

Article

Unlocking proactivity at work: Exploring the mediating role of green motivation between managerial coaching in training programmes and employee green behaviour

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Abstract: Managerial coaching in training programs is an important management style that fosters effective communication between immediate supervisors and employees in sustainable organizations. This study assesses the relationship between managerial coaching in training programmes, green motivation and employee green behaviour. A questionnaire was used to collect data from employees across various positions in five public organisations in Malaysia. SmartPLS software was employed to evaluate the measurement model, structural model and test research hypotheses. The SmartPLS path model analysis results reveal that the influence of managerial coaching in training programmes on employee green behaviour is indirectly affected by green motivation. The study's findings suggest that consistent implementation of managerial coaching in training programmes by immediate supervisors managing training activities can instigate green motivation in employees, subsequently motivating them to enhance their green behaviour. These findings provide valuable insights for practitioners, helping them understand the nuances of green motivation in training programmes and develop strategic action plans to enhance managerial coaching in training programmes. It, in turn, contributes to achieving and sustaining organisational goals and strategies in the era of globalisation and the knowledge-based economy.

Keywords: employee; green behaviour; green motivation; managerial coaching; training programmes

1. Introduction

Sustainability research covers a wide range of topics, including sustainable human resource development (HRM) (Ehnert, 2009a, 2009b; Zaugg et al., 2001), socially responsible HRM (Cohen, 2010; Cohen et al., 2012; Hartog and Muller-Camen, 2008), green HRM (Jabbour and Santos, 2008; Jackson and Seo, 2010; Jackson et al., 2011), and environmental HRM strategies. Transparency of green HRM practices in training programs has been emphasized as a vital component of organizational sustainability that can assist employees in evaluating the organization's fairness (Järlström et al., 2018; Mahmood et al., 2022). Fortune Magazine reported that 500 successful US firms, with 28.2 million employees globally, accounted for two-thirds of US GDP, earning \$12.8 trillion in revenues, \$1.0 trillion in profits, and \$21.6 trillion in market value (Fortune 500, 2018). As a result, by 2021, these firms' revenues had risen to \$37.0 trillion, making them the world's most renowned corporations (Fortune 500, 2021). Careful observation demonstrates that the success of these firms is largely due to their CEOs' willingness to devote adequate resources,

time, and energy in devising and implementing training programs to develop and empower outstanding personnel. As a result, the talents of these individuals can considerably assist firms in establishing, sustaining, and improving their competitive advantages in the twenty-first century worldwide market (Mohamad et al., 2020; Nino, 2023).

An in-depth review of the coaching management in training program literature published found that successful workplace training is the result of two factors, namely certain design elements (such as training content design, training facilities, and training delivery methods) (Mohamad et al., 2020; Mohamad et al., 2023) and the role of trainers (including their ability to deliver training and their knowledge of learning principles, theories, and concepts) play a significant role. (Mohamad et al., 2023; Royackers et al., 2022). Most organizations have broadly acknowledged these factors. However, there has been little discussion of both elements, as well as examination of how to improve sustainability in training programmes inside their organizations.

Numerous empirical studies connecting to organisational learning have highlighted that despite well-formulated training programme designs, they will not be able to meet their objectives if managerial coaching by immediate supervisors has not effectively implemented support in a successful sustainability organisation (Abid et al., 2020; Chaudhary, 2019; Järnlström et al., 2018; Yafi et al., 2021). Immediate supervisors are an essential target group in fulfilling this role, such as actively promoting sustainability practices, allocating resources, and influencing employee behaviour within the organisational hierarchy while interacting with all company stakeholders (Bowen and Ostroff, 2004; Jackson and Schuler, 2003; Järnlström et al., 2018). Effective immediate supervisors in managerial coaching usually practice two primary types: management support and professional guidance (Aryee et al., 2023; Zhang et al., 2023). Some crucial findings from studies on training based on managerial coaching indicate that most immediate supervisors implement such support to facilitate trainees in acquiring and mastering the necessary knowledge, current skills, positive personal traits, and other competencies (e.g., cross-cultural communication, performance feedback and development, skill-building workshops, one-on-one coaching sessions, goal setting and alignment, performance support and resources) that are relevant to their organisation, tasks, and employee needs and objectives (Nasr et al., 2022; Rahman and Sahu, 2022). Therefore, the competencies gained and mastered by trainees can be utilised to transform their negative attitudes and behaviours by motivating them to enhance green motivation (Abiodun-Oyebanji and Anditung, 2023; Sahoo and Mishra, 2022) and employee green behaviour (Dewayani and Ferdinand, 2019; Yaqub et al., 2020; Saleem et al., 2020).

Interestingly, a careful review of the managerial coaching in training programmes studies circulated in the 21st-century global market reveals that the connection between immediate supervisors and employee green behaviour may strongly motivate the green motivation of employees. From a sustainability perspective, the social dimension of sustainability is the core of a sustainable human resource management model. It encompasses both internal and external elements, including how individuals within the organisation are treated and the needs of external stakeholders, such as the public and communities (Bowen and Ostroff, 2004; Jackson and Schuler, 2003; Järnlström et al., 2018). Though this connection has been extensively examined, the

mediating effect size and type of employee green behaviour are not thoroughly discussed in the workplace training research literature (Kim et al., 2018; Mohamad et al., 2020), and uncovering a deeper investigation of this connection is vital.

To address these gaps, different researchers debate several factors that may affect this condition. Firstly, most previous studies were based on an objectivist thinking approach, emphasising the role of non-human factors (such as policies and work procedures) and their influence on employee behaviour and organisations. While this thinking has made significant contributions, it is insufficient to explain the significance of dynamic individual psychological roles (Kang et al., 2022; Mohamad et al., 2023). Secondly, a bulk of past studies have focused on the internal properties of managerial coaching, explaining the general and specific meanings, purposes, types, benefits, and challenges of this variable in diverse public and private organisations (Abid et al., 2020; Chaudhary, 2019; Yafi et al., 2021). Thirdly, many prior studies have developed hypotheses based on a direct effect framework, evaluating a simple association between the independent and dependent constructs; for example, between managerial coaching and green motivation, between managerial coaching and employee green behaviour, or between green motivation and employee green behaviour. A simple behavioural statistical method (e.g., descriptive, dispersion, and bivariate analyses) assesses this framework. The results of this framework analysis can only evaluate the strengths and characteristics of the association between the study constructs. However, the mediating effect size and type of green motivation are often neglected in the hypothetical model analysis (Abid et al., 2020; Aboramadan, 2022; Yafi et al., 2021). Consequently, the outcomes of the study paradigm have only produced general findings, which may not offer sufficient guidelines for practitioners to understand the multidimensional paradigms of the green motivation construct and establish training evaluation methods to maintain and enhance organisational sustainability in times of global competition and innovation (Abid et al., 2020; Aboramadan, 2022; Mohamad et al., 2020; Yafi et al., 2021).

This study advances existing literature by highlighting four significant contributions. First, this study contributes to prior managerial coaching literature by emphasising immediate supervisors as essential predictors, rather than personal and environmental variables, in enhancing positive outcomes, precisely employee green behaviour and green motivation. Second, this study extends the employee attitudes and behaviour literature by identifying green motivation as a more powerful determinant, in comparison to personal and environmental variables, for increasing employee green behaviour (Abid et al., 2020; Chaudhary, 2019; Mahmood et al., 2022; Yafi et al., 2021) an aspect that has received less emphasis thus far. Third, an examination of the latest organisational learning literature reveals that most motivation-related models (e.g., Naquin and Holton, 2002) have been developed in Western countries and tested in diverse contexts, suggesting that employee green motivation can play a significant mediating role in the relationship between managerial coaching and employee green behaviour (Abid et al., 2020; Aboramadan, 2022; Yafi et al., 2021). Furthermore, this study investigates the relationship between managerial coaching in training programmes, green motivation, and employee green behaviour.

2. Literature review and hypotheses development

2.1. Literature review

Managerial coaching in training programmes refers to the ability offered by the immediate supervisors to employees to provide management support and professional guidance to help improve their abilities within a training programme. In knowledge-based organisations, immediate supervisors often provide management support in activities and training programme agendas through approachability, goal setting, kindness, inspiration, respect for diverse learning abilities and cultures, connection, and safety (Ellinger and Bostrom, 1999; Ellinger et al., 2003; Hamlin et al., 2006). On the other hand, professional guidance is usually provided by the immediate supervisor through relevant training content, creative ideas, promotion of the training plan, attentive listening to employee's opinions, provision of material aid, practical career-related support, and fostering a sense of togetherness among employees (Ellinger and Keller, 2003; Peláez et al., 2019). These skills are interconnected and contribute to a healthy transition from work life to everyday life, the development of employee competence in fulfilling responsibilities within the organisation, and understanding task performance in the workplace (Aboramadan, 2022; Abid et al., 2020). Therefore, recent studies in managerial coaching in training programmes emphasise that both management support and professional guidance are equally essential and complement each other in achieving positive outcomes, particularly in the context of green motivation (Abid et al., 2020; Aboramadan, 2022; Yafi et al., 2021) and employee green behaviour (Abid et al., 2020; Chaudhary, 2019; Yafi et al., 2021).

Green motivation comprises a robust regulatory or enforcement element, characterised by the ability to succeed and achieve self-desire (Khan et al., 2022). As proposed by Bandura, self-regulatory power leads to desired outcomes when individuals are capable of successfully performing tasks or overcoming challenges (mastery experience), gaining self-confidence by observing successful individuals (social modelling), receiving encouragement from others to overcome self-doubt, exerting their best efforts to accomplish tasks (social persuasion), and experiencing reduced stress and improved mood when facing complex or challenging tasks (psychological response) (Aboramadan, 2022; Khan et al., 2022).

Previous research on green motivation indicated that employees possessing strong self-efficacy beliefs and motivation regarding their ability to succeed tend to have well-defined goals, allocate more significant effort, work diligently, persevere, strive to complete tasks, acquire new competencies, and demonstrate responsibility (Abid et al., 2020; Aboramadan, 2022; Yafi et al., 2021). Conversely, employees with low self-efficacy beliefs and motivation regarding their ability to succeed often lack clear goals and are less inclined to take proactive actions to become successful employees (Herzberg et al., 1959). Furthermore, studies on managerial coaching in training programmes highlight that green motivation within training programmes is an essential outcome of managerial coaching in training programmes (Aboramadan, 2022), and it can also serve as an influential mediating variable in the relationship between managerial coaching in training programmes and employee green behaviour (Abid et al., 2020; Aboramadan, 2022; Yafi et al., 2021).

Employee green behaviour is commonly regarded as a lifelong process offering the optimal opportunity for employees to showcase their diverse abilities and cultural understanding (Tang et al., 2023). It involves demonstrating good attitudes, adapting to tasks, comprehending the organisation's objectives and tasks, collaborating with others, embracing new ideas, showing respect towards colleagues, and being accountable. In organisations, training programmes equip employees with the necessary skills and knowledge to carry out their daily tasks effectively (Tang et al., 2023). These programmes aim to enhance overall knowledge in the respective field of work, provide meaningful experiences, and raise employee awareness and motivation, ensuring their relevance to the working world and the labour market. This endeavour is valuable in promoting employees' ability to identify, plan, determine, and adapt effective behaviours to meet organisational goals (Aboramadan, 2022; Ellinger et al., 2003). Moreover, recent studies on managerial coaching in training programmes substantiate that employee green behaviour is a noteworthy outcome of such coaching (Abid et al., 2020; Aboramadan, 2022; Yafi et al., 2021) and a significant factor in fostering employee green behaviour within the workplace.

2.2. Theoretical

Many scholars have widely used theories based on leadership discipline to support the diversity of studies in the coaching field. This study uses some fundamental theories in support of direct and indirect research models. First, Chickering's Vector Identity Theory and Levinson's Adult Transition Learning Model support the relationship between managerial coaching in training programmes and employee green behaviour. Second, McClelland's Three Needs Theory and Herzberg's Motivation Theory support the relationship between green motivation and employee green behaviour. Third, Bandura's Self-Efficacy Theory supports the relationship between managerial coaching in training programmes, green motivation, and employee green behaviour. The theories underpinning this research model can aid in identifying significant variables in this study model.

2.2.1. Managerial coaching in training programmes and employee green behaviour

Chickering's Vector Identity Theory (Chickering and Reisser, 1993) and Levinson's Adult Transition Learning Model (Levinson, 1978) emphasise the significance of knowledgeable and experienced individuals in offering management support and professional guidance to foster the development of independent adult identity and life. According to these models, experienced individuals are willing to provide valuable management assistance and guidance to help adults master competencies, skills, and knowledge, improve performance, effectively manage tasks, build integrity, and enhance their talents in the workplace. Applying these models in organisations is often called managerial coaching in training programmes. The literature on managerial coaching in training programmes strongly supports the role of this variable as a critical determinant of employee green behaviour (Abid et al., 2020; Chaudhary, 2019; Yafi et al., 2021).

Many previous studies have used different sample sizes to evaluate the effect of managerial coaching in training programmes on employee green behaviour, such as

the perceptions of 305 samples of various public and private universities located in Malaysia (Yafi et al., 2021), 221 samples from employees working in both public and diverse private industries (Abid et al., 2020), 70 universities recognised by the Higher Education Commission of Pakistan (Saleem et al., 2020), and 91 employees working at various hierarchical levels in the organisations at Indian automobile industry (Chaudhary, 2019). These studies have reported that immediate supervisors provide management support by offering intrinsic motivation, providing encouragement, showing care, fostering a sense of belonging, recognising employees' initiatives, and actively advocating for their employees. On the other hand, immediate supervisors fulfil their role of professional guidance by delivering specific feedback, introducing new ideas, developing effective networking, enhancing employees' social skills, providing guidelines, and explaining through good examples. The willingness of immediate supervisors to appropriately execute these roles in both formal and informal training programme settings has resulted in enhanced green motivation within their organisation (Abid et al., 2020; Chaudhary, 2019; Yafi et al., 2021) and employee green behaviour. Thus, the following hypotheses are developed:

H1: Managerial coaching in training programmes is positively associated with green motivation.

H2: Managerial coaching in training programmes is positively associated with employee green behaviour.

The significance of the relationship between green motivation and employee green behaviour is consistent with McClelland's Three Needs Theory (Güss et al., 2017) and Herzberg's Motivation Theory (Herzberg et al., 1959). According to the Three Needs Theory, individuals have one of three primary motivators: the need for achievement, affiliation, or power. These motivators are developed through our practices, culture, and life experiences. On the other hand, Herzberg's Motivation Theory suggests that employee satisfaction has two dimensions: affective factors (such as salary and supervision, contributing to employee satisfaction with the work environment) and motivation factors (such as recognition and achievement, making employees more productive, creative, and committed). Applying these models in organisations is often called green motivation. The literature on managerial coaching in training programmes strongly supports the role of this variable as a critical determinant of employee green behaviour (Abid et al., 2020; Aboramadan, 2022; Yafi et al., 2021).

Many previous studies have used different sample sizes to evaluate the effect of green motivation and employee green behaviour, such as the perceptions of 305 samples of various public and private universities located in Malaysia (Yafi et al., 2021), 221 samples from employees working in both public and diverse private industries (Abid et al., 2020), and 215 staff working in Palestinian higher education institutions (Aboramadan, 2022). These studies have reported that green motivation, which includes being enthusiastic about attending training, showing a responsible attitude, preparing for training, making efforts to acquire new skills, and displaying interest in learning the training content, can have a positive effect on employee green behaviour (Abid et al., 2020; Aboramadan, 2022; Yafi et al., 2021). Thus, the following hypothesis is developed:

H3: Green motivation is positively associated with employee green behaviour.

2.2.2. Managerial coaching in training programmes, green motivation, and employee green behaviour

The concept of green motivation is initially highlighted by Bandura's Self-Efficacy Theory (Kaoutroubas and Galanakis, 2022), suggesting that individuals with high expectations regarding their ability to succeed are highly motivated to increase their efforts, work diligently, and persistently organise and execute the necessary actions to handle potential situations (Kaoutroubas and Galanakis, 2022). Applying this theory within the context of managerial coaching in training programmes indicates that green motivation is frequently seen as a significant mediating variable between managerial coaching in training programmes and employee green behaviour. The coaching literature strongly supports this notion (Abid et al., 2020; Aboramadan, 2022; Yafi et al., 2021). Some further studies have applied an indirect effects model to assess the influence of green motivation using different sample sizes. These include studies based on the perceptions of 305 samples of various public and private universities located in Malaysia (Yafi et al., 2021), 221 samples from employees working in both public and diverse private industries (Abid et al., 2020), 70 universities recognised by the Higher Education Commission of Pakistan (Saleem et al., 2020), 22 hospitals recognised by the Pakistan Medical and Dental Council, 215 employees of different SMEs in Pakistan (Khan et al., 2022), and 215 staff working in Palestinian higher education institutions (Aboramadan, 2022). These surveys discovered that the ability of immediate supervisors to effectively implement supportive management and professional guidance in formal and informal training activities strongly stimulated green motivation. Consequently, this sense of empowerment improved employee green behaviour within the organisations studied (Yafi et al., 2021; Abid et al., 2020; Aboramadan, 2022). Based on these findings, the following hypothesis is formulated:

H4: Green motivation mediates the relationship between managerial coaching in training programmes and employee green behaviour.

2.2.3. Research model and hypotheses

The theoretical and empirical evidence had been used to formulate a study model, as exhibited in **Figure 1**.

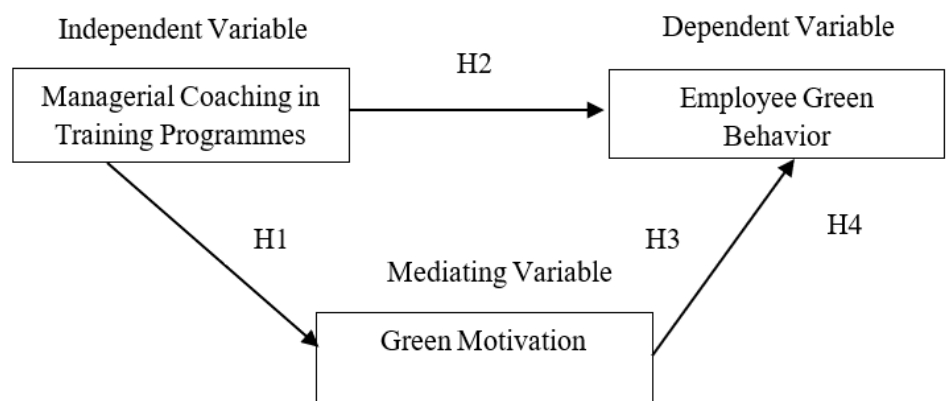


Figure 1. Research model.

3. Methodology

3.1. Research design

A pilot study is necessary to test the effectiveness and adequacy of research instruments before the actual study is carried out (Van Teijlingen and Hundley, 2002). The pilot study implementation took a month, involving 80 study samples in various positions within five public organisations in Malaysia. According to scholar Chua (2006), an effective pilot study needs to be tested on a study sample of between 25 and 100 respondents. Only items meeting high validity and reliability are used for the actual study (Hair et al., 2017).

Then, the actual study was conducted. This data collection process took two months. The survey method was used as a research strategy, allowing the researcher to use a cross-sectional research design to collect questionnaires in this study. This approach proved beneficial in collecting relevant data, reducing bias, and improving data quality (Bougie and Sekaran, 2019). This study was conducted in five government organisations in Malaysia. The actual names of the institutions were withheld to ensure confidentiality. In the initial data collection stage, survey questionnaire items were adapted from existing literature on leadership training programme. Consecutive translation techniques were used to translate the questionnaire into English and Malay, improving the quality of the research instrument (Lomand, 2016).

3.2. Measures

The survey questionnaire consisted of three parts. First, managerial coaching in training programmes has six items adapted from managerial coaching literature (Park et al., 2008; Steelman et al., 2004). Managerial coaching in training programmes uses six primary elements: discussion, human relations, social skills, leadership skills, communication skills, and goal setting, all practised by immediate leaders. Second, green motivation consists of six items adapted from workplace training support literature (Jabbour et al., 2010; Parker, 1998). Green motivation refers to the implementation and application based on six elements: commitment, responsibility, effort, assignment, knowledge, and career development, whether it occurs in the short term or the long term. Finally, employee green behaviour has six items adapted from employee performance literature (Jabbour et al., 2010; William and Anderson, 1991). It refers to the forms of individual task effectiveness measured based on three main elements: skills, knowledge, and attitudes. The whole items are evaluated using a seven-item Likert scale ranging from “strongly disagree/dissatisfied” (1) to “strongly agree/satisfied” (7). Respondent characteristics are used as control variables due to the study’s focus on employees’ attitudes. **Table 1** shows the questionnaire sample and source used in this study.

Table 1. Questionnaire sample and source.

Construct/item	Source
Managerial coaching in training programmes	
A1: Being open to discussing training problems	Park et al., 2008; Steelman et al., 2004.
A2: Showing concern for updating task-related techniques	

Table 1. (Continued).

Construct/item	Source
A3: Practising good social skills, such as encouraging others to attend training	
A4: Practising leadership skills by encouraging to renew existing skills	
A5: Listening to my opinion first when I face a new problem	
A6: Discussing task goals effectively	
Green motivation	
B1: Engagement training is provided for staff to improve their environmental behaviour	
B2: Continuous environmental training programmes	
B3: Can increase added value for career development	Jabbour et al., 2010; Parker, 1998.
B4: Committed to learning the benefits of the training programmes	
B5: Feel responsible for attending training	
B6: Prepare training assignments well	
Employee green behaviour	
C1: Knowledge sharing among employees	
C2: Exchange experiences and ideas with their colleagues	
C3: Motivated to think frequently about the environmental improvement of their routine activities	Jabbour et al., 2010; William and Anderson, 1991.
C4: Motivated to propose new ideas	
C5: The ability to adapt skills in the task	
C6: Trying to improve work performance after attending the training	

3.3. Sample

The study’s target group included individuals from various units/sections of the organization, representing all employee types. A purposive technique was used to distribute 640 survey questionnaires to the employees. This selection technique was chosen due to the unavailability of a list of registered employees from the management for confidentiality reasons, making random sampling unfeasible. Out of the distributed questionnaires, 500 (78.12%) questionnaires that can be used were successfully collected, and 439 (87.8%) samples have reached the set validity and reliability criteria.

The measurement and adequacy of the study sample were assessed using the rule of thumb, which indicated that the maximum number of formative indicators in the survey questionnaire should be more than ten times the sample size. The items for the measurement model should have outer loadings greater than the standard threshold of 0.70 (Hair et al., 2017). In this study, all constructs contain six items matching the criteria for formative indicators. This criterion predicts a minimum sample size of 60 respondents, indicating that the study has a sufficient sample size.

The data analysis was performed using SmartPLS, following the guidelines outlined by Hair et al. (2017). The data screening process involved removing missing values, straight-lining answers, extreme values, and non-normal data distribution (where Skewness and Kurtosis values were lower than ± 1.0) from the questionnaire data (Hair et al., 2017).

Further analysis involved assessing response bias using Harman’s single-factor test (Saxena et al., 2022). The test results showed that the variance percentage for all items was 41.743, which is lower than 50% of the variance, indicating that response bias did not significantly affect the survey data. The measurement model of latent constructs was evaluated using confirmatory factor analysis, and the hypotheses for direct effects and mediating models were tested using structural equation modelling. Finally, the overall predictive strength of the model, mediating effect size, effect size of the predicting variable, model fit, predictive relevance, predictive performance of the research model, and importance-performance map analysis (IPMA) were assessed.

4. Results

4.1. Respondents’ profiles

Table 2 displays the respondents’ profiles. The majority of respondents in this study are between 34 and 39 years old (36.7%), female (71.29%), Malay (94.07%), hold a bachelor’s degree (33.71%), permanent position (88.3%), and married (74.94%).

Table 2. Respondents’ profiles (*n* = 439).

Profile	Sub-profile	Frequency	Percentage
Age	Less than 27 years	52	11.8
	28 to 33 years old	106	24.1
	34 to 39 years old	161	36.7
	40 to 45 years	74	16.9
	Over 46 years	46	10.5
Gender	Male	126	28.70
	Female	313	71.29
Race	Malay	413	94.07
	Chinese	9	2.05
	Indian	10	2.27
	Others	7	1.59
Education	Lower secondary evaluation	2	0.45
	Malaysian certificate of education	97	22.09
	Malaysian higher school certificate	131	29.84
	Degree	145	33.02
	Masters	55	12.52
	Doctor of philosophy	9	2.05
Position status	Temporary	12	2.7
	Contract	37	8.4
	Permanent	390	88.83
Marital status	Single	110	25.05
	Married	329	74.94

4.2. Measurement models for latent constructs

The PLS Algorithm was used to assess the validity and reliability of the research instrument. **Table 3** reveals that all the study constructs have outer loadings greater than 0.708 (Henseler et al., 2009) and average variance extracted (AVE) values exceeding 0.5 (Hair et al., 2017), indicating that they meet the criteria for convergent validity. Additionally, all the study constructs exhibit composite reliability values above 0.8 (Hair et al., 2017), indicating a high level of internal consistency.

Table 3. Convergent validity analysis.

Constructs	Outer loading	Composite reliability	Average variance extracted (AVE)	Cronbach's alpha
Managerial coaching in training programmes		0.899	0.597	0.865
A1:	0.732			
A2:	0.738			
A3:	0.786			
A4:	0.780			
A5:	0.833			
A6:	0.763			
Green motivation		0.936	0.708	0.918
B1:	0.849			
B2:	0.819			
B3:	0.807			
B4:	0.854			
B5:	0.855			
B6:	0.864			
Employee green behaviour		0.936	0.678	0.905
C1:	0.826			
C2:	0.788			
C3:	0.824			
C4:	0.813			
C5:	0.840			
C6:	0.847			

Table 4 shows that all the study constructs have been assessed using the Heterotrait-Monotrait Ratio of Correlations (HTMT). This analysis indicates that all study constructs have values below 0.85 (Hair et al., 2017), suggesting that they have successfully met the criterion for discriminant validity.

Table 5 presents the cross-loading analysis results. The findings suggest that all indicator values for each construct are higher than those for other constructs (Ramayah et al., 2016). It indicates that the items in the study have met the required level of discriminant validity.

Table 4. Results of discriminant validity and HTMT confidence interval values.

Constructs	Managerial coaching in training programmes	Green motivation
1) Managerial coaching in training programmes		
2) Green motivation	0.749 (0.618, 0.727)	
3) Employee green behaviour	0.716 (0.132, 0.303)	0.843 (0.538, 0.694)

Table 5. Cross loading.

Items	Managerial coaching in training programmes	Green motivation	Employee green behaviour
A1	0.732	0.495	0.516
A2	0.738	0.455	0.436
A3	0.786	0.509	0.468
A4	0.780	0.513	0.472
A5	0.833	0.570	0.507
A6	0.763	0.551	0.539
B1	0.558	0.849	0.642
B2	0.544	0.819	0.635
B3	0.527	0.807	0.603
B4	0.602	0.854	0.638
B5	0.570	0.855	0.672
B6	0.576	0.864	0.693
C1	0.523	0.669	0.826
C2	0.545	0.654	0.788
C3	0.520	0.598	0.824
C4	0.551	0.606	0.813
C5	0.492	0.613	0.840
C6	0.510	0.656	0.847

Table 6 presents the means for the study constructs ranging from 5.876 to 6.103, indicating that respondents’ perceptions of managerial coaching in training programmes, green motivation, and employee green behaviour vary from a high (4) to the highest level (7). Additionally, the variance inflation factor (VIF) values for the associations between the study constructs are less than 5.0, indicating that the data is not significantly affected by collinearity issues (Hair et al., 2017).

Table 6. Results of VIF and descriptive constructs analysis.

Construct	VIF values		Mean	Std. deviation
	Green motivation	Employee green behaviour		
1) Managerial coaching in training programmes	1.000	1.812	5.876	0.584

Table 6. (Continued).

Construct	VIF values		Mean	Std. deviation
	Green motivation	Employee green behaviour		
2) Green motivation	1.812		6.103	0.553
3) Employee green behaviour			6.097	0.542

4.3. Structural model

Table 7 shows the results of the direct effects model and mediating effects model. The hypotheses testing results for the direct effects model have produced four significant findings. First, managerial coaching in training programmes is positively and significantly associated with green motivation ($\beta = 0.219$; $t = 5.077$); therefore, H1 is supported. Second, managerial coaching in training programmes is positively and significantly associated with employee green motivation ($\beta = 0.660$; $t = 23.35$); therefore, H2 is supported. Third, green motivation is positively and significantly associated with employee green behaviour ($\beta = 0.623$; $t = 15.75$); therefore, H3 is supported. These results confirm that green motivation and employee green behaviour are significant outcomes of managerial coaching in training programmes. Fourth, managerial coaching in training programmes is positively and significantly correlated with green motivation and employee green behaviour ($\beta = 0.417$; $t = 13.23$); therefore, H4 is supported. This finding confirms that the effect of managerial coaching in training programmes on employee green behaviour is indirectly influenced by green motivation.

Table 7. The hypotheses testing results of the research model.

Hypothesis	Beta	t	R ² (%)	Result
H1: Managerial coaching in training programmes → Green motivation	0.219	5.077	0.61	Accepted
H2: Managerial coaching in training programmes → Employee green behaviour	0.660	23.35	0.44	Accepted
H3: Green motivation → Employee green behaviour	0.623	15.75	0.61	Accepted
H4: Managerial coaching in training programmes → Green motivation → Employee green behaviour	0.417	13.23	0.44	Accepted

Next, the results of exploratory power for the direct effects model display four crucial findings. First, managerial coaching in training programmes contributes 61% of the variance in employee green behaviour. This value is higher than 0.26, showing that this model has a large effect (Cohen, 1988). Second, managerial coaching in training programmes contributes 44% of the variance in green motivation. This value is higher than 0.26, showing that this model has a large effect (Cohen, 1988). Third, green motivation contributes 61% of the variance in employee green behaviour. This value is higher than 0.26, showing that this model has a large effect (Cohen, 1988). Fourth, managerial coaching in training programmes and green motivation contribute 44% of the variance in employee green behaviour. This value is higher than 0.26, showing that this model has a large effect (Cohen, 1988).

As an extension of the hypotheses testing, the type of mediating effect, model fit, effect size, predictive relevance, and predictive performance were tested. First, the type of mediating effect for green motivation is a partial mediating effect. This result explains that the direct and indirect effects models are significant and point in the same direction. Second, the model fit test displays that the standardised root mean square residual (SRMR) value is 0.058, lower than 0.1 (Hu and Bentler, 1999). The result demonstrates that this model is a good fit. Third, the effect size test shows that the relationship between managerial coaching in training programmes and green motivation has an f^2 value of 0.812, which is higher than 0.35, indicating that it substantially affects green motivation (Cohen, 1988). The relationship between managerial coaching in training programmes and employee green behaviour has an f^2 value of 0.069, which is smaller than 0.15, indicating that its weakness affects employee green behaviour (Cohen, 1988). The relationship between green motivation in training programmes and employee green behaviour has an f^2 value of 0.56, which is higher than 0.35, showing that it substantially affects employee green behaviour (Cohen, 1988).

The findings of the importance-performance matrix analysis (IPMA) are presented in **Table 8**. The IPMA test reveals that green motivation achieves the highest performance, with scores of 85.059 and a total effect of 0.610. On the other hand, managerial coaching in training programmes demonstrates the lowest performance, with scores of 81.258 and a total effect of 0.591. These results indicate that practitioners should pay more attention to managerial coaching in training programmes to enhance managerial coaching in training programmes.

Table 8. IPMA analysis.

Construct	Employee green behaviour	
	Importance (Total effect)	Performance (Total index)
1) Managerial coaching in training programmes	0.591	81.258
2) Green motivation	0.610	85.059

5. Discussion

The main findings shows that green motivation is a significant mediating variable in the relationship between managerial coaching in training programmes and employee green behaviour. It is due to the pivotal role and strong commitment of the immediate supervisor, which is the key to achieving success in sustainability within the organisation. In the study context, most respondents perceived the levels of managerial coaching in training programmes, green motivation and employee green behaviour to be high. It states that the ability of immediate supervisor to adequately provide management support and guidance in formal and informal training activities will strongly invoke green motivation in training programmes in their organisation. Consequently, this motivation may lead to more outstanding employee green behaviour in the organisational sample.

The study’s findings have provided three significant implications: theoretical contribution, the robustness of research methodology, and practical contribution. In

terms of theoretical contribution, this study suggests that green motivation is a significant mediating variable in the relationship between managerial coaching in training programmes and employee green behaviour. This finding is consistent with Bandura's Self-Efficacy Theory (Kaoutroubas and Galanakis, 2022), suggesting that green motivation of employees in training programmes have a high awareness and readiness to regulate their affective responses, confidence, effort, perseverance, and resilience when resolving daily social environment, difficulties, and challenging activities. This notion aligns with previous managerial coaching studies, highlighting the ability of supervisors to provide management support (such as approachability, kindness, inspiration, respect for diverse learning abilities and cultures, connection, and safety) and professional guidance (including relevant training content, creative ideas, promotion of the training plan, attentive listening to employees opinions, provision of material aid, practical career-related support, and fostering a sense of togetherness among employees) in formal and informal training programmes. These actions strongly invoke green motivation, which, in turn, may lead to higher employee green behaviour (Abid et al., 2020; Aboramadan, 2022; Yafi et al., 2021).

Regarding the robustness of the research methodology, the measurement scale used in this study has fulfilled the validity and reliability analysis criteria (Hair et al., 2017). Regarding practical contribution, the IPMA outcomes indicate that managerial coaching in training programmes is a critical issue. Therefore, management should pay more attention to the following aspects: First, social support training methods and training content should be offered to enhance immediate supervisors' ability to improve employees' performance and foster their psychosocial and career development. For example, immediate supervisors should be exposed to understanding the meanings, purposes, types, and benefits of emotional and instrumental support. Therefore, diverse learning methods for employees, such as learning by observation and doing, blended learning, and active learning through face-to-face and online modes, should be utilised to inspire, facilitate, guide, and effectively demonstrate the concept of social support. This integration will help employees navigate the challenges of work and life. Second, immediate supervisors with proficient coaching skills engage in collaborative efforts with their employees to foster the development of ideas and jointly execute plans. When employees perceive their immediate supervisors' decision-making process as equitable and effectively communicated, their level of commitment towards undertaking positive actions intensifies. This commitment encompasses the active participation of employees in decision-making, setting goals, and formulating strategies. Third, immediate supervisors can employ adaptability to embrace fresh challenges and resolve problems as they arise. When coaching employees, immediate supervisors can exhibit adaptable thinking by maintaining flexibility in the face of changes. When employees witness immediate supervisors' adeptly managing change, it has the potential to motivate them to adopt a similar approach. Fourth, immediate supervisor should be able to utilise their effective feedback abilities to coach and guide their employees towards attaining fresh objectives. Immediate supervisors must acquire a constructive feedback approach that can serve as a source of motivation for employees within the organisation. By assessing employees' actions, immediate supervisor can pinpoint areas requiring improvement in their management and execution of tasks.

6. Conclusion

The study reveals that green motivation is a significant mediating variable between managerial coaching in training programmes and employee green behaviour. This finding aligns with and expands upon previous managerial coaching studies conducted in various Western and Asian countries. Both research and practice should incorporate green motivation as a crucial element in the domain of training programmes. The study further suggests that an immediate supervisors' ability to effectively provide management support and professional guidance in formal and informal training programmes will strongly stimulate green motivation among employees. Consequently, this positive motivation can lead to favourable employee attitudes and actions. Ultimately, these positive outcomes contribute to the organisation's competitiveness and performance in the 21st-century world, including its standing in university rankings based on knowledge.

This study has certain methodological and conceptual limitations. Firstly, employee characteristics are only considered as controlling variables and are excluded from the model testing. Secondly, this study's primary data collection procedure is a cross-sectional design, which can only provide a snapshot of respondents' general perceptions regarding the correlations between the study constructs. Thirdly, the study sample is limited to five public organisations in Malaysia. Lastly, the survey questionnaire data collected through purposive sampling may be subject to response bias, making monitoring challenging. These limitations restrict the generalisability of the study's findings to other organisations.

This study provides suggestions to enhance future research. Firstly, it is recommended to explore several essential employee characteristics (such as gender, age, academic education, and position status) to understand the similarities and differences in their attitudes towards the correlation between the study constructs. Secondly, future studies should consider samples from both public and private organisations to provide a more comprehensive understanding. Thirdly, the model analysis should incorporate other crucial dimensions of green motivation in training programmes, such as high motivation and low motivation to execute responsibilities. Fourthly, the model testing should include other significant components of employee positive behaviour, including acquiring new knowledge and skills, affective commitment, and career prospects. Lastly, using random sampling techniques, particularly a stratified random sampling method, is recommended to ensure the representation of the study population. These recommendations should be considered to strengthen future research.

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