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A CONCEPTUAL MODEL FOR PRO-ENVIRONMENTAL BEHAVIOUR IN MALAYSIAN EDUCATIONAL CONTEXT

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Abstract: The main objective of this paper is to construct a conceptual model that employs an integrative approach to enhance our comprehension of employees' pro-environmental behaviour (PEB). The foundation of this model draws upon the Social Cognitive Theory, which serves as a valuable platform for further research to provide a comprehensive and in-depth exploration of the factors influencing PEB in the workplace. The paper not only reviews existing theoretical frameworks but also takes an integrative perspective to formulate a model aimed at unravelling the complexities of PEB within a workplace context. Specifically, the authors have devised a conceptual model that explores the relationship between employees' green self-efficacy and their engagement in PEB. Additionally, the paper posits that green commitment might function as a mediating factor in this relationship, a facet that has been overlooked in previous research. The proposed model holds the promise of enriching future studies by offering a holistic understanding of the determinants of employees' PEB. It also sheds light on the degree to which this behaviour is influenced by organisational motivators. In essence, this paper sets the stage for a more comprehensive exploration of the intricate dynamics surrounding PEB in organisational settings.

Keywords: Pro-environmental behaviour, green, organisational, employees, social cognitive theory.

Introduction

In contemporary times, a multitude of environmental concerns such as climate change, environmental pollution and the depletion of biodiversity have become increasingly prevalent. The primary driver of these issues is human behaviour, as Lange and Dewitte (2019) pointed out. However, the adverse effects of human behaviour can be mitigated through the adoption of pro-environment behaviours (PEB). PEB encompass a range of actions taken by individuals aimed at making deliberate efforts to bring about positive environmental changes and mitigate the consequences of human negligence (Carmi *et al.*, 2015). These behaviours include activities such as recycling (e.g., reusing paper, plastic, glass, and containers), water conservation (e.g., reducing water usage during showers and handwashing), energy conservation (e.g., turning off lights when not in use), reuse (e.g., opting for reusable cups), utilising public transportation, biking, walking, proper disposal of non-recyclable waste, reducing paper consumption (e.g., double-sided printing), and opting for eco-friendly products in their purchasing and consumption habits (Bissing-Olson *et al.*, 2016).

Higher education institutions (HEIs) are increasingly functioning not only as centres of learning but also as business organisations (Alim & Rashid, 2022; Shahidan *et al*., 2022), as noted by Al-Zawahreh *et al*., (2019); Foster *et al*., (2023), and as small cities, as highlighted by Saadatian *et al*., (2013). The issue of carbon emissions becomes more pronounced in HEIs with large populations and extensive physical infrastructure, often relying on vehicular transport within their sprawling campuses. Additionally, delivering educational services and administrative functions within these institutions typically results in a significant energy demand for lighting and cooling equipment (Abdul-Azeez & Ho, 2016).

Muniandy and Anuar (2020) have argued that the insufficient engagement in environmental sustainability practices among university stakeholders, particularly academics, poses a challenge to the effective implementation of environmentally friendly practices within HEIs. Consequently, there exists a gap between the aspirations for environmental sustainability and the active involvement of academic staff in HEIs. In the realm of university education for sustainable development, educators and students share a collective responsibility for the success of teaching and learning processes. Simultaneously, it is crucial to foster collaboration between various university constituents, not only because participants within the university benefit from education for sustainable development but also because it can lead to positive impacts extending beyond the campus (HEASC, 2016; Hassan & Noor, 2017). Moreover, there is an urgent need to motivate individuals to embrace eco-friendly lifestyles to protect the environment and mitigate the adverse consequences of global warming (Shittu, 2020; Whitmarsh & O'Neill, 2010). Of particular interest are the environmental knowledge, attitudes, skills, values, and behaviours of university students, given that higher education aims to equip students for significant societal roles as researchers, professionals, and future decision-makers (Vicente-Molina *et al*., 2013, 2018; Valor *et al*., 2020).

Hence, PEB serves as a cornerstone in realising an organisation's sustainability initiatives and preventing the natural environment from degrading (Ying *et al*., 2020). Such behaviour of employees refers to their "discretionary actions that contribute to the environmental sustainability of the employer organisation but are not under the control of any formal environmental management policies or system" (Kim *et al.*, 2017, p. 1337). According to Kim *et al*. (2019), PEB of employees helps to improve firm performance and also assists the organisation in attaining their environmental goals such as waste minimisation (Usman & Makhdum, 2021; Abbass *et al*., 2022; Kim *et al*., 2019).

Green commitment is a new theoretical concept to be studied with environmental behaviour. Therefore, the current literature lacks conceptualisation of green commitment, although limited studies have focused on empirically testing green commitment and green behaviour (Afsar & Umrani, 2019). To date, very few studies have focused on employees' environmental commitment, which helps to enhance knowledge in a particular field (Pham *et al*., 2019; Karoso *et al*., 2022). Further, green commitment has not been studied before at an individual level, and the literature lacks an accurate conceptualisation of green commitment (Afsar & Umrani, 2019). Green self-efficacy is predominantly significant in integrating behaviour/personality traits along with environmental aspects and, therefore, remains an influential factor to increase intentions of individuals to practice PEB. Hence, green self-efficacy emerged as a new thought in environmental issues, defining confidence in a person's aptitude to start up and implement environment-related goals (Aeknarajindawat *et al*., 2019).

Consequently, PEB plays a pivotal role in realising an organisation's sustainability goals and preventing environmental degradation (Ying *et al*., 2020; Rainanto *et al*., 2022). Employee behaviour related to PEB can be described as their voluntary actions that contribute to the environmental sustainability of their employer organisation, even when not governed by formal environmental management policies or systems (Kim *et al*., 2017). Kim *et al*. (2019) further highlight that the adoption of PEB by employees not only enhances performance but also aids in the achievement of the firms' environmental objectives, such as waste reduction (Usman & Makhdum, 2021; Abbass *et al*., 2022; Kim *et al.*, 2019).

The concept of "green commitment" represents a relatively novel area of study within the realm of environmental behaviour. Despite limited empirical research on green commitment and green behaviour, as noted by Afsar and Umrani (2019), there is a notable gap in the

current literature regarding the conceptualisation or definition of green commitment. Furthermore, only a few studies have explored employees' environmental commitment, contributing to the dearth of knowledge in this specific field (Pham *et al*., 2019). Green commitment has yet to be examined at the individual level, and there is a need for a more precise conceptualisation of this concept.

Green self-efficacy holds significant importance in integrating personality traits with environmental considerations and serves as a powerful determinant in increasing individuals' intentions to engage in PEB. This concept, emerging as a new perspective in the environmental discourse, pertains to an individual's confidence in their ability to initiate and carry out environmentally related goals, (Aeknarajindawat *et al*., 2019).

To fill this gap in the literature, we suggest that the effects of green self-efficacy on PEB vary with employees' green commitment level. Hence, we propose that employees' green commitment mediates the positive influence of green self-efficacy on PEB. The aim of this paper was therefore:

- to develop a conceptual framework to measure PEB.
- to propose a role for green self-efficacy in this behaviour; and
- to propose a mediating role for green commitment on the relationship between intention to perform this behaviour and the behaviour itself.

Proposition Development

Underpinning Theory

Social Cognitive Theory (SCT) is a widely recognized theoretical framework that researchers have employed to delve into the intricacies of employee behaviour, encompassing their cognitive, motivational, and emotional processes, as noted by Farooq *et al.* (2021). Built upon Albert Bandura's SCT, which was first introduced in 1977, the concept of self-efficacy holds a central role in influencing both individual accomplishments and the motivation and well-being of employees. SCT underscores the pivotal role played by self-efficacy beliefs as essential psychological drivers that instigate behavioural changes, as highlighted by Carter *et al.* (2018). This theory also posits that self-efficacy serves as a critical link connecting the external environment and human behaviour (He *et al*., 2020; Rainanto *et al.*, 2022). Consequently, it can be inferred that employees' self-efficacy is likely to experience improvement when they are consistently motivated through clearly defined goal setting, in accordance with Bandura's observations in 1989.

Green Self-efficacy and Green Commitment

Self-efficacy, as defined by Bandura (1997), represents an individual's belief in their own abilities to perform specific actions and successfully carry out activities aimed at achieving goals. In the context of environmental responsibility, green self-efficacy denotes an individual's confidence in their capacity to take actions that contribute to enhancing sustainability and environmental quality (Huang, 2016). According to Chen *et al*. (2014), green self-efficacy can be defined as the belief in an individual's capabilities to plan and execute the necessary steps to accomplish environmental objectives, essentially reflecting employees' self-assessment of their competence (Syafrizal, 2023) in achieving pro-environmental goals.

In the environmental context, green commitment has been characterised as an employee's voluntary dedication to environmental concerns within the workplace, signifying their motivation and level of commitment to environmental initiatives (Luu, 2018 & Tuan, 2019). Another perspective on green commitment views it as a mindset that reflects an individual's genuine concerns about the environment in the workplace, as articulated by Afsar and Umrani (2020). In summary, Ansari *et al*. (2021) succinctly described employee green commitment as "motivation driven by a sense of obligation to preserve the natural environment".

Bandura's argument in 1977 emphasised the significant impact of self-efficacy on employees' choices, efforts, and consistency. Similarly, Stajkovic (2006) envisioned that high confidence in one's capabilities fosters the belief that goals can be achieved, thereby motivating individuals to take relevant actions. Consequently, self-efficacy serves as a catalyst for personal initiative. SCT (He *et al*., 2020) positions self-efficacy as a pivotal link connecting the external environment to an individual's behaviour. This underscores the notion that self-efficacy is likely to be enhanced when employees receive consistent motivation through a clear objective-setting (Bandura, 1989). Hence, the study posits a positive correlation between green self-efficacy and green commitment, suggesting that individuals with greater confidence in their environmental abilities are more likely to demonstrate commitment to environmental goals.

Proposition 1: Green self-efficacy influences green commitment.

Green Commitment and Pro-environmental Behaviour

PEB plays a fundamental role in actualising the sustainability goals of organisations (Faraz *et al*., 2021). When employees demonstrate a high level of commitment to their organisation, they go beyond their personal ambitions, goals, and interests to actively pursue and achieve the broader organisational objectives (Ansari *et al*., 2021). This commitment to a cause, such as environmental sustainability, hinges on an individual's psychological attachment to and alignment with the organisation's goals and values, as well as a sense of responsibility toward the cause (Kim *et al*., 2019). Research by Liu and Lin (2015) demonstrated that undergraduate students in Taiwan who possessed a stronger environmental mental model exhibited a higher emotional connection and commitment to the environment. This finding suggests that having a deep understanding and emotional connection to environmental issues is a crucial factor in fostering PEB.

According to Tuan, employees who display environmental commitment tend to engage in eco-friendly practices within the organisation and inspire others to participate in environmental initiatives (Tuan, 2019; Fu *et al*., 2022). Personal involvement and attachment to environmental concerns have a positive impact on employees' engagement in PEB. Consequently, a higher level of employee green commitment is associated with PEB actions such as recycling, conserving energy, turning off unnecessary lights, and displaying an overall concern for the natural environment in the workplace, as discussed by Afsar and Umrani (2020). Furthermore, through green commitment, employees' environmental awareness is heightened, which, in turn, contributes to environmentally friendly behaviours (Baca-Motes *et al*., 2013; Kim *et al*., 2015). Therefore, commitment to the natural environment serves as a predictive factor for individuals' PEB. Consequently, this research proposes the following relationship:

Proposition 2: Green commitment influences pro-environmental behaviour.

Mediating Effect of Green Commitment

Previous research has consistently demonstrated that green self-efficacy, a form of self-belief related to environmental actions, exerts a positive influence on PEB. As green self-efficacy improves, individuals become more motivated to engage in PEB (Meinhold *et al*., 2005). In this study, green self-efficacy was operationalised as an employee's confidence in their ability to demonstrate PEB, aligning with the definition provided by Chen *et al*. (2015). Green self-efficacy builds upon general self-efficacy by incorporating environmental considerations (Faras *et al*., 2021). Previous research in the domains of climate change and sustainability has highlighted the crucial role of green self-efficacy in promoting proactive problem-solving and positive behavioural intentions, including PEB (Abraham *et al*., 2015). This includes employees engaging in actions like maintenance, making eco-friendly purchases, and participating in recycling efforts.

Additionally, individuals with high green self-efficacy are more inclined to share pro-environmental messages to influence others and express their intentions to communicate with individuals striving to adapt to a more environmentally conscious social environment (Huang, 2016).

Drawing from SCT proposed by Bandura (1986) and (1989), it is further argued that green self-efficacy can shape PEB, thereby fostering subsequent green commitment among employees. Terrier and Marfaing (2015) propose that environmental commitment enhances individuals' self-perception, motivating them to adopt environmentally friendly behaviours. Employees in their daily routines and work environments may not be as attentive to pro-environmental issues unless they possess a strong commitment and passion for the environment. Therefore, employees' green commitment better elucidates the relationship between green self-efficacy and PEB. In summary, green self-efficacy sensitises employees to environmental concerns and enhances PEB by instilling a greater sense of self-belief in their ability to address environmental challenges innovatively and creatively. Consequently, the proposed relationship is as follows:

Proposition 3: Green commitment mediates the relationship between green self-efficacy and pro-environmental behaviours.

Proposed Framework for Pro-environmental Behaviour

Figure 1: Conceptual framework of pro-environmental behaviour

Conclusion

Empirical testing of the PEB model within organisations has the potential to yield intriguing insights. The present study focuses on the impact of green self-efficacy on PEB, considering the mediating influence of green commitment. Achieving and maintaining sustainable environmental performance within organisations necessitates the implementation of effective green practices. Therefore, it is crucial to understand the extent and depth of green practices within organisations, as this understanding can contribute to improved environmental performance.

Universities also play a vital role in fostering environmental commitment among academics. This commitment is essential for achieving the organisation's green objectives. Furthermore, green commitment has a positive influence on the PEB of employees and green self-efficacy can effectively enhance employee behaviour. In order to succeed in organisational sustainability initiatives, it is imperative to involve employees in eco-friendly behaviours. Their commitment to environmentally responsible actions is key to advancing the organisation's environmental goals.

Practical Implications

This paper addresses several key considerations for organisations. Firstly, acknowledging the significance of employee PEB can empower organisations to formulate more comprehensive strategies and policies. Secondly, the provided framework carries valuable practical implications for top management seeking to advance sustainability initiatives. It provides essential insights to top management on the role of place attachment in encouraging environmentally responsible behaviours. Furthermore, the framework offers practical guidance for top management committed to sustainability efforts, shedding light on the

importance of green commitment in promoting PEB. It is anticipated that once empirically validated, these findings will prove beneficial to top management in cultivating PEB within educational settings.

Future Research

This paper has some limitations despite its theoretical and practical contributions to the field. It does not empirically test the framework and the emerging propositions. Additionally, the proposed conceptual PEB framework should be applied to different environments to enhance understanding of the role of PEB practices on sustainable performance in a variety of settings. Finally, this study focused on illustrating the impacts of green efficacy on PEB using green commitment as a mediator. Additional studies may wish to focus on important topics related to this sector, such as green self-efficacy, examining the role of PEB and include a mediating factor related to the educational sector (e.g. environmental consciousness, green lifestyle) few studies have been conducted in this context (Foster *et al*., 2022).

References

Abbass, K., Sharif, A., Song, H., Ali, M. T., Khan, F., & Amin, N. (2022). Do geopolitical oil price risk, global macroeconomic fundamentals relate Islamic and conventional stock market? Empirical evidence from QARDL approach. *Resources Policy*, *77*, 102730.

Aeknarajindawat, N., & Jermsittiparsert, K. (2019). The mediating impact of green self-efficacy and green mindfulness in the relationship between green shared vision and green creativity among the manufacturing firms in Thai sports industry. *Journal of Human Sport and Exercise, 14*, S2262-S2275. http://dx.doi.org/10.14198/jhse.2019.14.Proc5.43

Afsar, B., & Umrani, W. A. (2020). Corporate social responsibility and pro-environmental behavior at workplace: The role of moral reflectiveness, coworker advocacy, and environmental commitment. *Corporate Social Responsibility and Environmental Management, 27*(1), 109-125. https://doi.org/10.1002/csr.1777.

Alim, N. S. S. M., & Rashid, N. K. A. (2022). Financial literacy and behaviour among Universiti Malaysia Terengganu's students during the COVID-19 pandemic. *International Journal of Advances in Social Sciences and Humanities*, *1*(2), 73-81. https://doi.org/10.56225/ijassh.v1i2.42

Ansari, N. Y., Farrukh, M., & Raza, A. (2021). Green human resource management and employees pro-environmental behaviours: Examining the underlying mechanism. *Corporate Social Responsibility and Environmental Management, 28*(1), 229-238. https://doi.org/10.1002/csr.2044.

Bandura, A. (1997). *Self-efficacy: The exercise of control.* New York: W. H. Freeman & Co. https://www.academia.edu/28274869/Albert_Bandura_Self_Efficacy_The_Exercise_of_Control_W_H_Freeman_and_Co_1997_pdf

Bissing-Olson, M. J., Fielding, K. S., & Iyer, A. (2016). Experiences of pride, not guilt, predict pro-environmental behavior when pro-environmental descriptive norms are more positive. *Journal of Environmental Psychology*, *45*, 145-153.

Carmi, N., Arnon, S., & Orion, N. (2015). Transforming environmental knowledge into behavior: The mediating role of environmental emotions. *The Journal of Environmental Education*, *46*(3), 183-201.

Carter, W. R., Nesbit, P. L., Badham, R. J., Parker, S. K., Carter, W. R., Nesbit, P. L., Badham, R. J., & Parker, S. K. (2018). The effects of employee engagement and self-efficacy on job performance: A longitudinal field study. *The International Journal of Human Resource Management, 29*(17), 2483-2502. https://doi.org/10.1080/09585192.2016.1244096

Chen, Y. S., Chang, C. H., Yeh, S. L., & Cheng, H. I. (2015). Green shared vision and green creativity: The mediation roles of green mindfulness and green self-efficacy. *Quality & Quantity*, *49*, 1169-1184.

Faraz, N. A., Ahmed, F., Ying, M., & Mehmood, S. A. (2021). The interplay of green servant leadership, self-efficacy, and intrinsic motivation in predicting employees' pro-environmental behavior. *Corporate Social Responsibility and Environmental Management, 28*(4), 1171-1184. doi:10.1002/csr.2115

Farooq, R., Zhang, Z., Talwar, S., & Dhir, A. (2021). Do green human resource management and self-efficacy facilitate green creativity? A study of luxury hotels and resorts. *Journal of Sustainable Tourism, 30*(4), 824-845. https://doi.org/10.1080/09669582.2021.1891239

Foster, B., Muhammad, Z., Yusliza, M. Y., Faezah, J. N., Johansyah, M. D., Yong, J. Y. & Fawehinmi, O. (2022). Determinants of pro-environmental behaviour in the workplace. *Sustainability, 14*(8), 4420.

Foster, B., Purnama, S., Reyta, F., & Saputra, J. (2023). Antecedents of Higher Education quality in the era of Industrial Revolution 4.0. *Frontiers in Business and Economics*, *2*(2), 69-79. https://doi.org/10.56225/finbe.v2i2.222

Hassan, N., & Noor, M. F. M. (2017). Campus sustainability: The need for change. *Journal of BIMP-EAGA Regional Development*, *3*(1), 13-22.

He, P., Zhou, Q., Zhao, H., Jiang, C., & Wu, Y. J. (2020). Compulsory citizenship behavior and employee creativity: Creative self-efficacy as a mediator and negative affect as a moderator. *Frontiers in Psychology*, *11*, 1640.

Higher Education Associations Sustainability Consortium (HEASC). (2016). *Sustainable development primer for higher education presidents, chancellors, trustees and senior leaders.* Accessed on August 15th, 2023, from https://hub.aashe.org/browse/publication/14582/Sustainable-Development-Primer-for-Higher-Education-Presidents-Chancellors-Trustees-and-Senior-Leaders

Huang, H. (2016). Media use, environmental beliefs, self-efficacy, and pro-environmental behavior. *Journal of Business Research, 69*(6), 2206-2212. https://doi.org/10.1016/j.jbusres.2015.12.031

Karoso, S., Riinawati, R., Ilham, R. N., Rais, R. G. P., & Latifa, D. (2022). Analyzing the relationship of work environment and quality of work life on employee performance: The mediating role of organizational commitment. *Journal of Madani Society*, *1*(3), 167-173. https://doi.org/10.56225/jmsc.v1i3.140

Kim, A., Kim, Y., Han, K., Jackson, S. E., & Ployhart, R. E. (2017). Multilevel influences on voluntary workplace green behavior: Individual differences, leader behavior, and coworker advocacy. *Journal of Management, 43*(5), 1335-1358.

Kim, Y. J., Kim, W. G., Choi, H. M., & Phetvaroon, K. (2019). The effect of green human resource management on hotel employees' eco-friendly behavior and environmental performance. *International Journal of Hospitality Management*, *76*, 83-93.

Liu, S. C., & Lin, H. S. (2015). Exploring undergraduate students' mental models of the environment: Are they related to environmental affect and behavior? *The Journal of Environmental Education*, *46*(1), 23-40.

Luu, T. T. (2018). Employees' green recovery performance: The roles of green HR practices and serving culture. *Journal of Sustainable Tourism*, *26*(8), 1308-1324.

Meinhold, J. L., & Malkus, A. J. (2005). Adolescent environmental behaviors: Can knowledge, attitudes, and self-efficacy make a difference? *Environment and Behavior*, *37*(4), 511-532.

Pham, N. T., Tučková, Z., & Jabbour, C. J. C. (2019). Greening the hospitality industry: How do green human resource management practices influence organizational citizenship behavior in hotels? A mixed-methods study. *Tourism Management*, *72*, 386-399. https://doi.org/10.1016/j.tourman.2018.12.008

Rainanto, B. H., Bon, A. T., & Purba, J. H. V. (2022). Environmental management system and pro-environmental behavior in realizing sustainable industry performance: Mediating role of green marketing management. *International Journal of Global Optimization and Its Application*, *1*(1), 12-21. https://doi.org/10.56225/ijgoia.v1i1.9

Rainanto, B. H., Bon, A. T., & Purba, J. H. V. (2022). Developing the conceptual model of sustainable industrial performance in the hospitality industry. *International Journal of Global Optimization and Its Application*, *1*(2), 80-89. https://doi.org/10.56225/ijgoia.v1i2.17

Shahidan, S. N., Ali, Z., & Bakar, N. A. (2022). Motivational impacts of the Google Docs integration to support collaborative writing: A review approach. *International Journal of Advances in Social Sciences and Humanities*, *1*(3), 166-171. https://doi.org/10.56225/ijassh.v1i3.54

Stajkovic, A. D. (2006). Development of a core confidence-higher order construct. *Journal of Applied Psychology*, *91*(6), 1208.

Syafrizal, R. (2023). The effect of human resource competence on entrepreneurial intention among millennial generation: Mediating role of technology. *Global Journal of Business, Economics & Social Development*, *1*(1), 16-22. https://doi.org/10.56225/gjbesd.v1i1.3

Terrier, L., & Marfaing, B. (2015). Using social norms and commitment to promote pro-environmental behavior among hotel guests. *Journal of Environmental Psychology*, *44*, 10-15.

Tuan, L. T. (2019). Catalyzing employee OCBE in tour companies: Charismatic leadership, organizational justice, and pro-environmental behaviors. *Journal of Hospitality & Tourism Research*, *43*(5), 682-711.

Usman, M., Khalid, K., & Mehdi, M. A. (2021). What determines environmental deficit in Asia? Embossing the role of renewable and non-renewable energy utilization. *Renewable Energy*, *168*, 1165-1176.

Ying, M., Faraz, N. A., Ahmed, F., & Raza, A. (2020). How does servant leadership foster employees' voluntary green behavior? A Sequential Mediation Model. *International Journal of Environmental Research and Public Health, 17*(5), 1792.