

AN INVESTIGATION OF THE MALAYSIAN PALM
OIL INDUSTRY'S ENVIRONMENTAL STRATEGIES,
STAKEHOLDERS' PRESSURE, ENVIRONMENTAL
RESPONSIVENESS AND COMPETITIVE ADVANTAGE

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A dissertation submitted in fulfilment of the
requirements for the degree of Doctor Philosophy
at the University of Newcastle, NSW, Australia

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An investigation of the malaysian palm oil industry's
environmental strategies, stakeholders' pressure, environmental
effectiveness and competitive advantage / Mohd Rafi Yaacob.

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Lihat sebelah

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Declaration

To my late father (May Allah be Merciful upon him)

I hereby certify that the work embodied in this thesis is the result of the original research and has not been submitted for a higher degree to any other University or Institution.

(Signed) _____

Dedications

To my late father (May Allah be Merciful upon Him)

Yaacob Bin Saman who inspired my pursuit of knowledge, and also to my beloved mother for her continuous support and prayer for my success.

I would like to thank my parents, my late father and Dr. Margaret Griffiths, for their help, advice, and continuous support. Their valuable comments, feedback, interest and encouragement are indeed appreciated.

I could not have completed this thesis without much needed support from the University of Technology Malaysia (UTM) for a UNMR Scholarship, 2004 -2007, and the University Technology MNR A, Malaysia (UTM) for fully paid leave during the entire period of my study.

I would like to express gratitude to all of the staff and colleagues of the School of Business and Management at the Ourimbah Campus for their friendship, help and support. Also to my colleagues at UTM Terengganu Branch, my thanks for their constant support and friendship.

I would like to thank all of the Malaysian palm oil companies and their stakeholders - Department of Environment, Environmental Non-Governmental Organisations, Malaysian Palm Oil Association, Malaysian Palm Oil Board, the media organisations, and a law firm - who participated in this research.

Last but surely not least, to my wife, Marini Bt. Ramli, and my children - Adnan and Ahmad Ahruf - I owe a great deal for understanding, sacrifices, unwavering support and motivation to enable me to complete this thesis.

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Last but surely not least, to my wife, Mariati Bt. Ramli, and my children - Athirah and Ahmad Ashraf - I owe a great deal for understanding, sacrifices, unwavering support and motivation to enable me to complete the thesis.

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List of Acronyms

ACCA	Association of Chartered Certified Accountants
BCSC	Business Council for Sustainable Development
BOD	Biochemical Oxygen Demand
CAC	Command and Control
DOE	Department of Environment
BRIMAS	Borneo Resources Institute
CAP	Consumer's Association of Penang
CER	Corporate Environmental Reporting
CPO	Crude Palm Oil
DAFMS	Department of Agriculture of the Federated Malay States
DG	Director General
EFB	Empty Fruit Bunches
EIA	Environmental Impact Assessment
EMS	Environmental Management System
EMT	Ecological Modernisation Theory
ENGOS	Environmental Non Governmental Organizations
EPSM	Environment Protection Society of Malaysia
EQA	Environmental Quality Act
FAO	Food and Agriculture Organization
FDI	Foreign Direct Investment
FELCRA	Federal Land Consolidation and Rehabilitation Authority
FELDA	Federal Land Development Authority
FFA	Free Fatty Acid
FFB	Fresh Fruit Bunches
FME	Free Market Environmentalism
FMM	Federation of Malaysian Manufacturers
FoE	Friends of the Earth
FSC	Forest Stewardship Council
GATT	General Agreement on Tariffs and Trade
GDP	Gross Domestic Product
GNP	Gross National Product
GPF	Green Project Facility
HCVF	High Conservation Value Forest
IPM	Integrated Pest Management
ISA	Internal Security Act

KLSE	Kuala Lumpur Stock Exchange
LCA	Life Cycle Assessment
MBI	Market Based Instrument
MENGOs	Malaysian Environmental Non Governmental Organisations
MNCs	Multi National Corporations
MNS	Malaysian Nature Society
MPOA	Malaysian Palm Oil Association
MPOB	Malaysian Palm Oil Board
MPOI	Malaysian Palm Oil Industry
MPOPC	Malaysian Palm Oil Promotional Council
NAFTA	North American Free Trade Agreement
NEPA	National Environmental Protection Agency
NGOs	Non Governmental Organisations
NCLs	Native Customary Lands
NEP	New Economic Policy
NME	Neo-classical Market Economy
NREB	Natural Resources and Environment Board
OECD	Organisation for Economic Co-operation and Development
POME	Palm Oil Mill Effluent
PORIM	Palm Oil Research Institute of Malaysia
PORLA	Palm Oil Regulation and Licensing Authority
PPP	Polluter Pays Principle
RISDA	Rubber Industry Smallholders Development Authority
RSPO	Roundtable on Sustainable Palm Oil
SAM	Sahabat Alam Malaysia
SD	Sustainable Development
SMEs	Small and Medium Enterprises
SRI	Socially Responsible Investment
TQEM	Total Quality Environmental Management
UNCED	United Nation Conference on Economic Development and Environment
UNEP	United Nations Environment Programme
WCED	World Commission on Environment and Development
WWF	World Wide Fund for Nature

Abstract

Over the last three decades there has been increasing pressure from stakeholders on businesses to be environmentally responsible. Business organisations cannot help but take this consideration seriously because it has a far-reaching impact on their very survival. This research is intended to bring insights into how and why a business's management responds to environmental pressure from stakeholders. How a business responds to its stakeholders is known as environmental strategy. In addition, this study also investigates how proactiveness in implementation of each type of environmental strategy impacts on a business's environmental effectiveness and competitive advantage.

In Malaysia palm oil is the most important agricultural commodity in the country, and contributes substantially to the economy. Unfortunately, its activities are not without environmental costs. Deforestation, depletion of flora and fauna, excessive use of chemicals, air and water pollution are the results of the industry's activity. But due to stakeholders' pressures, the industry has embraced environmental management in its activities, albeit at a slow pace. Against this background, this study seeks to investigate the efficacy of corporate environmentalism, using a number of palm oil companies as case studies. This study is paramount as no such study has previously been conducted in Malaysia. The Malaysian palm oil industry offers an interesting case for studying corporate environmentalism in developing countries. Using a mixed-methods or triangulation of analysis of nine palm oil companies, which are listed on the Kuala Lumpur Stock Exchange, as case studies, this research investigates the environmental practices of the palm oil companies, and the relationship of these practices with stakeholders' pressures, environmental effectiveness and competitive advantages.

The results of the study reveal that three levels of overall environmental strategy are adopted by the participating palm oil companies. They are labelled by the researcher as *minimalists* - four companies; *intermediators* - two companies; and *proactivists* - three companies. The minimalists refer to companies that exercised the lowest environmental strategy, while the proactivists are those who exercised the highest environmental strategy. The intermediators are in the middle, that is, those companies that seem to be in the early stage of becoming proactivists, but have yet to achieve such a level. The proactivists were classified as those who exercised a proactive strategy, but both intermediators and minimalists exercised a reactive environmental strategy.

In terms of the relationship between environmental proactiveness and stakeholders' pressure it was found that the management of the more proactive companies tended to perceive a wider range of threats from environmental stakeholders compared with reactive companies. Apart from regulatory stakeholders, they also perceived pressure from primary stakeholders, especially their top management, as well as secondary stakeholders including ENGOs, competitors, and the media. On the contrary, reactive companies only perceived threats from regulatory stakeholders. Not only did proactivists differ in terms of stakeholders' pressure, they were at the same time perceived to be more environmentally effective and to gain more competitive advantages than less proactive companies. Based on the research findings it seems there is a significant positive correlation between a proactive environmental strategy and both environmental effectiveness and competitive advantage among Malaysian palm oil companies.

In this study measurement of the environmental strategies and environmental effectiveness was solely based on a triangulation of surveys (seven-point scale items) and in-depth interviews. In order to increase the validity of the study, future researchers need to triangulate these data with other quantitative data. For instance, at a company level, a company's resources can be measured based on its financial statistics such as sales, net profit, return on investment, and the amount spend on research and development. Moreover, the environmental effectiveness of a mill can be measured in terms of monthly data of biochemical oxygen demand (BOD), of palm oil mill effluents and Ringelmann Chart of air emissions, and the amount of money expended on de-sludging for certain periods of time. In both plantations and mills, future researchers can gather data related to environmental accidents, fines and court cases.

The key findings of this research are instructive. The majority of the participating palm oil companies in Malaysia adopted reactive environmental strategies. Only a few adopted proactive environmental strategies, and they were more likely to exercise environmental practices at strategic and tactical levels such as top management involvement in environmental issues as well as deploying environmental management systems which mostly related to the bottom line of their businesses. Serious attention towards the destruction of the tropical rainforest as a result of their activities is lacking among participating companies.