

DETERMINANTS OF WORKPLACE PRO-ENVIRONMENTAL BEHAVIOR
(WPEB) AMONG MALAYSIA PUBLIC SERVANTS

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ABSTRACT

Green growth can be achieved through pro-environmental behavior thru identifying its key determinants among Malaysian public servants. This is because public servants are the largest workforce in Malaysia. Moreover, studies on pro-environmental behavior among the Malaysian public servant is still limited, fragmented, and focusing on direct effect. Therefore, this study was conducted to identify the determinants that influence workplace pro-environmental behavior (WPEB) among Malaysian public servants using a Systematic Literature Review (SLR) and confirmed by a preliminary study. It also examines the relationship between organisational determinants [environmental transformational leadership (ETL), organisational support toward the environment (POSE), and co-worker influence (CA)] and individual determinants [environmental harmonious passion (EHP), and environmental concern (EC)] on workplace pro-environmental behavior (WPEB) among Malaysian public servants. This study also investigates the mediating effects of two individual determinants (EHP and EC). The framework of this study is supported by Stimuli-Organism-Response (SOR) Theory. A total of 1000 survey questionnaires were distributed via email to respondents consisting of public servants from 14 ministries and government departments located at the Government Administrative Centre, Putrajaya using stratified sampling technique. The response rate was 62%. Measurement model assessment using Partial Least Squares-Structural Equation Modeling (PLS-SEM) showed satisfactory measurement in terms of internal consistency, convergent validity, and discriminant validity. Hypotheses testing indicated all organisational determinants (ETL, POSE, and CA) significantly influence WPEB. Nevertheless, among these three variables, co-worker influence (CA) had the strongest relationship with workplace pro-environmental behavior (WPEB). For individual determinants, only EHP significantly influences WPEB. However, EC does not significantly influence WPEB. Mediation analysis showed that EHP significantly mediates the relationship between the three organisational determinants (ETL, POSE, and CA) and WPEB. Conversely, environmental concern (EC) did not mediate the relationship between organisational determinants (ETL, POSE, and CA) and WPEB. 58.2% variance in WPEB is explained by EHP, while 56.1% variance in WPEB is explained by EC. More importantly, this study provides insight to assist policymakers in formulating strategies and effective policies to foster pro-environmental behavior among public servants and, as a result, achieve Malaysia's Green Growth goal.

ABSTRAK

Pertumbuhan hijau dapat dicapai dengan mengenal pasti penentu utama tingkah laku pro-alam sekitar (WPEB) di kalangan penjawat awam Malaysia. Ini kerana, penjawat awam merupakan penyumbang tenaga kerja terbesar di Malaysia. Selain itu, kajian mengenai tingkah laku pro-alam sekitar di kalangan penjawat awam Malaysia masih terhad, samar dan menfokuskan kepada kesan secara langsung. Oleh itu, kajian ini dilaksanakan untuk mengenal pasti penentu yang mempengaruhi tingkah laku pro-alam sekitar di tempat kerja dengan menggunakan kaedah Literatur Sistematis (SLR) dan disahkan melalui kajian tinjauan. Kajian ini juga mengkaji hubungan diantara penentu organisasi [kepimpinan transformasi alam sekitar (ETL), sokongan organisasi terhadap alam sekitar (POSE) dan juga pengaruh rakan sekerja (CA)] dan penentu individu [semangat harmoni kecintaan alam sekitar (EHP) dan keprihatinan terhadap alam sekitar (EC)] dengan WPEB di kalangan penjawat awam Malaysia. Kajian ini turut mengkaji kesan pengantara dua penentu individu (EHP dan EC). Kerangka kajian ini disokong oleh Teori Stimuli-Tindak Balas-Organisma (SOR). Sejumlah 1000 borang soal selidik telah diedarkan melalui emel kepada responden yang terdiri daripada penjawat awam dari 14 kementerian dan jabatan kerajaan di Pusat Pentadbiran Kerajaan, Putrajaya dengan menggunakan teknik persampelan bestrata. Kadar maklumbalas adalah sebanyak 62%. Penilaian pengukuran model menggunakan perisian *Partial Least Square-Structural Model (PLS-SEM)* menunjukkan keputusan pengukuran yang memuaskan dari segi ketekalan dalaman, kesahan konvergen, dan kesahan diskriminasi. Hasil ujian hipotesis kajian menunjukkan kesemua penentu organisasi (ETL, POSE dan CA) mempengaruhi WPEB dengan ketara. Namun begitu, di antara ketiga-tiga pemboleh ubah ini, pengaruh rakan sekerja (CA) mempunyai hubungan yang paling kuat dengan WPEB. Bagi faktor penentu individu, hanya EHP mempengaruhi WPEB dengan ketara. Sebaliknya, EC tidak mempengaruhi WPEB dengan ketara. Hasil analisa pengantara pula menunjukkan EHP menjadi pengantara ketara di antara tiga faktor penentu organisasi (ETL, POSE dan CA) dengan WPEB. Sebaliknya, EC tidak menjadi pengantara hubungan di antara penentu organisasi (ETL, POSE dan CA) dengan WPEB. 58.2% varians dalam WPEB dijelaskan oleh EHP, manakala 56.1 varians dalam WPEB dijelaskan oleh EC. Lebih penting lagi, kajian ini dapat menyumbang kepada penggubal dasar dalam merangka strategi dan dasar yang berkesan untuk memupuk tingkah laku pro-alam sekitar dalam kalangan penjawat awam dan, seterusnya mencapai matlamat pertumbuhan Hijau Malaysia.

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LIST OF SYMBOLS AND ABBREVIATIONS

MOHE	-	Ministry of Higher Education
UTHM	-	Universiti Tun Hussein Onn Malaysia.
WPEB	-	Workplace Pro-environmental Behaviour
SLR	-	Systematic Literature Review
ETL	-	Environmental Transformational Leadership
POSE	-	Perceived Organisation Support Towards Environment
CA	-	Co-worker Influence
EC	-	Environmental Concern
EHP	-	Environment Harmonious Passion
SOR	-	Stimuli-Organism-Response
PLS-SEM	-	Partial Least Square Structural Equation Modeling
R^2	-	Coefficient of Determination
F^2	-	Effect size
Q^2	-	Predictive Relevance
GHG	-	Greenhouse Gas Emissions
CO^2	-	Carbon Dioxide

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PT TA UTHM
PERPUSTAKAAN TUN AMINAH

CHAPTER 1

INTRODUCTION

1.1 Introduction

This chapter describes a brief research background related to the topic determinants of workplace pro-environmental behavior (WPEB) among Malaysian public servants and highlights the research problem, which further leads to research questions and research objectives. The research scope is followed by the significance of the research and the research contribution is discussed in the next subsection. The final section concludes this chapter with a summary of the thesis structure.

1.2 Background of research

Malaysia is embarking on a clear direction to sustain the standards and reliability of sustainability, and it is expressly stated in the 11th Malaysia Plan (2016-2020) and 12th Malaysia Plan (2021-2025) that this will be achieved through green growth initiatives. The World Bank Report (2012) defined green growth as “growth that is effective in using natural resources, clean in a way that it lessens the pollution and hazardous environmental impacts, and strong in a manner that it accounts for natural hazards and the role of environmental management and natural capital in avoiding physical disasters”. A green growth direction will protect the country’s natural endowments for future generations, reduce greenhouse gas (GHG) emissions and improve environmental quality for better well-being. Therefore, green growth is

perceived as one of the strategic thrusts that help in enabling Malaysia to stay one step ahead in facing challenges and opportunities in the fast-changing global and political landscape. Numerous efforts were undertaken by the Malaysian government to strengthen the enabling environment for green growth. The government shows its commitment to green growth by affirming that it will provide an effective policy and institutional framework for green growth. Table 1.1 shows the initiatives at the various levels that have been taken by the Malaysian government to accomplish the targeted goals and objectives. However, the achievement of sustainability initiatives does not simply rely upon adoption of policies and different initiatives organized by the government. The empowering environment for green growth must include a long-term responsibility from all stakeholders, businesses, citizens, and public servants. Among the stakeholders, public servants are the basic group in guaranteeing the successful usage of different developmental policies and projects, as they are the backbone of a country. Moreover, they spoke to the whole population of Malaysia thus exemplified diversity.

Table 1.1: Government initiatives for green growth

Institutional Framework	Policies & Regulation	Promotion, Industry & Public Awareness
Malaysian Green Technology MTHPI SEDA Yayasan Hijau	National Renewable Energy Policy and Action Plan Renewable Energy Act National Climate Change Policy National Automotive Policy	IGEM Green Carnival Malaysian green technology awards
Fiscal Instrument	Rating Tool	Labelling & Certification
Green technology financing scheme A feed-in tariff (Fit) Incentives for RE & EE Incentives for GBI certified	Low Carbon City Framework (LCCF) Assessment Tool Green Building Index Green Pass Green RE	Eco Labelling MyHIJAU Mark Energy Efficient Rating and Labelling Scheme Water Efficient Product Labelling Scheme
Human Capital Development	MyHIJAU Programme	Green Township- Pilot Projects
MGTC = Industry Lead Body for GT AEMAS MyHijau Youth Camp SME Development Program	MyHIJAU Procurement MyHIJAU Mark MyHIJAU Directory MyHIJAU SME	Putrajaya Cyberjaya Subang Jaya Petaling Jaya Hang Tuah Jaya Iskandar Malaysia

Realizing the importance of public sector involvement, the Malaysian Administrative Modernization and Management Planning Unit (MAMPU) has introduced an initiative that specified the public sector involvement toward green growth focusing on nurturing green culture at the workplace. Therefore, in January 2014, MAMPU introduced an initiative to improve the existing Public Sector 5S Norm in a rebranding exercise presented by the Public Sector Conducive Ecosystem or Ekosistem Kondusif Sektor Awam (EKSA). This move is aligned with efforts to improve the high-performance organisational culture of public sector organizations by providing public servants with a useful environment, a culture of work, and positive values. The rebranding is designed to engage public sector entities to broaden the adoption of the Conducive Ecosystem in public sector organizations; improve their corporate image; demonstrate a culture of creativity and change in line with stakeholder expectations; promote efforts to support the Go Green campaign and ensure that auditing components respond to the wishes of the various public sector organizations. One of EKSA's main objectives is to create a green and helpful biological system through the culture of green practices in the public organization workplace. The culture of green practices emphasizes that public sector organizations implement programs such as recycling, energy skills to save resources, and adopt other green practices categorized as pro-environmental behavior. These practices have already been implemented since 2014. Based on the preliminary interview conducted among the EKSA key persons, however they admitted that the level of public servant awareness on green practices in the workplace is still at moderate level.

Throughout this study, the term “public servant” will be used which refer to employees working in Malaysian public organizations. In Malaysia, the Public Service is the biggest employer in the country. The Federal Constitution (Article 132) characterizes “Public Servants as comprising of (i) General Public Service of the Federation; (ii) Public Service of the States; (iii) Joint public service; (iv) Education Service; (v) Judicial and Legal Service; (vi) Police Force; and (vii) Armed Forces (Mansoor & Ariffin, 2014). The motivation to choose public servants as the respondents in this study is because Malaysian’s public servants form a large number of 1.7 million employees (Abas, 2019), and the Malaysian public servants- to-

population ratio is 1:20, which is reportedly among the highest in the world (Yeap, 2019). Therefore, with the largest employee population in Malaysia, it is hoped that public servants could play their part by contributing to pro-environmental behavior in the workplace (WPEB). WPEB is defined as a concept that defines various environmental-coordinated actions including a wide range of voluntary or recommended actions taken by people at work aimed at securing the natural environment or improving organisational practices in this area (Saifulina & Carballo-Penela, 2016). Tsai, Stritch, and Christensen (2016) have revealed that employee level pro-environmentally friendly behavior can help to moderate public sector influence on the natural environment and can also conserve organization finances by monitoring job-related assets, such as water, paper, and utilities.

In a nutshell, green growth can be achieved through environmental sustainability which can be translated into pro-environmental behavior at the individual level. This is consistent with Razak (2019), who mentioned that one of the strategies for achieving the green growth goal is to introduce a green practice into a public sector organisation through employee behavioral change. This debate is also favored by Safari *et al.* (2018) who stated that pro-environmental behavior is one of the preventive behaviors and strategies that can be implemented by informing employees about potential environmental implications and encouraging them to think about how their actions affect the environment. Therefore, necessary efforts in identifying the key determinants of pro-environmental behavior among Malaysian public servants should be taken to realize Malaysia's green growth achievement by changing public servant behavior to more pro-environmental behavior. Consequently, it is expected that workplace pro-environmental behavior (WPEB) will significantly have a positive influence on employee actions on the environment.

1.3 Research problem

In this section, the researcher has divided the research problem into three subsections. The discussion begins with workplace pro-environmental issues, followed by a discussion on empirical gaps and theoretical issues in the next subsection.

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PTTA UTHM
PERPUSTAKAAN TUNKU TUN AMINAH

VITA

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