

CHAPTER 6

CONCLUSION AND IMPLICATIONS

6.1 CONCLUSION

The purpose of this study was to investigate and empirically test a set of hypothesized behavioural relationships between the concept of environmental ethical commitment and the factors under study; the ecological concern, regulation, self-efficacy, ethical climate, financial aspect, personal moral obligation, stakeholder information and stakeholder pressure. The study showed that the use of EEC factors can lead to increased commitment to the natural environment, thus, helping to reduce the environmental degradation. Additionally, the use of the EEC concept in the business agenda could achieve many advantages. Several explanations could be drawn from these findings. First, the Malaysian manufacturing industry is important to generate the country's wealth and offer job opportunities. It has brought prosperity to the country as Malaysia was highlighting globalization by doing borderless business.

This study tried to reveal the relationships of independent variables with the commitment of manufacturing companies in Malaysia towards the natural environment. According to Shaw and Barry (1992) in running its activities, manufacturing processes are actually scarring the globe, contaminating and threatening the environment, warming the planet, thinning the ozone layer, decimating the forests, decreasing the health of our water and air and polluting the river quite severely (Harvey, 1994). These stated pollution issues were studied and identified as the factors that preceded corporations' poor financial performance (Hart and Ajuha, 1996).

To understand the development of the theoretical framework of this study, the TPB was employed as an underlying theory. In addition, this study received insights from two dominant researches in this area, Flannery and May's (2000) environmental ethical decision making and Cordano and Frieze's (2000) pollution reduction preferences. This study was categorized as a descriptive study as it tries to answer the questions of what and how to environmental issues in a developing country. This study empirically tested eight factors that lead to the commitment to the natural world. It was hypothesized that manager's EEC will be influenced positively by their ecological concern towards the natural environment, to their perception of regulations imposed by the government, by their levels of efficacy, by their own organizational ethical climate, by their perceptions of financial cost considerations, by their PMO and by stakeholders' information and pressure.

The questionnaires were developed based on previous studies, and following an extensive literature review, 74 items were developed for the managers of manufacturing companies listed in the FMM Directory 2005, Malaysian Industries. By using mail, email and fax, the survey, together with a self-addressed envelope were posted, emailed and faxed to 326 companies and with a gap of six months and with several attempts the study managed to gain 150 usable responses.

Several statistical tools were used in this study. Frequency, cross tabulation, correlation, and multiple regression analysis were employed. This study was assumed to have one dependent variable and eight independent variables that were metric in nature. The reason for having metric data was because the study was trying to capture the behavioural attitude of manufacturing managers in Malaysia. In order to do so, questionnaires were generated from several related researchers.

The title of the research is “Environmental Ethical Commitment of the Business Corporations in Malaysia”. Besides the researcher’s personal interest in this subject matter, environmental ethics is claimed to be fashionable, and complex yet exciting. This research is carried out in order to fill the gap of “scarcity” in the research area as research in environmental ethics has been claimed in the literature to be relatively brief, young as a discipline and has received little attention. Based on the review of a few environmental disasters from the past, such as Exxon, Chernobyl and Bhopal, the researcher was compelled to study the factors that influence the commitment of the corporations that could prevent this kind of disaster, as corporations tend to ignore the importance of the natural environment. Besides marketing, human resources, economics and other related aspects of business concerns, business ethics, especially environmental ethics, is equally important as they could bring benefits to corporations, particularly to the manufacturing corporations.

The study has attempted to reveal the commitment of Malaysian corporations with regards to environmental ethics and reveal factors that lead to the EEC. The outcome of this research may benefit the country by identifying the contributing factors and later highlight a set of general recommendations to direct the right attitudes of Malaysian manufacturing managers. Many of the researches in this area appeared in the late 1990s and early in 2000 although the topic was triggered back in 1949 with the publication of Aldo Leopold, an ecologist, who could foresee the degradation of the environment due to pollution. Only fourteen years later (in 1964), Rachel Carson published the “Silent Spring” and she was claimed to be the catalyst of many articles and researches conducted.

Based on the literature reviewed, it was found that there is no one or specific approach to deal with this matter. This is because many researchers have developed their own ideas, knowledge and expertise, which has resulted in a wide variety of approaches that could be employed. Although the core themes or the subject researched might vary in terms of its title, such as ethics scope programme, corporate ecological responsiveness, environmental ethical decision making, pollution reduction preferences and environmental championing, all these core themes aim to save the corporations, and, thus, save the entire world, as many researchers empirically claim that environmental ethics approaches could save money, reduce the need of new resources and offer opportunities to compete in the global market.

This study employed the TPB in order to empirically focus on the factors that influence EEC as it was proven to be valid, testable and specific in many research areas. It is also because there are many possible independent variables to be linked to environmental ethical commitment, however, this theory together with the companies interviewed only specified and confirmed the most important factors. After much consideration, the independent variables of this study are ecological concerns, regulation, ethical climate, self-efficacy, stakeholders' information and pressure, financial aspect and personal moral obligation with EEC as the dependent variable.

Out of eight factors hypothesized to affect the manufacturing environmental ethical commitment, only three, namely, the regulations, financial cost and stakeholders' information, were empirically proven to influence Malaysian manufacturing managers to commit ethically to the natural environment.

6.2 THE IMPLICATIONS

The findings of this research provide valuable information about the concept of environmental ethics in Malaysia. The study has also highlighted the contributing factors and problems in carrying out the study in Malaysia. Manufacturing companies in Malaysia are encouraged to seriously look into the eight empirically supported factors under study in order to be environmentally ethical. The supported factors would encourage them to obey the regulations imposed by the government, to have financial capability to support environmental ethics effort, and also to value information from the stakeholders. All this information will be of help to the manufacturing companies in developing their mission statement and management strategy in order to operate their business towards the best health of the natural environment.

The study has helped towards an understanding of EEC and their acceptance of manufacturing companies in Malaysia. The results of the analysis have provided some insights for the committed manufacturing companies to monitor their marketing strategies. For the top management, the empirically tested factors under study can be considered as indicators for manufacturing companies to be committed and also increase their commitment. With the right environmental approaches, the manufacturing companies could transform themselves to be able to achieve high EEC.

Based on the result, it is not surprising to note that Malaysian manufacturing companies are environmentally ethically committed by having regulation, financial aspect and stakeholder information factors supported. The percentage was 41.7% and it was empirically convincing to claim that Malaysia is one of the developing countries that is concerned

about the natural environment parallel with the development of her industrial base with regulations, financial aspect and stakeholder information supported.

This study has implications for the manufacturing industry and scholars interested in the study of EEC concept. It serves to increase the body of knowledge on a topic that lacks an empirical base in developing countries. Many studies on the topic of environmental ethics or related themes have limited themselves to developed countries, namely, the United States of America. The leading books and articles on environmental ethics have long been dependent on the experience of the international firms in the developed world. The significance of the lesser developed countries as an important and growing market for most countries in the world has not received adequate attention. The emergence of environmental issues and its impact on the manufacturing industry has created the need to study the concept of environmental ethics and its commitment.

This study could also be of immediate benefit to manufacturing companies in Malaysia. They should be interested to discover how to manage their manufacturing activities that complement the environment. This study offered them an opportunity to see an academic evaluation for their environmental commitment as well as an opportunity to learn activities that could lead them to be ethical in order to improve their businesses globally.

This study revealed that three independent variables – regulations, financial aspect, and stakeholder information – were useful tools in managing manufacturing companies' EEC. These factors of EEC were instrumental in increasing commitment and reducing the industry's environmental impact. Therefore, manufacturing industries in Malaysia should keep on increasing their commitment towards the natural environment for the short- as well as the long-run profitability of their manufacturing activities.

Some implications for manufacturing industries can also be drawn from the conclusions reached. EEC is not an easy concept, and considerable understanding, believing, planning and skills are required to make the EEC concept to be a factor of environmental excellence. The findings also have implications for foreign investors who are presently or potentially interested in developing countries such as Malaysia as their market. In fact, EEC also offers significant advantages for those wishing to export their products globally. Many countries in the world are focusing on “green products”. By implementing the EEC concept in the manufacturing activities has enabled the Malaysian manufacturing industry to grab the opportunity to be a global player.

Based on the findings, the experiences and approaches exercised by the manufacturing industry it suggests that there is a noticeably greater trend towards achieving zero defects, zero waste and zero pollution. By far, the largest potential benefits of EEC arise from cost savings in the long-run. Nevertheless, being green or applying EEC concept should not only be on the surface. It is not appropriate to have an environmental image where the core manufacturing activities do not tally with the environmental approaches. By having the concept on the surface, it would only last in the short-run and not guarantee a long-term achievement. A potential manufacturing company should also be aware that to go green some financial investment has to be made. Thus, it is important to have the right information, knowledge, skills and detailed planning in order to implement the EEC approaches. Although the financial aspect seems to be a big issue, considering the larger environmental disaster, the financial aspect is relatively small.

Suggested approaches that could be employed by Malaysian companies include the sponsorship of natural environment events, the use of natural environmental arguments in marketing, exercising natural environmental aspects in administrative work, periodic natural environmental audits, residue recycling, purchasing manual with ecological guidelines, natural environmental seminars for executives, natural environmental training for the employees, total quality programme with natural environmental aspects, pollution damage insurance, natural environmental manual for internal damage, filters and controls on emissions and discharges, natural environmental analysis of products life cycle and participation in government-subsidized natural environmental programme (Henriques and Sadorsky, 1999).

6.3 A SET OF GENERAL RECOMMENDATIONS

Based on this research that studied the EEC, recommendations were also generated. A set of general recommendations was generated for use by the manufacturing companies in Malaysia. Malaysian manufacturing managers are encouraged to have the right attitude towards the regulations. It was empirically tested and proven that the regulation aspect positively increased EEC towards the natural environment. Therefore, manufacturing companies in Malaysia are recommended to obey the rules and regulations imposed by the government. This is because the consequences not only affect the company but also have an adverse effect on the environment.

In order to improve the approach of corporations on the natural environment and to reduce natural environmental impacts, it was recommended by Krause (1993) to willingly accept life style changes. This recommendation is included under the basic human activities.

Among others, the managers are encouraged to use nontoxic products, practice water conservation, separate garbage, drive less and support international programmes.

Recommendations were also incorporated from the ancient ideas represented by Epstein (1992). According to Epstein (1992), in order to deal with pollution and the environment, the respondents should consider three notions. The notions can be tackled locally and globally as it urged the human race:

- 1) To pay special attention to own minds and intention, respect people and avoid violence.
- 2) To value knowledge by educating ourselves, the children and the community about the result of our environmental actions and be responsible for those actions and be responsible to the future generations. This can be done by simplifying our life styles.
- 3) To increase environmental awareness and respect humans, non-humans and also other living things as proposed by the ecocentric thought of living.

The DOE of Malaysia also recommended the business industry to educate themselves to understand the global issues, commit their company to phase-out ozone depleting substances (ODS), particularly chlorofluorocarbons (CFCs) and Halon, in order to protect the ozone layer, to become an ozone-friendly product buyer, to encourage ozone-free technologies for long term solution of manufacturing process and encourage to recapture and recycle ODS, particularly in the refrigeration air conditioning sector.

Education is important in the area of environmental ethics and the natural environment. Educate “stakeholders” in the importance of natural environment and gain as many skills,

knowledge and information about the natural world before taking any actions regarding environmental ethical decision making. Invest money in the environmental ethics effort as it has been proven to benefit the company. The manufacturing companies in Malaysia should also value “stakeholders” as they are an important source of information to the wellbeing of the company and have been proven to increase the commitment towards the environmental ethics.

In order to combat climate change, a set of recommendations was outlined by UNEP (United Nations Environment Programme) to individuals, organizations, businesses and governments. They were recommended to make a commitment, assess where they stand, decide and plan where to go, de-carbon life (use low carbon and climate friendly products), become energy efficient, switch to low carbon energy, invest in cleaner alternatives, become materials efficient, offer or buy low carbon products and services, buy green and sell green products, team up with non-governmental organizations, cities or governments and finally communicate and report results (Impak, 2009b).

Concerning the environmental approaches, because each company varies in terms of its nature of business and technology, it is recommended to manufacturing companies in Malaysia to use approaches that most suit the best interest of the corporations. This could include various approaches, and particularly those suggested by Aragon-Correa (1998) as well as other researchers’ (as discussed in Chapter 2). Different manufacturing companies may use different approaches, and, above all, any activity done by the company or any future activity planned by the company regarding the natural environment reflects their concern towards the management of ethics and the natural environment.

6.4 SUGGESTIONS FOR FURTHER RESEARCH

As has been mentioned in the early part of the research, this study was limited to the manufacturing companies listed in the FMM Directory 2005, Malaysian Industries, 36th Edition. Other industries such as construction, technology, hotels, properties, plantations and mining were excluded. This was because apart from the time and financial constraints faced by the researcher, the researcher faced the fact that the response rate was low from big companies and their reluctance to respond. Also different sets of questionnaires and measurements would be necessary if such industries were to be studied.

The research only concentrated on listed companies because, as mentioned in the previous chapter, larger and listed corporations tend to have greater financial intellectual resources at their disposal (Ein-Dor and Segev, 1982), smaller firms that are not listed are less likely to have an environmental plan and may, therefore, require financial support if they were to compete with larger corporations (Henriques and Sadorsky, 1996). According to Tilley (2000), small firms face four major attitudinal obstacles to ethics as to them ethics and business do not mix. They believe it does not pay to be ethical, they also believe that if it is legal, it is ethical and compared to other companies they claimed themselves to be ethical (Russel, 1993).

Having interpreted the data, future research is suggested to investigate “The Other Factors” such as business culture, political aspect and also the religious aspect. These suggested factors are very sensitive and would present another understanding of the environmental ethical perspective in Malaysia. Perhaps such information is invaluable for the manufacturing industry in Malaysia in helping them to further understand the concept of EEC. This could be used by the managers to include such factors to formulate strategies

besides regulation imposed by the Malaysian government, the financial aspect of the manufacturing companies and stakeholder information gained by the companies in order to prolong and expand products to the global world while maintaining the health of the natural environment.

Other aspects for consideration would be the core themes. Besides researching EEC, it would be interesting for future research to focus on performance even though the measurement of environmental performance was claimed to be questionable, critical, difficult and ambiguous. It would be more convincing if the future research could focus on the aspect of pollution expenditure, toxic chemicals emissions, spills and plant accidents as well as lawsuits in Malaysia and relate them to the environmental ethics concept. Perhaps given the right contacts, such information will be made available.