International Journal of All Subject Studies
www.allstudiesjournal.com
ISSN: 3107-541X
Received: 05-07-2025, Accepted: 01-08-2025, Published: 16-08-2025
Volume 1, Issue 2, Jul-Sep, 2025, Page No. 22-27

Attitudes of business firms and environmental challenges in Bauchi State

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Abstract
This study examined the attitudes of business firms by exploring the interconnectivity between businesses and their consequential activities on the environment in Bauchi state, in a sample of 254 business students of the Abubakar Tatari Ali Polytechnic, Bauchi, using a 14-item measurement scale, the Business-Environment Questionnaire. Thus, the research study mainly aims to find out whether managing environmental challenges would contributes to healthy and friendly environment as well as generates cost efficient firms in our midst to allow us live in clean and healthy modern cities, towns and villages in developing world. This research work attempted to provide a broad view of businesses and their resultant actions on the environment as they operate within our contemporary society as the case may be. This study therefore suggests that the business firms should always strive to reduce their environmental impacts. To effectively accomplish this, businesses must work to obtain a comprehensive and accurate picture of the environmental impacts caused by the use of resources and energy during and after the overall life cycle of their products used by their consumers. It's also recommended that, good management of environmental challenges, however, can manage the environmental impact while increasing the value of a firm, satisfying human needs, contributing to the quality of life, and reduce pollution per unit of emissions produced; so that global sanitation coverage goals might be met without generating an unnecessary climate penalty and negative health consequences.

Keywords: Attitude, business firm, environmental attitude, environmental consequences, environmental efficiency

Introduction

Businesses affect the local environment - both natural and social. Ethical businesses try to keep the impact of their operations on the environment to a minimum. Business activity has an impact on the natural environment: Resources such as timber, oil and metals are used to manufacture goods. Manufacturing can have unintended spillover effects on others in the form of noise and pollution. Land is lost to future generations when new houses or roads are built on green-field sites. Businesses have traditionally shown egregious indifference towards the environment. Environmental protection was rarely seen as an issue. A company would harm the environment to whatever extent was profitable, and they often harmed the environment despite the fact it was unwarranted to do.

Sustainability and environmental management have become one of the most critical management issues facing companies in many industries and places including Bauchi state a result of growing environmental awareness among governments, social groups, employees and consumers. Reflecting this large-scale trend, a number of research initiatives have been made to address these emerging issues bordered on the attitudes of business firms on their environment. The focus has been on growing consumer awareness and attitudes toward environmental issues and green products and services which have been explored by some researchers (Manaktola & Jauhari, 2007; Gustin & Weaver, 1996) [19, 15]. The identification of motivations for going green has also been the focus of other studies (e.g. Tzschentke, Kirk, & Lynch, 2008; Bohdanowicz, 2005; Tzschentke, Kirk, & Lynch, 2004) [32, 6, 33].

In spite of a wide range of literature on environmental issues regarding business firms, little research has been conducted to explore why some business firms in Nigeria (talk less of Bauchi state) come into the spotlight through their pro-environmental initiatives while others do not, and what factors affect the mode and posture of business firms' responses to environmental issues. This study looks for an answer to the fundamental question by examining the business firms' environmental attitudes and their corporate environmental activities. As well, this research primarily examines business firms' environmental attitudes in relation to their environmentally-friendly practices as currently implemented, and identify how general managers' world view concerning the environment affects integration of environmental issues into operations in businesses.

Review of literature and relevant concepts

Environmental Attitudes

Environmental attitudes have been defined as "the collection of beliefs, affect, and behavioral intentions a person holds regarding environmentally related activities or issues" (Schultz, *et al*., 2004) [24]. As this definition of environmental attitude indicates, two types of environmental attitudes have been used in previous literature: "(1) attitudes toward the environment, and (2) attitudes toward ecological behavior" (Kaiser, Wolfing, & Fuhrer, 1999) [16]. Research on attitude toward ecological behavior was derived from the framework of the theory of reasoned action (Ajzen & Fishbein, 1980) [2] and its developed version, the theory of planned behavior (Ajzen, 1991) [1]. Only a minority of research on this topic is related to attitudes toward ecological behavior (Kaiser, *et al*., 1999) [16]. On the other hand, attitude toward the environment is used interchangeably with environmental concern which represents predispositions of human beings that influence behavior in a certain manner (Milfont & Duckitt, 2004) [20]. The object of most environmental attitude research has been the environment. The specific topics have been on attitudes and behavior consistency, construct of environmental

attitude, and the relationship with other variables including demographic variables, experience, beliefs about control, efficacy, responsibility, and personal values. Personal values, in particular, have frequently been examined as a predictor of environmental behavior or mediator of the relationship between the environmental attitudes and behaviors (Schultz, *et al*., 2004) [24].

There have been attempts to examine the relationship between general values and environmental attitudes (e.g. Stern & Dietz, 1994; Schultz & Zelezny, 1998; Steger, Pierce, Steel & Lovrich, 1989) [29, 25, 23, 28, 27]. Stern and Dietz (1994) [29] proposed that environmental attitudes are rooted in a person's value system, describing that people's attitudes toward environmental issues are related to where they place their values on such as themselves, others, or the biosphere. Values play as an organizing system for attitudes, and they are widely considered determinants of attitudes (Schultz, *et al*., 2004) [24]. Stern, *et al*. (1995) [25] tested compatibility of three environmental dimensions developed in their previous research with Schwartz's value dimensions and found that Schwartz's self-transcendence value cluster can be compatible with social-altruistic and biospheric concern, and the self-enhancement dimension is linked to egoistic value-based concern. With regard to the relationship between environmental attitudes and behavioral intentions, they found that biosphere-altruistic concern, which is linked to Schawartz's self-transcendent value, significantly relates to environmental behavior intention while the conservation and openness to change dimensions did not.

Thompson and Barton (1994) [31] proposed anthropocentric and ecocentric motives for pro-environmental behavior. Ecocentrism represents the belief that the ecosystem itself has an intrinsic value and is worth being protected whereas anthropocentrism represents the belief that environment should be protected because it contributes to human welfare. They found that ecocentrism positively relates to pro-environmental behaviors while there is a negative relationship between anthropocentrism and pro-environmental behavior.

Nordlund and Garvill (2002) [22] offered and tested a model addressing hierarchical effects of general values, environmental concerns, problems awareness (perception of environmental problems), and personal norms (a feeling of moral obligation to protect the environment) on pro-environmental behaviors. They employed Schwartz's value scale for assessing general value orientations, and Thompson and Barton's (1994) [31] ecocentrism and anthropocentrism for measuring the environmental value-based concerns. The results showed that self-transcendence positively affects ecocentrism and environmental problem awareness while self-enhancement has a positive effect on anthropocentrism. Further, ecocentrism is positively correlated with environmental problem awareness and personal norm whereas anthropocentrism has a negative effect on problem awareness. Lastly, personal norm has a strong positive effect on environmental behavior.

In addition to research mentioned above, with regard to the ability of environmental attitudes to predict pro-environmental behaviors, there is plentiful empirical evidence that an individual's attitude about the environment is a valid indicator of environmentally conscious behaviors including recycling (DeYoung, 1986; Wall 1995; Buttel, 1987) [9, 34, 7], general pro-environmental behaviors (Lee & Holden, 1999; Kaiser, *et al*., 1999) [18, 16], and purchasing behaviors (Wall, 1995; Kerr, 1990) [34]. Wall (1995) [34] conducted a study to identify variables that have effects on specific environmentally conscious behaviors, recycling and purchasing organic food. Along with strong predictability of contextual factors such as access to a recycling program for recycling behavior and safety concerns for environmental purchasing behaviors, general environmental concerns were found to be significantly correlated with both recycling and environmental purchasing behaviors. Chan (1996) [8] also conducted a cross-cultural study to identify environmental concerns and purchasing behaviors of consumers in Canada and Hong Kong, and found that consumers with more concern about environmental problems tend to purchase more environmentally friendly products. According to Hines and his colleagues' (1986) meta-analysis, verbal commitment was the strongest predictor of environmental behavior, and attitudes were the third most important variables that predict environmental behavior.

Among a large number of environmental attitude measures, the New Environmental Paradigm (NEP) scale is perhaps the most widely used. The NEP measures general environmental concerns rather than specific attitudes (Schultz *et al*., 2004) [24]. Along with increasing environmental awareness in the 1970s, much attention among social scientists had been paid to examining the ecological attitudes related to interest in the human-nature relationship (Gooch, 1995) [14]. The NEP is considered an important change in approach to environmental attitude-behavior relations in that it attempts to explore "primitive beliefs" (Gooch, 1995) [14]. Dunlap and Van Liere (1978) [10] argued that environmental issues were related to more than just attitudes and concerns about the environment, describing that "implicit within environmentalism was a challenge to our fundamental views about nature and humans' relationship to it" (Dunlap, Van Liere, Mertig, & Jones, 2000) [11]. They described this changing worldview as the NEP. The basis of the NEP is "a belief in the limits to growth, the necessity of balancing economic growth with environmental protection, the need to preserve the balance of nature, and the need for humans to live in harmony with nature" (Scott & Willits, 1994) [26]. In a 1976 Washington State study Dunlap and Van Liere developed a 12-item NEP scale and found that environmental attitudes measured by the NEP scale were positively related to eight pro-environmental behaviors. Dunlap and his colleagues (2000) [11] proposed a revised NEP scale, adding 3 items to the original 12-item NEP scale in order to achieve a better balance between pro-and anti-NEP statements and to broaden the content of the NEP scale.

There is much literature using the NEP scale to measure environmental attitudes, beliefs, values, and worldview (e.g., Albrecht, Bultena, Hoiberg, & Nowak, 1982; Edgell & Nowell, 1989; Pierce, Steger, Steel, & Lovrich, 1992; Gooch, 1995; Widegren, 1998; Schutz & Zelezny, 1998) [4, 27, 35 23 12]. Edgell (1989) [12, 14] examined environmental attitudes of three interest groups. The results presented that environmentalists and the general public exhibited strong support for the NEP while a commercial fisher group expressed strong disagreement on all NEP scales, suggesting that NEP can be a useful measure of generic environmental beliefs. Scott and Willits (1994) [26] conducted a study using the NEP scale to examine general environmental attitudes of Pennsylvania residents and to identify environmental attitude and behavior consistency. Although Dunlap and Van Liere indicated that the NEP

scale was unidimensional, a principal components analysis found a two-factor solution most meaningful: Balance-of-Nature/Limits-to-Growth (eight items), and Humans-With-Nature (four items). Bivariate correlations among the environmental attitude and behaviors factors were all positive and statistically significant. Although, consistent with the results of Dunlap and Van Liere's 1978 [10] study, support for the NEP was linked to pro-environmental behaviors the relationship between the two variables was not strong, having an r value of 22 at the highest.

Gooch (1995) [14] conducted a cross-country study to compare environmental beliefs and attitudes in Estonia, Latvia, and Sweden. He used four scales: a six-item version of the NEP scale which represents pro-environmental attitudes, a four-item scale to support science and technology which reflects respondents' materialism, a six-item post materialism value scale, and a scale to measure concern for local environmental problems. The expected correlation between the NEP, distrust of science and technology, post material values, and environmental concerns was partially supported in the Swedish sample. The research highlighted that the discrepancies in the study derived from the fact that environmental concerns can be affected by direct experience of the environment as well as generally reported global problems.

Steel (1995) [27] empirically investigated the relations between attitudes and self-reported behaviors regarding the environment among the public of the United States. He suggested that well-defined and specific behavior indicators are more likely to increase the attitude-behavior consistency. Using a six-item version of the NEP scale to measure environmental attitudes, he developed an eighteen-item scale to measure a wide range of environmental behaviors that the public might be involved in, including home recycling, transportation, and home and gardening behaviors. In addition, he used an eleven-item scale to measure the public's political participation in environmental issues as a separate environmental behavior variable. He also found that attitude intensity was significantly correlated with self-reported environmental behavior and political participation in environmental issues.

Although many researchers have pointed out that the relationship between environmental attitude and behavior is somewhat weak or modest at most, and suggested other variables that mediate the relationship, environmental attitude is still one of the most influential constructs to predict environmental behaviors. Compared to demographic and some other psychological variables, attitude is considered a more appropriate measure to capture individuals' emotional affect, intention, beliefs, and concerns, and thereby to predict various types of environmental behaviors among different groups of people.

Materials and Method

The Bauchi state of Nigeria served as the study area and the choice was deliberate as the state is endowed with many public and private organizations spanning different sectors of the economy. Adaba (2006) [1] considered that the Bauchi state is located between Latitude of 9.3 and 12.3 North of the Equator and Longitude 8.5 and 11 East of the Greenwich Meridian. The state is bordered by seven states, Kano and Jigawa states to the North, Taraba and Plateau states to the South, Gombe and Yobe states to the East, and Kaduna state to the West. It occupies a total land area of 549,259.01sq. kilometers, which signify 5.3 percent of the landmass of Nigeria.

The descriptive survey design was adopted for the study so as to get exact and full information about the environmental attitudes among business firms were and what particular attitude does affect the behavior of business firms toward their environment. This is because it's the suitable technique for depicting exactly the characteristics of a situation and so describes the state of affairs as it exists as of present. It also allows the unearthing of causes and effects of phenomenon even when the variables cannot be controlled (Kothari, 2004). The population of the study was taken from the Department of Business Administration and Management of the School of Management Studies at the Abubakar Tatari Ali Polytechnic, Bauchi, Bauchi state where students of Higher National Diploma in Business Administration and Management was taken as respondents of the study. Total enumeration was taken based on the judgment of the researcher to meet the objective of the study.

The study utilized questionnaires. The questionnaires were distributed to Higher National Diploma students of the Abubakar Tatari Ali Polytechnic located in Bauchi metropolis. In the process of data gathering, the researcher contacts the Head of Department of the Business Administration and Management of the Abubakar Tatari Ali Polytechnic Bauchi, Bauchi state to allow the researcher to distribute his questionnaires in his department. The researcher personally met the students requested them to answer the questionnaires. The retrieval of questionnaires was arranged between the class representative and the Researcher with the help of the Head of Department of Business Administration and Management.

The instrument for collection employed for this research was indeed a structured questionnaire. A structure questionnaire asks a question and supply a number of responses options intended for the respondents to pick. An overall fifty-five questionnaires was distributed and all returned. The questionnaire is of the liked type; each questionnaire 5 options, namely; Agree, Disagree, Undecided, strongly disagree, strongly agree of which respondents would select. The scale/score of the responses are: Strongly agree stand for 5, Agree stand for 4, Undecided stand for 3, Disagree stand for 2, and Strongly Disagree stand for 1.To analyze the data gathered in this study, the researcher uses table representations to present and analyze data using simple percentage for easy interpretation using Analysis of Variance (ANOVA) statistical method to simultaneously compare average across several groups to determine if observed differences are due to chance or reflect genuine distinctions.

Results and Discussion

Analysis of variance (ANOVA) is an extremely important method in exploratory and confirmatory data analysis. The descriptive table below provides some useful descriptive statistics, including sum of squares, degree of freedom, mean of square, significant value which shows the output of the ANOVA analysis. The ANOVA is used to analyze the range of scenarios so as to give the tentative prediction about the nature of the relationship between the research variables. As the study was aimed at understanding the attitude of business firms toward their environment, based on such aim, the statements of the problems were proposed and the findings are the following:

Problem: What is the attitude of business firms toward their environment?

Table: The environmental attitude of business firms toward their environment.

Test of Hypothesis

H_O: There are significant standards of behaviour in businesses to encourage positive environmental performance.

H_1: There are no significant standards of behaviour in businesses to encourage positive environmental performance.

Table: ANOVA[a]						
Model		**Sum of Squares**	**Df**	**Mean Square**	**F**	**Sig.**
1	Regression	1.330	1	1.330	1.376	.249[b]
	Residual	30.935	32	.967		
	Total	32.265	33			
Source: a. Dependent Variable: Business activities with little institutional commitment to addressing environmental challenges.						
b. Predictors: (Constant), Local polluting business firms involve production and distribution of various environmentally sensitive goods such as polythene bags, sachet water, plastics, etc. which have a direct effect on the societal wellbeing.						

Given the above table, when a p-value (Sig.) is less than 0.05, it is typically considered to be statistically significant, in which case the null hypothesis should be rejected. On the other hand, when a p-value greater than 0.05, it means that deviation from the null hypothesis is not statistically significant. Result from table 1 shows that the P-value which is 0.249 is greater than 0.05 and therefore the null hypothesis is not rejected. That means there are no significant standards of behaviour in businesses to encourage positive environmental performance. This is against the opinion forwarded by Ayodeji and Abimbola (2008) [5] when the opined that modern evolution of the stakeholder view of the firm, called corporate social responsibility or corporate citizenship, advocates that companies have a social obligation to operate ethically, socially, and environmentally responsible ways. Businesses in Bauchi state are not aware of the threats and opportunities associated with their business practices and actions. So, business managers may have to notice the extent of their actions on the environment they operate in terms of obtaining needed resources and also of avoiding damage to the physical, social, economic and political environment.

Deducing from the above, time is now for business firms in Bauchi state and beyond to embrace environmentally ethical practices and actions. By embracing citizenship goals, corporations may insulate themselves from activist actions, enhance the firm's reputation, and find that their goodwill opens doors to new communities and additional sales. Therefore, a sense of corporate citizenship potentially represents another way to affect business people's behaviours and actions. In this sense, it can be considered a monitor. But is the corporate social responsibility concept good for society? It is difficult to do well while doing good. A company can fail in its social goals and still succeed as a business but it cannot fail as a business and still succeed in its social goals. In addition, how do we create a governance system based on this sense of citizenship (Ayodeji and Abimbola, 2008)? [5] Thus, business firms may go bankrupt without ever looking at the approach to moral decision making that is based on the notion that ethics should deliver the greatest number of people. At this juncture, it can be added that this research shared a perspective with Bonini, *et al.* (2009) that though companies face increasing pressure from government, competitors, and employees to play a leading role in addressing a wide array of environmental, social, and governance issues-ranging from climate change to obesity to human rights-in a company's supply chain. Over the past 30 years, most of them have responded by developing corporate social responsibility or sustainability initiatives to fulfill their contract with society by addressing such issues.

Furthermore, this paper believed that the role of governments in promoting and developing environmental concern in developed and developing countries is vital to ensure effective well-being of the societies. This paper agreed with Ngaundje and Kwei's study (2021) [21] that there is a disconnection between the practice and implementation of CSR components. As they argue that businesses have abdicated their responsibilities, but governments have also failed to provide a legal framework within which corporations can effectively comply with their obligations. Businesses should bring into focus the dynamic equilibrium in the process of their production and distribution interaction between the customers and the carrying capacity of their environment such that the population develops to express its full potential without producing irreversible adverse effects on the carrying capacity of the environment upon which it depends.

Invariably, scholars within the field of economics cover a variety of topics including the valuation of natural ecosystems and resources, analyses of social costs and benefits, the creation of market mechanisms to alter polluting activities, bounded rationality, the economics of innovation, agglomerated economies, and organizational behavior. Those addressing issues of corporate decision making tend to consider the nature of pollution and the environment with a long-standing set of policy approaches focusing on "market failures" (such as "externalities" and imperfect or asymmetric information about risks) and "public goods." In this domain, environmental damages that are imposed on downstream or downwind residents or the public at large are often omitted from market prices and thus treated as "free" to the producers and consumers that cause them.

Conclusion

To sum up all therefore, it is undoubtedly clear that the business enterprises exert a major influence on the lives of millions of individuals and the well-being of the society in general. The social responsibilities of business are therefore more than just the provision of goods and services for people satisfaction. As part of the social responsibilities, business firms must provide the members of society with required information, maintain a clear and healthy environment, and above all offer better and acceptable service.

It is obvious at the end; this research believes that the environmental management adds value to the business

firms' efficiency and effectiveness in their daily activities. Driven by population growth, urbanization, and overall growth in demand for business firms' products/services, hence climate-change emissions related to the activities of business firms are on the increased as seen in developing countries like Nigeria and Bauchi state inclusive.

Recommendations

The overall recommendation of this research study maintains that, good management of environmental challenges, however, can manage the environmental impact while increasing the value of a firm, satisfying human needs, contributing to the quality of life, and reduce pollution per unit of emissions produced; so that global sanitation coverage goals might be met without generating an unnecessary climate penalty and negative health consequences. This research can be further extended to find out the desirability of investing in a business project by figuring whether it's present and future economic benefits out weight its present and future economic costs.

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