

# Influence of Institutional Pressures on Environmental Management Practices Adopted by Manufacturing Companies: A Survey of Manufacturing Companies in Nakuru Town, Kenya

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**Abstract:** *In the current world, most organizations have taken into corporate social responsibility practices for different reasons amongst them are the institutional pressures which include pressure from institutional actors such as politicians, regulators, customers, competitors, and local communities. The study sought to establish how the institutional pressures influence the environmental management practices adopted by manufacturing firms. In particular, the effect of regulatory pressures on environmental management practices was investigated. The study adopted a survey research design. The target population included 178 managers of the manufacturing companies in Nakuru town. A sample of 99 respondents (managers) was drawn using simple random method from the target population. Data was collected using structured questionnaires. The questionnaires were first pilot-tested to determine their reliability and validity. The collected data was analyzed using descriptive and inferential statistics with the aid of Statistical Package for Social Sciences (SPSS) version 21.0. The study findings established and concluded that regulatory pressures have a strong and positive effect on environmental management practices. It is recommended that the manufacturing companies need to adhere to the set government regulations and run their operations as stipulated by the laid down government policies in the light of exercising proper environmental management practices.*

**Key words:** Regulatory pressures, environment, Institutional pressures, Management practices, manufacturing companies

## 1. Introduction

Environmental management in an international setting refers to the way in which multinational enterprises (MNEs) manage local and global environmental issues, such as the release of toxic substances, biodiversity, ozone depletion, and climate change. Throughout the world, MNEs face different environmental norms and regulations due to pressure from governments, non-governmental organizations, customers, and competitors [3]. This raises the issue whether to adopt one global environmental standard or multiple locally adapted standards. They pertinently noted that environmental management can have the objective to comply with societal and regulatory pressure or to strategically outperform rivals

A core concept of international environmental management is the pollution haven. The pollution haven hypothesis posits that MNEs lower environmental standards when they operate in developing countries or relocate pollution-intensive activities to take advantage of lax environmental regulation abroad. They further explained that the hypothesis assumes that cross-country differences in the economic burden of environmental regulation form an important driver for the relocation of production activities. Relocation could be induced by push factors, that is, relatively high regulatory stringency in industrialized countries (industrial flight), or by pull factors, that is, low environmental standards in developing countries (pollution havens [3]. So far, empirical evidence on the existence of pollution havens has been inconclusive; in part because the costs of environmental compliance is just one of many factors that influence an

MNE's decision to locate or relocate production activities [12].

It is argued that the reasons why companies adopt various environmental management practices depend both on firm-specific internal factors as well as the institutional pressures that are exerted on them by external stakeholders [7]. They further posited that firms may be subject to the same level of institutional pressures but perceive this pressure differently according to their organizational structure, strategic position, and financial and environmental performance. This difference between objective and perceived pressure leads to different choices of responses. The two aptly noted that the adoption of environmental management practices by firms varies therefore according to the process that transforms objective pressures into perceived pressures and that environmental management issues provide a rich empirical context because a broad array of constituents of the market and non-market environment exerts pressures on these facilities to adopt environmental management practices and also because these practices may not yet be institutionalized. They argued that indeed the ISO 14001 standard and government-initiated programs are not required by law and there is a lack of consensus on their actual effectiveness.

Significant heterogeneity among firms in the adoption of government-initiated voluntary programs and the ISO 14001 standard suggests that this domain has yet to become fully institutionalized [6]. It is demonstrated that institutional influences on organizations' adoption of practices are greatest during the period of uncertainty before practices become institutionalized. In addition, it is noted, from an institutional perspective, that the appearance rather than the

fact of conformity is often presumed to be sufficient for the attainment of legitimacy [16]. Thus adopting environmental management practices regardless of their immediate performance implications may be particularly effective in enhancing organization legitimacy by helping to alleviate constituents' about environmental performance.

In Africa, the governments and the communities have become more environmental conscious. For instance, Kenya's legal and institutional framework is fairly robust and addresses many of the most important challenges facing environmental management in a modern state. The current legislation is quite comprehensive, although the lack of air quality regulations is one gap yet air quality is a very serious problem in urban [14]. Despite this gap, the National Environmental Management Authority (NEMA), along with other lead agencies like the Kenya Wildlife Service, Kenya Parks Service, or the Water Regulation Management Authority, have the legislative tools they need to adequately protect and conserve the environment of Kenya, ensuring a clean and healthy environment for all citizens. Nevertheless, a clean and healthy environment has not been secured for all Kenyans. It is also observed that the biggest obstacles to this realization lay in the implementation and enforcement of existing laws and a lack of cooperation between ministries within the Government of Kenya.

Kenya's current environmental regulatory regime originates from Parliament's passage of the Environmental Management and Co-ordination Act (EMCA) of 1999. Before the passage of EMCA, which aims to address the whole scope of environmental regulatory issues facing a modern state, Kenya lacked comprehensive environmental regulation legislation. The EMCA of 1999 is expansive, but its most important contribution to the governance of environmental regulations is the creation of the NEMA (EMCA, 1999 part II & 7). NEMA is charged with enforcing EMCA's provisions as well as the subsidiary legislation that has been passed over the last decade. The subsidiary legislation includes water quality, waste management, controlled substances, biodiversity, wetland, river and seashore, and environmental impact assessment (EIA) regulations. Most of the provisions contained in EMCA, as well as the subsidiary legislation, are intended to provide regulations for the usage and type of allowable activity in the different ecosystems and habitats of Kenya. Thus, NEMA's main task is to review and grant licenses to proponents that plan to change land-use. To complete this task, EMCA grants NEMA the power to compel any authority or ministry to comply with existing environmental regulations (EMCA, 1999 part II & 7).

EMCA came into force in 1999 and its main function is to provide for the establishment of an appropriate legal and institutional framework for the management of the environment. The Act is administered by the National Environmental Council and implemented by the National Environmental Management Authority (NEMA). The existence of the above among other regulations is evidence of institutional pressure that influence the adoption of environmental management practices by organizations in Kenya.

## 2. Statement of the Problem

The relationships between organizational factors and institutional pressures are not yet well understood, especially because most of the researchers have focused on the distinction or the differences between internal and external elements that impact on the implementation or the legitimating of environmental interests [9]. It is further noted [11] that the form of the response from the organization is as much a reflection of the institutional pressures that emerge from outside the organization as it is the form of organizational structure and culture that exist inside the organization.

Firms' commitment to protecting the natural environment has become a significant and urgent issue for the society, and these societal concerns often get transmitted by stakeholder groups that attempt to influence firm strategy [1]. Starting from an institutional perspective and collecting all the elements useful to understand organizational change and adaptability, it is without a doubt interesting to examine those elements that contribute or influence the firm adaptation to voluntary environmental programs. However, this approach has not received sufficient attention based on how the institution pressures influence the adoption of environmental management practices by organizations in the developing world. Therefore, the study aimed to fill or bridge this gap by ascertaining the influence of institutional pressures, specifically pressures, on the adoption of environmental management practices by manufacturing companies in Nakuru Town as part of their corporate social responsibility.

## 3. Objectives

### 3.1 General Objective

To establish how institutional pressures influence the adoption of environmental management practices by manufacturing companies

### 3.2 Specific Objective

To establish the effect of government regulatory pressures on environmental management practices adopted by manufacturing companies

## 4. Research Hypothesis

**H<sub>0</sub>:** Government regulatory pressures have no significant effect on the environmental management practices adopted by manufacturing companies.

## 5. Conceptual Framework

The literature review based on the institutional theory and institutional pressures was used in developing the conceptual framework of the study as shown in Figure 1.

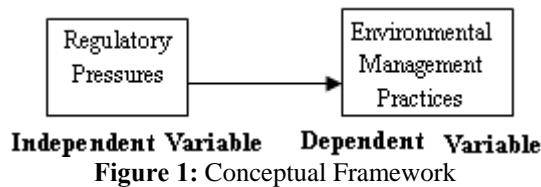


Figure 1: Conceptual Framework

The regulatory pressures (independent variable) and the environmental management practices (dependent variable) have been conceptualized into a (conceptual) framework as Figure 1 outlines. The conceptual model describes the potential relationship between the aforementioned independent and dependent variables.

## 6. Literature Review

In tandem with the study variables concepts, theories, and empirical studies regarding institutional pressures and environmental management practices are reviewed.

### 6.1 Theoretical Literature Review

In this section the institutional theory vis-à-vis institutional pressures are delved into.

#### 6.1.1 Institutional Theory and Institutional Pressures

Institutional theory has drawn attention of a great number of scholars across the social science, and is used to test systems ranging from micro interpersonal interactions to macro global frameworks. It is argued that it is a sort of analysis of the social alternatives and choices that are embedded together and attends to the profound and more flexible aspects of the social structure. Institutional theory in short, asks questions about how social choices are shaped, mediated and channelled by the institutional environment [11]. According to him institution from organization aspect are rules, norms, and beliefs that describe reality for the organization, explaining what is and what is not, what can be acted upon and what cannot. Institutions act as kinds of forces upon organizations by creating pressures and limitations, they form boundaries for what is accepted and not accepted.

Institutional theory is concerned with the influence of external forces on organizational decision making. It emphasizes the role of social and cultural pressures imposed on organizations that influence organizational practices and structures [17]. It is argued that managerial decisions are strongly influenced by three institutional mechanisms; coercive, mimetic, and normative isomorphism that create and diffuse a common set of values, norms, and rules to produce similar practices and structures across organizations that share a common organizational field [10]. An organizational field is defined as those organizations that constitute a recognized area of institutional life: key suppliers, resource and product consumers, regulatory agencies, and other organizations that produce similar services or products. It is argued that because coercive forces primarily in the form of regulations and regulatory enforcement have been the main impetus of environmental management practices, firms throughout each industry have implemented similar practices [13].

Consistent with most institutional theorists, it is concluded that firms sharing the same organization field are affected in similar ways by institutional forces that emanate from them. Cited examples are of how the Three Mile Island crisis undermined the legitimacy of all firms in the US nuclear power industry, and how the discovery that chlorofluorocarbons (CFCs) depleted stratospheric ozone undermined the legitimacy of manufacturing and using those products and soon led to institutional coercive forces via the establishment of the Montreal Protocol to phase out the manufacture of [13].

Other researchers have explored how companies operating in different organizational fields are subject to different institutional pressures. As a result, different practices emerge. For example, it is reported that distinct levels of coercive pressures are exerted upon different companies, which has led to different environmental strategies. He also added that companies may be subject to the same level of institutional pressure but perceive it differently according to their organizational structure, strategic position, and financial and environmental performance or because of different interaction modality with institutional constituents as stakeholders. They concluded that the difference between objective and perceived pressure leads to different responses and different organizational changes [15].

The adoption of environmental management practices by firms varies therefore according to the process that transforms objective pressure into perceived pressure [9]. Responding to stakeholder concerns for environmental preservation is a relatively recent requirement for managers, who face a great deal of ambiguity in understanding the issues in general, the implications for their organizations, and the ways to respond to these [13]. Starting from these considerations, a new direction of studies is emerging studying processes that guide organizational sense making as they pertain to relationship with stakeholders and the world at large [2].

### 6.2 Empirical Literature Review

In this section, empirical studies touching on government regulatory pressures, and indeed the environmental management practices are delved into from a global to regional perspective, then narrowing down to the local (Kenya's) context.

#### 6.2.1 Regulatory Pressures vis-à-vis Environmental Management Practices

Perhaps the most obvious stakeholders that influence firms' adoption of environmental practices are various government bodies, which are authorized to exercise coercive power [7]. Legislation authorizes agencies to promulgate and enforce regulations. Many researchers have focused on the influence of enforced existing legislation and regulations on firms' environmental practices [4]. Political pressure refers to the level of political support for more stringent regulations while regulatory pressure refers to the extent to which regulators threaten to or actually impede a company's operations [7].

In particular, it was found that governments play an important role in firms' decision to adopt ISO 14001 [6].



First, governments can act as a coercive force by sending a clear signal of their endorsement of ISO 14001 by, for example, enhancing the reputation of adopters. Second, government can facilitate adoption by reducing information and search costs linked to the adoption of the standard by providing technical assistance to potential adopters. The adoption of environmental and employee safety policies has often been explained by a firm's pursuit of external legitimacy in the presence of coercive pressure [19]. Coercive pressure is defined as formal or informal pressure exercised by powerful actors to adopt the same attitudes, behaviours, and practices as those preferred by the actors. Firms will yield and do so in their effort to validate themselves on the actor's watch [5].

Environmental activities are thus seen to be driven by a firm's need to become accepted and to make a favourable impression in their pursuit of externally imposed norms and values [18]. Overall, by examining the presence of external pressure, we can detect a potential causal mechanism that contributes to firms' safety and environmental performance. Therefore it is clear that coercive pressure from governments can impose environmental and safety-related behavioral demands on organizations [11].

It is alleged that according to documents relating to environmental protection, interviews with Kenyan experts in environmental impact assessments, and a review of the current environmental legislation, Kenya's current system of environmental regulation is lacking in a number of key areas. While the country's legislation is fairly comprehensive, creating regulations designed to protect all of the varying ecosystems and covering important sectors like environmental impact assessments and waste, implementation faces a number of very serious challenges. The NEMA has primary responsibility for implementing environmental safeguards in Kenya, although many actors have responsibilities including civil society, private consulting firms, development banks which finance infrastructure and other government actors including local government and the court system. Currently, the system suffers from inadequate funding, corruption, a lack of engagement with important community stakeholders, and gaps or duplications of regulations.

It is acknowledged that Kenya's legal and institutional framework addresses many of the most crucial challenges facing environmental management in a modern state [14]. Though the current legislation is quite comprehensive, the lack of air quality regulations has been established to be one of the gaps. Against this backdrop, nonetheless, the NEMA alongside other lead agencies such as Kenya Wildlife Service (KWS), or Water Regulation Management Authority (WRMA), has the requisite legislative tools to adequately protect and conserve the environment of Kenya with a view of ensuring a clean and healthy environment for all citizens. It is further opined that NEMA, as well as universities and non-governmental actors are responsible for educating the pertinent stakeholders so that they can better understand the importance and potential socio-economic benefits of safeguarding the environment. The aforementioned institutions are argued to also have a role in fostering public dialogue on environmental issues and creating pressures for

proper environmental monitoring. In addition, it is asserted that if this can be accomplished, efforts will not be focused on ways to circumvent regulations, rather the focus would be on ways to better safeguard environment resources that can enhance the overall impact on Kenya's firms.

## 7. Research Methodology

Research methodology outlines the entire process that was employed to obtain findings pertinent to the study objectives. The study adopted descriptive survey research design. In a survey, information is collected using data from respondents about their experiences and opinions about a particular topic under study in order to generalize the findings to the population that the sample is intended to represent. The target population for this study consisted of all the managers in the manufacturing companies within Nakuru (1 manager drawn from each company). Given that at the time of the study there were 178 registered manufacturing firms at Nakuru town, then, the target population comprise of 178 managers.

A sample of 99 respondents was drawn from the target population. To get the exact number of respondents, the Nassiuma's formula was employed while the simple random sampling method was used to identify the 99 respondents from the target population (178 managers). A structured questionnaire containing a 5-point Likert scale was used to collect data. A pilot test comprising of 18 respondents drawn from the target population was conducted before the ultimate study with the sole purpose of assessing both the reliability and validity of the research instrument (questionnaire). Reliability of the research instrument was tested using the Cronbach's alpha ( $\alpha$ ). Furthermore, the instrument's content validity was determined by seeking expert opinion of the study's supervisor since this type of validity cannot be statistically determined.

### 7.1 Data Processing and Analysis

Collected data was processed, coded and analyzed using Statistical Package for Social Sciences (SPSS) version 21.0. The collected data was then analyzed by use of both descriptive and inferential statistics. Given that the data collected was on a Likert scale, descriptive statistics in form of mean and standard deviation were calculated. On the other hand, inferential statistics in form of Pearson's correlation were calculated. The latter was further employed to test the research hypothesis. The findings were presented in form of tables that essentially illustrated both descriptive and inferential statistical results.

### 7.2 Research Findings

The researcher had administered structured questionnaires to 99 respondents. 81 filled the questionnaires which were later collected by the researcher. This represented 81.8% response rate. All responses were on a 5-point Likert scale where integers 1, 2, 3, 4, and 5 represented strongly disagree, disagree, neutral, agree, and strongly agree in that order.

### 7.2.1 Descriptive Statistics for Regulatory Pressures

The objective in this case was to outline the views of the respondents on issues touching on government regulatory pressure. Table 1 shows the findings. According to the findings respondents averagely agreed (mean inclined to 4.00) that industry follows environmental regulations; government agents periodically inspect our industry to ascertain regulations compliance; industry has established a collaborative partnership with the government agents to protect the environment; response to regulatory pressure results from industry's pursuit to gain external legitimacy; rules and regulations are considered when planning and implementing the industry's strategy on environmental management; coercive government pressure imposes environmental and safety related behavioral demands on our industry; and that industry staff have received training from NEMA on importance and socio-economic benefits of safeguarding the environment. The standard deviation across all statements was  $\leq 1.082$  which implied that the views of the respondents on issues touching on regulatory pressure were closely related.

**Table 1:** Descriptive Statistics for Regulatory Pressure

	<i>n</i>	<i>Min</i>	<i>Max</i>	<i>Mean</i>	<i>Std. Dev.</i>
Our industry follows environmental regulations	81	1	5	4.32	1.082
Govt agents periodically inspect our industry to ascertain regulations compliance	81	2	5	4.06	1.004
Our industry has established a collaborative partnership with the govt agents to protect the environment	81	1	5	4.15	1.062
Response to regulatory pressure results from industry's pursuit to gain external legitimacy	81	2	5	4.15	0.823
Rules & regulations are considered when planning & implementing the industry's strategy on environmental management	81	1	5	4.3	0.901
Coercive govt pressure imposes environmental & safety related behavioral demands on our industry	81	2	5	4.14	0.787
Our staff have received training from NEMA on importance & socio-economic benefits of safeguarding the environment	81	1	5	3.62	1.067

### 7.2.2 Descriptive Statistics for Environmental Management Practices

Lastly, the researcher wanted to find out how environmental management practices were perceived by the respondents. The findings of the descriptive analysis are as shown in Table 2. The findings indicated that respondents on average at least agreed (mean  $\geq 4.00$ ) that all aspects under study regarding environmental management practices were being affected. Specifically, respondents on average strongly agreed (mean  $\approx 5.00$ ) that their industries treat effluents before releasing them into water bodies. The small standard deviation across most of the statements indicated that the responses were highly skewed. The findings led to the assertion that the industries under study adhere to environmental management practices.

**Table 2:** Descriptive Statistics for Environmental Management Practices

	<i>n</i>	<i>Min</i>	<i>Max</i>	<i>Mean</i>	<i>Std. Dev.</i>
Our industry has a robust and active environmental management system	81	1	5	4.3	1.145
Our industry is ISO1400 certified & practices EMS requirements	81	1	5	4.41	1.321
Our industry recycles by-products to reduce their environmental impact once released to the environment	81	1	5	4.14	0.932
Our industry participates in environmental conservation activities e.g. clean-ups & tree planting	81	1	5	4.2	0.9
Our industry treats effluents before releasing them into water bodies	81	1	5	4.57	0.921
Our industry adopts environmental management practices in response to institutional pressure	81	1	5	4.37	0.858

### 7.2.3 Relationship between Regulatory Pressure and Environmental Management Practices

The study sought to find the effect of regulatory pressure on environmental management practices. The results of the correlation analysis are indicated in Table 3.

**Table 3:** Relationship between Regulatory Pressure and Environmental Management Practices

		<i>Environmental Management Practices</i>
<b>Regulatory Pressure</b>	Pearson Correlation	.752**
	Sig. (2-tailed)	.000
	<i>n</i>	81

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

It was established that there is a strong and positive correlation between regulatory pressure and environmental management practices ( $r = 0.752$ ;  $p < 0.01$ ). This means that regulatory pressure have a strong and positive effect on environmental management practices. When the pressure increases, the environmental management practices are enhanced. On the other hand, when the pressure is relaxed the aforementioned practices are compromised. Needless to say, therefore, the research hypothesis ( $H_0$ : Government regulatory pressures have no significant effect on the environmental management practices adopted by manufacturing companies) was rejected.

### 8.1 Summary

It was averagely agreed that the manufacturing industry follows environmental regulations; government agents periodically inspect our industry to ascertain regulations compliance; industry has established a collaborative partnership with the government agents to protect the environment; response to regulatory pressure results from industry's pursuit to gain external legitimacy; rules and regulations are considered when planning and implementing

the industry's strategy on environmental management; coercive government pressure imposes environmental & safety related behavioral demands on our industry; and that industry staff have received training from NEMA on importance and socio-economic benefits of safeguarding the environment. It was established that there is a strong and positive correlation between regulatory pressure and environmental management practices ( $r = 0.752$ ;  $p < 0.01$ ). This means that regulatory pressure have a strong and positive effect on environmental management practices. The research hypothesis ( $H_0$ : Government regulatory pressures have no significant effect on the environmental management practices adopted by manufacturing companies) was rejected.

## 8.2 Conclusions

Most commercial banks are inferred to have defined their It was inferred that respondents held closely related views on issues touching on regulatory pressure; and that rules and regulations are considered when planning and implementing the industry's strategy on environmental management. More importantly, it was concluded that regulatory pressure has a strong and positive effect on environmental management practices.

## 8.3 Recommendations

It is recommended that the manufacturing companies need to adhere to the set government regulations and run their operations as stipulated by the laid down government policies.

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