

Contributions of Sustainable Green Marketing to Evaluating the Environmental Performance of the Kufa Cement Factory

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Abstract

This study delves into how the Kufa Cement Factory's environmental performance was affected by sustainable green marketing. The factory aims to improve its operational efficiency and environmental sustainability through green marketing tactics. Environmentally conscious product development, sustainable supply chain methods, and environmental awareness campaigns are just a few of the green marketing approaches that have been studied. The study uses a thorough case study technique to analyze the factory's present environmental performance measures, find ways to enhance them, and determine how effective the green marketing campaigns were. According to the results, sustainable green marketing helps the Kufa Cement Factory lessen its impact on the environment, which in turn helps maintain ecological harmony and improves the company's public perception. For other manufacturing entities looking to implement comparable methods, this research offers significant insights into the significance of green marketing in attaining environmental sustainability in the industrial sector.

Keywords: Environmental, Contributions, Cement Factory, Performance, green marketing.

1. Introduction

Disseminating green culture has rapidly accelerated and is highly positioned on the current international business developmental agendas of the globe. This is of immense importance because internationally, many consumers and policymakers are becoming highly sensitive to and aware of ecologically ethical consumption. This has mandated the need to realize the genuine concept of sustainable green marketing as a part and parcel of sustainable consumption with wide-ranging applications.

Defining sustainable green marketing, it is one of the ideal strategies of societal marketing, which states that marketing organizations should satisfy the needs and wants of their customers in a way that ensures the preservation or enhancement of the well-being of consumers and society as a whole, while fulfilling the objectives of the organization. This orientation implies that the first policy of marketing is crucial to consider consumer welfare.

In accordance with magnified social concerns, management is gradually concentrating on ecological-based marketing. This marketing orientation is indeed a veritable extension of the societal marketing orientation. A variety of terms have been used to describe ecologically based marketing. The most preferred term is

"Green Marketing." Other synonyms related to green marketing are "Environmental Marketing" and "Ecologically Friendly Marketing," which are often used interchangeably. Companies in this way market their green products, services, and strategies—practices, as well as green self-image. Thus, green marketing refers to the process of selling products and/or services based on their eco-friendly properties. Later, the term "Eco-Labeling" emerged. Eco-Labeling is a background indicator of an organization's environmental impacts from its products and services. From this point of view, not only competitive edge gains. Rather, it is also an indicator of business environmental performance.

More recently, in parallel with the rise of other critical marketing areas, a new term, "Sustainable Green Marketing," has been emerging. Our concern is directly related to this recent term of sustainable green marketing. If our concern is real customer satisfaction in the long run, the principles of marketing in sustainable markets should consider broader concepts. One of the aspects related to the broader concept in this case is sustainable marketing. In the absence of sustainable green concepts, priorities and marketing applications run the risk of being invalid in various forms. This concern shows that the concept of green marketing takes into account elements of a sustainable market in the approach that has emerged. In the aforementioned approaches, commitment to environmental and social responsibility is to make profits. It changes according to the concept of green marketing as a different dimension.

1.1. Definition and Principles of Sustainable Green Marketing

Contemporary marketing depends heavily on physical consumption, as industrial activities are considered the main source of pollution. Consequently, the necessary market evolution transformations are associated with substantial technological and organizational changes aimed at developing tech equipment and harnessing renewable energy sources. To achieve sustainable development effectively, the marketing field has been brought into nearly undisturbed processes, which encompass many social, economic, and environmental considerations.

Eco-marketing is indeed a fundamental principle of sustainable natural environment markets. It is an eco-centric focus on sustainable, green marketing, as well as a holistic management process that identifies, anticipates, fulfills, and demonstrates that the primary stakeholders fulfill not only economic and legal service quality and environmental benefits but also exceed the traditional transaction expectations of individuals and organizations.

Sustainable economics, ethics, social responsibility, strategic management, consumer behavior, relationships, customer portfolios, legal and civic points of view, and public relations marketing are not just included in sustainable green marketing. Savings, reducing marketing expenses to make industries compulsorily environmentally, financially, and humanly, optimize entering and operating costs; green, made of preserves, and improves the environment of resources. This management is based on multi-dimensional potential benefits, and hidden costs or compulsion management is thought to be a progressive force with value-distinctive

profit potential and a multinational perspective on the process system, strategy, leadership, economies, and value chain that follow.

Green products, green services representing a little depression or significant generational improvement on competitors, are leaders concerning price, performance, benefits, and loyalty, and green eco-claims demonstrate the extensive marketing policy described before. Green marketing will not sacrifice performance or quality for products or even services. Sustainable green marketing stress overall ranged on green lifestyles and eco-values as well.

1.2. Importance of Evaluating Environmental Performance in Industries

In these days, when developments about the environment are everywhere in daily life, businesses are forced to evaluate their environmental performance. The importance of evaluating the environmental impact of products came to light. Consequently, monitoring and improving the environmental impact associated with various products at the industrial level is critical. Many procedures at the corporate level have been adopted to assess the environmental affiliations of products. Studies have been carried out in many sectors of industry. Here, the contribution of sustainable green marketing to the evaluation of the cement industry is evaluated. One of the cement factories, Kufa Cement Factory, was taken as a basis for this evaluation.

Using the data from Kufa Cement Factory to evaluate the impact of sustainability on green marketing can result in a reduction in the negative environmental impact of the entire cement industry. The cement industry is one of the slower-growing industries due to the restrictions on growth and development. In this context, the cement industry has been selected for the significance of the subject, which is about the studies. Countermeasures will be investigated to improve the sustainability of the Kufa Cement Factory, and the Kufa Cement Factory's sustainability and environmental performance will be evaluated to some extent. The anticipated outcome of the study will also be able to provide some facilities to those scientific personnel who will work at the same level in the future.

2. Overview of the Cement Industry and Environmental Concerns

The cement industry is a basic and strategic industry for the advancement of societies. It is a contemporary industry operating on a global scale with a significant presence in the developed world and emerging markets. Second, the industry is, in terms of emissions, the third-largest industrial energy consumer and the second-largest user of industrial process graphite. From an environmental standpoint, the cement sector is in charge of a variety of problematic facets. In a global climate and resource context, carbon dioxide creation and energy usage have received much attention recently. There are few regional authorities around the globe. Even further, there are locations on the planet where cement remains the least safe and harmful building material. Although the cement industry in Iraq is very important, it has multiple minimizing factors due to economic stagnation, sanctions, and warfare, necessitating full rehabilitation in terms of infrastructure and strain logistics in order to avoid local loss of control and boosted environmental effectiveness.

Cement creation is linked to ecological issues that arise from industrial processes and are linked to the combustion of non-recoverable raw materials. These concerns are especially linked to the pollutant characteristics of mainly cement plant emissions. Such uncontrolled emissions usually included carbon dioxide, carbon monoxide, nitric oxides, sodium oxides, hydrodic, sulfur oxides, chromium-related particles, hydrogen chloride, and fluorine. Such emissions will have an impact on local weather in terms of air quality problems. Further, dust particles and residue will be released by cement plants and, if affected by rain, can cause air pollution. In Afghanistan, emissions from the cement plant were found to be particularly detrimental to human and environmental health. A second problem linked to PPP is the excessive usage in procurement processes of recycled products. The high percentages of these materials, consisting of polyvinyl chloride, are detrimental to the environmental kind energy. This loss will remain for many years if not thousands of generations. Russia has also terminated the utilization of fluoride fertilizers, in order to mitigate ecological damage and minimize the risk of those fertilizers going into the food chain through the use of such waste.

2.1. Global Cement Industry Overview

Cement is one of the most used products in humanity after water. It is a binding material with water and is used in the construction sector in many areas. If called as grey cement, which is the raw material of this industry, it is used as environmental indicators such as CO₂ and SO_x gas emissions. It affects the environment in a multi-dimensional way with the use of unpolluted cement. Therefore, it has become inevitable that superior and differentiated features are preferred by increasing the quality of products with circular green marketing. Cement, human basic needs. 1.1. Global Cement Industry

According to Cembureau data in 2006, the global consumption of cement was 2.7 billion tons. This consumption reached 3.7 billion tons in 2010. In 2022, it reached a consumption of 4.15 billion tons. According to the TSE data in the second half of the year 2021, Turkey with an 80.7 percent capacity utilization rate of the located in 533 factory 43.1 million was cement production. The on-site production report of the international cement organization has been presented in Table 2. According to the report, the countries with the most production of cement in 2017 were China, India, the United States, and Turkey, respectively. It is predicted that cement production will continue to increase day by day as the world population grows and the needs arising from urbanization increase. Until 2030, this increase is estimated to reach around 500 million tons per year.

2.2. Environmental Impact of Cement Production

The process of cement production has a large effect on the environment. Portland cement production alone accounts for more than 7% of global CO₂ emissions. The production of one metric ton of cement produces nearly one metric ton of CO₂ emissions. After water, cement is the second most used material on Earth. Large-scale lime burning made one of the biggest contributions to global warming in the past century. Most of the carbon dioxide released is due to the chemical reactions associated with cement production. The high energy necessary

to be supplied to a cement kiln to generate temperatures of approximately 1450°C has made the cement industry a potential emitter of carbon dioxide. Hydration results from the addition of water to the calcines, which produces a very strong bond (calcium silicate hydrate gel, CSH) while also converting the alumina-silicate material into alumina-tri-calcium dialuminate tetra sulfate. The CSH gel (recorded as CsH) is physically weak when in the presence of water, and as a result, the product can be easily processed, but it becomes very strong once water is taken away.

The decomposed materials include almost every element in the Alkali range of the periodic table except for sodium, which volatilizes into the gas phase during firing. It is highly reactive in water and it's making cement alternatives for use in projects such as brine-well construction and sewer lines. The longer the materials are burned (sometimes as long as 12-24 h), the more they harden because the water crystallizes further, notably calcium sulfate. It is used in the manufacture of cement while keeping the products small and light enough to be burned more quickly. Clinker is produced as a mineral powder. Some substances are removed, such as CO₂, which is produced primarily in the sintering phase.

3. Case Study: Kufa Cement Factory

Kufa Cement Factory, one of the most important of its kind, has government ownership. This factory was built in accordance with the latest international specifications, standards, and laws in the design, implementation, and operation, which comply with universal environmental and health standards. The factory has a great ability to treat used fuel in the kilns and tolerate the high percentage of environmental pollutants, as you will explain in the subsequent sections. It is located in the southern part of Iraq, in Najaf Governorate, the Kufa district, about sixteen kilometers far from the center of the cities of Karbala and Najaf. The factory was built inside a mountain so that the natural view of the mountain fell on the buildings of the factory, and it operates within the allowable daily capacity of 300 thousand tons/day, as authorized by the Iraqi Ministry of Environment and the General Authority for Environmental Monitoring. The daily average production of the factory during modern times is approximately 1650 tons. The different studies conducted at local, Arabic, and international levels have shown a set of problems and stresses on the natural and human environment that result from environmental practices in the different factories, especially cement factories (as the first of the factory), as it finds its solutions to cement and the subsequent ones. One of the most important of these problems is that there are no studies and research in the field of marketing as one of the functional areas of business administration that address detailed studies in the field of the environment, and especially the acceptance of the technicism of green differentiation strategy in this area, which is what our study focuses on. In this section, we provide three basic points about this experiment. First, talk about the case study. In other words, the nature of the translated and government ownership (heading 4), which shows the products and parts that contain them. Then a detailed talk seen in the environmental political initiatives of the factory.

3.1. Background and Overview of the Kufa Cement Factory

1. Introduction One of the most important sectors threatened in Iraq by environmental risks is the cement industry due to the great amount of CO₂ that drilling the clinker kiln releases. A sub-cement factory is more typical in Iraq being the Kufa Cement Plant - the largest in the country (15% of the cement industry). The plant was established in 1978 and is working continuously till the present even in case of war. In the present situation and due to the environmental risks in Iraq, many environmental initiatives and practices have been applied at the Kufa factory to control emissions of gases caused by industrial production operations. In this paper, many environmental initiatives are considered in the assessment of the performance of these initiatives for reducing emissions of the factory and their impact on the external environment.

Background and Overview of the Kufa Cement Factory The cement factory in Iraq is located in Al Najif province at Al Kufa city, 8 km from Al Najif Al Ashraf International Airport, and the factory's geographical location is clarified in Figure 1. The city was named after Al Imam Ali ibn Abi Talib to keep it as a memory of Imam Ali. Similarly, the cement factory was designed and the decision to establish it was made entirely by the national cadres who had many reasons.

3.2. Environmental Initiatives and Practices at Kufa Cement Factory

Table 3 shows that the Kufa Cement Factory has several initiatives and practices related to environmental sustainability. In 2020, these practices were recognized and awarded a Certificate of Appreciation and a Certificate of Organizational and Technical Assessment at several levels. The main initiatives and practices related to Kufa Cement Factory sustainability are available on the official corporate page. The Ministry of the Environment called the "Musab Mobadra" award "the representative of all" of the initiatives practiced in the Kufa Cement Factory. This is the first annual event of the Ministry of Health of the Republic of Iraq, which raises concerns about noise and pollution.

Moreover, in the cement industry in Iraq, the environmental impacts are significant. Although there are regulatory standards, effective control of industrial facilities such as Kufa Cement Factory emissions is a challenge. Operators must respond to regulatory initiatives with measurable results to ensure that they effectively reduce emissions or waste responsibly from their activities. In fact, the factory made a number of modifications to the construction of the plant to mitigate or address some of the environmental problems. These modifications include some curves, but more significantly, they have resulted in the use of waste with subsequent raw materials. This system paid off in more than one way. The most important advantages of the change are connected to the use of less natural material in the production of cement, which reduces pressure on the environment and raw materials, and reuses nature by using these destructive residues in the formation of modern building materials.

4. Methodology for Evaluating Environmental Performance

4.1. Introduction The various methods used in earlier research have their limitations and do not pay much attention to the environmental axis. Therefore, the

paper attempts to develop a straightforward and useful method to evaluate the environmental performance of the Kufa Cement Factory in general and the grinding and burning sectors in particular by following the green marketing aspects, especially the product section. The paper has given a simple clarification of the concept of environmental study. The study shows one of the most important performance measurements in a quantitative way. It categorizes environmental performance indicators based on the main variables, it lists the relevant methods of data collection for performance evaluation of the grinding sector and the burning sector and provides a section which shows how the data gathered from the Kufa Cement Factory can be analyzed. It also focuses on performance evaluation using visual impression indicators and how these differences can be analyzed.

4.2. Key Performance Indicators (KPIs) for Environmental Performance Evaluation It is important for the evaluators to define which sector, machinery, unit, process, and even the input includes the main obstacles against keeping up with the designed environmental aspects. Participants engaged in the scoring are the evaluators who are supposed to be fully aware of the various behaviors that are related to the environmental aspects and the level of their association with Kufa Cement Factory and also a process being evaluated. In a logical pattern, or step-by-step manner, the environmental aspects evaluations should not begin without having identified first the evaluation parameters that were chosen, which are going to be measured and against which they are going to be scored.

4.1. Key Performance Indicators (KPIs) for Environmental Performance Evaluation

4.1. Key Performance Indicators (KPIs) for Environmental Performance Evaluation

On the basis of the current literature review conducted, the most commonly used KPIs can be categorized as follows (Table 1): amounts of energy and water that were successfully saved or consumed, amounts of cement, concrete, and other production outputs manufactured, and total amount of CO₂ emissions produced and reduced. Additionally, the volume and types of fuel consumed, Kufa Cement Factory (KCF) manufacturing line statuses, production capacity in tons, the number of produced cement types, as well as the amount of electrical and thermal energy and air usage are also presented in these KPIs. Social responsibility is represented by the environmental assessment of the KCF's production process. Based on the relevant literature, the main evaluation and indicator criteria are energy types, cooling techniques, and waste utilization or management. In summary, the overall environmental performance of KCF can be assessed based on this literature, in addition to the energy savings and process line or cement types examined.

For KPI1, the following indicators were used to analyze the evaluation of the useful and total energy and fuel savings compared to the environmental savings achieved at the KCF: nature of energy save (thermal, fuel, and electrical), the energy boiler rejection percentage, and the initial acrylic acid value. For KPI2, the following indicators were used to evaluate and analyze the KCF's environmental performance in terms of logistics management, cement silo loading, and dispatch

processes: truck loading systems and equipment, the required loading time to fully load trucks, the number of truck queues, the percentage of two simultaneously loaded trucks, the selective type of lighting for the truck scale, the hoppers and silo unloading and dust procedures, the split cement production, the number of cement types produced per month, and cement sold. The indicators used to assess the effects of operational cooling and cement lab tests on the KCF surrounding road and internal shade temperatures, relative humidity, and employee time duration to local disorders were examined, as shown in KPI3. These effects can further affect the environmental relative dust content. For the final environmental performance result assessment, the indicators show the overall screen efficiency for the outdoor KCF air cooler used and some environmental material waste treatment indicators. Some of the environmental assessment characterization and standard compliance analyses conducted for the low-density KCF cement slurry waste, the environmental effect, temperature, pH, and specific gravity of the accumulated KCF dust were also analyzed and presented. Last but not least, towards the environmental assessment of the environmental liquid or water effluent analysis, a series of indicators evaluating the values of the chemical oxygen demand (COD) present, dissolved oxygen (DO), biochemical oxygen demand (BOD), and chemical and microbial analysis, which were applied to the simulated or real effluent impressed.

4.2. Data Collection and Analysis Methods

In this data collection and analysis phase, a number of procedures and tools have been used to collect and analyze the data and assess empirical studies, all done with the employees from the Kufa Cement Factory. These approaches and techniques have been extensively detailed in this section of the paper.

3. Tools and Techniques Used in Data Collection To gather the required information, a number of qualitative and quantitative research approaches were played out. As a primary data collection tool, the tool of questionnaires and interviews with Kufa Cement Factory employees was used. For data analysis in measuring the reliability and validity of questionnaire items and the Cronbach alpha value through the SPSS program, version 26, and the SMART-PBK program have been used. For the analysis, the proposed hypotheses, the SPSS program, version 26, specifically the AMOS program, was used, as was the running of the questionnaire matrix and the formulation of the primary explanation structure by exploring the means, standard deviations, and relationships among the items in the matrix, through the correlation between the dimensions of the variable. In identifying the effects and relations between the variables, two overall hypotheses were tested through the running of T tests, ANOVA, and the F test. Hence, eight principal hypotheses were analyzed and tested statistically.

4. Data Collection and Analysis Procedures The data in this article was collected by preparing a specific research field. A questionnaire was distributed to employees working in the cement industry, and employees were interviewed to gauge their views on CSR in relation to environmental performance efficiency in the Kufa Cement Factory. The data collection phase lasted from February 2021

until summer 2021. Early analysis and testing were conducted on 35 valid responses from employees. For collecting and subclassifying study details and assessing study data, a number of tools and techniques have been implemented.

5. The Role of Sustainable Green Marketing in Enhancing Environmental Performance

One of the most important opportunities in the field of marketing that can ensure positive impacts as a marketing strategy is the development of sustainable green marketing at the Kufa Cement Factory. This sector is considered one of the most important sources of profitability, as it seeks to balance between environmental performance and sustainable development. It is also concerned with the development of environmental management approaches, as today's factories are achingly aware that green manufacturing can be utilized as a marketing tool. Sustainable green marketing is a proactive concept, as it identifies the needs and requirements of our customers or consumers. The factory applies these standards to advertise its new innovative products and goods as they become compliant with environmental standards. Moreover, they are involved with their consumers in matters related to the environment and their perception of certain products, and also serve a set of ethical considerations when dealing with pollution internally. Their green products are compliant with environmental standards in an economic way.

The factory, in this regard, ranks its compatible green products with the standard as they supply a significant portion of the inputs, and therefore no need to purchase other inputs from outside sources or factories to avoid the transfer of pollution to the community, as we may resort to local products with the standard mentioned. In addition, the aesthetics and appearance of green products from the design may be more environmentally friendly.

Green Fraud shall suggest the environment and natural need performed by the people or the culture may also speak through green advertising to make or to straighten the right option. People want to be in compliance with macroscopic moral behavior from an ecological viewpoint, and it encourages the manufacturers to use those significant tools.

Today, a range of sellers and vendors more and more to green or environmental goods offer their attention which is more environmentally respectful. Still others have also adopted or developed their green advertising campaigns to the world to express the media. To advertise environmentally conscious or eco-friendly goods - goods and services that provide a secure customer and the community surrounding the advertising must be attentive to their own environmental performance constantly and at least initiate a patronizing sustainability scheme proactively.

Advertising of environmentally efficient or green products can lead to a number of benefits for organizations, together with superior turnovers and reduce operating costs, and also improve relationships with the customer and environment. Customers are becoming more ecologically and environmentally conscious and this is expected to have a general effect on sector and customer shopping habits. In addition, the increased need for green goods results in higher global companies

climate and environmental performance. Moreover, they prefer to buy environmentally friendly goods, largely as they function such as their non-green equivalents, over environmentally conscious products.

The customer's preferences mirror environmentally conscious value and their perception of which an undertaking is accountable as a way of inspiring marketing. Thus, advertising must aim to improve business conditions with the environment and sustainability and consumers' environmental understanding. Given this there is a strong value in marketing to inform the world about their green advertisement principles for businesses that take advantage of modern environmentally sustainable practices, goods and services.

5.1. Marketing Strategies for Promoting Environmental Sustainability

As previously stated, marketing must provide value to customers while reducing damage to the environment. To do this, however, it must focus on human needs and wants, on the intention of the question. As a consequence of the importance of these human needs associated with real environmental issues, business growth and profits will flow where human and environmental benefits are harnessed. These views are reflected in the following channels:

Companies can advertise that products and services are good for the environment either by charging a premium or lowering prices to win the segment of the market that values green products. Companies can design and promote environment-friendly products without targeting the green market-protected economy. They pursue social goals such as environmental protection and convert consumers to the company. Green goods are good for the product and consumers who use them. Green marketing refers to all activities taken to bring satisfaction to human needs and wants while minimizing the environmental degradation of the production and exchange process.

Marketing strategies to promote environmental sustainability in practical terms are often aggressive and in many cases behind the product development or manufacturing strategies of the factory. This is because marketing practices, particularly the promotion of environmental initiatives, must be based on practice rather than decisions made at the planning or strategic level. It is reasonable then to assume that all marketing practices will receive the approval and direction of the factory regarding the incorporation and operation of these environmental engagements in the current EU legislation. The factory purchase manager has a major impact on the production of the factory's final product on the environment as well as an overview of the corporation's response to this related question marketing to the application within their sections.

5.2. Consumer Perception and Behavior towards Green Products

Currently, people are becoming more aware of the impacts of using products and their processes on human wellbeing and the environment because of pollution. Consumers are becoming environmentally aware in every aspect of life, such as eating, dressing, traveling, housing, and so on, and choose to use environmentally-friendly products.

In the recent past, several studies have stressed how sustainable marketing could help companies gain competitive advantages by building and delivering value to the environment related to customers and demonstrating new forms of social responsibility. Goods and services are not just marketed; they also reflect the overall way by which the company acts and serves to satisfy the needs of many actors, both users and non-users in society.

Kotler expressed the importance of environmentalism for marketing. Nonetheless, changing the existing orientations in companies, as a result of the increasing sensitivity of marketers for the environment, is insufficient. Kotler & Zaltman suggest that social change is advantageous for companies, as constituencies and stakeholders have increasing sensitivity for the environment. Consumer perception towards companies that have products possessing green symbols reflects the demand in the market for environmental goods and products.

In their study, Mathieson et al., in an examination of British consumers, found that using environmentally-friendly products is a reflection of qualities such as sensitivity, sympathy, courtesy, and willingness. There is also a study reporting consumer attitudes and behaviors towards products with environmental symbols. In this study, consumers with a positive point of view towards the environment stated that they use those products. These studies also show that companies could incorporate, aside from competition, environmental marketing activities that would leave their marks. It has gained importance to conduct effective marketing services in recent years in this respect.

6. Challenges and Opportunities in Implementing Sustainable Green Marketing

In addition to the widespread benefits, global countries and companies are facing a number of challenges in implementing sustainable practices of green marketing, including the imminent legislation, the understanding of the environmental regulations, the setting of standards, and the possible future sanctions. These activities evaluate the environmental performance of companies and organize activities to ensure compliance with the laws and regulations for the comprehensive ISO - numerous records country - a new generation of such environmental management system documents, etc., taken from our practice under these proposals. More and more businesses will be in an atmosphere of accommodating the specific technologies associated with green marketing, and its role is well known and perspectives.

Furthermore, the interest in the identification associated with the environmentally friendly manufacturers of useful environmental characteristics offered by the relevant research has increased. Many organizations, firms, and corporations are already at least considering monitoring the environment. Many research scholars, for instance, advocate the cost of protection and work towards the prediction model of the environmental performance of the Australian publicly listed businesses. In return for average research lists, they have stated their opposition. Similarly, in their study, the process of the movement hazards in the

movement processing arms management of common manageable risks and threats in the Australian stock listed capital for firms can be turned into a list of corporate values when it comes to sustainable development, competitive advantage of business in an effort to prepare offers on the stock exchange.

6.1. Regulatory and Compliance Challenges

There are obstacles to the implementation of green sustainable marketing by association members. These obstacles concern a lack of information or an estimated lack of environmental awareness by enterprises, the availability of fund management and specialist staff, as well as the problems associated with green sustainable production. The average additional funds needed for green sustainable production were also studied, while the majority of firms reported that additional funds are required to produce green sustainable products. In addition to the need for additional financial resources for establishing specialist environmental and regulatory requirements, business requirements to meet unfulfilled conditions set by the relevant authorities must be decided on by association members in order to practice green sustainable marketing.

Green marketing laws and standards: The factors are the laws and standards in the concerned industry. Thus, to meet the standards, the industry must determine the law-based regulations and requirements when implementing the green marketing laws that control the production phase, products, roles, and service in Iraq. The requirements for the conformation of industrial products are based on the laws and conditions of obtaining consent or license and international quality systems standards. According to Iraqi law 51 of 2007 and the Parliament Act, federal law no. 6 of 2008, most of the products are subject to the laws, regulations, and conditions subject to the license or consent of the Ministries and the pharmacies. Manufacturers in Iraq must have a system of quality control before any product to be released to the market, as they are in line with the quality system and the IQS Quality Testing Organization, which is essential in obtaining a product license.

6.2. Innovation and Technological Advancements in Green Marketing

Innovation and technological advancements are a part of the concept of green marketing, which is the major area that interests those working towards improving or expanding green marketing. The technological advancements are increasing rapidly from time to time, which automatically provides vast opportunities and advantages for industries in researching and improving the environmental performance of their products and practices. In the context of the main body, we utilize innovation as an important factor that helps firms to create a significant differentiation that cannot be easily copied or imitated by their competitors in the marketplace. Currently, the study provides a detailed overview of the innovation and technological advancements used to verify practical applications in fluctuating sectors. The approach uses multiple criteria decision-making (MCDM) techniques to identify and present the aspects of marketing innovation in greater detail.

Repeatability and distributability accelerate turnover in industry have experienced significant changes due to the rapid pace of development in social media and technology. This has created various opportunities and benefits for the Dangote Cement PLC in monitoring how the company is performing since it has integrated concepts such as compass metrics in the company's operations as their entire marketing activity is carried out digitally. Most particularly, companies amend and distribute press releases, post articles, and supply the market with updates. Likewise, the digital platform offers Kufa Cement Factory sector-wide aspects of improvement in marketing sustainability; and fundamentally integrated with the new SWOT concept to develop an effective and efficient SM matrix. By adopting a strategy that focuses on environmental protection and incorporates digital devices and technology, such as digital cameras, the company can continue to be highly innovative in its market practice and promote relations between the corporate chain and outside communities that, through green practice, can provide a single platform for business in general. The findings revealed how managers can strive to invest in these new, patented, and innovative marketing tools to meet global expectations and become the leading managers in the randomly selected industrial sector. The importance of examining the four factors marketing research confirms the viability of this study in the industry, in order to improve improvement in the performance of the selected industry.

7. Conclusion and Recommendations

This paper is a case study on the contributions of sustainable green marketing to the evaluation of the environmental performance of the Kufa Cement Factory. The researchers chose the Kufa Cement Factory because it is one of the most important cement factories in Iraq. The case study findings were significant. Existing industrial operations may be better managed by assessing their environmental conduct and identifying problems in order to improve their environmental performance. The results show that sustainable green marketing in the Kufa Cement Factory can be assessed using the 11 standards (4 environments, three-element sight, as well as 1E environmental program) listed.

A combination of solutions is proposed to lower pollution levels and demonstrate the company's environmental commitment by using the forecasting approach in the Kufa Cement Factory. Using the Gross Pollution Index (GPI), researchers discovered that the Kufa Cement Factory's pollution ranges from 0.13 to 1.00. Researchers can tell if the Kufa Cement Factory's pollution is constant (unchanged), increasing, or reducing using GPI. When GPI is equal to 1, research found that dust pollution is decreasing while other types of pollution are increasing. The following are the key findings from the case study analysis: the poor compliance of the Kufa Cement Factory's environmental program with the principles of sustainable green marketing; the need to implement seven solutions in order to encourage sustainable green marketing and the principles of sustainable green marketing; to take advantage of the following seven solutions. The case

study provides a range of important recommendations for improving the environmental performance of the Kufa Cement Factory.

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