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Relationship Eco-advantage with Environmental Sustainability (A Case Study)

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Abstract : ***Highlight the importance of the present study in developing a methodology for consideration in view of the expected contribution to clarifying the theoretical profile "for the environmental operation management" in addition to its contribution to the transfer of the monuments of supportingEco- advantage dimensions and the Environmental Sustainability to the experimental field. Here is a modest contribution where there is a dire need for further research. Therefore, the research goals can be specified as attempt to explore scientific assets for theoretical concerns of the subject environmental knowledgeand economic sustainability.***

The contents of this effort aimed at establishing a new understanding of the meaning of sustainable environment knowledge management.

The study is interested in investigating the relationship between Eco-advantage with environmental sustainability. This helps to face fundamental issues in knowledge and its management.

Keywords: Eco-advantage, Environmental Sustainability,Sustainability,Environmental Economic

1. Introduction

Successful environmental operation management requires development of a clear formulation of Eco-advantage dimensions, in addition to an understanding of environmental sustainability tools and their relationship. The subject was applauded by researchers.

Identifying the relationship have an impact on many business organizations in building strategies and in the relationship value and impact force between twosides.

Reviewing what was written on the subject, it was realized that it is still in the process of the theoretical concerns that are input to establish an input to pilot studies dealing with forms in the discussion of the theme of the relationship.

Despite the recognition of studies on the importance of distinguishing between Eco- advantage andEnvironmental Sustainability by interested writers there is no clear idea about how to continue a relationship for both axes on environmental operational knowledge management. Moreover, the time itself cannot assess implicit aspects of the question of the relationship between them and the impact on knowledge operations management.

In this sense we came from a strategic perspective which focuses on the relationship Eco-advantage with Environmental Sustainabilityin an attempt to explain and evaluate the value of that relationship in achieving effective knowledge management in general.

Based on the foregoing, one can highlight the importance of the present study in developing a methodology for consideration in view of the expected contribution to clarifying the theoretical profile.

Through the theoretical review and the models shown in this purpose many questions may raise about the range of:

1.1 There is a relation between the environmental economicsdevelopment, and the manager’s perception about theenvironmental management requirement.

1.2 There is effect and relationship in Appling between Eco- advantages with environmental management structure in the process of making organizational effective decisions.

According to this we may formulate a model for this study show that may be depended upon as a group of steps for the discussion to reaching to Eco- advantage.This model (Fig.3) includes the relation between this steps.

2. Sustainable EconomicDevelopment :

Our natural resources are finite, and if we consume those limited resources there is no replacement for them anywhere nearby. The environment we depend on for our livesand survival is fragile, limited, and in crisis. This crisis is further worsened by the huge growths on the populations and economies booming and it is urgent to take measures to make life on Earthsustainable[15].

In order to produce development and successfully deal with the crisis, we have to apply the principles of Sustainable, that:

2.1. Social(Quality life, Education, Equal opportunity, law and Ethics).

2.2. Economic(Smart Growth, Long Range Planning, R and D Spending, Cost of Live).

2.3. Environmental (Resource Management, Environment Protection).

Which is best defined as a development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs. This is achieved if social and economic development areregarded as a sustainable process, as explained below[11]:

2.1. Inter-generational equity: the development process aims to minimize any negative impacts on future generations resulting from the development activity or process.

2.2.Intra-generational equity: the development process aims to minimize behaviors resulting in extreme variations, current or in the future, in the distribution of wealth and prosperity within a nation or across nations.

Sustainable development can be best achieved through the concept of total quality management (TQM). Kaikaku and Kaizen suggest two different views on how to achieve economical sustainability.Kaikaku proposes the introduction of big radical changes that align a whole system to deliver quality products, while Kaizen proposes the concept of continual, incremental improvements within a system to squeeze the best performance out of it. In other words, Kaikaku ideas can be considered as 'doing the right thing',whereas kaizen's as 'doing things right'. Industries and corporations should strive to achieve sustainability through the application of (TQM) measures and applying the concepts proposed by Kaikaku and kaizen (big radical changes such as sustainable product development, adopting cleaner manufacturing processes or shifting from a product to a service, should be complemented with basic waste minimization and energy efficiency techniques). Applying such measures would be the first step of a long way down the road to sustainability [15]

As a result of the fast growth of human population and industry, the whole world is currently facing many challenges to the environment,among which the one causing most concern is the phenomenon of Global Warming. This phenomenon is a result of complex processes and human activities.Human activities can impactthe environment and climate change in two ways: firstly, humans have been expanding their use of land leading to the decline of vegetationthe dangerous increase of lands undergoing desertification, and changing the patterns of heat exchange; secondly, the burning of coal by factories and power stations produces a large quantities of carbon dioxide CO2 and other greenhouse gases, which escape into the atmosphere and contribute to global warming and the formation of acid rain[19].

The international Copenhagen Summit in December (2009) addressed the issue of economic growth at the expense of the environment and pointed out several developed countries guilty of such practices. All delegates attending the summit agreed on the importance of implementing comprehensive measures to ensure sustainable economic growth while at the same time preserving the ecological environment[18].

Since the (1990s), many government, industry, and nonprofit entities have tried to set and create comprehensive, voluntary environmental and social standards conducive to the creation of "green", Eco-friendly business environment. Those standards targeted products, facilities, and company operations and covered a wide range of policies, practices, and performances, including issues such as energy efficiency, controlling climate change, business ethics, community investment. Without such policies, companies should decideon what they believe is "good enough" for their customers, employees, communities, and the natural environment[21].

3. Environmental Economics Development:

Environmental economics is a discipline which addresses the mutual relation between the economy and environment and how they impact each other, as well as the correct methods of regulating economic activity in order tobalance competing environmental, economic, and social goals[17].

Environmental economicsemploysthe discipline of economic analysis to guide the creation of policies that promote economic sustainabilityand treat environmental problems such as pollution, which consolidate the first question , which are suggested in this study, meaning "There is a relation between the environmental economics development , and the manager's perception about the environmental management requirement.

Theincreasing consumption of renewable and non-renewable natural resources, preservation of living sorts[17],[1].The increasing interest in the environment and economics and their mutual relation led to the birth of a new discipline

namely, ecological economics, defined as a "field of study that addresses the relationships between Eco-systems and economic systems in the broadest sense". Environmental economists are economics experts who developed interest in environmental issues,which consolidate the second question, which are suggested in this study, meaning "There is effect and relationship in Appling between Eco- advantage with environmental managementstructure in the process of making organizational effective decisions "According to this we may formulate a model for this study show that may be depended upon as a group of steps for the discussion to reaching to Eco-advantage" Whereas ecological economists are ecological experts with interest in economics. The distinction between the two disciplines is related to value of the environmentwhich influences the way in which social decisions are made.

The challenge that must be understood and taken by society in the twenty-first century is to continue to grow economically while protecting and preserving the environment and the Earth's resources.
Today, humans enjoy many comforts and luxuries that are products of the large industries and technological innovations that have been steadily growing ever since the Industrial Revolution,including among other things mass transit systems, affordable fuel, telecommunications, and synthetic chemicals. But these comforts and luxuries are not without a price: the damage to the environment has grown to dangerous levels. It becomes urgent, then, to develop our knowledge regarding the crucial relationship between our economic activities and the environment and to use that knowledge to guide our policies.
As a society grows economically, which consolidate the first question, which are suggested in this study, meaning "There is a relation between the environmental economicsdevelopment, and the manager's perception about the environmental management requirement".it is the task of environmentalists and economists todefineacceptable environmental standards that should guide and adjust market behavior in a way that preserves the environment. This process of adjustment is challenging and takes time, because peopleare still in the process of learning about the environment, market behavior, andthe interaction of the two. Economics advances this learning process and suggests effective solutions by developing analytical tools that help to explain the interaction and relationship between markets and the environment relationship[1].
As partners and members of society, corporations and industrial entitiesshould adapt to the present systems and integrate environmental responsibility within their overall management process of their businesses,allocating the required resources and implementing the appropriate environmental strategies. This should lead to increasedenvironmental performance and long-term profitability[28].

4. The relationship between environmental quality and economic development:

Classically, an economy is classified into two sectors: production and consumption. The two sectors exchangegoods, services, and factors of production. The production sector extracts from the environment the raw materials it requires,such as energy resources (coal, gas, and material resources,etc), and subjects them to processes that transform them into outputs or products: some are useful (goods and services supplied to consumers), and some are waste products. Some recycling of resources takes place within the production sector and consumption sectors. Therefore, the environment has tworoles; it is a supplier of resources and a sink or receptor for waste products. These wastes may result directly from production or from consumption.The waste released to the environment may undergo some biological/chemically processing by the environment, and this mayor may not result in pollution. On the other hand, many waste products released to the environment have no natural processes capable of modifying them into harmless, or less harmful, substances[8].

The environmentalKuznetsCurve(EKC). The EKC is named for Kuznets (1955), who hypothesized income inequality first rises and then falls as economic development proceeds. The EKC is a hypothesized relationship between various indicators of environmental degradation and income per capita. In the early stages of economic growth, degradation and pollution increase, but beyond some level of income per capita the trend reverses, so that at high-income levels economic growth leads to environmental improvement. This implies that the environmental impact indicator is an inverted U-shaped function of income per capita. An example of an estimated EKC is shown in Figure 1[13].

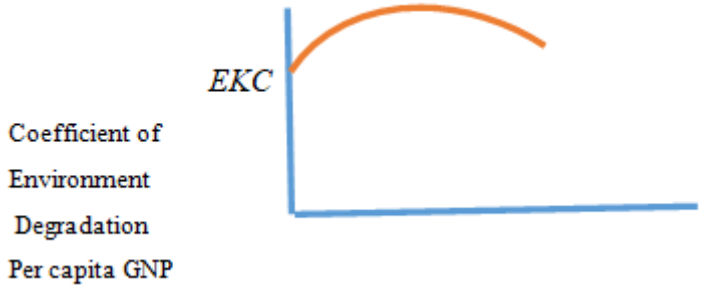

Figure 1. The relationship between pollution level and income growth

Jhingan& Sharma Suggestions for an ethical approach to environmental economics[13]: the following:

- Since climate change is, partially, the result of burning fuel,a strategy should be developed for controlling climatechange.
- Humans must attempt to control the birth rate and control their population in order to reduce pollution.
- Humans must modify their lifestylesand the global economy accordingly in such a way as to promote sustainability and preserve the environment.

5. Eco-Advantagewith the develop environmental and sustainability :

Corporate environmentalism, or the green way of doing business, is overtaking organizations worldwide, changing how they conduct businessand creating opportunities.As a result, corporate executives are subject to demands by stakeholders to develop environmental, social, and sustainability practices[26].

The Report of the World Commission on Environment and Development, offers the most commonly accepted definition of sustainability: "the development that meets the needs of the present without compromising the ability of future generations to meet their own needs."[7]. This definition translated into business terms suggests sustainability is: "the ability of firms to satisfy the economic needs of shareholders (private profits) without compromising nature and the needs of current and future generations (public benefits)"[23]. Current economic demand sustainable business practices as necessary in many markets. Therefore, applying the correct approachis vital to achieve positive returns on Eco-investments[26].

The movement toward environmental sustainability in business has grown rapidly since (1990)in response to the changing global regulations, the emergence of new compliance standards, the opportunities for positive publicity, and the increasing expectations of customers[23].

Eco-advantage, as suggested by Lynne is a "joint and equal effort to both, making money and doing the right thing." It calls for the implementation ofeconomical approach that promotes growth without harming the environment [19]. A similar but more fashionable term for Eco-advantage is"green innovation" in which the focus is the development of environment-friendly products."Many small and middle enterprises are adopting such an approach[25].

The problem is that implementing initiatives to reduce environmental impact is voluntary and limited with only small penalties for not complying that. Now, demand is increasing for the adoption of a corporate social responsibility (CSR) approach which emphasizes incorporating social aspects into business strategy and practice[12].

Top companiesachievesuccess by taking into consideration requirements of both the customer and the environmental, building product loyalty based on their concern for the environment, adding new values and innovations and developing the reputation of a trusted Eco-brand, suchcompanies can meet market needs and make profit.

Eco-advantage is the missing link between sustainability and being competitive[20].

From Markley and Davis point view, sustainability economic success is achieved through delivering environmental and social benefits[22].

Achieving Eco-advantage is a complex process with multiple stakeholders involved, according to Esty and Winston a thorough analysis of stakeholders is crucial forunderstanding issues important to them, building relationships between them, and adoptingdynamic, proactive strategies for meeting their needs[6].

Legrandet al. point out the central role of social partnerships among stakeholders to achieve Eco-advantage.Thispartnership enables proactive businesses to identify the "downside" issues they must address andcome up with ideas and approaches for addressing the "upside" issues. Further, this strategy will help in developing a "mindset" that considers clear objectives, targets and measures of improvement, as well as subjective values and the opinions of customers, stakeholders, and employees.

6. Applying Eco-advantage in Environmental sustainability:

Tilley suggest that changing the environmental behavior of companies requires weakening the resistant forces (poorEco-literacy), strengthening the driving forces (effective research), and preferably a combination of both (a strategic response is produced)[29].

Cassells and Lewis revealed that Small and medium enterprises impacted the environment mainly in the areas of waste and transport, and that their response focused on managing hazardous waste, reducing waste and packaging, and increasing recycling; as well as aiming to reduce fuel and energy consumption, optimize distribution networks, and minimize pollution. Cassellsand Lewis suggest that manyenterprises are willing to act on environmental issues but lack the resource to implement the improvement in ongoing fashion[2].

According toEsty and Simmons, four strategic points have to be implemented to achieve eco-advantage: first, identify and reduce environmental risks, thereby reducing liabilities, avoiding costs, and increasing speed to market, Second, cut operational costs and improve efficiency by reducing environmental expenses(waste, disposal fees and energy spending),third grow their revenues by designing and marketing environmentally products that meet their customers' needs (energy efficiency, and reduced pollution). Forth, create intangible value for their productions (enhancing their brands, connecting with customers on an emotional level through environmental stewardship)[5].

Companies find many ways to characterize the manner in which they handle environmental and social issues. Some focus on “triple bottom line” performance or sustainability. These approaches can serve to prompt action and create Eco-Advantage.

The key lies in execution, including environment and social issues in business operations. At the operational level, managing sustainability issuesworks best if the related activities are focused.

The management challenge is to achieve business success by means of developing innovative products andsuccessfully marketing them, keeping customers happy, adding the environmental aspectinvolves new opportunities and complexities to the challenge[6].

Companies that successfully manage environmental risks lower operating costs, reduce the cost of capital, increase the value of their stocks, and keep their insurance premiums under control. They also manage to reduce losses due to business interruption and lack of trust. On the revenue side, the benefits brought about byan environmental approach are sometimes tangible (like a higher product price or increased sales)but are largely intangible (seeFig.2) [6], strengthened relationships with customers, employees,and other stakeholders[10],[9].

Green to Business strategies). These intangibles, can have a concrete impact on investment returns. (Loyaltyofcustomers, employee commitment).When evaluating risks and benefits, we can oversimplify matters and take “certain” to be roughly equivalent to the short-term and “less certain” to the long-term. If we consider waste reduction as an example of cost control versus risk management, it is clear here this will lead to savings[6].

Figure 2. Strategy Framework for Environmental sustainability and corporate social responsibility

7. Integratingeco - advantage into Environmental Management System:Sustainable EconomicDevelopment :

The concept of Eco-advantage emerged as concept by the Global Environmental Management Initiatives back in 1994. The Eco-advantage concept, based on the theories of adopt ISO 14000, combines the principals of Total Quality Management with the goals of environ¬mental management[3].

Eco-advantage has emerged from integrating environmental management system into the total quality management(TQM). It combinesthe management approaches to support the company’s business and helps create a

more effective interaction between Eco-advantage andEnvironmental Management System such that they do not compete for resources or priority attention[27].
Eco-advantage and Environmental Management System share features including: improve final output; leadership;emphasize long-term planning over short-term;changing relationships between companies and their stakeholders;cultural change;improved information, communication, training,accountability; andpromote continual measurement, self-asses, and improvement. This mean that many of the tools of TQM can

be adapted forEnvironmental Management are viewed as TQMs modified to deal with environmental issues[4].
Environmental Managementconsists of: Total (involves the entire organization, supply chain, and/or product life cycle), Quality (designed to improve quality through 'zero defect' definitions), Environmental(strategic environmental management approach), Management (the system managing through steps such as plan, organize and control[27].
Eco-advantage works both vertically, involving all employees at all levels from top to bottom, and horizontally, across departments, and extends both backwards and forwards to include the support chain and the customer chain[16].
Among operations managers for the sustainability management movement, environmental management has achieved a high status in their mindsets and practice[27].
Which consolidate the second question, which are suggested in this study, meaning "There iseffect and relationship in Appling between Eco-advantage with environmental management structure in the process of making organizational effective decisions".
When attempting to implementEnvironmental Managementin organizations, management must deal with many issues including:top management must accept and push corporate developments; the rising costs in the short run; being environmen¬tally responsible in the long run increases the efficiencyin a company and makes it and more competitive, negative results have been reported in many cases; the design phase is appropriate for considering ISO 14000 and measure monitor audit issues because decisions made during this phase directlyimpact the amount of generated waste; frameworks or guidelines to help them properly understand Eco-advantage and its components; the lack of appropriate measures makes it difficult for managers to evaluate the impact of Eco- advantage into Environmental Management System: Sustainable Economic Development .(see Fig 3).
Conclude this report with a chart listing a summary of a step-by-step approach to implement this Integrating Eco-advantage into Environmental Management System: Sustainable Economic Development .this supports the title and address of this study.
The design of (fig 3) came from reference [14] withthe modify and thoughts of the author according to field coexistence.

Figure 3. Model explaina step-by-step approach help to Relationship between Eco-advantage and sustainable development

CASE STUDY

In what follows, we will showing the outline borders for the case study based on the foundation of combining between the knowledge in the research institutions, and the available knowledge in the enterprises seeking development.. The experiment was conducted on a group of (3) high education students from various fields. The work method used was a scientific research, they were assigned to conduct specific creative assignments in the early stages of the production and service. The group worker under the umbrella of knowledge

Environmental.

Furthermore, in this stage, the easily obtained knowledge and the decision outcomes based on that knowledge diverge and differ. The existence of various proceeding activities, formalizing uncertain goals, and planning.Such as debatable, projects Sustainable Economic Development.

Our role was to follow through the services starting from ideas leading to an advanced stage of innovation. The work took the form of meetings, with outsider observers through, and documented the operations using recordings, and post notes. Professionals from theenvironmentoperational management have been hired, which we call "Espousing Theory". Information and date were searched for in the enterprise knowledge database through interconnected networks according to the theory's understandings in application. Therefore, many suggestions emerged concerning the environmental risk factors in one of the enterprise. The same thing happened to the other two as well. We were part of an advanced sustainability management and creativity seminar.

The approach of the environment risk management project was used, and it is based, theoretically Eco-advantage, on foundations and tools. Furthermore, this project was tested. Aqaba Container Terminal (ACT)in Jordan (Amman).

This study depended on above Esty[5] Model with modifications in order to the nature of job environment,Container Terminal (ACT).

Since one year age (on April 20, 2016) announced receiving "ISO 14001:2015"certification after application the first four steps. This certificate is an international standard for an environmental management system (EMS) that helps businesses such as ACT control and improves practices that are potentially harmful to the environment.

ACT is the only company operating in Jordan to have received the 2015 version of ISO 14001, as well as the only port to administer an ISO-certified environmental management.

Other than establishing a series of quality standards regarding business practices and the environment, "ISO 14001:2015" certification also comes with various other benefits to the titleholder, including: reduction of costs through efficient use of materials, management of legal compliance by prioritizingEco-advantage and environmental risks, decrease of possibility of duplication of efforts due to a fully integrated business system, command of reputation, leverage of competitive advantage, and ease of integration with other international

Certifications such as the Eco port environmental certification and safety, qualityand excellence systems.

The certification is much more than just legal compliance; it is a driver by which ACT can enact even more positive environmental change, remaining dedicated to what is truly important: effectively managing responsible business practices that seek to limit negative environmental impact through control of greenhouse gas emissions and other potentially harmful actions.

"ISO 14001:2015" goes a long way in helping businesses like ACT manage challenges, systems, and risks concerning environmental management, contributing to the ability of this business to effectively meet the needs of stakeholders. Furthermore, the certification serves as assurance - to management, employees, and external partners - that the environmental impact of operations is being measured, monitored and improved.

The elements of the environmental management system for ACT such as: management commitment, environmental aspects identified and controlled, full legal compliance, employees awareness and culture of environmental aspects, internal audit and review, monitoring programs such as: sea water, air pollution, noise measurement and monitoring programs and disposal of solid waste and hazardous waste in friendly environmentally ways,finally developeconomical andsustainability.

Conclusions and recommendations

1.The study methodology for "Operational Environmental Management" content under contemporary concerns centered on two-way. The first is addressed under the concept of Eco-advantage. The second axis is the concept of and applying Environmental Sustainability. Based on this perception and the knowledge and organizational operations, this study begins the critical line in preparing for the evaluation of the relationship betweenEco-advantage with Environmental Sustainabilityin operational knowledge management within the continued organization and operations strategy approach.

2.The study adopted by the researcher in diagnosing the questions raised and confirmed what the study indicated. The study showed acompulsory attention should be paid toEnvironmental management axes individually, note that the relationship between the two axesEco-advantage with Environmental Sustainability

3.In light of the research methodology utilized and in particular to the relationship subject and through the credibility of the study model that verified the questions and learned how to monitor the impact of each of the two axes set for their relationship. Therefore, this study contributed in providing a knowledge framework to support the decision makers in organizations to select the knowledge benefits of building an efficient management of Environmental Sustainability.

An update to the imperatives of study, recommendations are as follows:

1. Try to harness Environmentalknowledge management standards (human resources management, organizational, and structural) through real opportunities expression in their vision, knowledge and expressions of the competitive situation of the organization in the site that is in line with their vision for the future.
2. In studies framework, this study suggests expanding the field of the study in accordance with this model that represents a preliminary attempt to knowledge areas and its Environmental management within the field ofEnvironmental operational management in general and Environmental Sustainability and Relationship Eco-advantage.

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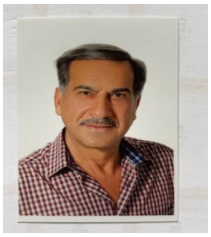

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