REPUBLIC OF TURKEY

ALTINBAŞ UNIVERSITY

Institute of Graduate Studies

Industrial Engineering

THE INFLUENCE OF PORTER'S GENERIC STRATEGIES ON PERFORMANCE OF THE ELECTRICITY INDUSTRY COMPANIES

Tamadhur Kadhim AL JANABI

Master's Thesis

Supervisor

Asst. Prof. Dr. Engin SANSARCI

Istanbul, 2022

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The thesis titled THE INFLUENCE OF PORTER'S GENERIC STRATEGIES ON PERFORMANCE OF THE ELECTRICITY INDUSTRY COMPANIES prepared by TAMADHUR KADHIM AL JANABI and submitted on 10/08/2022 has been **accepted unanimously** for the degree of Master of Science in Industrial Engineering.

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Tamadhur Kadhim AL JANABI

Signature

DEDICATION

I dedicate the results of my research to my family and to all those who supported and helped to the accomplishment of this scientific endeavor.

PREFACE

I thank my Lord and Creator who was with me every step of the way as I walked in the path of knowledge. I am also grateful to everyone who supported and contributed to the achievement of this scientific thesis. I would like to thank my supervisor, Asst. Prof. Dr. Engin SANSARCI, for all his great giving and assistance in This thesis would not have been possible without his guidance and advice. I would also like to thank all the instructors at Altinbas University who have shared their knowledge with us during the study period. I would also like to express my thanks to (parental), had it not been for their support and love for me, I would not have been able to achieve my goals here at Altinbas University.

ABSTRACT

THE INFLUENCE OF PORTER'S GENERIC STRATEGIES ON PERFORMANCE OF THE ELECTRICITY INDUSTRY COMPANIES

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Date: 08/2022

Pages: 74

The study aimed to define the effect of the three general strategies of Michael Porter on the performance of the electricity industry companies in the Republic of Iraq. The questionnaire was used as a tool to collect data from the target sample, and the (SPSS) program was used to exam the research hypotheses. Statistical methods were used to analyze the data such as skew, kurtosis, Cronbach's coefficient alpha and correlation coefficient. The results of this study showed the importance of Porter's three strategies to improve the company's performance. Also, the empirical results showed that when comparing Porter's two other strategies, the differentiation approach has a greater impact on improving financial performance. Applying Porter's generic strategies enables companies to achieve their three primary goals, which are to expand market share, generate profits, and survive. The study recommended the importance of change and diversity in the strategies followed, increasing the application of international standards for quality and safety, and trying to apply Porter's strategies in all operations that follow the production process.

Keywords: Competitive Strategies, Cost Leadership Strategy, Company Performance, Electrical Industry Companies.

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ABBREVIATIONS

MPV	:	Market Position View
ROE	:	Return On Equity
BSC	:	Balanced Score Card
TQM	:	Total Quality Management
SWOT	:	Strengths, Weaknesses, Opportunities, Threats
FP	:	Firm Performance
ANOVA	:	Analysis Of Variance
df	:	Degree Of Freedom

1. INTRODUCTION

Electricity is more than a utility, it underlies the delivery of essential social and humanitarian services, additionally to public goods including water, transportation, and health and education Sector[1].

In recent times, the energy sector has gone through considerable changes due to evolve in the domestic and international market environment, which led to changes in trends and policies, and the trend towards a more competitive environment. Therefore, energy companies have resorted to applying competitive strategies because they achieve cheap costs for all, lower prices at marginal cost, higher quality, maximizing corporate profits, minimizing risks, and increasing potential competition in the future domestic and global energy market[2]. Also, Competition improves consumer welfare, as well as ensuring that resources are properly invested[3]. For this purpose, each organization aims to defeat competitors and obtain new customers in a strong competitive environment ,by implementing competitive strategies in order to stay in the market and increase profitability additionally ,strengthen market share[4],[5].

This study focuses on knowing the influence of the three general strategies on the performance of firms in the electric power production strip in the Republic of Iraq, as well as determining which of these strategies is better in terms of improving the performance of the companies. It is divided into five parts. As an introduction, the first chapter provides an overview of the topic as well as a statement of the problems and a list of objectives. The second chapter delves into the literature review, identifies the competitive strategies to be applied in detail, learns the benefits and risks of each type, and outlines the research conceptual model. The third chapter delves into the research methodology, the fourth chapter delves into the analysis and discussion of the results, and the fifth chapter delves into the results and conclusions.

1.1 GENERAL BACKGROUND ON THE ELECTRIC POWER SECTOR IN IRAQ

Electric power sector in Iraq is a governmental sector owned by the state, and it consists of three main sectors (production, transmission, and distribution) and it is the responsibility of the Iraqi Ministry of Electricity. It is considered one of the important and strategic sectors responsible for supplying Iraq with electric power.

The Iraqi Ministry of Electricity was established in 2003 after it was a formation at the level of a body since 1999, the ministry has gone through different stages of work during which it has developed in terms of the number and level of its formations and the quantity of its production of electric energy, it worked in difficult conditions and the size of great challenges over the past years, where the Ministry of Electricity and its national systems faced Significant challenges impeded the implementation of its strategic plans, and on top of these challenges were terrorism and sabotage that affected its system, its affiliates and its infrastructure after mid-2014 in the governorates of Nineveh, Salah al-Din, Anbar, Diyala, Kirkuk and the outskirts of Babil Governorate and the capital, Baghdad. The governorates are up to 90%, and the financial losses amounted to 9.5 billion dollars, in addition to the security challenge, the type of fuel used and the financial challenge, as well as the challenge of loads and excessive consumption of electrical energy, all of which stood as an obstacle to the development of the electricity sector in Iraq[6].

Electricity production companies in the Republic of Iraq suffer from many problems, including a large production deficit, a significant increase in the rate of demand for electric energy at an average of 7% annually, with the large growth of loads as shown in the figure, in addition to the inefficiency of generation stations for the inability to provide them with fuel the appropriate[7]. In addition to these problems, the lack of funding for the electric power sector and poor future planning have contributed to the increase in the electricity crisis in Iraq, despite spending billions of dollars to develop the efficiency of the electricity sector, but the gap between supply and demand continues, which caused the electricity to be cut off for the citizen And losses in the Iraqi economy also amount to 40 billion dollars annually[8].

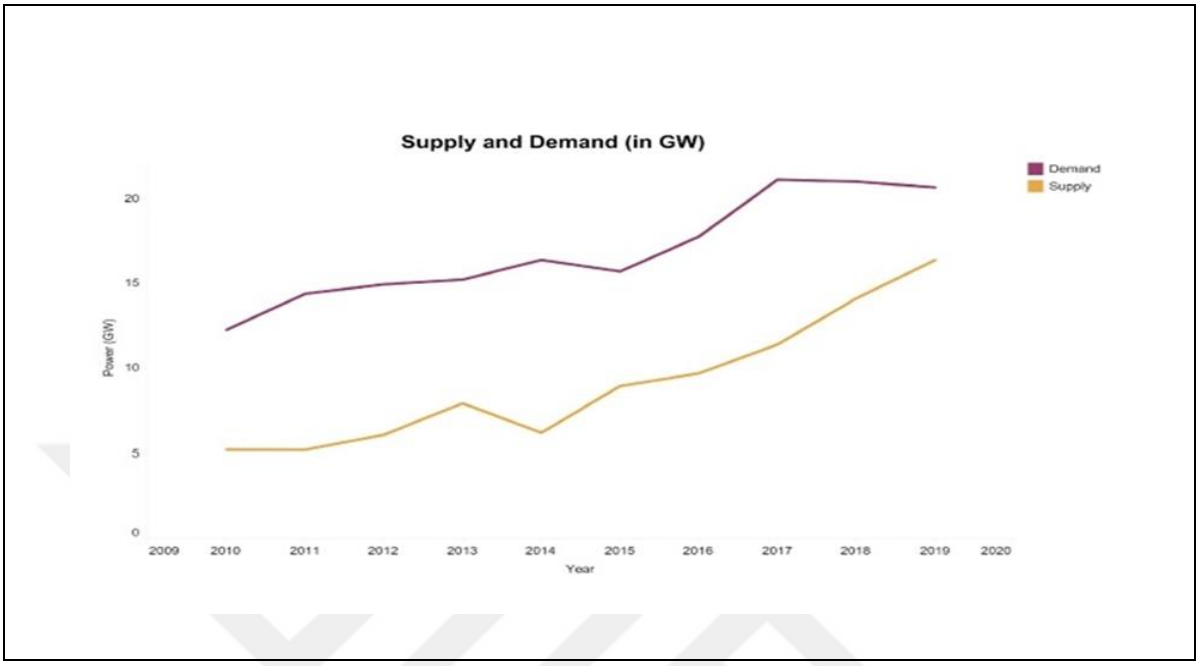

Figure 1.1: Supply and demand for electrical energy in Iraq[9].

1.2 RESEARCH IMPORTANCE

1.2.1 Scientific Importance

a. It helps in defining the idea of the general strategies of competing companies and shows how the performance of these companies is affected by the application of these strategies.

b. The topic of competitive strategies, in addition to its influence on the firm's work performance, is an important topic that determines the firm's position in the local and global market, as well as determining the company's future direction.

1.2.2 Practical Importance

a. The importance of applying competitive strategies in the electric power generation companies in the Republic of Iraq lies in the importance of this sector in feeding the country with electricity and is considered the main source of economic, commercial, and societal growth.

b. It is important in solving the problems that lead to a decline in the financial and non-financial performance of electric power generation companies in Iraq.

1.3 PROBLEM STATEMENT AND MOTIVATION

The electric power generation sector in Iraq is a governmental public sector managed and supervised by the Iraqi Ministry of Electricity and financed by the Iraqi government. The main problem is the gap between supply and demand for electric power in Iraq as shown in Figure1.1. despite the addition of new units for the production of electric power after 2003, but it was not sufficient to fill the deficit[9]. In addition to the sudden drop in global oil prices since 2020, this has led to weak financial financing of electric power projects in Iraq for the electric power production sector and the continuation of the gap[10].

These problems are among the main motives that encouraged the research on this subject and the trend towards applying Michael Porter's competitive strategies in electric power generation companies to activating the competitive advantage among them and knowing the extent of their effect on improving the company's performance in terms of market share, profits and revenues generated from sales operations to reduce the financial burden about the state and solving the energy crisis in Iraq.

1.4 OBJECTIVE AND STUDY QUESTIONS

The main objective of the project is to learn the Porter's effect of the three general competitive strategies on the performance of the energy sector companies in the Republic of Iraq, and then determine which of these strategies has a better influence on the companies' performance?

Consequently, the study's main question is: How do Porter's competitive strategies affect the performance of an electric power company? When examining this query, the following related queries appear:

a. What is the concept of competitive strategies for companies?

b. Does the cost leadership strategy affect the performance of the work of the electrical industry firms?

c. How does the differentiation strategy contribute to improving the performance of the work of the electrical industry firms?

d. How much does the focus strategy impact how the performance of the work of the electrical industry firms?

1.5 RESEARCH HYPOTHESES

The presence of effective competitive tactics on the productivity of the work of electrical industry enterprises is the primary premise of the study. The following sub-hypotheses are divided into this hypothesis:

a. The performance of the electricity industry companies operating in a competitive environment is positively affected by the implementation of the cost leadership strategy.

b. The performance of the electricity industry companies operating in a competitive environment is positively affected by the implementation of the differentiation strategy.

c. The performance of the electricity industry companies operating in a competitive environment is positively affected by the implementation of the focus strategy.

1.6 METHODOLOGICAL APPROACH

The research methodology consists of a questionnaire used as a data collecting tool to accomplish the purpose of the study. The questionnaire was distributed electronically and via e-mail to experts, specialists, and senior management in the electric power production companies in Iraq. The statistical program (SPSS) was utilized to analyze the questionnaire responses. Descriptive statistics and correlation analysis were also used to ensure the quality of the questionnaire axes and their suitability to the research topic. The literature was reviewed through books, scientific articles, databases specialized in the field of study and others.

2. LITERATURE REVIEW

Figure 2.1: One of the electric power plants in Iraq.

2.1 INTRODUCTION

Electricity is a commodity sold in the market and a prerequisite for all of humanity, to ensure its effective and sustainable must it meet satisfies the needs of consumers and producers In a rapidly evolving business environment, Moreover leaders and executives in power generation companies must seek to take decisions and actions by planning and implementing appropriate strategies that lead to improving value in their institutions [9]-[11]. Energy companies around the world underwent major reforms, and their competition grew dramatically in the 1980s in the United Kingdom and other countries, moving from monopolistic energy utilities to a competitive market power[12].

At the beginning of the eighties of the current century, Michael Porter's strategies were among the most widely accepted and widely known strategies in international companies[13]. Porter's

General Strategies Framework is the focal point of this study for several reasons. First, the Porter framework for general strategies is inherently related to the performance of the company, and secondly, the Porter framework is intertwined with other patterns. Porter's cost leadership strategy is somewhat like that of advocated cost leadership by Miles and Snow[14],[15]. The differentiation strategy is similar to the prospector strategy[16]. Similar to Miller and Friesen's so-called niche innovation strategy is the focus strategy. [17],[18].

This chapter explains the classic approach to formulating strategy, the general concept of strategy from the point of view of several researchers and scholars in this field. This chapter also explains the concept of Michael Porter's general strategy and the types of general strategies as well as the benefits and risks of applying each type. It will also review books, magazines, and other publications on the impact of general competitive strategies on businesses' performance across a range of industries, with an emphasis on the role that competitive advantage plays in the electric power sector.

2.2 THE CLASSIC APPROACH TO FORMULATION OF STRATEGY

The competitive strategy is a mixture of a combination of goals "objectives" that the company seeks for and the means that it wants to reach. The concepts and terminology of strategy differ for different companies, some of them use the term "mission" or "objective" instead of "objectives", some companies use the term "tactics" instead of "operation". Nevertheless, attention is paid to the main idea of strategy and the distinction between end and means.

Figure 2.2 shows the so-called "the wheel of strategic competition", this wheel is the tool through which the basic aspects of the competitive strategy of the enterprise can be shown. A concise explanation of the key operational policies in that functional area should be drawn from the company's activities under each topic on the wheel. When the teeth of the wheel (politics) engage from the axle (objectives) and reverse it, the teeth of the wheel must be engaged with each other, otherwise the wheel will not move[19].

Figure 2.2: The wheel of competitive strategies[19].

2.3 DEFINE COMPETITIVE STRATEGY

Strategy is an important component of any efficient and successful business policy. Using efficient strategies, companies can learn about their market valuation as well as their customers[19].

Michael E. Porter described competitive strategy as a set of activities or events that an organization undertakes in a way that differs from competitors so that it achieves a product or service of greater value or lower cost, or both, through which it achieves a advantage over rivals by (Low cost, Focus on a specific feature, quality and rarity) [20],[21]. Porter refers to these as " generic strategies "[22].

David FR. defines strategies as expected action steps that require strategic decisions by corporate managers and significant corporate resources[22].

According to Desyllas, Panos the method adopted by organizations to achieve their competitive goals, by focusing on reducing costs, achieving quality, meeting customer requirements, focusing on a specific market sector, or paying attention to all of them[23].

people use strategies in different ways. It specifically lists four methods: a plan for "how" to go from "Here" to "There", a pattern of actions over time, a posture that reflects tariffs to offer specific goods in specific markets, and a strategy that can include future direction and vision[24].

Another researcher defined it as the way institutions improve their performance, through which they can distinguish and differ from the rest of the competing companies, thus achieving a high market share, raising the level of financial performance, developing productivity and encouraging creativity and innovation[25].

Despite all this, researchers still agree on the definition of strategy as the method by which the organization's future goals are evaluated and competitive advantages are achieved in the business market. Thus, for the purpose of reaching the goal of the thesis, we follow the definition of (Michael E. Porter) depending on the creation of distinction.

According to Porter, continuous improvement through the company's operational activities can achieve higher profits, but it is not sufficient alone to obtain long-term strategic success[19]. Therefore, the operational activities of companies alone lead to negative results for the company and its competitors as well. Leaders and corporate executives must differentiate between operational and strategic activities, both of which are necessary but implemented within different steps and durations.

The definition of strategy, according to Anwar & Abdel-Zebari[26]. It is "constructing a formidable defense against the five competitive factors."

2.4 THE IMPORTANCE OF APPLYING COMPETITIVE STRATEGIES

Competitive strategies in companies and organizations have been given attention due to the occurrence of many cases of financial losses because of poor planning and management of companies by executive managers, which prompted customers to take measures to protect themselves from the risks of failure in addition to their role in continuity by maximizing market value, there are many Important steps and procedures for implementing competitive strategies in companies[25]-[28]. The most important of them are the following:

a. Develop and formulate a vision for the company and the formation of core values for the company.

b. Improving work policies and finding answers to the organization's difficulties.

c. Designing, implementing, and evaluating decisions, and developing strategies to achieve better results.

d. Enhancing the company's capacity to accomplish its goals, supporting communication strategies, and making organizational structure adjustments in line with the demands of the work.

e. Focused on results and processes.

f. Improving workflow and improving company relations.

g. Investing human resources in a way that serves to achieve goals by focusing on knowledge and innovation.

h. Focuses on quality and continuous improvement of the product or service to meet customer requirements.

i. The application of competitive strategies helps in increasing profit margins.

j. Competitive strategies help to attract customers continuously.

k. It contributes to brand loyalty.

l. It can help revenue streams become more consistent and predictable.

m. It can attract additional brand coalitions, talented individuals, and investors.

2.5 GENERIC TYPE STRATEGIES

Porter's general strategies are among the main components of management science that show decisions and actions that companies must follow to overcome their competitors in each industry. A company's strategies are the steps and actions it takes to achieve its long-term objectives. The company must provide sufficient financial and human resources for the purpose of strategic implementation. The phrase "generic strategy" denotes to a variety of opportunities and applications for gaining a competitive advantage" regardless of the company's industry, type, or size [29],[30]. Companies must create effective competitive strategies for the purpose of knowing their industry and understanding their customers[31].

The scientist (Michael Porter) suggested three types of general competitive strategies that industry companies can use to outperform their competitors "cost leadership strategy, differentiation strategy and focus strategy" are critical to achieving outstanding corporate performance[21],[32]. According to numerous research. The combination of these strategies yields superior outcomes and bolsters competitive advantage [29]-[31]. Additionally, a company's strategy needs to be in line with its aims if it wants to acquire a competitive advantage[34]. In most nations, these strategies are applicable to all industries[31]-[34]. Porter's competitive strategies are still considered an essential component of achieving competitive position and superior performance for companies[36]. Usually, a company follows only one strategy to achieve its objectives, but sometimes it can follow more than one strategy, which is extremely rare to achieve more than one main objective, organizational commitment and support must be provided when two strategies are implemented together. A number of research dealt with the types of strategies and their importance, but Porter's strategies remain more effective in conceptualization and scientific concepts in Asia and Europe[37]. The three general strategies are considered a platform for excellence and a key to performance from the perspective of researchers of strategic management sciences[38],[32]. Success in implementing

the general strategies may mean for some companies obtaining high returns and others It means only acceptable returns[19].

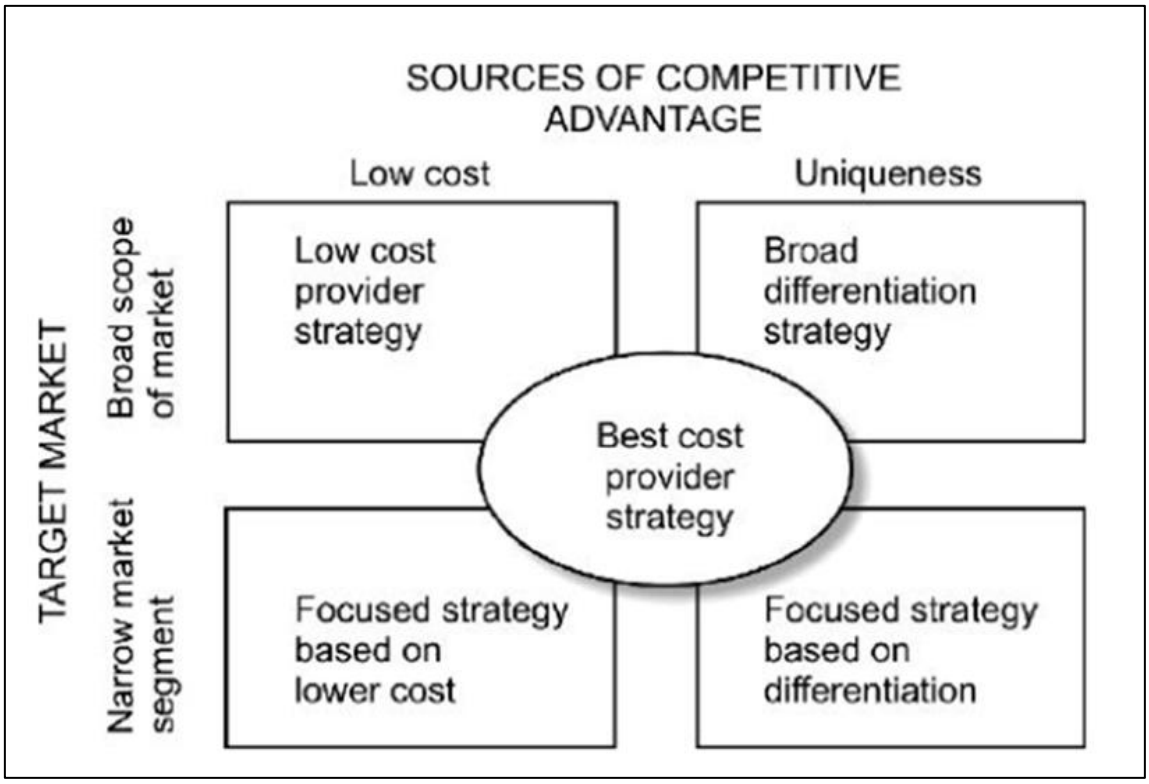

Figure 2.3: Porters generic competitive strategies[19].

2.5.1 Overall Cost Leadership

One of Porter's broad strategies, the first tactic enables industrial firms to gain a competitive edge by lowering the price of the items they offer, allowing them to control the market through price[20],[36]-[38].

There are many approaches that have been suggested by scientists and researchers that companies can follow for the purpose of achieving a cost leadership strategy. These methods include reducing production process input costs, investing resources to the maximum extent possible, large production techniques, providing economies of scale, and obtaining raw materials in less costly ways[13],[37],[38].

The main objective of production companies that wish to implement this type of strategy in general is to obtain high quality raw materials at a low price. Therefore, there are additional requirements for high-quality labor that transform raw materials into a product of value to the consumer[20].

It is important to remember that the cost of a product differs from its price, and that cost leadership differs from price leadership. Cost refers to the expenses incurred by the business in providing the product or service to the marketplace. while the price is the amount paid by the customer to purchase this product or service. Usually, the price is higher than the cost.

The cost leadership strategy is closely related to the experience curve concept. It requires managers and decision-makers in companies wishing to implement this type of strategy to control costs by controlling overheads, reducing research and development expenses, reducing advertising costs and non-binding services in addition to avoiding marginal customer accounts, etc.). The company's low-cost position leads to more profits for the company despite the presence of a strong competitive force. It is considered a defense against competitors because it puts the company in an appropriate position against the alternatives when compared to its competitors[20].

2.5.1.1 Advantages of a cost leadership strategy

The following benefit of the cost leadership strategy[41].

A. This technique achieves efficiency by manufacturing vast volumes of standardized products.

B. The company benefits from economies of scale and an experience-oriented approach**.**

C. Costs are taken into consideration for production, meaning that the basic manufactured product is free of decoration and manufactured at comparatively cheap costs and is exposed to a wide segment of customers.

D. Continuous research on reducing production costs in all respects for the purpose of maintaining strategy**.**

E. Obtaining the highest possible distribution through the distribution strategy**.**

F. In most cases, the promotion strategy includes low-priced products and takes advantage of this advantage**.**

2.5.1.2 Disadvantages of a cost leadership strategy

The following dangers are associated with the cost leadership strategy[41].

a. The company places a low-cost factory or provider of services, which is a huge burden on the company.

b. This strategy is more exposed to risks such as rapid technological progress that cancels out previous investments as well as learning in the past.

c. Likelihood of product imitation by backward competitors who have the advantage of low-cost learning.

d. Failure to meet all customer requirements and lack of interest in them due to concerns about high cost.

e. Cost inflation that is unexpected, limiting the firm's potential to offset goods differentiation through cost.

2.5.2 Differentiation Strategy

Differentiation is the second strategy of Porter's general strategies, which means providing a rare and distinct product or service from competitors and through which higher profits and a highly competitive position can be achieved[39],[31],[20].

Offering a unique product or service acts as a wall against market competition and reduces price sensitivity through brand loyalty through costs. Therefore, the company has loyal customers who value the unique goods that the company offers them that are not available to competitors[42].

Through differentiation, companies can provide a unique service or product at an excellent price and thus achieve a high market share. Therefore, differentiation requires high product quality or excellent after-sales services. Company managers can develop differentiation in their companies

by providing customers with a good that suit their needs. Thus, providing a unique and distinct commodity through which they gain a competitive advantage[5].

Mark consumer confidence, product quality, and perceptions of the company's performance are all enhanced through differentiation strategy[20].

It is usually a trade-off between differentiation and cost because the requirements that must be met to achieve a distinct and unique product or service requires high costs and not all customers are able to pay higher prices. But there are some companies based on the differentiation strategy and have achieved great success in the industry market, such as Apple computer, and Nike shoes and sports equipment, and Caterpillar Equipment Company.

2.5.2.1 Advantages of differentiation strategy

the successful implementation of the differentiation strategy leads to obtaining several advantages, including[13].

a. Through it, the company provides a unique product or service and thus achieves advantage in competition.

b. Provide a goods that is rare and distinguishable from competitors.

c. This strategy allows the company to obtain a higher market share by charging a higher price than competitors.

d. This strategy depends mainly on the product or service's quality.

e. Attract customers who prefer a high-quality product even if its price is high and thus achieve higher profits.

f. This strategy encourages innovation and creativity, keeps pace with modern technologies and unique marketing methods, and focuses on obtaining a high market share.

2.5.2.2 Disadvantages of differentiation strategy

The differentiation strategy is exposed to the following risks[41].

a. You may run the risk of losing loyal customers when comparing the premium product with two low-cost products because this leads to huge savings for buyers.

b. They are more susceptible to imitation than others, which leads to the buyer not distinguishing between the original and the imitation product.

c. If the differentiation company delays keeping pace with development and progress, a low-cost company may take over the market for the differentiation company.

2.5.3 Focus Strategy

One of Porter's three general strategies through which a company can realization a competitive advantage . The focus is through several forms, such as focusing on a specific category of customers, such as Nike sportswear company, it targets customers interested in sports or focus on a production line such as a company that produces electric power only or focus on a specific geographic area[21]. The premise of this strategy is to meet the demands of a specific target better or more efficiently by offering products that are less costly than competitors competing for a wider field or both. the market position view (MPV), the focus strategy does not adopt the method of cost reduction or differentiation, but it achieves one or both two methods against the specified market target[43]. We can apply this strategy for the purpose of setting a target where there are no alternatives or when competitors are weaker in the market[44].

2.5.3.1 Advantages of focus strategy

The focus strategy's successful execution results in the following benefits[13].

a. Provides excellent customer service.

b. You develop the operational efficiency of the product.

c. Focuses on a specific segment, group of customers, or geographic area, thus increasing its effectiveness and achieving a higher market share than competitors.

d. It depends on a narrow and specific competitive scope.

e. To acquire a competitive advantage, focusing enables a business to concentrate its resources on value chain activities.

2.5.3.2 Disadvantages of focus strategy

The focus strategy is exposed to the following risks[41].

a. When the cost of differentiation between competitors increases widely and the focus company may offset the differentiation obtained through concentration so that customers divert to diversified companies with products and services.

b. You may be exposed to the risk that apparent and actual differences between products and services will disappear.

c. Competitors out focus the focuser by finding submarkets within the strategic target.

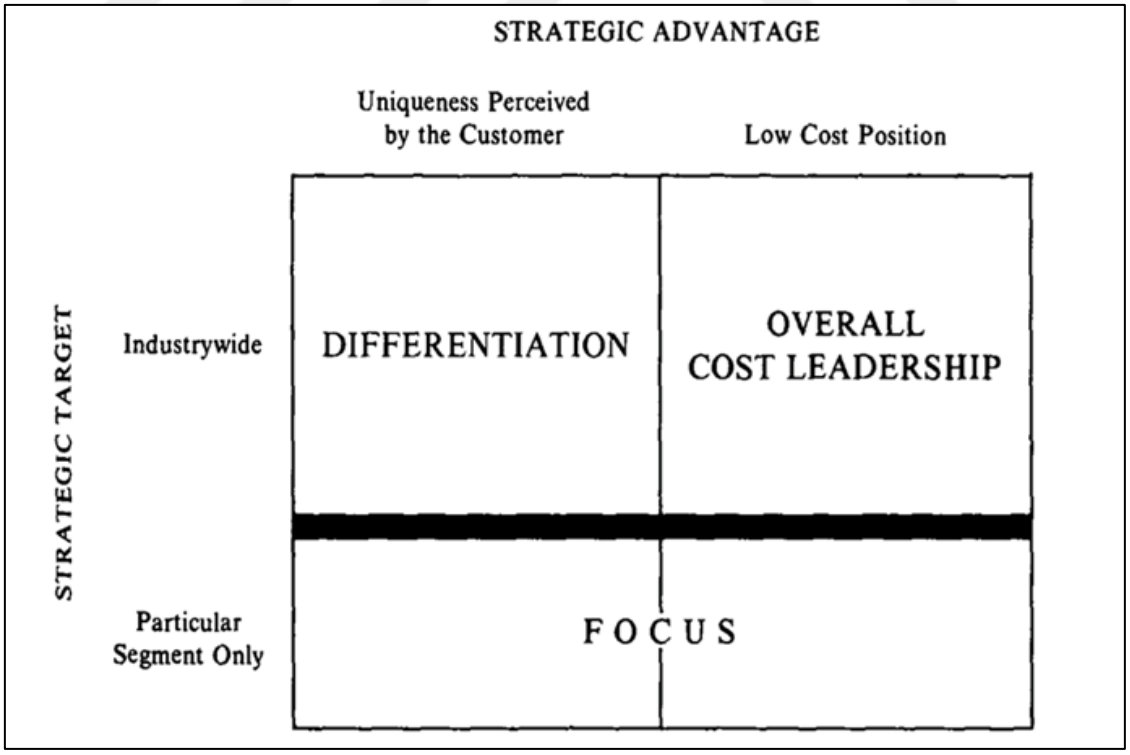

Figure 2.4: Explains the difference between the three generic strategies[19].

2.6 THE CONCEPTUAL MODEL OF PORTER'S GENERIC STRATEGIES AND COMPANY PERFORMANCE.

The three general competitive strategies and the performance of the company are connected in the conceptual framework model of the study. The researcher determined the company's performance as a dependent variable, and the three competitive strategies (differentiation, focus, and cost leadership) as independent variables, according to the study's hypotheses and as shown in the Figure 2.5:

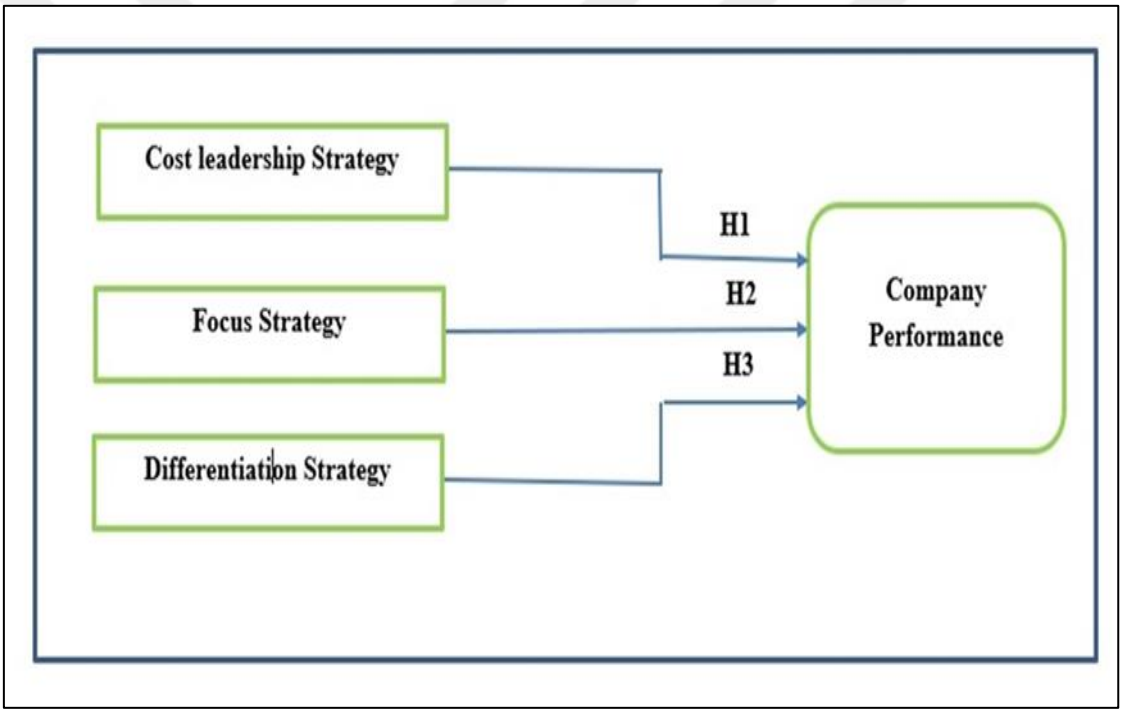

Figure 2.5: The research paradigm created by the researcher.

There are many theories about strategies provided by the literature, research ideas and methodologies about the relationship of strategy to company performance[45]. Most studies have found that situational factors such as "focus on profitability and manufacturing" lead to a lower relationship between Porter's strategies and corporate performance[46]. Many studies began using methodologies that were proven to be generalizable across industries to study the generic strategies and performance link, particularly those provided by Porter[11],[13].

This relationship was addressed by many researchers and then it was supported by other researchers[22]-[27]. Research findings that support single generic strategies raise doubts concerning the connection between a single generic strategy and successful performance. Some businesses require cooperation to be successful. a differentiation strategy combined with a cost leadership plan [48]. Richard S. Allen and Marilyn M. Helms[45] , aims to investigate the relationship between Porter's general strategies and corporate performance further, including any possible mediators in the relationship, which is crucial for the development of strategic theory.

In 2021, a study on competitive strategies in businesses was carried out in Egypt with the goal of determining how competitive strategies affected the market share of an electrical appliance manufacturing company, and the descriptive analytical method and statistical analysis program (SPSS) were used. In increasing the market share of the company[25].

In 2020, a study was conducted in the Republic of Kosovo on linking Porter's general strategies "cost leadership strategy, differentiation strategy, focus strategy" to the company's performance and knowing the extent of their impact on the company's performance through making questionnaires and creating an econometric model. The hypotheses were tested through the use of regression analysis, He concluded that the application of the three strategies may improve the company's performance., but the differentiation strategy has a greater effect than the other two strategies[49].

A study was conducted in Poland on the evaluation of local power generation companies by conducting an analysis of the financial and economic situation of power companies, especially revenues, expenses and profits, in addition to the type of fuel used and other factors, it was found that the profit indicator resulting from energy sales in generating companies is negative, so it recommended Studying the need for electric power production companies to update their strategies by focusing on skills and innovation, as well as diversity in the energy sources used in generation to be more flexible and able to enter. Polish and European competition market[50].

Mary W. Maina (2015), In the field of energy, the aim of the study is to definition the basic elements that affect the competitive advantage in the production of gas and oil, in addition to

determining the impact of each element on the competitive advantage. The research community consisted of 40 companies accredited by the Energy Regulatory Commission / State of Guinea[51].

The results of Mary W. Mania's, this can be summed up as follows:

a. There is a very large positive effect between the competitive advantage and the variables that were adopted in the study such as (after-sales product services, strategies used in marketing, product prices, consumer service, innovation of new products, leadership style, high quality in products, offers and promotions, product location).

b. According to the results of the study, after-sales services, product marketing strategies, product pricing, customer service, product development and leadership, high-quality and efficient goods, advertising, gas, and oil positioning account for 79.4 percent of the variance in competitive pricing is an advantage for companies' oil and gas.

c. This study found a statistically significant relationship between after-sales services, product marketing strategies, product prices, customer service, product innovation, leadership style, product quality and efficiency, promotional and advertising offers and (competitive advantage and the location of oil and gas).

Bunea et al. (2019), They carried out research to determine the influence of certain financial indicators on the return on equity (ROE) of active energy industry firms in Romania. Five financial indicators were adopted using a competitive approach based on (DuPont analyzes) as well as the use of a linear regression model. The study concluded that companies that enjoy competitive advantages, profits, and higher returns to investors, are in most cases companies that benefit from a higher rate of return on equity[52].

Semuel et al. (2007), They did a study on innovation's effects and leadership on hotels in Indonesia's differentiation strategy and corporate performance. The quantitative study methods were used by means of descriptive statistical analysis (SPSS), in addition to the data collected through the work of questionnaires for employees who have a high position in the company at

the level of supervisor and executive director[53]. The results that were achieved through this study were:

a. Excellence affects the company's performance directly or indirectly.

b. The rule affects the differentiation strategy indirectly.

R. D. Banker et al. (2014), conducted a study with the goal of determining the impact of each of the differentiation and cost leadership strategies on the performance sustainability of businesses. The strategic locations of the two partners were determined through a ten-year factor analysis. The sustainability of the financial performance was verified by relying on the strategic positions of the companies by using the degrees of factors that were found later for regression analysis. Differentiation achieves higher sustainable performance than cost leadership, but higher risks[54].

In China (2012), A research whose goal is to ascertain how an organization's performance is related to a "differentiation strategy and the cost strategy" . Chinese hotels' design and construction used the case study as a guide. According to the study's findings, the differentiation strategy is the only one that may increase customer satisfaction in China's hotel business[55].

C. Dögl et al. (2010), With a study whose purpose is to look at how German renewable energy companies compete in China, India, and Russia;" Porter's diamond model" was used. Solar, wind[56],[57].

In Finland (2006), a study whose objective is to identify a connection between strategic management and gauging the efficiency of Finnish energy businesses' operations. It concentrated on the Balanced Scorecard (BSC), its degrees of application, the effects of specific characteristics, the most popular measures, and the characteristics of using the BSC as a tactic to succeed in the energy industry[58],[59].

3. METHODOLOGY

3.1 CONCEPTUAL FRAMEWORK

Many researchers have discovered both positively and negatively (or non-significant) linkages or relationships between total quality management (TQM) approaches and various performance measurements. Scholars disagreed about the components of TQM practices (whether these indicators are evaluated separately or in combination) and their impact on financial, inventive, and other firm performance measurements. Several research findings also show relationships between competitive strategies and performance indicators[59]. the researcher depended in this study on using (TQM) methodologies as a mediator to highlight the links between the three strategies and the company's financial performance. the researcher also wanted to determine if there was any correlation here between three strategies and the monetary performance metrics.

When manufacturing performance measurements are employed as part of managerial evaluation, the link between (TQM) and performance is stronger. Financial performance is determined by operational performance, which is determined by continuous improvement. Moreover, the strategies of Porter seek to improve both cost focus and differentiation focus strategies.

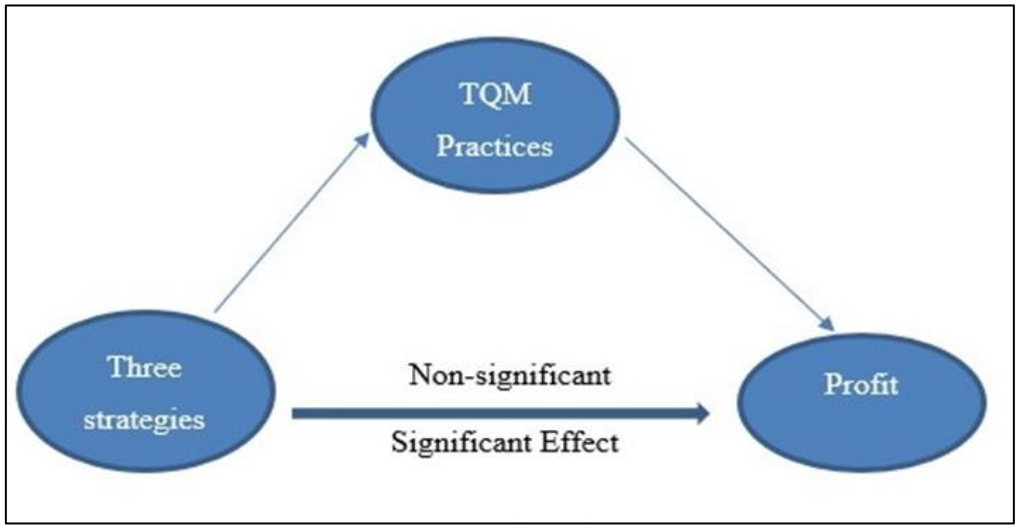

Figure 3.1: PrOpOsed Research MOdel of the Relationships Between three strategies, TQM Practices and Firm's Financial PerfOrmance.

3.2 DATA COLLECTION

The researcher relied on the questionnaire as a tool for collecting data from the target sample. Where the researcher divided the questionnaire into two basic axes, the first related to demographic questions, and the second related to the Porter strategies' impact on performance. The researcher relied on publishing the questionnaire on electronic methods by sending it via e-mail. The target sample size was 300 individuals, and the response rate was 66.67% after checking the complete questionnaires. The researcher found that the number of respondents after excluding questionnaires with incomplete data reached 200 respondents. The researcher obtained an acceptable response rate for analyzing the questionnaire statistically. It is worth noting that the researcher adopted a research sample from the top management of electric power production companies in Iraq.

3.3 DATA ANALYZING

SPSS program was used by the researcher to examine the data collected from respondents. The researcher met with a test of validity and reliability of the tool the questionnaire to verify the quality of the questionnaire's axes and their suitability to the research topic. In addition, the researcher performed descriptive statistics and correlation analysis.

4. RESULTS AND DISCUSSION

4.1 OVERVIEW

The analysis and interpretation of data are the focus of this chapter. By delivering the questionnaire to the intended respondents and employing a questionnaire, the researchers applied the questionnaire method to get the necessary data. There have been about 200 valid responses collected.

The acquired data is entered into program (SPSS v.26) for analysis by the researcher. The researcher also uses appropriate statistical methods for data analysis, including the descriptive statistical method, which considers demographic information like gender and organizational position and status and employee capacity, as well as measures of asymmetry like skew and kurtosis, the Cronbach Alpha coefficient, and the correlation coefficient.

4.2 THE CHARACTERISTIC FOR STUDY SAMPLES

4.2.1 Distribution According to The Gender

This survey was distributed in electrical industry companies at Iraq so the male percentage is larger than female, there are 120 (60%) response out of 200 surveys are male while there are 80 (40%) response out of 200 surveys are female this can be clarified by the following table:

Table 4.1: The distribution is on gender.

		The frequency	**The Percent**	**The valid percent**	**The cumulative percent**
The Valid	Male	120	60%	60%	100%
	Female	80	40%	40%	40%
	The Total	200	100%	100%	

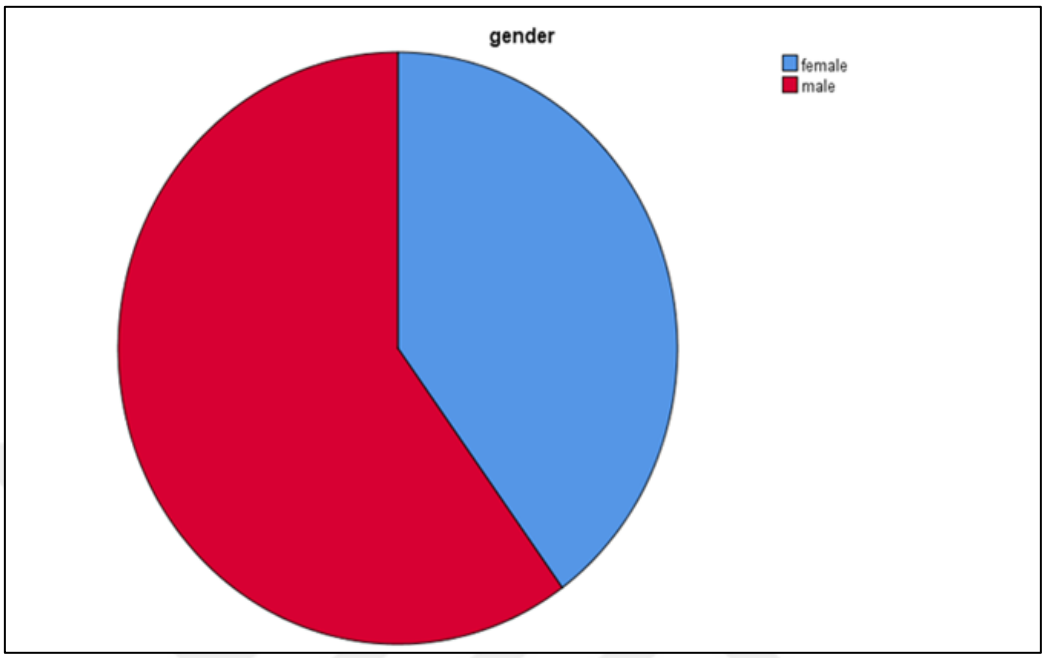

Figure 4.1: The percentage of highest response according to gender.

4.2.2 Distribution According to Employee Size

This result show that the largest percent in size of the employee size was in the favor of over 100 employees at rate of 160 single repetition in a percentage (80%) , followed by 50 to 100 employee at rate of 16 single repetition in a percentage (8%), followed by 20 to 50 employees at rate of 14 single repetition in a percentage (7%), followed by under 20 employees at a rate of 10 single repetition in a percentage (5%), this will be clarified in the table that follows:

Table 4.2: Distribution according to the employee size.

		The frequency	**The percent**	**The valid Percent**	**The cumulative Percent**
The Valid	Under 20 Employees	10	5%	5%	5%
	Between 20 to 50Employee	14	7%	7%	12%
	Between 50 to 100 Employees	16	8%	8%	20%
	Over 100 Employees	160	80%	80%	100%
	The Total	200	100%	100%	

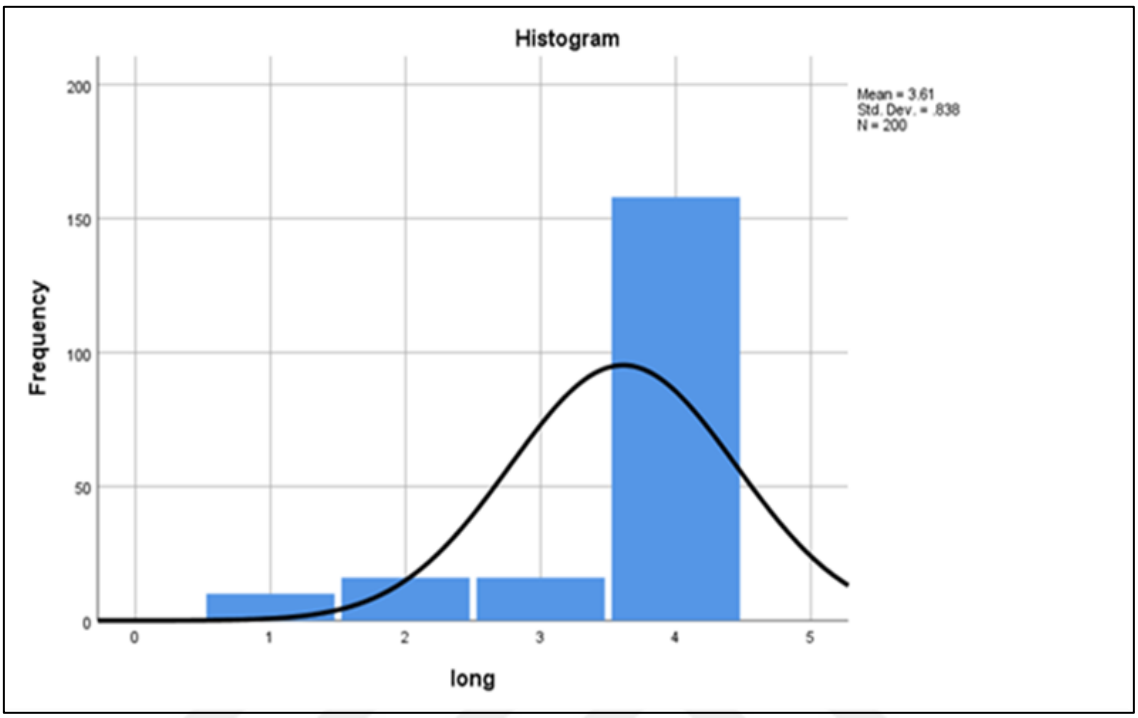

Figure 4.2: Histogram represent the highest percentage of the employee size.

4.2.3 Distribution According to Years of Working Experience

This result show that the largest percent in size of the years of the working experience was in the favor of over 20 years at rate of 158 single repetition in a percentage (79%) , followed by 10 to 20 years at rate of 16 single repetition in a percentage (8%), followed by 2-10 years at rate of 16 single repetition in a percentage (8%), followed by 0-5 years at a rate of 10 single repetition in a percentage (5%), this will be clarified in the table that follows:

Table 4.3: Distribution according to the years of working experience.

		The frequency	The percent	The valid Percent	The cumulative Percent
The Valid	(0 -5) Years	10	5%	5%	5%
	(2 -10) Years	16	8%	8%	13%
	(10 -20) Years	16	8%	8%	21%
	Over (20) Years	158	79%	79%	100%
	The Total	200	100%	100%	

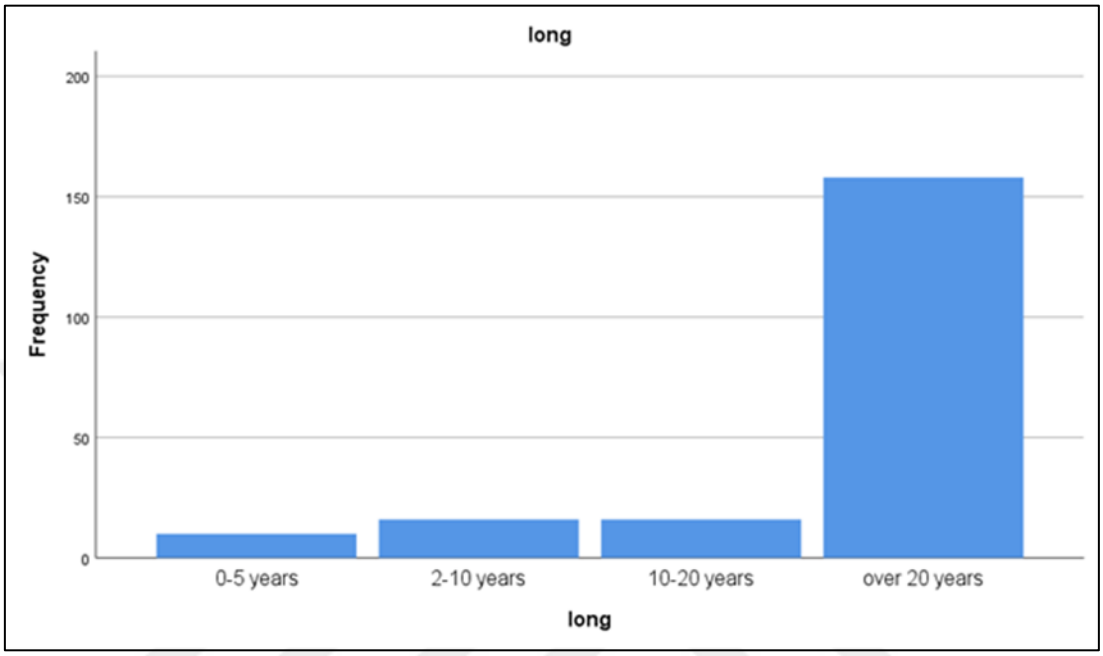

Figure 4.3: This figure represents the highest organization work experience.

4.2.4 Distribution By the Organization Status

This result show that the largest percent in size of organization status was in the favor of government company at rate of 141 single repetition in a percentage (70.5%), followed by privet limited company at rate of 46 single repetition in a percentage (23%), followed by public limited company at rate of 13 single repetition in a percentage (6.5%), this will be clarified in the table that follows:

Table 4.4: Distribution by the organization status.

		The frequency	The percent	The valid Percent	The cumulative Percent
The Valid	Public Limited Company	13	6%	6.5%	6.5%
	Private Limited Company	46	23%	23%	29.5%
	Government Company	141	70%	70.5%	100%
	The Total	200	100%	100%	

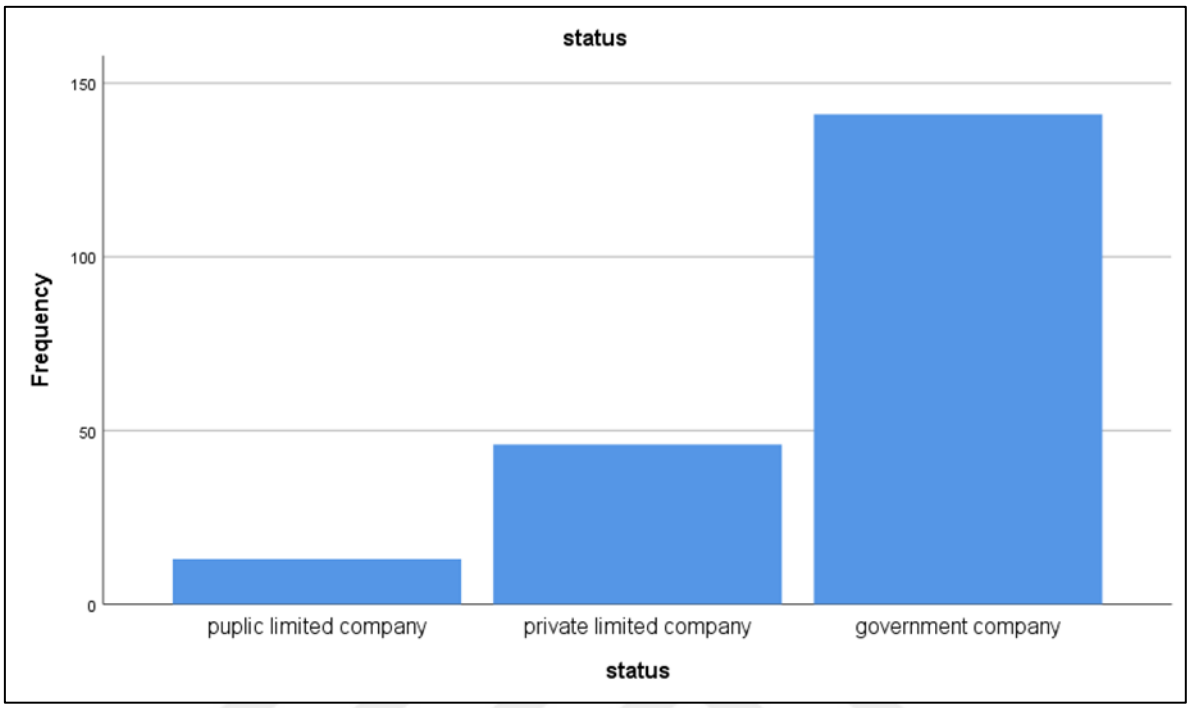

Figure 4.4: A figure showing the highest percentage of the organization's status.

4.2.5 Distribution According of Employee Position

This result show that the largest percent in size of the employee was in the favor of top management at rate of 126 single repetition in a percentage (63%), followed by supervisory rate of 38 single repetition in a percentage (19%), followed by middle management at rate of 36 single repetition in a percentage (18%), this will be clarified in the table that follows:

Table 4.5: Distribution according of employee position.

		The frequency	**The percent**	**The valid percent**	**The cumulative percent**
The Valid	Supervisory	38	19%	19%	19%
	Middle Management	36	18%	18%	37%
	Top Management	126	63%	63%	100%
	The Total	200	100%	100%	

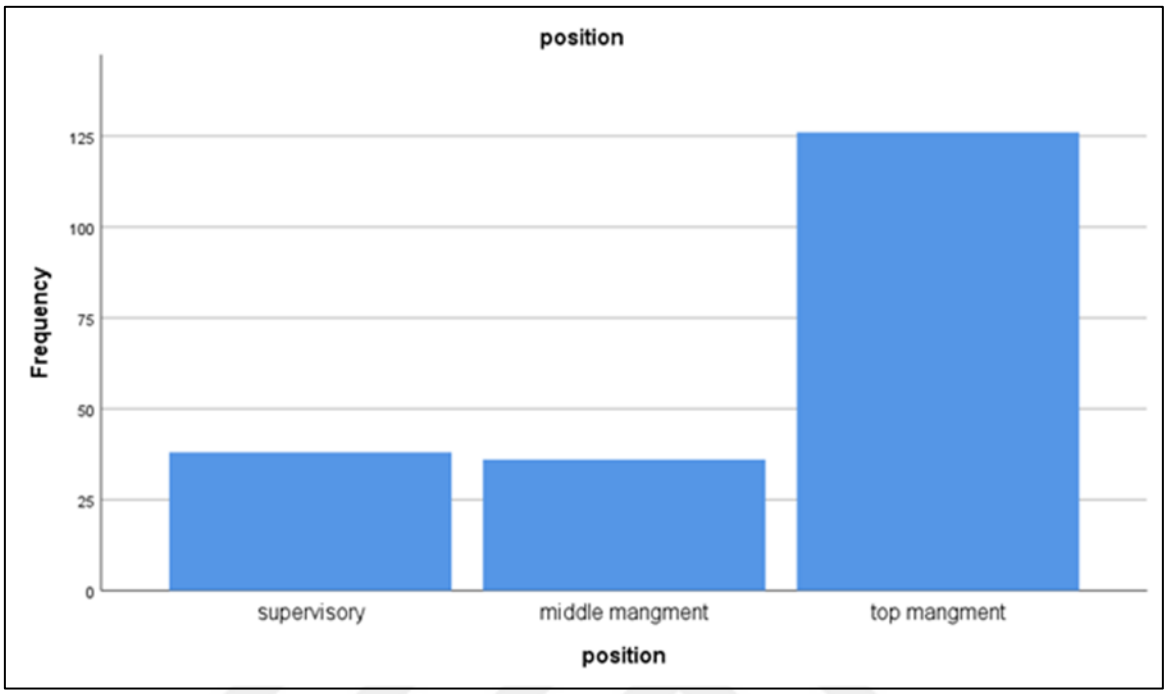

Figure 4.5: A figure showing the highest percentage according to the employee's position.

4.3 DISTRIBUTION ACCORDING TO THE FIRM PERFORMANCE:

This result show that the largest percent in size of firm competences was in the favor of extremely huge extent at rate of 125 single repetition in a percentage (62.5%), followed by moderate extent at rate of 74 single repetition in a percentage (23.5%), followed by small extent at rate of 22 single repetition in a percentage (11%), followed by extremely small extent at a rate of 6 single repetition in a percentage (3%), this will be clarified in the table that follows:

Table 4.6: Distribution according to the firm performance.

		The frequency	**The percent**	**The valid percent**	**The cumulative percent**
The Valid	Extremely Small Extent	6	3%	3%	3%
	Small Extent	22	11%	11%	14%
	Moderate Extent	47	23.5%	23.5%	37.5%
	Extremely Huge Extent	125	62.5%	62.5%	100%
	The Total	200	100%	100%	

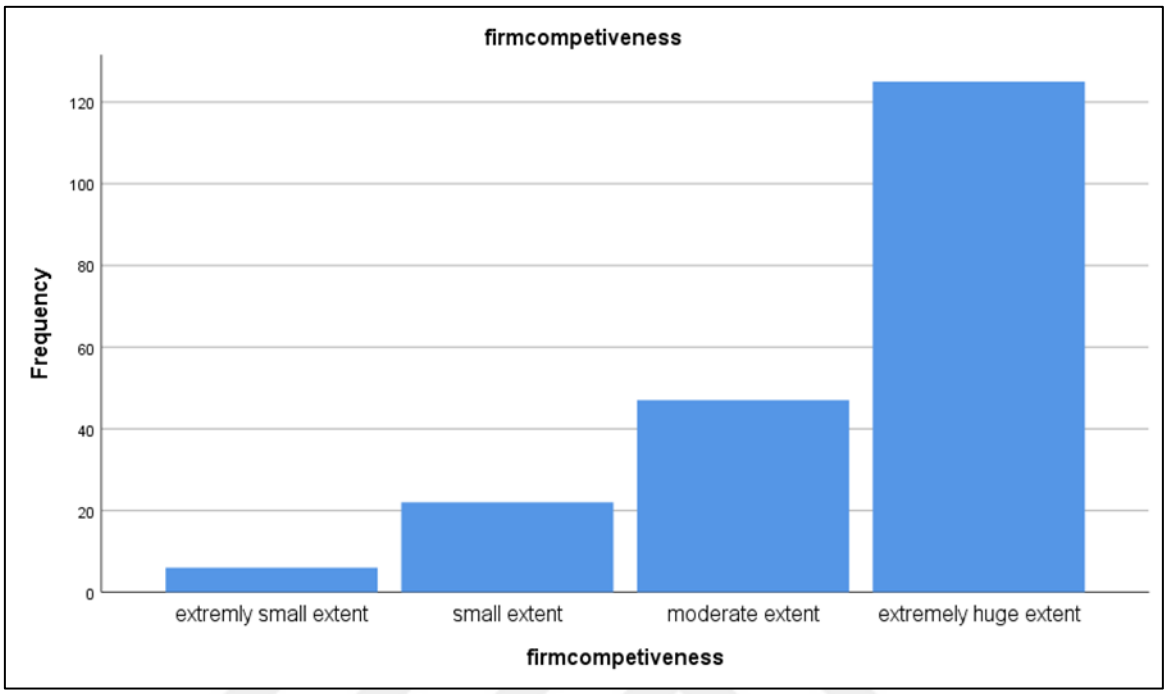

Figure 4.6: This figure represents most of the manufacture site is making best firm performance.

4.4 DISTRIBUTION BY COST LEADERSHIP STRATEGY

This result show that the largest percent in size of cost leadership strategy was in the favor of extremely huge extent at rate of 131 single repetition in a percentage (65.5%), followed by moderate extent at rate of 40 single repetition in a percentage (20%), followed by big extent at rate of 17 single repetition in a percentage (8.5%), followed by small extent at a rate of 12 single repetition in a percentage (6%), this will be clarified in the table that follows:

Table 4.7: Distribution by cost leadership strategy.

		The frequency	The percent	The valid percent	The cumulative percent
The Valid	Small Extent	12	6%	6%	6%
	Moderate Extent	40	20%	20%	26%
	Big Extent	17	8.5%	8.5%	34%
	Extremely Huge Extent	131	65.5%	65.5%	100%
	The Total	200	100%	100%	

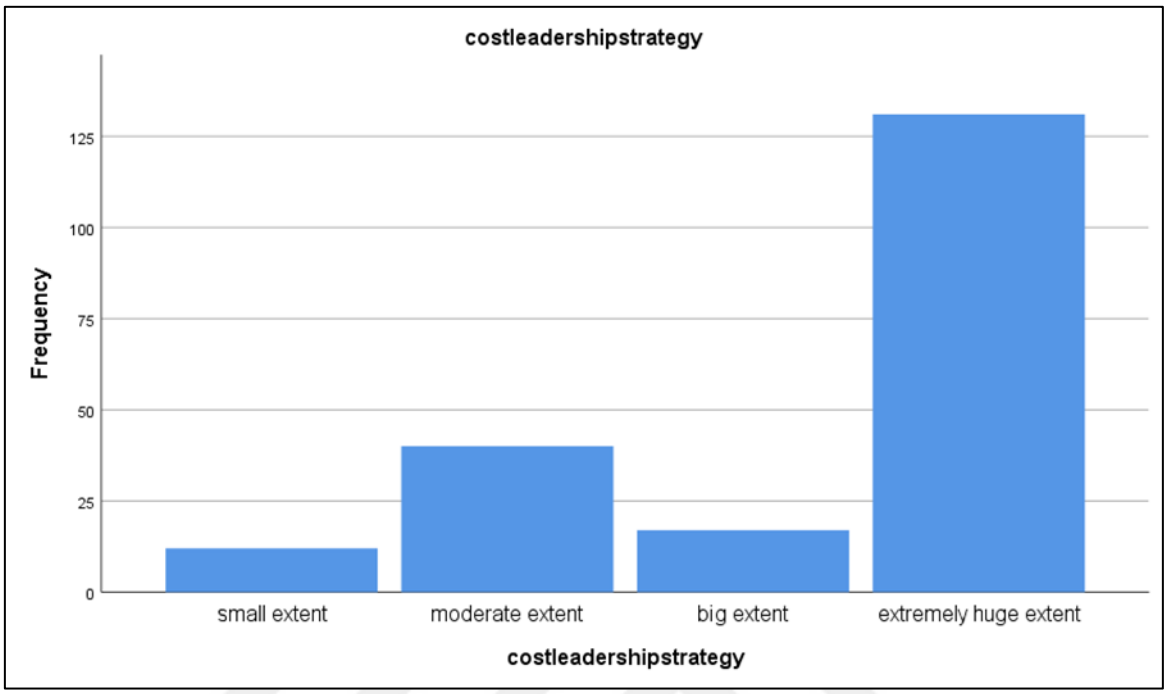

Figure 4.7: This figure represents that most of the manufacture sites are using cost leadership strategy.

4.5 DISTRIBUTION ACCORDING TO DIFFERENTIATION STRATEGY

This result show that the largest percent in size of differentiation strategy was in the favor of small extent at rate of 94 single repetition in a percentage (47%) , followed by moderate extent at rate of 45 single repetition in a percentage (22.5%), followed by extremely small at rate of 30 single repetition in a percentage (15%), followed by extremely huge extent at a rate of 19 single repetition in a percentage (9.5%) , followed by big extent at a rate of 11 single repetition in a percentage (5.5%), this will be clarified in the table that follows:

Table 4.8: Distribution according to the differentiation strategy.

		The Frequency	The Percent	The Valid Percent	The Cumulative Percent
The valid	The Extremely Small Extent	30	15%	15.1%	15.1%
	The Small Extent	94	47%	47.2%	62.3%
	The Moderate Extent	45	22.5%	22.6%	84.9%
	The Big Extent	11	5.5%	5.5%	90.5%
	The Extremely Huge Extent	19	9.5%	9.5%	100%
	The Total	199	99.5%	100%	
The missing	The System	1	.5%		
The Total		200	100%		

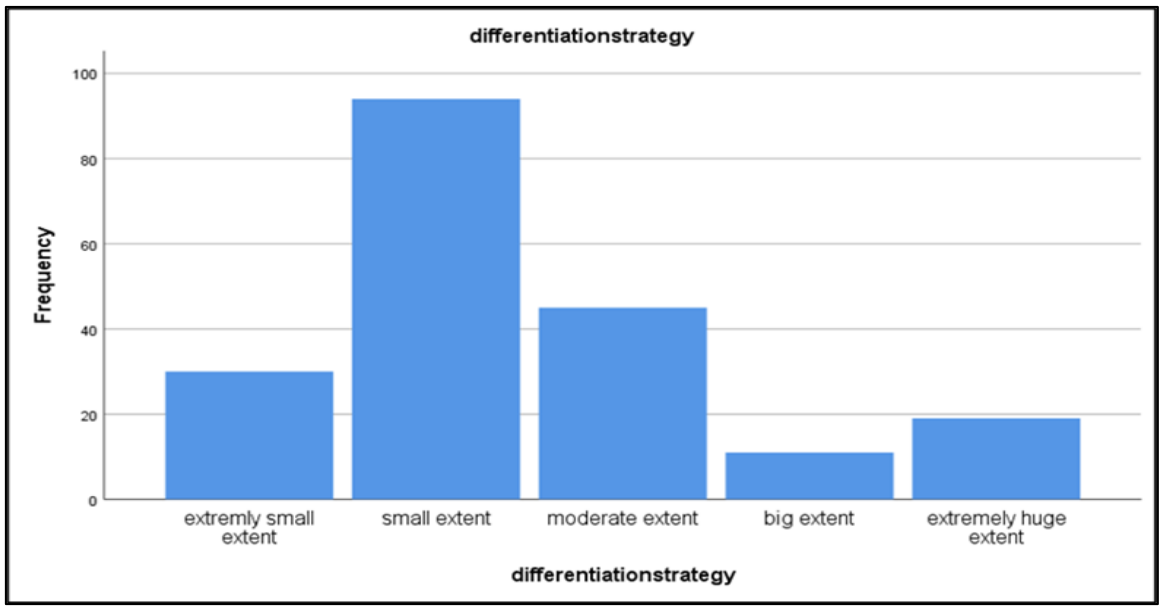

Figure 4.8: This figure represents that in the manufacture sites is less using of the differentiation strategy.

4.6 DISTRIBUTION ACCORDING TO FOCUS STRATEGY:

This result show that the largest percent in size of cost leadership strategy was in the favor of extremely huge extent at rate of 139 single repetition in a percentage (69.5%), followed by moderate extent at rate of 34 single repetition in a percentage (17%), followed by small extent at a rate of 27 single repetition in a percentage (13.5%), this will be clarified in the table that follows:

Table 4.9: Distribution **according to the focus strategy.**

		The Frequency	The Percent	The Valid Percent	The Cumulative Percent
The valid	The Small Extent	27	13.5%	13.5%	13.5%
	The Moderate Extent	34	17%	17%	30.5%
	The Extremely Huge Extent	139	69.5%	69.5%	100%
	The Total	200	100%	100%	

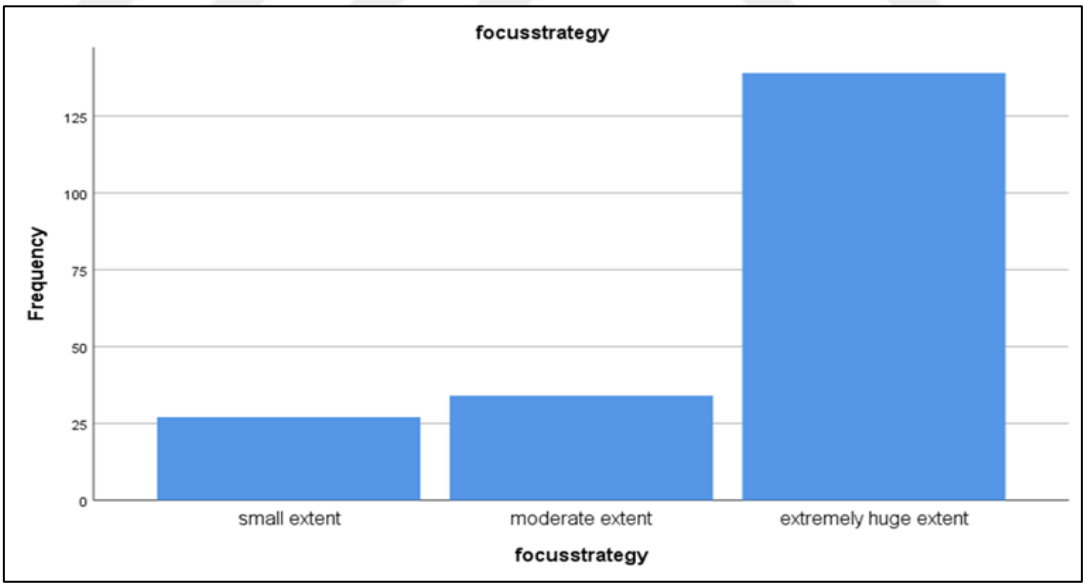

Figure 4.9: This figure shows that in the manufacture sites is highest using focus strategy.

4.7 TEST OF RELIABILITY (ALPHA CRONBACH)

As dependability refers to the uniformity among a measuring instrument's components, reliability testing is crucial. The Cronbach Alpha coefficient was employed by the researcher. The value of Cranach's Alpha coefficient is said to have ranged between (0 to 1). The survey instrument obtained a great internal consistency level among the items if the result is near to 1. In the present research, the researcher employed the Cronbach Alpha Coefficient as an indicator of internal consistency and the estimated overall reliability to assess the survey instrument's integrity and quality, the table showing the results:

Table 4.10: Using Alpha Cronbach to test reliability of the survey.

	Scale Mean if Item Deleted	**Scale Variance if Item Deleted**	**Corrected Item-TOtal COrrelation**	**CrOnbach's Alpha if Item Deleted**
Firm competences	9.42	8.881	.928	.697
Cost leadership strategy	9.42	8.881	.928	.697
Differentiation strategy	10.42	15.800	.105	1.000
Focus strategy	9.42	8.881	.928	.697

As per as the alpha Cronbach acceptable range is between (0-1) so in the firm competences is 0.697, in the cost leadership strategy is 0.69, in differentiate on strategy is 1.00 and focus strategy is 0.697 therefore all of them are within the range so this survey has perfect reliability.

4.8 DESCRIPTIVE STATISTICS

4.8.1 The Correlation Between Firm Performance and Each Strategy:

The precise metric used in a Correlation analysis to quantify the magnitude of the linear relationship among 2 variables is the Correlation Coefficient. In a Correlation report (r) represents the coefficient. The following tables present the findings of the statistical analysis utilizing the Pearson Correlation Coefficient that revealed the existence of this relationship:

Table 4.11: Testing correlation between firm performance and cost leadership strategy.

		Firm competences	**Cost leadership strategy**
Firm competences	Pearson Correlation	1	1.000**
	Sig. (2-tailed)		.000
	N	200	200
Cost leadership strategy	Pearson Correlation	1.000**	1
	Sig. (2-tailed)	.000	s
	N	200	200

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

In this table the Pearson correlation coefficient is 1.000 these mean that the correlation coefficient is with the acceptable range (-1 to +1) so there is a strong positive correlation between the firm competences and cost leadership strategy.

Table 4.12: Testing the correlation between firm competences and focus strategy.

		Firm competences	**Focus strategy**
Firm competences	Pearson Correlation	1	1.000**
	Sig. (2-tailed)		.000
	N	200	200
Focus strategy	Pearson Correlation	1.000**	1
	Sig. (2-tailed)	.000	
	N	200	200

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

In this table the Pearson correlation coefficient is 1.000 these mean that the correlation coefficient is with the acceptable range (-1 to +1) so there is a strOng pOsitive cOrrelation between the firm competences and focus strategy.

Table 4.13: Testing correlation between firm performance and differentiation strategy.

		Firm competences	**differentiation strategy**
Firm competences	Pearson Correlation	1	.105
	Sig. (2-tailed)		.141
	N	200	199
differentiation strategy	Pearson Correlation	li	-.126
	Sig. (2-tailed)	.141	
	N	199	199

In this table the Pearson correlation coefficient is 0.105 these mean that the correlation coefficient is not with the acceptable range so there is a negative correlation between the firm competences and differentiation strategy.

4.8.2 Multiple Correlation Test Between Firm Performance and The Three Strategies:

Using a linear function of a set of other variables, a given variable can also be predicted is determined by the coefficient of multiple correlation. The outcome of this is displayed in the table below as the linear correlation between the variable's values and the best predictions that can be generated from the predictive variables.

Table 4.14: Testing correlation between firm performance and the three strategies at the same time.

		Firm performance	**Cost Leadership strategy**	**Focus strategy**
Firm performance	Pearson Correlation	1	1.000**	1.000**
	Sig. (2-tailed)		.000	.000
Cost Leadership strategy	Pearson Correlation	1.000**	1	1.000**
	Sig. (2-tailed)	.000		.000
Focus Strategy	Pearson Correlation	1.000**	1.000**	1
	Sig. (2-tailed)	.000	.000	1.000**
Differentiation strategy	Pearson Correlation	-.126	-.126	-.126
	Sig. (2-tailed)	.074	.074	.074

So, the multiple correlation is a confirmatory analysis for the correlation between more than one variable in one time, we use this test to confirm the correlation between the firm performance and the cost leadership strategy, focus strategy and the differentiation strategy so as per the result that there is a perfect positive correlation between firm performance and cost leadership, focus strategies and negative correlation with differentiation strategy.

4.8.3 Linear Regression Assessment Between Firm Performance and The Three Strategies.

Using linear regressi**o**n analysis, the value of one variable can be predicted based **o**n the value of another variable. The response variable is the one that requires forecasting. The independent

variable is one used to predict the value **o**f the dependent variable. The following tables will display this:

Table 4.15: Testing linear regression by using ANOVA test. ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	347.598	1	347.598	.	.[b]
	Residual	.000	197	.000		
	The total	347.598	198			

a. Dependent Variable: firm competences.

b. Predictors (Constant): cost leadership strategy.

Table 4.16: Residual statistics for testing linear regression.

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	1.00	5.00	3.48	1.322	200
Residual	.000	.000	.000	.000	200
Std. Predicted Value	-1.866	1.153	.002	.998	200
Std. Residual	.	.	.	.	0

a. Dependent Variable: firm competences.

After measuring the linear regression between the firm performance and the three strategies we found that there is a high significance and correlation with firm performance and cost leadership strategy as it the mean square is .000 the perfect range for ANOVA test.

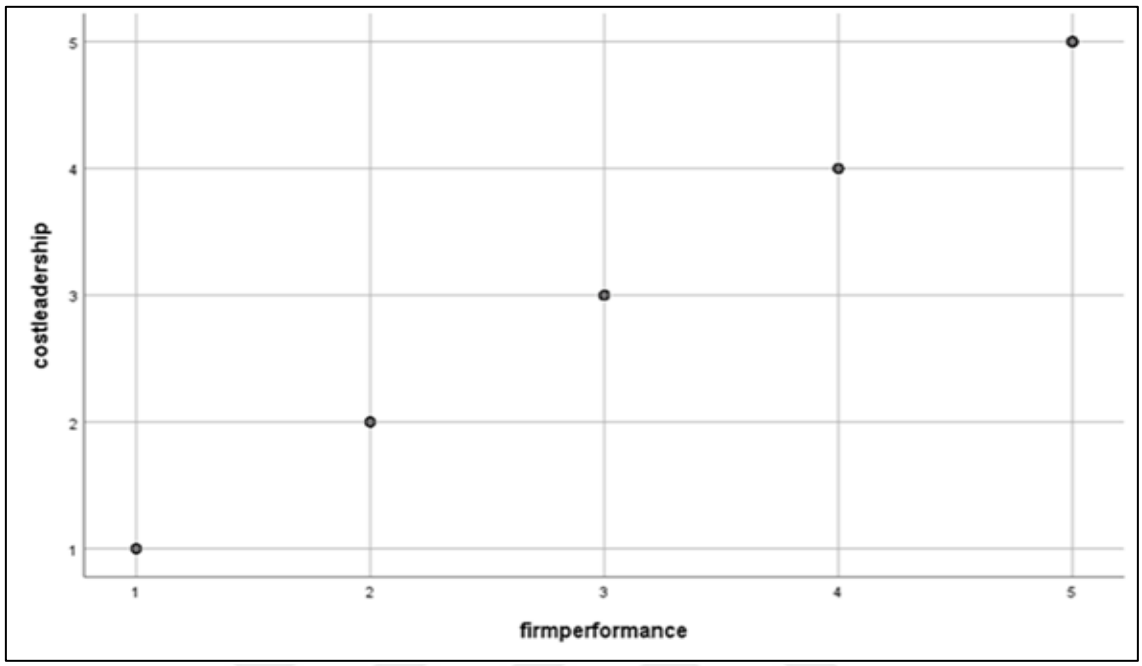

Figure 4.10: This figure shows the scatterplot for firm performance and cost leadership strategies.

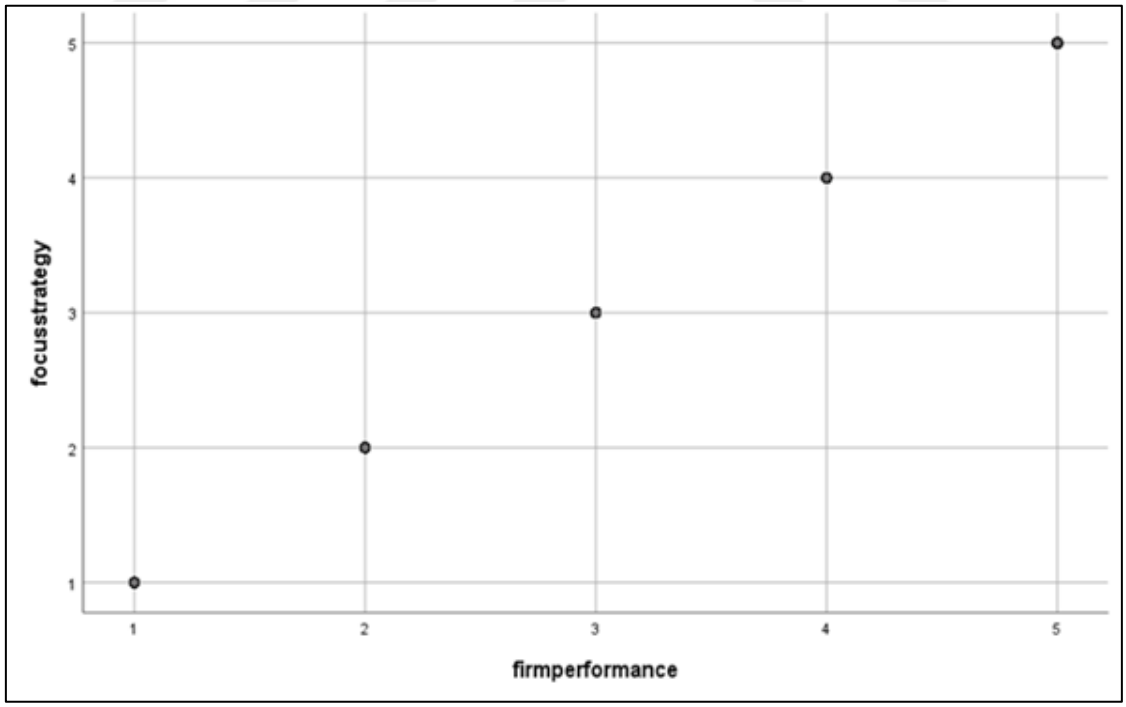

Figure 4.11: This figure shows the scatterplot for firm performance and focus strategy.

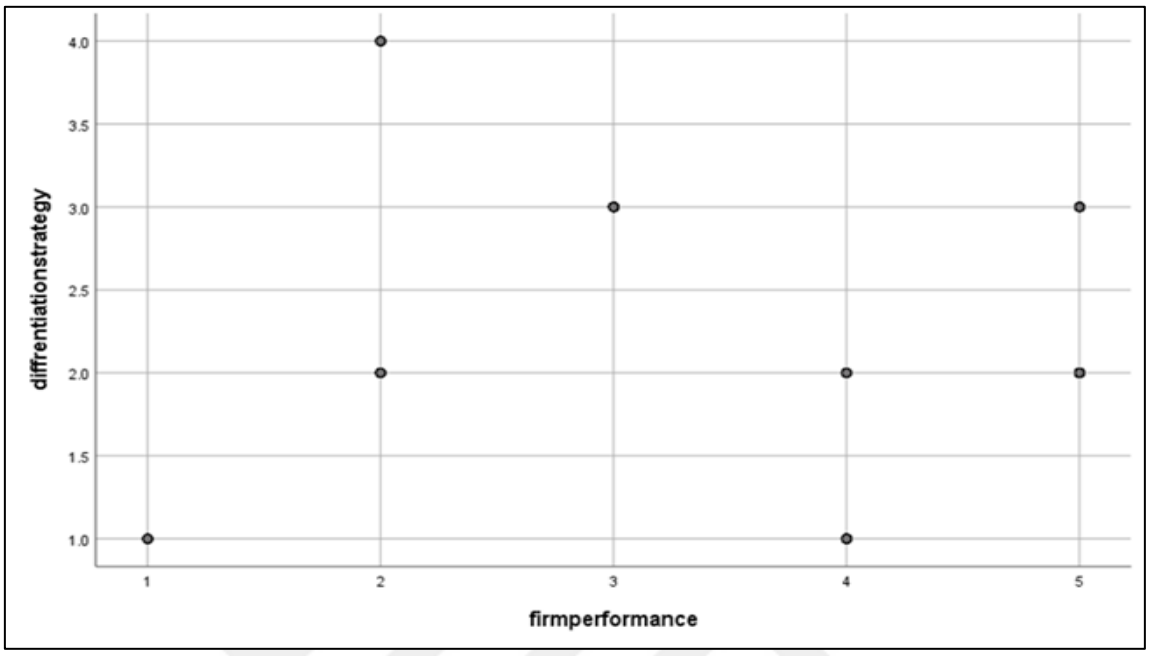

Figure 4.12: This figure shows the scatterplot for firm performance and differentiation strategy.

4.8.4 Normality Analysis of Each Variable

Normality tests are performed to determine if a data set is adequately described by a normal distribution and to calculate the probability that a random variable underlying the data set will be normally distributed. The outcomes are presented in the tables below:

Table 4.17: Testing normality for the firm performance.

	Kolmogorov-Smirnov[a]			**Shapiro-Wilk**		
	Statistic	df	Sig.	Statistic	df	Sig.
Firm competences	.194	200	.000	.878	200	.000

b. Lilliefors Significance Correction.

The data is normal if the Shapiro-Wilk Test value is larger than 0.05. The data considerably deviate from a regular distribution if it is less than 0.05. so as per these range our result prove that the survey is normally distributed to the manufacture sites.

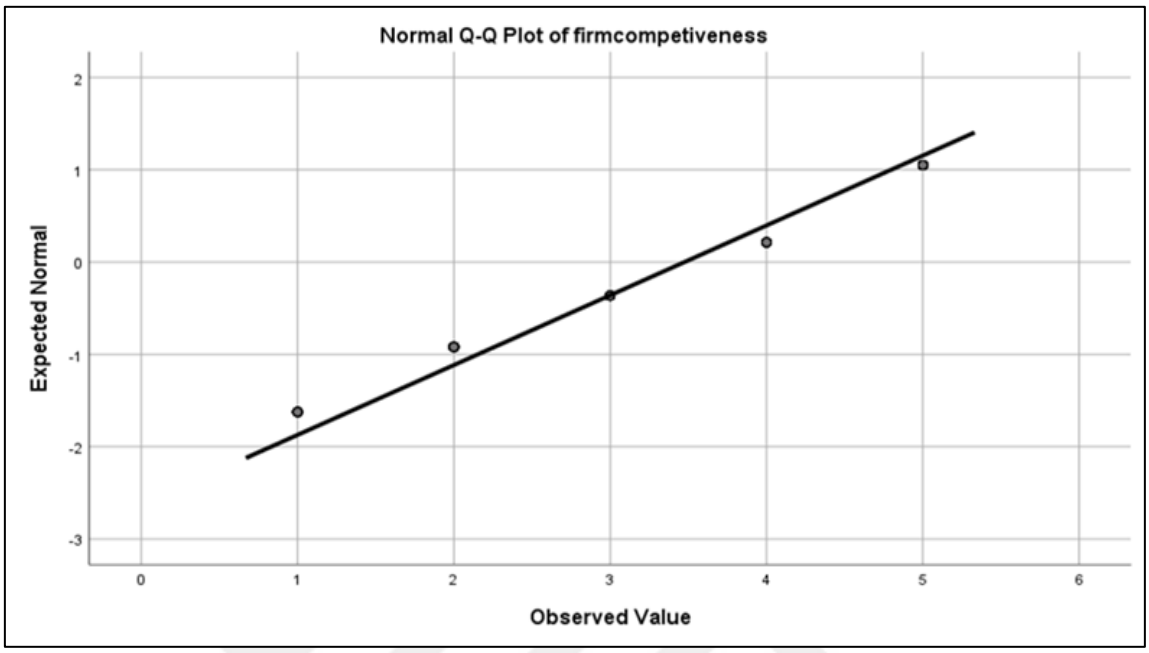

Figure 4.10: This figure shown that the firm performance data is normally distributed.

Table 4.18: Testing normality for cost leadership strategy.

	Kolmogorov-Smirnov[a]			**Shapiro-Wilk**		
	Statistic	df	Sig.	Statistic	df	Sig.
Cost leadership strategy	.194	200	.000	.878	200	.000

c. Lilliefors Significance Correction.

The data is normal if the Shapiro-Wilk Test value is larger than 0.05. The data considerably deviate from a regular distribution if it is less than 0.05. So as per these range our result prove that the survey is normally distributed in the manufacture sites.

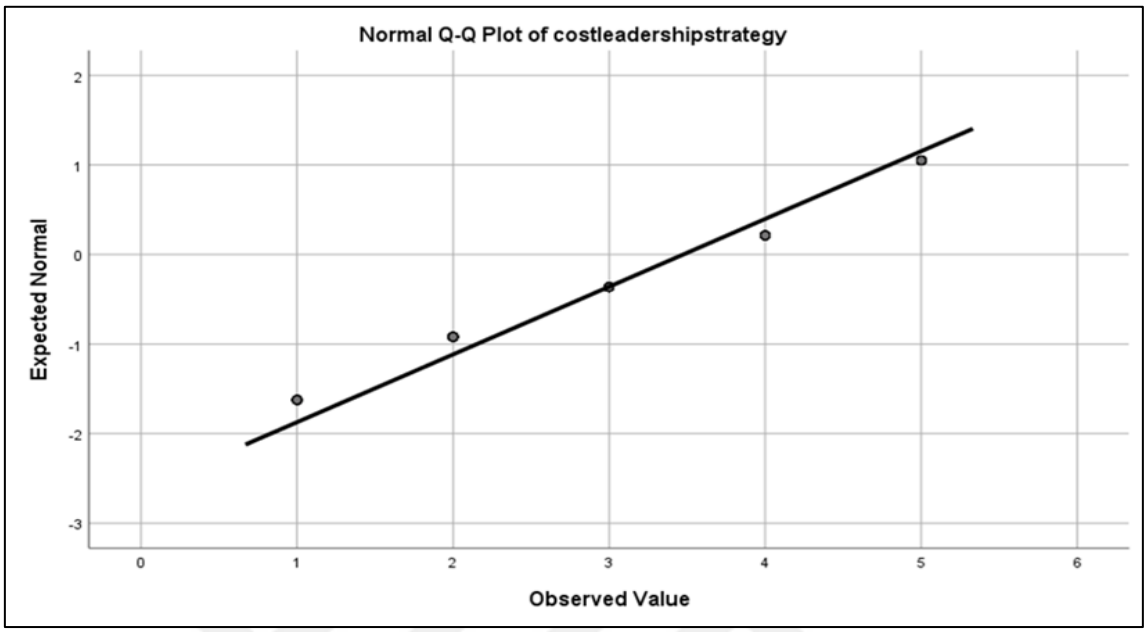

Figure 4.11: This figure shown that the cost leadership strategy data is normally distributed.

Table 4.19: Testing normality for focus strategy.

	Kolmogorov-Smirnov[a]			**Shapiro-Wilk**		
	Statistic	df	Sig.	Statistic	df	Sig.
Focus strategy	.194	200	.000	.878	200	.000

d. Lilliefors Significance Correction.

The data is normal if the Shapiro-Wilk Test value is larger than 0.05. The data considerably deviate from a regular distribution if it is less than 0.05. so as per these range our result prove that the survey is normally distributed in the manufacturer site.

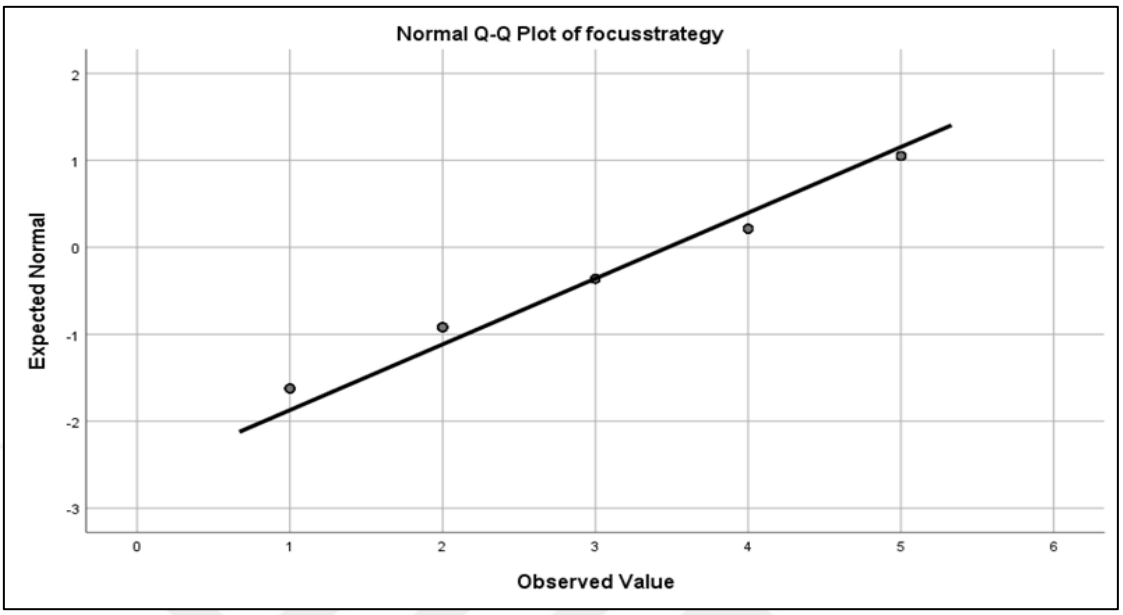

Figure 4.12: This figure shown that the focus strategy data is normally distributed.

Table 4.20: Testing normality for differentiation strategy.

	Kolmogorov-Smirnov[a]			**Shapiro-Wilk**		
	Statistic	df	Sig.	Statistic	df	Sig.
Differentiation strategy	.287	199	.000	.838	199	.000

e. Lilliefors Significance Correction.

The data is normal if the Shapiro-Wilk Test value is larger than 0.05. The data considerably deviate from a regular distribution if it is less than 0.05. So as per these range our result prove that the survey is normally distributed in the manufacture site.

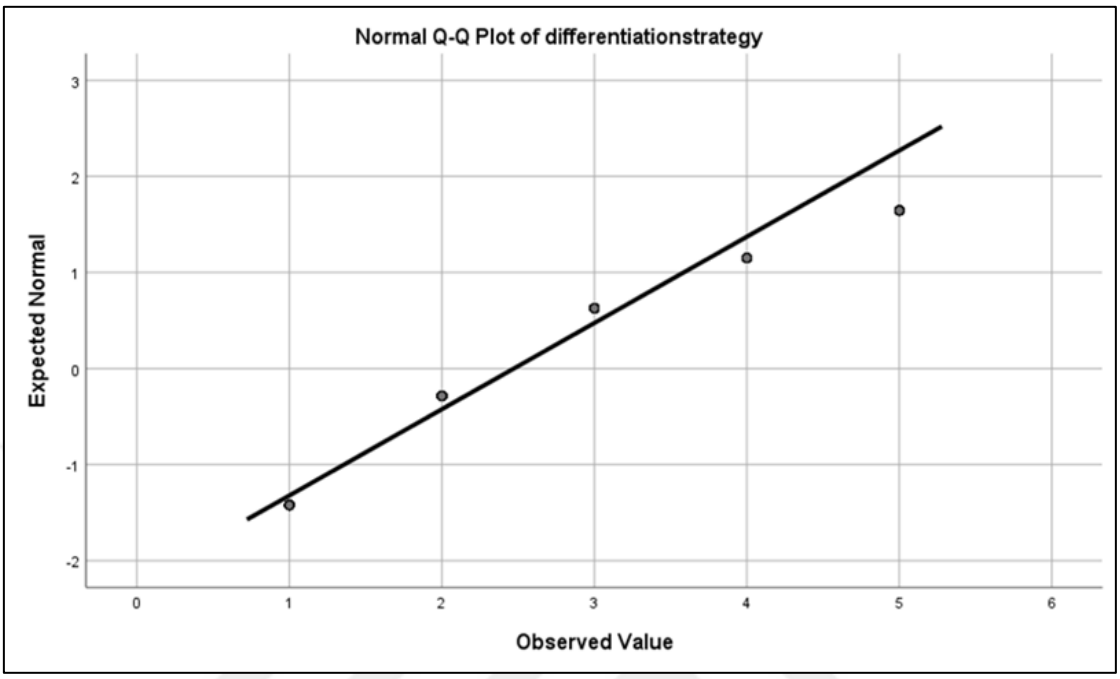

Figure 4.13: This figure shown that the differentiation strategy data is normally distributed.

4.8.4 The Outlier Assessment Between Study Variables

A data point that dramatically deviates from other observations is called an outlier. An outlier seems to be the result of measurement variability, or it may represent an error in the experiment; the latter is occasionally removed from the data collection. In statistical analysis, an outlier might result in significant issues. this will be shown in the following table:

Table 4.21: Testing outliers between study variables.

			Case Number	Value
Firm performance	Highest	1	135	5
		2	136	5
		3	137	5
		4	138	5
		5	139	5[a]
	Lowest	1	10	1
		2	9	1
		3	8	1
		4	7	1
		5	6	1[b]
Cost leadership	Highest	1	135	5
		2	136	5
		3	137	5
		4	138	5
		5	139	5[a]
	Lowest	1	10	1
		2	9	1
		3	8	1
		4	7	1
		5	6	1[b]

Table 4.21: Testing outliers between study variables. “tables continued”

Focus strategy	Highest	1	135	5
		2	136	5
		3	137	5
		4	138	5
		5	139	5[a]
	Lowest	1	10	1
		2	9	1
		3	8	1
		4	7	1
		5	6	1[b]
Differentiation strategy	Highest	1	11	4
		2	12	4
		3	13	4
		4	14	4
		5	15	4[c]
	Lowest	1	123	1
		2	122	1
		3	121	1
		4	120	1
		5	119	1[b]

a. Only a partial list of cases with the value 5 are shown in the table of upper extremes.

b. Only a partial list of cases with the value 1 are shown in the table of lower extremes.

a. Only a partial list of cases with the value 4 are shown in the table of upper extremes.

After using a controlled significance level in our hypothesis, we found that there are no outliers in our survey.

4.8.5 Skew And Kurtosis Assessment in Each Study Variable

A distribution's degree of skewness can be used as an indicator of its degree of asymmetry. If a dataset is perfectly symmetrical, its skewness will be 0. Therefore, the skewness of a normal distribution is 0. The skewness of a distribution is a measure of the difference in length between the two tails. Kurtosis quantifies the sum of the lengths of the 2 tails. It quantifies the tails' share of the overall probability. Kurtosis of the regular distribution, which is 3, is often used as a benchmark for comparison. If the kurtosis is larger than 3, the data set deviates from the normal distribution and has fatter tails (more in the tails) this result will be shown in the tables below:

Table 4.22: Testing distribution of the firm performance.

	N	**Minimum**	**Maximum**	**Mean**	**Std. Deviation**	**Skewness**	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error
Firm performance	200	1	5	3.61	1.190	-.310	.172
Valid N (listwise)	200						

Skew and kurtosis are a confirmatory test for analyzing the normality of this survey so as per the result the firm performance is normally distributed.

Table 4.23: Testing distribution of the cost leadership strategy.

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error
Cost leadership	200	1	5	3.61	1.190	-.310	.172
Valid N (listwise)	200						

Skew and kurtosis are a confirmatory test for analyzing the normality of this survey so as per the result the cost leadership strategy is normally distributed.

Table 4.24: Testing distribution of the focus strategy.

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error
Focus strategy	200	1	5	3.61	1.190	-.310	.172
Valid N (listwise)	200						

Skew and kurtosis are a confirmatory test for analyzing the normality of this survey so as per the result the focus strategy is normally distributed.

Table 4.25. Testing distribution of the differentiation strategy.

	N	**Minimum**	**Maximum**	**Mean**	**Std. Deviation**	**Skewness**
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic
Differentiation strategy	200	1	4	2.39	.788	-.316
Valid N (listwise)	200					

Skew and kurtosis are a confirmatory test for analyzing the normality of this survey so as per the result the differentiation strategy is normally distributed.

5. CONCLUSIONS

5.1 SUMMARY

This study concentrated on the electric power generation sector in Iraq and the companies affiliated with the government sector, and it is supervised by the Iraqi Ministry of Electricity and financed by the Iraqi government. The main problem is the gap between supply and demand for electric power in Iraq, despite the addition of new units to produce electric power after 2003, but it was not enough to fill the deficit. In addition to the sudden drop in global oil prices since 2020, this has led to weak financial financing of electric power projects in Iraq for the electric power production sector and the perpetuation of the gap. Only electrical industry companies in the Republic of Iraq were used in this study, study's goal was to determine how Porter's generic strategies such as the low-cost strategy differentiation strategy, and focus strategy, affected business performance. Three parameters (differentiation strategy, focus strategy, and cost leadership strategy) in addition to one dependent variable (FP) were developed to determine the link between the study's variables.

The researcher relied on the questionnaire as a tool to verify the research hypotheses. Where the sample was selected from the electricity producing companies in Iraq. The following three hypotheses have been made as branch proposals (H1, H2, and H3). The connection between independent variables was attenuated by correlation analysis, however, Porter's general methods' impact on company performance was adequately revealed by multivariate regression analysis. Results from multivariate regression and Pearson's correlation verified three of the research questions that were posed in this study. Additionally, this study provided answers to two research topics. The second research question was addressed after the hypotheses were tested, whereas the first question was addressed before the hypothesis verification and the respondent firms were engaged in a competitive industry.

The results of this study demonstrated the significance of three of Porter's generic techniques for improving company performance. Additionally, empirical results showed that, in comparison to two other Porter's generic strategies, pursuing the differentiation approach has a greater influence on boosting financial performance. Applying Porter's general strategies

enables businesses to achieve their three primary objectives, which are to expand market share, be profitable, and survive. This study significantly advances the field regarding the contribution of Porter's general strategies to firm efficiency in Iraq beyond, scientific, and academic value.

5.2 RECOMMENDATIONS:

In Iraq the most two strategies that are used was focus and low-cost strategy and still electricity production is not enough, so they need to:

a. Change and diversity in the strategies that are used.
b. Increase in applying high standers for quality and safety.
c. Attempting to apply Porter’s strategies in the processes that following the production process, such as applying them in the distribution stage to measure the shortcomings in the entire process, starting from production to reaching the user.

5.3 LIMITATIONS

There are some research limitations to this thesis, which are:

a. The questionnaire was directed only to energy production companies in the Iraq region
b. Lack of time at the stage of publishing the questionnaire.
c. Bias in some answers.
d. Not to conduct SWOT analysis and take it into account because of its great impact on the course of the market.

5.4 FUTURE WORK

A. Experimental study to apply other strategies of Porter and measure the extent of their impact on the quality and efficiency of production.
B. Implementation of Porter’s strategies in the remaining stages of distribution and transportation.

REFERENCES

[1] S. Programme, “Reforming Venezuela ’ s electricity sector Options and priorities for,” no. December, 2021.

[2] S. P. S. Mathur, A. Arya, and M. Dubey, “A review on bidding strategies and market power in a competitive energy market,” *2017 Int. Conf. Energy, Commun. Data Anal. Soft Comput. ICECDS 2017*, pp. 1370–1375, 2018, doi: 10.1109/ICECDS.2017.8389668.

[3] Neeli Kroes, “European Competition Policy: Delivering Better Markets and Better Choices,” *Eur. Consum. Compet. Day*, no. September, 2005.

[4] H. Urbancova, “Competitive Advantage Achievement through Innovation and Knowledge,” *J. Compet.*, vol. 5, no. 1, pp. 82–96, 2013, doi: 10.7441/joc.2013.01.06.

[5] V. H. Minh, I. Odiakosa, and S. Korea, “ADVANTAGE : HOW THEY WORK IN SELECTED ASIAN ECONOMIES,” vol. 7, pp. 282–289, 2021.

[6] T. Minh Do and D. Sharma, “Vietnam’s energy sector: A review of current energy policies and strategies,” *Energy Policy*, vol. 39, no. 10, pp. 5770–5777, 2011, doi: 10.1016/j.enpol.2011.08.010.

[7] T. Jamasb and M. G. Pollitt, “Why and how to subsidise energy R+D: Lessons from the collapse and recovery of electricity innovation in the UK,” *Energy Policy*, vol. 83, pp. 197–205, 2015, doi: 10.1016/j.enpol.2015.01.041.

[8] H. I. Khatteeb, Luay, “Turn a light on: electricity sector reform in Iraq,” *Brookings Inst.*, 2015.

[9] S. S. and S. S. Mohammed Jamal, Faisal Al Saffar, “Iraqi Electricity Sector Overview,” 2021.

[10] R. Mills and M. Salman, “Powering Iraq: Challenges facing the Electricity Sector in Iraq,” no. October, 2020, [Online]. Available: https://library.fes.de/pdf-

files/bueros/amman/16923.pdf.

[11] P. M. Mombaur and B. Düsseldorf, “Preparation for the competitive European electricity sector,” vol. 2, no. 3, pp. 1–7, 2008.

[12] Zuyi Li, *Fundamentals of Power System Economics [Book Review*, vol. 4, no. 4. 2006.

[13] O. Akan, R. S. Allen, M. M. Helms, and S. A. Spralls, “Critical tactics for implementing Porter’s generic strategies,” *J. Bus. Strategy*, vol. 27, no. 1, pp. 43–53, 2006, doi: 10.1108/02756660610640173.

[14] G. G. Dess and P. S. Davis, “Porter’s (1980) Generic Strategies as Determinants of Strategic Group Membership and Organizational Performance,” *Acad. Manag. J.*, vol. 27, no. 3, pp. 467–488, 1984, doi: 10.5465/256040.

[15] D. C. Hambrick, “High Profit Strategies in Mature Capital Goods Industries: A Contingency Approach,” *Acad. Manag. J.*, vol. 26, no. 4, pp. 687–707, 1983, doi: 10.5465/255916.

[16] R. E. Miles, C. C. Snow, A. D. Meyer, H. J. Coleman, R. E. Miles, and A. D. Meyer, “Organizational Strategy , Structure ,” vol. 3, no. 3, pp. 546–562, 2009.

[17] D. Miller and P. H. Friesen, “Porter’s (1980) Generic Strategies and Performance: An Empirical Examination with American Data: Part II: Performance Implications,” *Organ. Stud.*, vol. 7, no. 3, pp. 255–261, 1986, doi: 10.1177/017084068600700303.

[18] E. Kim, D. Il Nam, and J. L. Stimpert, “The applicability of Porter’s generic strategies in the digital age: Assumptions, conjectures, and suggestions,” *J. Manage.*, vol. 30, no. 5, pp. 569–589, 2004, doi: 10.1016/j.jm.2003.12.001.

[19] M. E. Porter, *Books by competitive strategy*. 1990.

[20] M. E. Porter, “Porter, M. E. (1996). What is Strategy? Harvard Business Review, 74(6), 61–78.,” *Harv. Bus. Rev.*, vol. 74, pp. 61–78, 1996.

[21] M. E. Porter, “The Competitive Advantage: Creating and Sustaining Superior Performance.” New York : Free Press, 1985.

[22] F. R. David *et al.*, *Sixteenth edition StRategic ManageMent concepts and cases*. 2017.

[23] P. Desyllas, M. Miozzo, H. fen Lee, and I. Miles, “Capturing Value from Innovation in Knowledge-Intensive Business Service Firms: The Role of Competitive Strategy,” *Br. J. Manag.*, vol. 29, no. 4, pp. 769–795, 2018, doi: 10.1111/1467-8551.12273.

[24] H. Mintzberg, “The fall and rise of strategic planning,” *Harv. Bus. Rev.*, 1994, [Online]. Available: http://online.worcester.edu/external/evescio/Principles of Management/strategicplan.pdf.

[25] R. Tantawi, “The impact of competitive strategies on the market share of electrical appliance manufacturers,” *Sci. J. Bus. Environ. Stud.*, pp. 258–284, 2021, doi: 10.21608/JCES.2021.188406.

[26] G. Anwar and B. A. Zebari, “The Relationship between Employee Engagement and Corporate Social Responsibility: A Case Study of Car Dealership in Erbil, Kurdistan,” *Int. J. Soc. Sci. Educ. Stud.*, vol. 2, no. 2, pp. 45–50, 2015, [Online]. Available: https://search.proquest.com/scholarly-journals/relationship-between-employee-engagement/docview/2394987069/se-2?accountid=25704.

[27] E. R. Biggadike, “The Contributions of Marketing To Strategic Management,” *Acad. Manag. Rev.*, vol. 6, no. 4, pp. 621–632, 1981, doi: 10.5465/amr.1981.4285710.

[28] T. Academy *et al.*, “Linking strategic practices and organizational performance to Porter’s generic strategies,” *Strateg. Manag. J.*, vol. 13, no. 3, pp. 49–54, 1984, doi: 10.5465/256040.

[29] L. Fonseca, “The EFQM 2020 model. A theoretical and critical review,” *Total Qual. Manag. Bus. Excell.*, vol. 0, no. 0, pp. 1–28, 2021, doi: 10.1080/14783363.2021.1915121.

[30] T. T. Herbert, “Generic Strategies : An Empirical Investigation of Typology Validity and Strategy Content Author (s): Theodore T . Herbert and Helen Deresky Published by : Wiley Stable URL : https://www.jstor.org/stable/2485978 REFERENCES Linked references are availabl,” vol. 8, no. 2, pp. 135–147, 2019.

[31] M. E. Porter, “From Corporate Advantage to Competitive Strategy,” *Harv. Bus. Rev.*, pp. 43–59, 1987.

[32] C. Lechner and S. V. Gudmundsson, “Entrepreneurial orientation, firm strategy and small firm performance,” *Int. Small Bus. J.*, vol. 32, no. 1, pp. 36–60, 2014, doi: 10.1177/0266242612455034.

[33] G. Johnson, K. Scholes, and R. Whittington, “Exploring Corporate Strategy with MyStrategyLab: Text and Cases,” p. 881, 2009.

[34] B. Parker and M. M. Helms, “Generic Strategies and Firm Performance in a Declining Industry Generic Strategies and Fi in a Declining Industry,” vol. 32, no. 1, pp. 23–39, 2019.

[35] Mary R. Brooks, “International competitiveness - Assessing and exploring competitive advantage by ocean container carriers.” Logistics and Transportation Review, pp. 275–293, 1993.

[36] H. E. Salavou, “Competitive strategies and their shift to the future,” *Eur. Bus. Rev.*, vol. 27, no. 1, pp. 80–99, 2015, doi: 10.1108/EBR-04-2013-0073.

[37] M. Anwar and S. Z. A. Shah, “Entrepreneurial orientation and generic competitive strategies for emerging SMEs: Financial and nonfinancial performance perspective,” *J. Public Aff.*, vol. 21, no. 1, 2021, doi: 10.1002/pa.2125.

[38] M. Acquaah, *Business strategy and competitive advantage in family businesses in Ghana: The role of social networking relationships*, vol. 16, no. 1. 2011.

[39] C. Bauer and J. Colgan, “Planning for electronic commerce strategy: an explanatory study from the financial services sector,” *Logist. Inf. Manag.*, vol. 14, no. 1/2, pp. 24–

32, 2001, doi: 10.1108/09576050110360205.

[40] C. Campbell-Hunt, “What have we learned about generic competitive strategy? A meta-analysis,” *Strateg. Manag. J.*, vol. 21, no. 2, pp. 127–154, 2000, doi: 10.1002/(SICI)1097-0266(200002)21:2<127::AID-SMJ75>3.0.CO;2-1.

[41] R. Tanwar, “Porter’s Generic Competitive Strategies,” *IOSR J. Bus. Manag.*, vol. 15, no. 1, pp. 11–17, 2013, doi: 10.9790/487x-1511117.

[42] S. Hlavacka, L. Bacharova, V. Rusnakova, and R. Wagner, “Performance implications of Porter’s generic strategies in Slovak hospitals.,” *J. Manag. Med.*, vol. 15, no. 1, pp. 44–66, 2001, doi: 10.1108/02689230110386489.

[43] S. Nakamura, “Competitive Marketing Strategy,” *Japan Mark. J.*, vol. 39, no. 1, pp. 97–105, 2019, doi: 10.7222/marketing.2019.028.

[44] R. F. Green, J. Lisboa, and M. M. Yasin, “Porter’s (1980) Generic Strategies in Portugal,” *Eur. Bus. Rev.*, vol. 93, no. 2, pp. 2–11, 1993, doi: 10.1108/EUM0000000001911.

[45] R. S. Allen and M. M. Helms, “Linking strategic practices and organizational performance to Porter’s generic strategies,” *Bus. Process Manag. J.*, vol. 12, no. 4, pp. 433–454, 2006, doi: 10.1108/14637150610678069.

[46] S. A. Zahra, “Environment, corporate entrepreneurship, and financial performance: A taxonomic approach,” *J. Bus. Ventur.*, vol. 8, no. 4, pp. 319–340, 1993, doi: 10.1016/0883-9026(93)90003-N.

[47] R. S. Allen *et al.*, “A taxonomy of competitive retailing strategies,” *Acad. Manag. J.*, vol. 27, no. 3, pp. 390–400, 1984, doi: 10.1108/14637150610678069.

[48] A. I. Murray, “A Contigency View of Porte’s Generic Strategies_Academy of Management Review. Vol. 13 Issue 3, p390-400..pdf,” vol. 13, no. 3, pp. 390–400, 1988.

[49] X. Islami, N. Mustafa, and M. Topuzovska Latkovikj, “Linking Porter’s generic

strategies to firm performance," *Futur. Bus. J.*, vol. 6, no. 1, pp. 1–15, 2020, doi: 10.1186/s43093-020-0009-1.

[50] K. Zamasz, "Energy company in a competitive energy market," *Polityka Energ.*, vol. 21, no. 2, pp. 35–48, 2018, doi: 10.24425/122768.

[51] M. W. Maina, "Factors Influencing Competitive Advantage Among Oil and Gas Companies in Nairobi Kenya," no. August, p. 48, 2015, [Online]. Available: http://erepository.uonbi.ac.ke/bitstream/handle/11295/93842/Maina_Factors Influencing Competitive Advantage Among Oil and Gas Companies in Nairobi Kenya.pdf?sequence=3.

[52] O. I. Bunea, R. A. Corbos, and R. I. Popescu, "Influence of some financial indicators on return on equity ratio in the Romanian energy sector - A competitive approach using a DuPont-based analysis," *Energy*, vol. 189, p. 116251, 2019, doi: 10.1016/j.energy.2019.116251.

[53] H. Semuel, H. Siagian, and S. Octavia, "The Effect of Leadership and Innovation on Differentiation Strategy and Company Performance," *Procedia - Soc. Behav. Sci.*, vol. 237, no. June 2016, pp. 1152–1159, 2017, doi: 10.1016/j.sbspro.2017.02.171.

[54] R. D. Banker, R. Mashruwala, and A. Tripathy, "Does a differentiation strategy lead to more sustainable financial performance than a cost leadership strategy?," *Manag. Decis.*, vol. 52, no. 5, pp. 872–896, 2014, doi: 10.1108/MD-05-2013-0282.

[55] Y.-H. Lo, "Back to Hotel Strategic Management 101 : An examination of hotels ' implementation of Porter ' s generic strategy in China," *J. Int. Manag. Stud.*, vol. 7, no. 1, pp. 56–70, 2012.

[56] C. Dögl, D. Holtbrügge, and T. Schuster, "Competitive advantage of German renewable energy firms in India and China: An empirical study based on Porter's diamond," *Int. J. Emerg. Mark.*, vol. 7, no. 2, pp. 191–214, 2012, doi: 10.1108/17468801211209956.

[57] N. Verlagsgesellschaft, E. European, and M. Studies, "Competitive advantage of

German renewable energy firms in Russia - An empirical study based on Porter ' s diamond Author (s): Corinna Dögl and Dirk Holtbrügge Published by : Nomos Verlagsgesellschaft mbH Stable URL : http://www.jstor.com/stable/23281705," vol. 15, no. 1, pp. 34–58, 2010.

[58] H. Haapasalo, K. Ingalsuo, and T. Lenkkeri, "Linking strategy into operational management: A survey of BSC implementation in Finnish energy sector," *Benchmarking*, vol. 13, no. 6, pp. 701–717, 2006, doi: 10.1108/14635770610709068.

[59] W. L. Simani, "TQM perspectives under the competitive strategies and the organization performance in Kenyan manufacturing sector," *Acad. Strateg. Manag. J.*, vol. 16, no. 2, pp. 1–20, 2017.

APPENDIX A

QUESTIONNAIRE

A.1 INFORMATION IN GENERAL-DEMOGRAPHICS INFORMATION

Please mark the boxes that apply:

1). Gender: Female ☐ Male ☐

2). How many full-time employees are in your company?

a. Under 20 employees
b. Between 20 and 50 employees
c. Between 50 and 100 employees
d. Over 100 employees

3). How long has your organization been in business?

a. 0 - 5 Years
b. 5 - 10 Years
c. 10 -20 Years
d. Over 20 Years

4). Status of your Organization

a. Public Limited Company
b. Private Limited Company
c. Government Institution

5). Organizational Position

a. Top Management
b. Supervisory
c. Middle Management
d. Owner

A.2 INFORMATION IN GENERAL-FIRM PERFORMANCE

Please mark () where applicable to reflect your degree of agreement or disagreement with the given assertions.

(Key: 1-extremely small extent, 2- small extent, 3-moderate extent, 4-big extent, 5-extremely huge extent).

Firm Competitiveness	**1**	**2**	**3**	**4**	**5**
a) Quality					
Procedure Done with High Quality Standards					
Safety Precautions for Done the Process Are Customized To Suit Our Institution/Company					
b) Innovation					
Use Superior Technology in Its Processes Leading To Efficiency					
Seeks To Continuously Improve to Increase Profitability					
Net Profit Increase by Increasing The Performance Skills					
Market Chair Growth					
Total Asset Growth					
Quality Performance					

A.3 INFORMATION IN GENERAL-COST LEADERSHIP STRATEGIES

Please mark () where applicable to reflect your degree of agreement or disagreement with the given assertions.

(Key: 1-extremely small extent, 2- small extent, 3-moderate extent, 4-big extent, 5-extremely huge extent).

Cost Leadership Strategy	**1**	**2**	**3**	**4**	**5**
1) Economies Of Scale					
Electricity Is When Compared to Other Competitors, It Is Sold at A Lesser Price On The Market					
Electricity Is Affordable /Economical and Of Good Value					
2) Economies Of Learning					
Services Are Consistent and Standardized					
Embraces Advanced Technology in Their Production Hence My/Our Institution/Company's Loyalty					
3) Value Chain Management					
Always Has the Right Quantity at The Right Time as Per Customers' Needs					
4) Low-Cost Production Inputs					
Because It Is Self-Manufactured in A State-Of-The-Art Facility, The Price Is Reasonable					
Is Always Looking for Ways to Cut Costs Without Losing Critical Functionality or Acceptable Quality					

A.4 INFORMATION IN GENERAL-DIFFERENTIATION STRATEGY

Please mark () where applicable to reflect your degree of agreement or disagreement with the given assertions.

(Key: 1-extremely small extent, 2- small extent, 3-moderate extent, 4-big extent, 5-extremely huge extent).

Differentiation strategy	**1**	**2**	**3**	**4**	**5**
1) Service Quality					
Services That Are Different from Its Competitors					
Our Dealings Within Our Institution/Company Are Well-Coordinated and Professional					
Offers Unique Features for Which Customer Is Willing To Pay A Premium					
2) Innovation					
Creative And Consistent in Their Development					
To Keep on Top of Illustrative Competitors, You Must Constantly Develop And Use Innovation					
Plant/Premises Is Well Equipped with Modern Facilities					

A.5 INFORMATION IN GENERAL-FOCUS STRATEGY

Please mark () where applicable to reflect your degree of agreement or disagreement with the given assertions.

(1-extremely small extent, 2- small extent, 3-moderate extent, 4-big extent, 5-extremely huge extent) .

Focus – Differentiation Strategy	**1**	**2**	**3**	**4**	**5**
It Is Well-Known for The High-Quality Related Capabilities of Its Product					
Product Grievances Are Resolved on A Timely Basis					
It Is Easy to Do Business as Their Processes Are Simple and Easily Understood					
Focus - Cost Strategy					
Cost-Effective Alternatives to Our Unique Requirements and Specifications					
Endeavors To Produce at A Minimal Cost, Resulting in Reasonable Prices and High-Quality Product					
Seems To Be in The Market Since Its Product Are Less Expensive Than Those of Its Competitors					