

ANTECEDENTS OF MANAGERS' PRO-  
ENVIRONMENTAL INTENTIONS AND BEHAVIOUR

BY

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A dissertation submitted in partial fulfilment of the  
requirement for the degree of Doctor of Philosophy in  
Accounting

Kulliyyah of Economics and Management Sciences  
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JANUARY 2020

## ABSTRACT

Environmental issues, such as air and water pollution, resources scarcity, and global warming, are becoming major concern. These environmental problems have often been created by businesses and industries. This has led many countries to develop environmental regulations that aim to control organisations' activities to improve environmental protection outcomes. Such concerns raise the need for organisations to display more effective environmental management conduct. Past studies have largely emphasised organisations' environmental practices, but very limited studies have focused on managers' behaviour in enhancing the effectiveness of their business environmental practices. The purpose of this research is to further understand the antecedents that influence managers' pro-environmental intention. In addition, this study also hopes to provide a better understanding of the mediation effect of their intentions towards their pro-environmental behaviour. Therefore, Theory of Planned Behaviour was utilised to examine and determine which antecedents are the most influential for managers to be environmentally and financially responsible in preserving the environment. This study extends the TPB model by the inclusion of religiosity as a predictor to further explain managers' intentions and behaviours. Questionnaires were sent to managers in environmentally sensitive companies listed on Bursa Malaysia. The data collected from a sample of 99 managers were analysed using partial least squares structural equation modelling. The results provide support that managers' subjective norms and religiosity values were significant predictors of intention for managers to conduct organisations' environmental practices. However, managers' personal environmental attitudes and their belief about the importance of fulfilling organisations' economic objectives were acknowledged as having low impact on their intention to perform pro-environmental practices. With regard to managers' environmentally responsible behaviour, it is noted that significant improvement can be developed in building managers' environmentally responsible behaviour by focusing on subjective norms requirements and managers' religious values. This study, however, also provides evidence that though managers have high intention to preserve the environment, it is not enough for them to be financially responsible in exercising such actions. Post survey interviews were conducted to further assist in understanding the factors that might be feasible or useful for managers to protect the environment and explain the challenges encountered by them to be financially responsible. Theoretically, TPB provides some insights into the important attributes required by managers to be environmentally and financially responsible in preserving the environment. It addresses the recent call in the literature to research the antecedents that influence managers' intention to execute organisations' environmental practices that further lead them to perform pro-environmental behaviour. Hence understanding managers' behaviour within their workplace could assist organisations in creating a motivated environment for managers to effectively perform their expected intentions and behaviour. There are several limitations of this study, such as the data only focused on environmentally sensitive industries and there are probably other important factors that have not been examined in this study that might influence managers' behaviour.

## مُلخَصُ البَحْثِ

أصبحت المشكلات البيئية من مثل تلوث الهواء والماء، وندرة الموارد، والاحتباس الحراري؛ مصدر قلق عالمي رئيس؛ إذ تنشأ هذه المشكلات البيئية غالبًا عن طريق الشركات والصناعات، وقد أدى ذلك إلى أن وضع عدد من الدول لوائح بيئية تهدف إلى مراقبة نشاطات المنظمات لتحسين نتائج حماية البيئة، ولكن؛ هناك مخاوف من حاجة تلك المنظمات إلى إظهار توجهها إلى إدارة بيئية أكثر فاعلية، وقد أكدت الدراسات السابقة كثيرًا من الممارسات البيئية للمنظمات، ولكن كانت محدودة الدراسات التي تركز على سلوك المديرين في تعزيز الفاعلية في ممارساتهم البيئية في مجال الأعمال، وعليه؛ يهدف هذا البحث إلى فهم العوامل التي تؤثر في نية المديرين مناصري البيئة، وتوفير فهم أفضل لتأثير الوساطة في نواياهم تجاه مناصرتهم البيئية، وقد استخدمت نظرية السلوك المخطط لتحديد العوامل التي تعدُّ الأكثر نفاذًا بالنسبة إلى المديرين ليكونوا مسؤولين بيئيًا وماليًا من خلال إدراج التدوين TPB مؤشرًا للحفاظ على البيئة، ويمتد البحث إلى نموذج لمزيد من شرح نوايا المديرين وسلوكياتهم، وقد أرسلت الاستبانات إلى مديري الشركات المدرجة في بورصة ماليزيا التي لنشاطاتها تأثير كبير في البيئة، وجرى تحليل البيانات المجموعة من 99 مديرًا باستخدام النمذجة المعادلات الجزئية، والمربعات الصغرى، وقد أظهرت النتائج أن المعايير الشخصية للمديرين وقيم التدوين كانت تنبؤًا مهمًا بنوايا المديرين في تنفيذ الممارسات البيئية للمنظمات، وعلى الرغم من ذلك؛ اعترف بأن للمواقف البيئية الشخصية للمديرين وإيمانهم بأهمية تحقيق الأهداف الاقتصادية للمنظمات؛ تأثيرًا ضعيفًا على نواياهم في تنفيذ ممارسات مناصرة البيئة، وفيما يتعلق بسلوك المديرين تجاه البيئة؛ تجدر الإشارة إلى أنه يمكن تطوير تحسُّن كبير في بناء سلوك المديرين من خلال التركيز على متطلبات المعايير الشخصية والقيم الدينية للمديرين، وأيضًا؛ يوفر البحث دليلًا على أنه على الرغم من أن لدى المديرين رغبة عالية في الحفاظ على البيئة من حيث الجانب المالي؛ لا يكفي أن يكونوا مسؤولين في ممارسة هذه الإجراءات، وقد أُجريت مقابلات ما بعد المسح؛ للمساعدة في فهم العوامل التي يقبلها المدبرون وتفيد في حمايتهم البيئية، مع عرض بعض التحديات التي يواجهونها في تحمل المسؤولية المالية، ومن وجهة نظرية؛ يبين البحث السمات المهمة التي ينبغي للمديرين أن يتحلوا بها ليكونوا مسؤولين بيئيًا وماليًا في الحفاظ على البيئة، كما يعالج الدعوة الأخيرة في الدراسات السابقة إلى البحث عن العوامل التي تؤثر في نوايا المديرين في تنفيذ الممارسات البيئية للمنظمات، وتقودهم أكثر إلى مناصرة البيئة، ومن ثم؛ يمكن فهم سلوك المديرين حيث عملهم مما يساعد المنظمات في تهيئة بيئة محفزة للمديرين لتنفيذ نواياهم وسلوكياتهم بفاعلية، علمًا أنه هناك عددًا من القيود على هذه الدراسة؛ من مثل البيانات التي تركز فقط على الصناعات الحساسة للبيئة، وهناك عوامل أخرى لم تُفحص، وقد يكون لها تأثير على سلوك المديرين تجاه البيئة.

## APPROVAL PAGE

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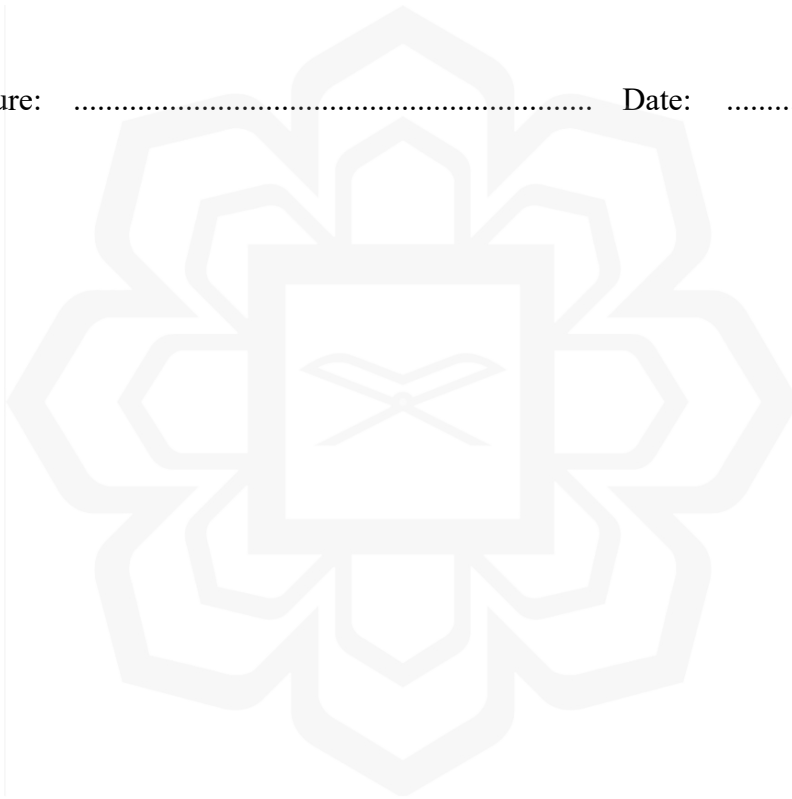
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## DECLARATION

I hereby declare that this dissertation is the result of my own investigations, except where otherwise stated. I also declare that it has not been previously or concurrently submitted as a whole for any other degrees at IIUM or any other institutions.

Saira binti Kharuddin

Signature: ..... Date: .....



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## ACKNOWLEDGEMENTS

In the name of Allah, the Most Beneficent and the Most Merciful

All glory is due to Allah, the Almighty, whose Grace and Mercies have been with me throughout the duration of my programme. Although it has been tasking, His Mercies and Blessings on me ease the herculean task of completing this thesis. Alhamdulillah, all praised to Allah for the strength and His blessings in the journey of this thesis preparation and enable me to share this knowledge with others.

The completion of this study was indeed a great challenge for me. I would not have made it without the help and support of every individual who have guided me throughout the preparation of this thesis.

My sincere gratitude and heartfelt appreciation to my supervisor, Prof. Dr Nik Nazli bt Nik Ahmad, that without for her invaluable guidance, constructive comments, continuous encouragement, advise and suggestions, I may not be able to complete this thesis. Not forgotten, I am also grateful to my co-supervisor, Assoc. Prof. Dr Noraini Bt Mohd Ariffin, whose support and cooperation contributed highly in the outcome of this work. I put on record and appreciate my supervisors' detailed comments, inspiring queries and useful suggestions which have considerably improved this thesis. Despite their high commitments and tasks, they really took time to listen and attend to me whenever requested which highly helped in in building and completing my research work.

I wish to express my gratitude to my employer, University Putra Malaysia specifically to the Faculty of Economics and Management and also Ministry of Higher Education for funding and facilitating my study. My gratitude also goes to the Postgraduate Unit, Kulliyah of Economics and Management Sciences, International Islamic University Malaysia, and very thankful to all lecturers and all the officers for their guidance, supports and facilities.

It is my privilege to thanks my parents, Khairuddin bin Tamin and Jamilah bte Anwar for their persistent support and prayers throughout my study. Also very much thankful to my beloved children, Hannah Irdina, Izz Haziq and Sarah Adrianna for their patience, continuous love and support. My deep thankful also goes to all my family members, aunties, uncles and all my cousins. Their confidence, encouragement and prayers have become my ultimate motivation in making this thesis possible.

Last but not least, my gratitude goes to all the warm hearted people who helped me throughout the research process especially my UPM friends, KISAS friends and all friends and staffs at IIUM. Your friendship, advice and endless motivation have help and inspired me throughout the journey.

Once again, I glorify Allah for His endless mercy which enables me to successfully round off the efforts of writing this thesis. Alhamdulillah.

# TABLE OF CONTENTS

Abstract.....	iii
Abstract in Arabic.....	iv
Approval Page .....	v
Declaration.....	vi
Copyright.....	vii
Acknowledgements .....	viii
List of Tables .....	xii
List of Figures.....	xv
List of Statutes .....	xvi
List of Symbols.....	xvii
List of Abbreviations .....	xviii
<b>CHAPTER ONE: INTRODUCTION.....</b>	<b>1</b>
1.1 Background of the Study.....	1
1.2 Motivation of the Study.....	6
1.3 Problem Statement .....	11
1.4 Research Objectives and Research Questions.....	13
1.5 Contribution of the Study .....	14
1.6 Variable Measurement .....	17
1.7 Organisation of the Chapters.....	19
<b>CHAPTER TWO: LITERATURE REVIEW .....</b>	<b>21</b>
2.1 Introduction .....	21
2.2 Malaysian Organisations Pro-environmental Practices.....	22
2.3 Managers' Behaviour .....	25
2.4 Managers' Pro-environmental Behaviour .....	30
2.4.1 Environmentally Responsible Behaviour .....	36
2.4.2 Financially Responsible Behaviour.....	38
2.5 Managers' Attitudes .....	41
2.6 Managers' Subjective Norms .....	48
2.7 Managers' Perceived Behavioural Control (PBC).....	57
2.8 Religiosity .....	64
2.8.1 Islamic Perspective.....	64
2.8.2 Other Religions Perspectives.....	72
2.9 Pro-environmental Intentions .....	74
2.10 Literature Summary.....	77
<b>CHAPTER THREE: RESEARCH FRAMEWORK .....</b>	<b>81</b>
3.1 Introduction .....	81
3.2 Theory of Planned Behaviour.....	81
3.3 Research Hypotheses.....	87
3.3.1 Influence of Attitudes on Managers' Pro- environmental Intentions .....	88
3.3.2 Influence of Subjective Norms on Managers Pro- environmental Intentions .....	89

3.3.3	Influence of Perceived Behavioural Control (PBC) on Managers' Pro-environmental Intention.....	92
3.3.4	Influence of Religiosity on Managers' Pro-environmental Intentions .....	94
3.3.5	Managers' Pro-environmental Intentions and Pro-environmental Behaviour .....	98
3.4	Summary .....	101
<b>CHAPTER FOUR: RESEARCH METHODOLOGY.....</b>		<b>103</b>
4.1	Introduction .....	103
4.2	Research Design and Method.....	103
4.3	Sample and Unit of Analysis.....	106
4.3.1	Environmentally Sensitive Industries.....	107
4.3.2	Unit of Analysis.....	109
4.3.3	Questionnaire and Interviews .....	110
4.4	Research Instruments .....	112
4.5	Pre-testing.....	112
4.6	Measurement Scales .....	114
4.7	Research Variables Operational Definitions .....	115
4.7.1	Managers' Environmental Attitudes.....	116
4.7.2	Managers' Subjective Norms .....	118
4.7.3	Managers' Perceived Behavioural Control .....	119
4.7.4	Managers' Religiosity .....	120
4.7.5	Managers' Pro-environmental Intentions .....	121
4.7.6	Managers' Environmentally and Financially Responsible Behaviour .....	124
4.8	Method of Analysis .....	125
4.9	Summary .....	127
<b>CHAPTER FIVE: RESEARCH ANALYSIS .....</b>		<b>128</b>
5.1	Introduction .....	128
5.2	Questionnaire Data Collection .....	129
5.3	Tests for Nonresponse Bias .....	131
5.4	Normality Test.....	132
5.5	Pearson Correlation Analysis .....	133
5.6	Test of Collinearity Diagnostic .....	134
5.7	Descriptive Analysis of Respondents Demographic Profile .....	135
5.8	Descriptive Analysis of the Study Variables.....	140
5.8.1	Managers' Attitudes, Subjective Norms, Perceived Behavioural Control, and Religiosity .....	141
5.8.2	Managers' Pro-environmental Intentions .....	156
5.8.3	Managers' Environmentally and Financially Responsible Behaviour .....	158
5.9	Measurement Model.....	160
5.9.1	Internal Consistency Validity .....	161
5.9.2	Convergent Validity .....	164
5.9.3	Discriminant Validity .....	166
5.10	Initial Solution Results for Partial Least Square Structural Equation Model .....	167

1.1	Semi-structured Interview .....	170
5.10.1	Respondents of the Semi-Structured Interviews .....	170
5.11	Summary .....	174
<b>CHAPTER SIX: RESULTS AND DISCUSSION .....</b>		<b>175</b>
6.1	Introduction .....	175
6.2	Objective 1: The Extent of the Influence of Managers’ Attitudes, Subjective Norms, Perceived Behavioural Control, and Religiosity on Managers’ Pro-environmental Intention.....	176
6.2.1	Attitudes .....	178
6.2.2	Subjective Norms .....	180
6.2.3	Perceived Behavioural Control (PBC) .....	184
6.2.4	Religiosity.....	187
6.3	Objective 2 and Objective 3: Analysis of Mediating Effect of Managers’ Pro-environmental Intentions between Their Attitudes, SN, PBC, Religiosity, and Pro-Environmental Behaviours.....	190
6.3.1	Environmentally Responsible Behaviour .....	195
6.3.2	Financially Responsible Behaviour .....	202
6.4	Summary .....	211
<b>CHAPTER SEVEN: CONCLUSIONS AND RECOMMENDATIONS .....</b>		<b>214</b>
7.1	Introduction .....	214
7.2	Summary and Discussion of the Results .....	214
7.2.1	Managers’ Behaviour .....	216
7.3	Contribution of the Study .....	219
7.3.1	Theoretical Contribution .....	219
7.3.2	Practical and Policy Contributions .....	222
7.4	Limitations of the Study .....	227
7.5	Recommendations for Future Research .....	228
<b>BIBLIOGRAPHY .....</b>		<b>230</b>
<b>APPENDIX I: INFORMATION .....</b>		<b>248</b>
<b>APPENDIX II: COVERING LETTERS AND QUESTIONNAIRES.....</b>		<b>250</b>
<b>APPENDIX III: INTERVIEW GUIDE.....</b>		<b>263</b>

## LIST OF TABLES

Table 1.1	Research Objectives and Research Questions	14
Table 4.1	Quantitative and Qualitative Method Procedures: From Theory to Practice	106
Table 4.2	Environmentally Sensitive Industry in Malaysia	109
Table 4.3	Summary of Sources to Measure Managers' Environmental Attitudes Variable	117
Table 4.4	Summary of Sources to Measure Managers' Subjective Norms Variable	118
Table 4.5	Summary of sources to measure managers' perceived behavioural control variable	120
Table 4.6	Summary of Sources to Measure Managers' Religiosity Variable	121
Table 4.7	Summary of Sources to Measure Managers' Pro-environmental Intentions Variable	123
Table 4.8	Summary of Sources to Measure Managers' Environmentally and Financially Responsible Behaviour Variable	125
Table 4.9	Steps and regression equation for testing the mediating effect	126
Table 5.1	Survey Response Rate	131
Table 5.2	Mean Score of the Early Responses and Late Responses	132
Table 5.3	Pearson Correlation Matrix between the Independent Variables and the Dependent Variables	134
Table 5.4	Collinearity Diagnostic Results	135
Table 5.5	Respondents' Company Profile	136
Table 5.6	Respondents Demographic Profiles (N=99)	139
Table 5.7	Descriptive Statistics for Managers' Attitudes	142
Table 5.8	Descriptive Statistics for Managers' Attitudes (Positive Perception)	144

Table 5.9	Descriptive Statistics for Managers' Attitudes (Negative Perception)	145
Table 5.10	Component Matrix for Managers' Attitudes: Total Variance Explained	146
Table 5.11	Pattern and Structure Matrix for Managers' Attitudes	147
Table 5.12	Pattern and Structure Matrix for Managers' Attitudes (Positive Perception)	149
Table 5.13	Pattern Matrix for Managers' Attitudes (Negative Perception)	151
Table 5.14	Descriptive Statistics for Managers' Subjective Norms	152
Table 5.15	Descriptive Statistics for Managers' Perceived Behavioural Control	154
Table 5.16	Descriptive Statistic for Managers' Religious Beliefs	155
Table 5.17	Descriptive Statistics for Managers' Pro-Environmental Intentions	157
Table 5.18	Descriptive Statistics for Manager's Environmentally Responsible Behaviour	159
Table 5.19	Descriptive Statistics for Managers' Financially Responsible Behaviour	160
Table 5.20	Internal Consistency Validity Test	162
Table 5.21	Removal of Attitudes Items	162
Table 5.22	Removal of PBC Item	163
Table 5.23	Updated Internal Consistency Validity Test for Cronbach's Alpha and Composite Reliability Test	163
Table 5.24	Average Variance Extracted (AVE)	165
Table 5.25	AVE Values After Items are Removed	165
Table 5.26	Fornell-Larcker Criterion	166
Table 5.27	Heterotrait-Monotrait Ratio (HTMT)	167
Table 5.28	The Level of $R^2$	168
Table 5.29	The Level of $f^2$	169
Table 5.30	Profile of the Participants	173

Table 6.1	Results of Manager's Attitudes, Subjective Norms, Perceived Behavioural Control, and Religiosity on Managers' Pro-environmental Intentions	178
Table 6.2	Regression Results of Managers' Subjective Norms, Which Represent Suppliers, Legislators, Customers, and Shareholders	181
Table 6.3	Regression Results of Managers' Intrinsic and Extrinsic Religiosity Values	188
Table 6.4	Direct Effect of Managers' Attitudes, SN, PBC, and Religiosity, and Environmentally and Financially Responsible Behaviour	192
Table 6.5	Regression Analysis Between Managers' Pro-environmental Intentions and Managers' Environmentally and Financially Responsible Behaviour	192
Table 6.6	Regression Analysis of Managers' Attitudes, SN, PBC, and Religiosity and Managers' Pro-environmental Intentions on Managers' Environmentally and Financially Responsible Behaviour	194
Table 6.7	Low Costs Behaviour	204
Table 6.8	High Costs Behaviour	204
Table 6.9	Summary of the Results of the Hypotheses Tested	213

## LIST OF FIGURES

Figure 3.1 The Theory of Planned Behaviour	87
Figure 3.2 Research Hypotheses	88



## LIST OF STATUTES

2030 Agenda

Environment Quality (Control of emission of diesel engines) Regulations 2000

Environmental Quality Act, 1974

Environmental Quality Act, 2000

Environmental Quality Order, 1989

National Forestry Act, 1984

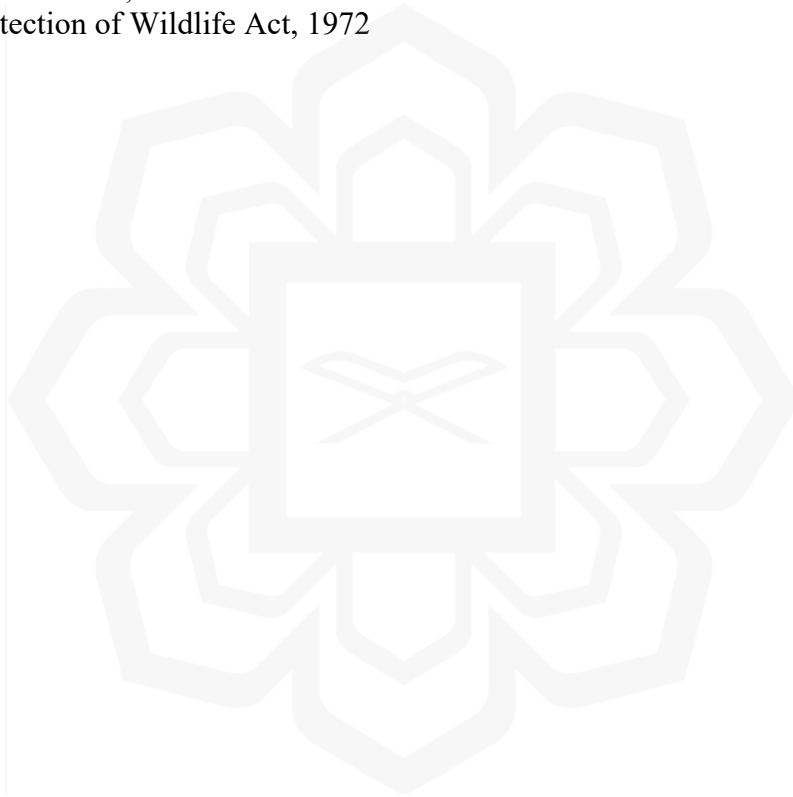
National Green Technology, 2009

National Park Act, 1980

Natural Resources Environmental Ordinance, 1997

The Fisheries Act, 1985

The Protection of Wildlife Act, 1972



## LIST OF SYMBOLS

$f^2$	Effect Size
$p$	P values
$R^2$	Coefficient of Multiple Determinations
$STDEV(B)$	Standard Deviation
$t$	T-Statistic



## LIST OF ABBREVIATIONS

AVE	Average Variance Extracted
CEB	Corporate Environmental Behaviour
CEM	Corporate Environmental Management
CEOs	Chief Executive Officers
CEP	Corporate Environmental Practices
CER	Corporate Environmental Responsibilities
CEV	Corporate Ethical Values
CFOs	Chief Financial Officers
CFP	Corporate Financial Practices
CMAAs	Chief Management Accountants
CR	Composite Reliability
CSR	Corporate Social Responsibilities
DOE	Department of Environment
EMPs	Environmental Management Practices
HTMT	Heterotrait-Monotrait
IT	Institutional Theory
ISO	International Organisation for Standardisation
IV	Independent Variable
IWV	Islamic Work Values
NGOs	Non-Governmental Organizations
OCB	Organisational Citizenship Behavior
PBC	Perceived Behavioural Control
PCA	Principle Components Analysis
PCs	Personal Computers
PLCs	Public Listed Companies
PLS SEM	Partial Least Square Structural Equation Modelling
SDGs	Sustainable Development Goals
SHRM	Strategic Human Resource Management (SHRM)
SMEs	Small or Medium-sized Enterprises
SN	Subjective Norms
SPSS	Statistical Package for the Social Sciences
SWB	Sustainable Work Behavior
TPB	Theory of Planned Behavior
TRA	Theory of Reasoned Action
UN	United Nation
VAB	Values-Attitudes-Behavior
VIF	Variance Inflation Fact

# CHAPTER ONE

## INTRODUCTION

### 1.1 BACKGROUND OF THE STUDY

The world of commerce is gradually climbing the environmental sustainability bandwagon. Major global environmental threats are rooted in unsustainable business practices that have led to major disasters, such as, global warming, over consumption of resources, unsustainable land practices, and loss of habitats (Burns, 2012; Steg & Vlek, 2009). Many of these threats arise from the lack of willpower in organisations to efficiently dispose of waste, and minimise usage of raw materials, to name a few. These affect the earth's environment and human lives. It is well noted that the natural environment is limited, and irresponsible consumption of its resources will eventually lead to its depletion. Increasing pressure from media and adverse publicity concerning various environmental disasters has increased the awareness and concerns of organisations on their responsibilities to ensure environmental protection by engaging in acceptable environmental practices (Souto & Rodriguez, 2015).

In order to resolve environmental issues, governments and non-governmental organisations (NGOs) throughout the world have made numerous efforts through the enactment of policies, standards, and initiatives to promote a sustainable environment (Sharma & Bansal, 2013; Banerjee, 2002). The United Nations, for example, has developed 17 key strategies in promoting sustainable development goals (SDGs) among communities around the world. The SDGs' main missions are to preserve the environment, ensure effective economic performance and achieve sustainable social development (Hossain, Nik Ahmad, & Siraj, 2017; Anderson, Ryan, Sonntag, Kavvada, & Friedl, 2017). In this new global agenda, there are a number of goals that focus on

environmental sustainability agenda. Among the SDGs that are related to environment protection are SDG 6 (concerning clean water and sanitation), SDG 7 (focusing on affordable and clean energy), SDG 12 (on responsible production and consumption processes), SDG 14 (which signifies the importance of life below water), and SDG 15 (which denotes the need to protect the environment). Goal number 12 (SDG 12), for example, specifically focuses on the activities of organisations. Its mission is to inspire and develop policies and practices that lead organisations to integrate their aim of pursuing economic growth with that of environmentally sustainable activities.

In implementing SDGs' agenda, governments play an important role to ensure continuous performance of companies, which are aligned with SDGs' goals. Acknowledging these initiatives has encouraged organisations to achieve sustainable consumption of natural resources and sound management of air and water, while simultaneously minimising the dissemination of waste and chemicals. Specifically, the SD Agenda 2030, developed by the United Nations (UN), has encouraged organisations to conduct more sustainable and resilient activities that exhibit the respect for the environment. This has intensified organisations' awareness on the importance of preserving the environment. Thus, numerous efforts have been made through the enactment of policies, standards, and initiatives to incorporate environmental initiatives (Baker, Hunt, & Andrews, 2006; Barraquier, 2011).

Understanding the benefits of these SDGs, the Malaysian government has also implemented and executed practical measures to curb environmental degradation. There has been a long history of environmental pollution and ecological degradation, specifically, in Malaysia. Problems, such as, landslides, flooding, forest fires, resources depletion, and excessive use of land, are examples of activities that have endangered the earth's habitats and exacerbated the country's way of life. These environmental

problems were due to organisations that put emphasis solely on economic growth (Begum, Sohag, Syed Abdullah, & Jaafar, 2015). These environmental concerns have led the government to introduce guidelines to reduce the negative impact on the environment. These policies and enactments have been created with the hope of being continuous guiding pillars to encourage active participation from both the government and private sectors to achieve the intended environmental goals.

The National Green Technology Policy was launched by the former Prime Minister on 24<sup>th</sup> July 2009. This policy was created with the aim, among others, to minimise the escalation of energy consumption in the attempt to promote sustainable development. Tax incentives together with monetary and non-monetary provisions have been introduced to stimulate the growth of green technologies. In 2012, the Malaysia Environmental Quality Act, 1974 was amended to improve enforcement on environment protection. Recently, Malaysia has extended its journey towards sounder sustainable development through the integration with the 2030 Agenda. These strategies reflect Malaysia's commitment towards sustainable goals on economic, social, and environmental elements. This underscores the Malaysian government's commitment and dedication to enhance its economic development without sacrificing the environment.

Nevertheless, environmental problems have not been mitigated; rather they are becoming more intensified (Thieme, Royne, Jha, Levy, & McEntee, 2015). Movement towards the betterment of the environment is currently viewed as a real challenge in Malaysia as both the industrial practices and social activities are not congruent with environmental sustainability (Rashid & Ibrahim, 2002; Yusof, Awang, & Iranmanesh, 2017). Studies have argued that, despite the initiatives made by the government, environmental degradation is still an enormous issue, mainly due to the activities of

organisations (Russell & Griffiths, 2008; Ones & Dilchert, 2012). Organisations' economic growth has led to various environmental problems, such as, water contamination, air pollution, inappropriate waste management, and forest destruction (Thieme, Royne, Jha, Levy, & McEntee, 2015). In Malaysia, the Department of Environment (DOE) has identified a wide range of environmental issues, such as, open-burning, black smoke emissions, water pollution, and industrial wastage, as among the major disasters committed by Malaysian organisations (Mokhtar, Jusoh, & Zulkifli, 2016). Thus, organisations have a major role to play in dealing with environmental issues. Organisations need to show their commitment and set examples in conducting environmentally friendly activities.

These have led researchers to explore the extent to which organisations have responded to these environmental issues. Most researchers have focused on environmental outcomes instead of the means and approaches to preserve the environment (Bansal & Gao, 2006). Russell and Griffiths (2008) further note that research on organisations' environmental issues have focused more on the macro level. Specifically, studies have concentrated on the effect of environmental actions on organisations' performance, such as, financial performance, competitive advantages, organisations' compliance with environmental regulations, and the continuous growth of organisations (Zibarras & Coan, 2015). The willingness of organisations to fulfil society's expectations has been observed as being one of the most dominant factors that motivates organisations to conduct environmental friendly practices (Zhang, Wang, & Lai, 2015; Delmas & Toffel, 2004). This is acknowledged to be an effective tool in informing and unveiling organisations' positive behaviour towards society as a whole. Majority of these studies highlighted that, the major concerns for organisations in

implementing environmental practices are 1) the need for them to reveal their ethical conduct, and, at the same time, 2) elevate their financial performance.

Many organisations failed to grasp the gist of managing the environment (Sueyoshi & Goto, 2010; Iwata & Okada, 2011). Organisations have been found to only report good environmental activities and initiatives undertaken by the businesses but fail to report the important matters relating to their activities that might impact the environment. This is because organisations that are perceived to damage the environment would be portrayed as irresponsible, which could subsequently affect their business performance (Berrone, Surroca, & Tribo, 2007; Papagiannakis & Lioukas, 2012; Greaves, Zibarras, & Stride, 2013). This signifies a gap between the intention of the organisations to perform environmental practices and their actual performance in executing these practices.

Awareness on the importance of environmental sustainability and society's growing interest in environmental issues have forced organisations to reconsider their objectives and management procedures (Eugenio, Lourenco, & Morais, 2010). Many studies have mainly focused on organisations' behaviour. This study aims to focus on managers' intention and behaviour. According to Davis, Le and Coy (2011), no matter how companies commit to environmental improvement activities, ultimately, they will rely on their managers' behaviour. This is because the environmental policies and level of training and motivation towards the betterment of the environment are determined by managers (Govindarajulu & Daily, 2004). Hence, managers who believe in the importance of preserving the environment and who are willing to invest in environmental activities can change their organisations' environmental conduct. Specifically, managers' interventions could lead the organisation to focus on the benefits of preserving the natural environment, and extend their efforts in it.

This indicates the importance of organisations to have managers who hold high principles pertaining to the need to protect the environment. Information regarding the influence of managers' personal behaviour in determining organisations' business decisions has been studied in depth (Barraquier, 2011). As noted by Ones and Dilchert (2012), environmental problems are mainly caused by human activities; therefore, changing human behaviour can assist in confronting this issue. An organisation should balance economic development with good environmental practices. This leads to the demand (and requirement) for Malaysian organisations to have managers who are environmentally conscientious. Managers whom concerned on the importance of protecting the environment, and have high aim to re-valuate and develop adequate policies and trainings to minimise harmful environmental impact.

Few studies have examined the environmentally responsible behaviour of managers in Public Listed Companies (PLCs) in Malaysia. It is highly acknowledged that managers in PLCs have an important role in determining the policies of their organisations. Their decisions have a high impact on organisations' practices as these reflect the image of the organisations. Therefore, there is an increased need to understand managers' environmentally responsible behaviour to assist companies to gain some insights into the antecedents that lead them to carry out pro-environmental behaviour.

## **1.2 MOTIVATION OF THE STUDY**

Organisations' successful implementation of their environmental management strategies depends on how managers execute environmental friendly strategies. Even though many environmentally friendly practices are applied in organisations, environmental problems still exist, driven by businesses' and industries' activities.

It is noted that in the area of organisational process change, many studies focus on the companies' visions (Bansal & Gao, 2006; Russell & Griffiths, 2008). A Chief Executive Officer (CEO) is known to hold primary responsibilities in corporate decision making process. Hence, a CEO is highly accountable in developing and implementing organisations' environmental practices. Nevertheless, there are studies which found that CEOs do not really lead, they just display their personal attributes as a leader (Goel & Thakor, 2008). Furthermore, many studies have focused on CEOs as being accountable in changing organisational practices, however, very limited studies have examined middle managers' behaviour (Godos-Diez, Fernandez-Gago, & Martinez-Campillo, 2011). This study focuses on the important roles hold by managers. According to Ma et al., (2019) strong managers are acknowledged to hold significant influence in changing organisational structure and business decisions. Managers with high leadership skills are able to visualize and influence their organisations aims and movement (Ma, Zhang, Yin, & Wang, 2019). Hence, more study is needed to provide further insight on this issue. Understanding their personal traits, and behaviour can assist in evaluating the direction of their decision-making process.

Hence, to achieve companies' visions, it is necessary to understand managers' behaviour. Managers are those who will envisage and deliver organisational missions. Organisations may have excellent visions but unless these visions are upheld by managers, then the expected goals are unachievable (Daily & Huang, 2001; Davis, Le, & Coy, 2011). Therefore, managers with the right characteristics can be a catalyst towards organisation's directions, goals and mission in preserving the environment (Wesselink, Blok, & Ringersma, 2017). Even though it is acknowledged that managers' intentions and behaviour, to preserve the environment in business areas, are beyond their control, managers do have a very critical role in influencing organisation's aims