic Planning	SP1	3.7455	.96344
	SP2	3.2855	.44545
	SP3	3.9556	1.0556
	SP4	3.2342	1.0164
	SP5	3.2855	1.0285
	SP6	3.8345	.96346
	SP7	3.6577	.91855
Sustainable Leadership Development	SLD1	3.9354	.92855
	SLD2	3.1755	1.0275
Sustainable Economic Development	SED1	3.5755	1.0045
	SED2	3.8466	1.0267
	SED3	3.9344	.57455
Sustainable Environmental Development	SVD1	3.8345	.84566
	SVD2	3.8344	.46355
	SVD3	3.4544	.98455
	SVD4	3.1426	.93846
Sustainable Social Development	SSD1	3.3735	.91846
	SSD2	3.1744	.98555
	SSD3	3.2855	.91855
	SSD4	3.1734	1.3755

The table above shows the values of the mean, and standard deviation,. The values of the arithmetic mean indicate that the trend of answers to the questionnaire questions is towards the corresponding region, while the values

of the standard deviation indicate that the dispersion of values from their arithmetic mean is small.

4.2. Correlation Analysis

Table 9: Correlation Analysis

		ST	SLD	SED	SVD	SSD	SD
ST	Pearson Correlation	1	.725**	.635**	.786**	.794**	.609**
	Sig. (2-tailed)		.000	.000	.000	.000	.000
	N		370	370	370	370	370
SLD	Pearson Correlation		1	.688**	.660**	.924**	.513**
	Sig. (2-tailed)			.000	.000	.000	.000
	N			370	370	370	370
SED	Pearson Correlation			1	.428**	.724**	.505**
	Sig. (2-tailed)				.000	.000	.000
	N				370	370	370
SVD	Pearson Correlation				1	.713**	.891**
	Sig. (2-tailed)					.000	.000
	N					370	370
SSD	Pearson Correlation					1	.931**
	Sig. (2-tailed)						.000
	N						370
SD	Pearson Correlation						1
	Sig. (2-tailed)						
	N						

** . Correlation is significant at the 0.01 level (2-tailed).

Where:

ST: Strategic Planning

SLD: Sustainable Leadership Development

SED: Sustainable Economic Development

SVD: Sustainable Environmental Development

SSD: Sustainable Social Development

SD: Sustainable Development

Table 9 refers to the results of the Pearson correlation analysis. The value of the Pearson coefficient ranges between -1 and +1, where the negative sign indicates an inverse relationship between variables and the positive sign

indicates a direct relationship between variables. On the other hand, whenever the value of the Pearson coefficient is close to 1 or -1, this indicates the strength of the relationship between the variables in the study. We note from the results obtained in Table 3 that there is a positive correlation with significant significance at 1% between each of the strategic planning and the dimensions of sustainable development, as the results indicate that the value of the correlation between strategic planning and leadership development is .725** and that the value of the correlation between planning Strategic planning and economic development is .635** and the value of the correlation between strategic planning and environmental development is .786** and the value of the correlation between strategic planning and social development is the strongest and equal to .794** and the value of the correlation between strategic planning and continuous development is .609**

4.3. Regression Analysis

Table 10: Regression Analysis between Strategic Planning and Sustainable Leadership Development

Dependent Variables	Independent Variables	β	t	P VALUE	R^2	F
Sustainable Leadership Development	(constant)		1.637	.103	.526	408.870
	Strategic Planning	.725	20.221	.000		

Regression analysis is an analysis technique that calculates the estimated relationship between a dependent variable and an explanatory variable, i.e. one independent variable. R^2 , F, and Beta values were examined to complement the results of the regression analysis. The t-statistic measures the number of standard errors, Beta is the average amount by which the dependent variable increases when the independent variable increases one standard deviation and other independent variables are held constant, which indicates that when the strategic planning increases by 1% the sustainable leadership development will increase by .725.

The regression coefficient R² reflects the amount of the dependent variable explained by the independent variables of the model. The p value indicates whether or not the regression model is statistically significant. Through Table 10, we note that the value of the regression coefficient is .526 and the P value is less than 5%, which indicates that the **H1 hypothesis is accepted : A positive, statistically significant effect of strategic planning on leadership development.**

Table 10: Regression Analysis between Strategic Planning and Sustainable Economic Development

Dependent Variables	Independent Variables	β	t	P VALUE	R ²	F
Sustainable Economic Development	(constant)		-7.276	.000	.874	2.550E3
	Strategic Planning	.935	50.493	.000		

Through Table 10, we note that Beta values indicates that when the strategic planning increases by 1% the sustainable economic development will increases by .935.

The value of the regression coefficient is .874 and the value of P value is less than 5%, which indicates that the **H2 hypothesis is accepted : a positive and statistically significant effect of strategic planning on economic development.**

Table 11: Regression Analysis between Strategic Planning and Sustainable Environmental Development

Dependent Variables	Independent Variables	β	t	P VALUE	R ²	F
Sustainable Environmental Development	(constant)		-.469	.639	.786	1.348E3
	Strategic Planning	.687	36.714	.000		

Through Table above, we note that Beta values indicates that when the strategic planning increases by 1% the sustainable Environmental development will increases by .687, and the value of the regression coefficient is .786 and the value of P value is less than 5%, which indicates that the **H3 hypothesis is accepted : a positive and statistically significant effect of strategic planning on environmental development.**

Table 12: Regression Analysis between Strategic Planning and Sustainable Social Development

Dependent Variables	Independent Variables	β	T	P VALUE	R ²	F
Sustainable Social Development	(constant)		-.062	.951	.630	626.308
	Strategic Planning	.794	25.026	.000		

Through Table above, we note that Beta values indicates that when the strategic planning increases by 1% the sustainable Social development will increases by .794, and the value of the regression coefficient is .630 and the P value is less than 5%, which indicates that the **H4 hypothesis is accepted : a positive, statistically significant effect of strategic planning on social development.**

Table 13: Regression Analysis between Strategic Planning and Sustainable Development

Dependent Variables	Independent Variables	β	T	P VALUE	R ²	F
Sustainable Development	(constant)		-2.669	.008	.826	1.752E3
	Strategic Planning	.909	41.861	.000		

Through Table above, we note that Beta values indicates that when the strategic planning increases by 1% the sustainable development will increases

by .909, and the value of the regression coefficient is .826 and the P value is less than 5%, which indicates that the **H5 hypothesis is accepted : which indicates a positive, statistically significant effect of strategic planning on sustainable development in its dimensions as a whole.**



CONCLUSION AND RECOMMENDATIONS

Conclusion

This study aimed to explore the impact of strategic planning on sustainable development in its various dimensions (leadership, environment, economy, and social aspects) in the Misan Oil Company in Iraq. To explore the relationship and influence between the variables, the researcher used correlation and regression analysis after collecting data through a questionnaire. The study found a statistically significant impact of strategic planning on sustainable development in its various dimensions. Hypotheses H1, H2, H3, H4, and H5 were accepted.

It can be noticed that the Strategic planning is one of the most important administrative tools that helps companies achieve their goals and ensure their continuity.

For Missan Oil Company, adopting strategic planning as an integrated approach to future oil and gas management in the company will help it ensure the company's continuity in achieving sustainable growth for the company by improving the company's financial and administrative performance.

Continuous monitoring and evaluation of performance to achieve strategic objectives at Missan Oil Company will help the company achieve ensuring the company's path towards achieving strategic objectives and identifying opportunities and challenges facing the company in the future.

The results of this study are consistent with a number of research studies that found a positive impact of strategic planning on sustainable development, such as (Wagner, 2010; Schweitzer, 2010; Zare, Shahraki, Safari, Khalilzadeh, 2012; Debrah Kwame Poku, 2012 ; Tijiani Abubakar, 2014; Baumgartner, and Rauter, 2017 ; Carolina Diniz Melo, 2019).

The study concluded that there is a direct relationship between strategic planning and the concept of sustainable development. The more strategic planning is studied in a correct scientific manner, the more this is reflected in the sustainability of sustainable development and vice versa. We

cannot imagine separating these two terms from each other if the goal is sustainable development.

Also, with regard to strategic planning, this term - sustainable strategic planning - requires that it be carried out in a scientifically studied manner, to develop strategic plans, the steps for their implementation, and to monitor their application. As for the term sustainable development, what is important is that the development process aims to serve the current generations in a way that does not harm the interests of Future generations will not be burdened with financial burdens (debts) that limit their quality of life.

This relationship is best described by the term (sustainable strategic planning), by which we mean the permanence or continuity of strategic planning with the aim of achieving sustainable development.

No one disagrees on the importance of strategic planning in building society on modern development foundations. Despite the importance of strategic planning, its application on the ground collides with many obstacles, problems and challenges that hinder the accurate implementation of strategic plans. This is called (planning between theory and practice), so it is necessary Considering strategic plans in accordance with the reality of Iraq and its economic, social and political factors. In order to achieve an effective contribution to economic development through the oil revenues provided to finance capital and consumer goods and services.

The study found that strategic planning contributes to achieving sustainable development within the framework of:

First: The industrial sector: through its impact on the industry that depends on crude oil and natural gas. Despite the low contribution of the manufacturing industry to the gross domestic product, the nature of this industry in the Gulf oil-exporting countries, which is represented by petrochemical industries, modern oil refineries, mineral industries, and chemical fertilizers, makes it of great importance.

As for the natural gas industry, which is used as fuel in power generation and water desalination plants and in petrochemical industries in others, the interest of the Arab Gulf countries in such an industry has appeared since the mid-seventies, as its contribution as an energy source increased and special projects have been established to collect it, liquefy it, and shipment.

Second: Agriculture Sector:

Directing a portion of oil surpluses to the agricultural sector is considered an urgent necessity with clear strategic dimensions for Iraq. This is a result of the importance of this sector and the goods it provides, often for local consumption.

-Services sector: The services sector has begun to play an increasing role in the economy of oil-producing countries, including Iraq. The share of services in the gross domestic product increases as the level of income and then development rates increases. The role of the state and the scope of its work has expanded, and it has begun to provide education and health services, and to provide social insurance and social care. A social security and health insurance system has been established, in addition to providing many productive services.

Oil was also behind the emergence of a large and broad commercial and service sector, as oil revenues created the need for a strong banking sector based on recycling surpluses, managing international loans, making international investments, and gaining experience in foreign exchange trading operations, financial portfolio management, and commercial operations.

Trade plays a major role in the economic and social life of nations, in general, and developing countries in particular, as it is considered a stimulant of growth and development by regulating the exploitation of economic resources.

The results obtained show that the Misan Oil Company in Iraq carries out strategic planning activities based on the company's objectives. The company's strategic plan was developed on the basis of internal and

operational efficiency, which will enable the company's strategic plan to evaluate external factors before implementation.

The study also found that the Misan Oil Company seeks, through the application of strategic planning, to reduce the direct economic effects, as it seeks to obtain social support for its operations.

Misan Oil Company considers that strategic planning will be reflected in supporting the company's environmental activities, thus reducing pollution, preserving nature, establishing healthy and decent work practices for the company, and thus achieving environmental and social satisfaction.

The use of strategic planning will reflect positively on sustainable development, as sustainable development must provide a solution in terms of meeting basic human needs, integrating environmental development and protection, achieving equality, ensuring social self-determination and cultural diversity, and preserving environmental integrity.

The study concluded that the use of strategic planning in the Misan Oil Company means economic development, increased profits, and the growth of the market value of the company.

Recommendations

The study recommends that companies in Iraq and other countries focus on strategic planning to achieve economic development, increase company profits, and achieve social integration of the company, in addition to preserving the environment and developing society.

The implementation of strategic planning in the oil sector in Iraq is an important area that lacks the necessary attention and research by scholars. This thesis focused on the strategic planning process and its role in achieving sustainable development. Investigating strategic planning outcomes and dimensions of the planning process through a longitudinal study will allow a better understanding of the cause-and-effect relationship and will lead to interesting implications for management and practice.

The study recommends that development in the oil and gas sector take into account maintaining the characteristics and level of performance of current and future natural resources as a basis for achieving sufficiency for future generations.

Current investment patterns must be reconsidered through long-term strategic plans, while enhancing the use of technical means that are more compatible with the environment, with the aim of reducing the manifestations of damage and disturbing the environmental balance and preserving the continuity of natural resources.

The concept of return from development must include everything that benefits society, so that this concept is not limited to return and cost, based on the return on indirect environmental impacts and the resulting social cost, which embodies the shortage of natural resources.

The study also recommends the sustainability, communication and continuity of production systems as a basis for preventing the possible collapse of development components, especially in developing countries that rely on traditional systems linked to components of the natural environment.

The study recommends conducting many researches within the framework of strategic planning in other companies in Iraq and other Arab countries. While Arab countries may share similar cultural environments, they differ greatly in their political and economic environments. It also recommends studying the relationship between strategic planning and sustainable development in a variety of public sectors in Iraq, allowing the results to be generalized.

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QUESTIONNAIRE

Section A: Demographical information

1. Age (Please Tick your age group)

- | | | | |
|-------------|----------------------------|-------------|----------------------------|
| 21-30 year | ☐ 1 | 51-60 years | ☐ 4 |
| 31-40 years | ☐ 2 | 61 and more | ☐ 5 |
| 41-50 years | ☐ 3 | | |

2. Gender (Please Tick your gender)

- Male ☐1 Female ☐2

3. What is your highest qualification? (Please Tick in one box)

- Bachelors ☐1 Master ☐2 PhD ☐3 Other ☐4 (Please state)

4. Years of experience (Please Tick in one box)

- Less than 5 years ☐1 5-10 ☐2 11-15 ☐3 16-20 ☐4 More than 20 years
☐5

5. Scientific specialization (Please Tick in one box)

- Operating Management ☐1 Finance And Accounting ☐2 Production ☐3
Environmental Health And Safety ☐4 Planning And Controlling
Management ☐5 Engineering And Maintenance ☐6 Materials And Stores ☐7
Research And Development ☐8 Human Administrative Department ☐9

Section B: (Please choose as appropriate)

STATEMENT		SCALE				
A.	Strategic Planning	Absolutely I disagree	I disagree	I am undecided	I agree	Absolutely I agree
		(1)	(2)	(3)	(4)	(5)
1	Our company have followed strategic planning activities during the past years					
2	Our company conducts strategic planning activities based on company al goals					
3	Our strategic plan is developed based on internal and operational efficiency					
4	Our strategic plan will evaluate the external factors before implementation					
5	Our strategic planning process identifies the most critical issues faced by the company					
6	Our company sets specific activities to address each of these critical issues					
7	Our company establishes the performance indicators to measure the achievement of goals in the strategic plan process					
B.	Sustainable Leadership Development					
8	Our company have Effective Corporate Governance available					
9	Our company is a pro-active company , in response to strategies and its objectives					
C.	Sustainable Economic Development					
10	Our company seeks to minimize direct economic impacts					

11	Our company seeks to obtain “social license for operations”					
12	Our company effect positive indirect economic impacts					
D.	Sustainable Environmental Development					
13	Our company seeks to reduce inputs in the materials and supplies processes, in relation to a standard productivity level					
14	Our company seeks to preserve nature					
15	Our company seeks to increase production of outstanding goods					
16	Our company seeks to pollute less					
E.	Sustainable Social Development					
17	Our company seeks to establish correct and decent labor practices					
18	Our company respect people					
19	Our company seeks to reduce the impact to communities and society					
20	Our company seeks to reduce the impact of Liability aspects					