

# Organizational Expedition from Unsustainable Development to Sustainable Development

Wasim Ahmad<sup>a\*</sup>, Nadeem Ahmad<sup>b</sup>, Rashid Saeed<sup>c</sup>, Syed Ali Ashiq Kirmani<sup>d</sup>, Rana Umair Ashraf<sup>a,e</sup>,  
Muhammad Abbas Pervez<sup>a,f</sup>

<sup>a</sup>MS Scholar, Department of Management Sciences, COMSATS Institute of Information Technology, Sahiwal, Pakistan.

<sup>b</sup>B.Sc Chemical Engineering Student, Department of Chemical and Polymer Engineering, University of Engineering and Technology Lahore, Pakistan.

<sup>c</sup>Assistant Professor, Department of Management Sciences, COMSATS Institute of Information Technology, Sahiwal, Pakistan.

<sup>d</sup>Lecturer, Department of Management Sciences, COMSATS Institute of Information Technology, Vehari, Pakistan.

<sup>e</sup>Research Associate, Department of Management Sciences, COMSATS Institute of Information Technology, Vehari, Pakistan.

<sup>f</sup>Lecturer Management, Government College of Technology, Sahiwal, Pakistan.

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## ABSTRACT

The increased industrialization enhances productivity, but caused depletion of natural resources and become the reason of environmental degradation and pollution. This study purposes to develop a conceptual framework for firms to achieve sustainable development by using Four forces model i.e. regulatory force, consumer force, community force and financial benefit. The previous studies on environmental protection and sustainable development were also discussed. The Lewin (1951) model was also used to develop the model. Hence, a theoretical framework for sustainable development on basis of “Green Productivity” tool was developed.

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## 1. INTRODUCTION

The plentiful natural resources were available in eighteenth century, but those resources were not utilized efficiently due to lack of technology and equipment. The industrial revolution in eighteenth century increased the labor productivity by substituting human with machine. Industrialization generates a shift from rural and agrarian economies to more urban and industrialized ones [1]. The mass production increased due to increasing population and standard of living. This situation caused the depletion of natural resources on one hand and environmental degradation on the other. It leads to research interests towards environmental management and industrial operations [2]. The concept of sustainable development has gained researchers’ attention from the last decade. The industries seem to be unable to implement the true concept of sustainable development. This study replicates the framework of Gandhi et al. (2006) for sustainable development process [3]. This study strived to develop a conceptual model of sustainable development called as “Four Forces Model” which is a major contribution towards implementation of sustainable development process. Michael Porter “Five Forces” model is used to develop “Four Forces Model”. This “Four Forces Model” advocates the need of “Four Forces Model”. The study endeavored to answer these key questions:

- What is current environmental state? (Current unsustainable development)
- How did environment go there? (Environmental degradation)
- What is desired state of environment? (Desired Sustainable Development)
- What are reasons of environment to go there? (Greening force)
- How environment get that state? (Greening process)

## 2. Four Forces Model

Michael Porter developed a business strategy model in 1980 called “Porter Five” forces model emphasis on five dimensions i.e. industrial competitors, threat of future entrants, threat of substitutes, supplier power and consumer buying power. From the economic perspective, Porter devised three strategies for firms to sustain i.e. cost leadership, differentiation strategy and focus strategy. The “Four Forces” model purposes to link current unsustainable development to desired sustainable development. The selected technique is back-casting approach used to develop the framework. It starts by reaching a particular desired future state and then define the backwards by fulfilling different conditions. The four forces model in Figure 1 creates a relationship between current

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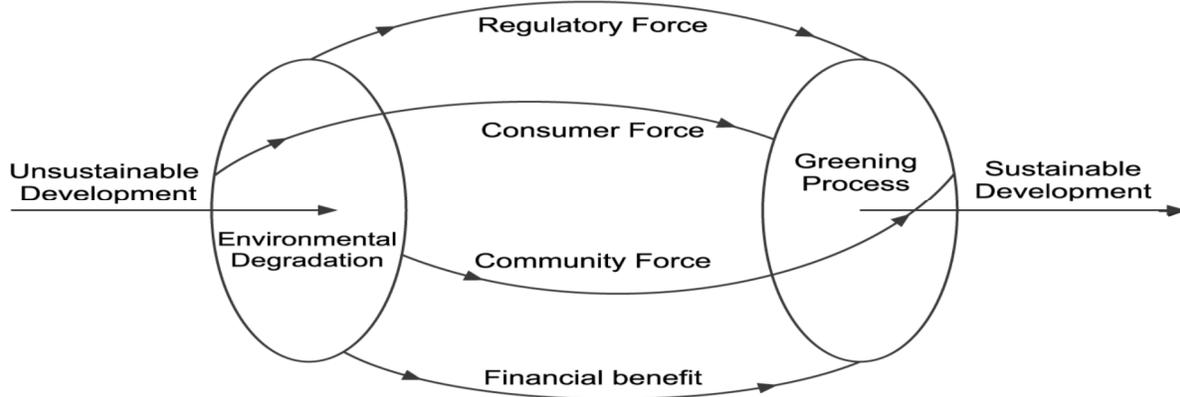
**Corresponding Author 1:** Wasim Ahmad, MS Scholar, Department of Management Sciences, COMSATS Institute of Information Technology, Sahiwal, Pakistan. E-mail: dms.ciiit@gmail.com

**Corresponding Author 2:** Nadeem Ahmad, B.Sc Chemical Engineering Student, University of Engineering and Technology, Lahore, Faisalabad Campus, Pakistan. E-mail: ndmws@yahoo.com

unsustainable developments with desired potential sustainable development. There is a cause and effect relationship between various constitutes.

- The unsustainable development is the cause for environmental degradation and its effects are greening forces.
- The greening forces urge the industries to go green and its effect is future sustainable development.
- The driving forces are also depicted in Figure 1 which is consumer force, regulatory force, community force and financial benefits.
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**Figure 1.**Four Forces Model(Adopted from Gandhi et al. (2006))



These greening forces exert pressure on industries to go environmental friendly and protect the environment from degradation. It turns the unsustainable development into sustainable development.

### 2.1 Unsustainable Development and Environmental Degradation

The economic development focuses on the productivity causes environmental degradation and companies treat the pollution as a by-product of an economic system [4]. The nature has been distorted by unsustainable development and economy has been suffered by man. The environmental degradation evolves due to industrialization, population increase, increase in purchasing power and diminution of non-renewable energy resources. A production process remains on the way in nature by absorbing limited quantity of residuals from economy and providing resources to economy. The physical production has a predictable environmental impact which directs an environmental damage. The main geo-chemical reservoirs have been polluted by man who provides guarantee for its survival [5]. The extra-ordinary amount of CO<sub>2</sub> is increasing the acidity which threatens the survival of oceanic species. By 2050, the world population expected to increase three times. There is a difficulty to degrade the increasing industrial wastes.

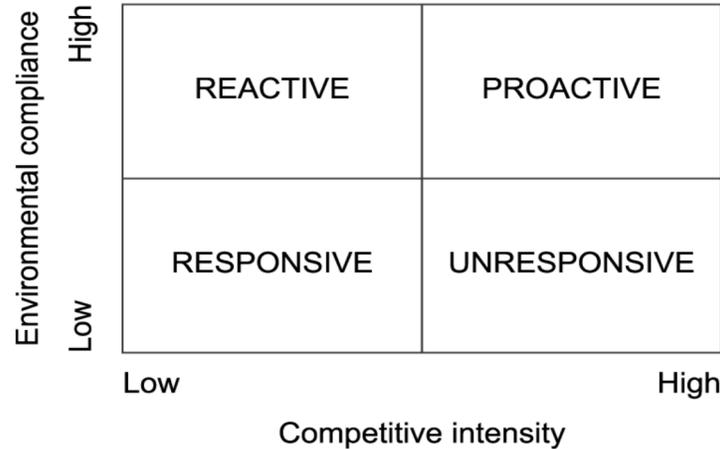
### 2.2 Greening Force and Greening Process

Some inter-organizational (consumers, suppliers and employees) and intra-organizational (community stakeholders and regulatory stakeholders) stakeholders are driving the industry to become greener. Three forces model i.e. consumer force, regulatory force and financial benefits were used for greening the supply chain [2]. Greening is a legal driven in Europe and other western countries. In Germany, Topfer's law is used with the condition that companies will use 80% of their packaging in recycling process [6]. Some community groups exert an alarming pressure on industries to improve their environmental performance or to prove them a corporate social responsible citizen [7]. The local communities made complaints to environmental departments and put force on companies to decrease the environmental degradations. The consumer power about environmental awareness perspectives has been increased due to globalization. Companies exercise the "Pull" strategies by introducing themselves good corporate citizens. Consumers are more attracted towards health and environmental friendly products. The environmental conscious consumers tend to purchase eco-labeled products [8].

The green and environmental friendly firms decides about the future sustainable Industrialization. The green companies can develop a good relationship with community groups, regulatory groups and consumers. Innovative firms could be successful only because of their environmental performance. Greening would be a potential opportunity and competitive advantage for companies. The green image would be an intangible asset and the employees in organization would be more responsible if they are aware about the social responsibility of firm. As globalization increase knowledge and living standard can be obtained through waste minimizations. The industry

economy dimensions play significant role in developing environmental strategies. The most exercised strategies to go environmental friendly are evangelist strategy, pro-active strategy, and reactive strategy, responsive and un-responsive strategy. The evangelist is environmental conscious strategy in which companies consider environmental protection is an important objective than financial benefits. In pro-active strategy, these companies manage the environmental protection rather than reacting with, by considering it a future competitive advantage. In reactive strategies, passive companies adopt environmental concept to only comply with environmental regulations and only to satisfy green customers. The companies treat the internal changes and adopt environmental regulations apart from environmental regulations. Whereas, the unresponsive behaviors are exercised in non-responsive small firms where there are no regulations and force from competitors.

**Figure 2.** Green Strategy Grid (Adopted from Gandhi et al. (2006))



**2.3 Evaluation and Implementation of Corporate Goals**

A management technique known as Force field analysis, developed by Lewin (1951), is used for diagnosing the situations in industry. This analysis forces the evaluation and implementation of newly formatted corporate goals. The forces of continuous improvement and innovation assist in achieving business goals and low consumer awareness, weak regulatory pressure, low competitor pressure act as restrictive forces which inhibit the organizational goals. The community pressure act as neutral force between both of these forces. The restraining forces overweigh the driving forces. The community forces lacks in Pakistan, which hold back the industries from going to green and hence reduce the exports. The industries have less focus on competitor pressure due to short-term focus on generating profits rather than long-term sustainability. The innovation is also low in Pakistan due to low investment on R&D. the only choice for sustainable development is continuous improvement. The continuous improvement could be used for greening the industry. The continuous improvement is a driver led the companies towards competitive advantage. Continuous improvement integrates the learning and processes which guide towards business excellence.

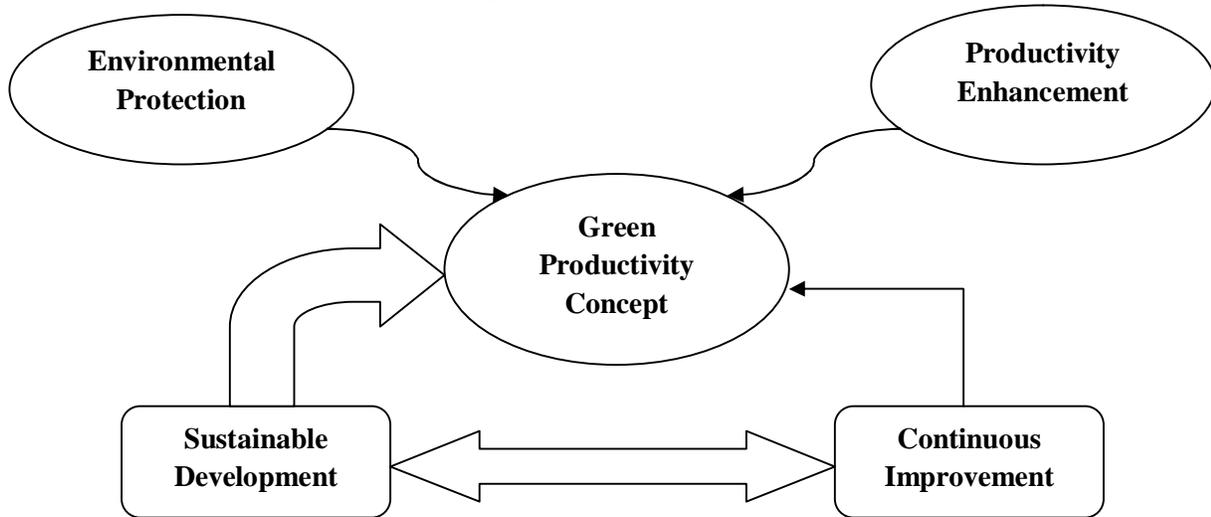
**2.4 Sustainable Development (SD)**

SD is a long term objective of a firm rather than operational practice [9]. SD is multi-dimensional approach by integrating economic goals with social capital and environmental concerns. The study examines two analyses; greening strategy grid analysis recommends cleaner technology and Force field analysis recommends continuous improvement for greening the industries. SD could be achieved by greening the industries through cleaner technology with continuous improvement. The “Green Productivity” combines the cleaner technology with continuous improvement and it can be used for greening the Pakistani industry. The “Green Productivity” concept, introduced by the Asian Productivity Organization (APO) in the mid-1990s, is one of concepts and tools that have been launched to protect the environment. It is a strategy to enhance the environmental performance and productivity. Continuous improvement attain framework from productivity, while environmental protection offers the bases for SD [10]. This study suggests the “Green Productivity” as a tool in achieving the future desired SD.

### 3. Conclusion

Stakeholders exert pressure on industries due to current unsustainable development and industries implement various greening strategies for encountering this stakeholders' pressure. The Greening strategy grid and Field force analysis combines the "Green Productivity" concept for sustainable development. It is concluded that Green productivity can increase productivity and protect environment and it helps firms to gain competitive advantage. The Four forces model provide research framework for transformation process from Unsustainable sustainable to SD. This framework facilitates the SD in encouraging affirmative desire for implementation SD processes in firms, investigating the applications of greening strategies, provides awareness to professionals for environmental protection and endows with practical insights into environmental degradation.

**Figure 3.** Conceptual Framework



This conceptual framework does not offer any in-depth analysis on SD implementation process due to generic nature. Future studies will focus on formulating a framework for SD processes implementation.

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