

The Mediating Role Of Job Satisfaction In The Relationship Between Motivational Factors And Employee Commitment To Sustainable Construction

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Abstract

Introduction: To remain competitive and make a meaningful contribution to a brighter future, construction firms need to prioritize and innovate methods in relation to ESG strategies. To achieve this objective, employees play a crucial role in ensuring their individual performance contributes to the overall success of the organization. However, the lack of commitment and job satisfaction by the low-motivated employees worsened the organizational performance and decreased organizational productivity. This would negatively affect the organizational sustainability of the construction companies.

Objectives: To examine the mediating role of job satisfaction in the relationship between motivational factors and employee commitment to sustainable construction.

Methods: In this study, data was gathered by using questionnaire from the senior management of construction industry in Malaysia. One hundred fifty companies whose identities were collected from construction companies were asked to complete printed questionnaires provided by the individual. There was a total of 300 questionnaires distributed to these companies.

Results: This study indicates that three motivational factors, recognition and, promotion, have significant direct relationships with employee commitment. Training was found to be negative and, insignificantly to employee commitment.

Conclusions: This study contributes to the understanding of how motivational factors impact employee commitment and job satisfaction in the context of the Malaysian construction industry. It highlights the importance of not only providing training and promotion opportunities but also recognizing and satisfying employees to enhance their commitment to the organization.

Keywords: Sustainable construction, motivational factors, job satisfaction, recognition, training, promotion, employee commitment.

1. Introduction

The construction industry stands as a prominent driver of growth on a global scale and constitutes a vital component of economies in numerous regions across the world. Nevertheless, the construction industry is recognized as one of the primary contributors to environmental pollution, substantial waste generation, and extensive energy consumption throughout its entire lifecycle (Weinheimer et al., 2017). In light of these challenges within the built environment, encompassing matters tied to rapidly increasing populations and human-driven climate changes, there exists a substantial requirement to propel the industry toward sustainable development (Sarhan et al., 2019). The notion of sustainable development was initially introduced by the United Nations through the Brundtland Commission, aiming to enhance worldwide environmental, economic, and social circumstances (WCED, 1987). According to Huovila and Koskela (1998), sustainable construction (SC) is the response of the construction sector to the challenge of sustainable development. It can be defined as “the creation and operation of a healthy built environment based on resource-efficiency and ecological principles” (Kibert, 2005).

As reported by O'Brien, Apostolides, and Lewis (2022), the construction sector is undergoing heightened levels of examination concerning its Environmental, Social, and Governance (ESG) performance. In order to stay competitive and contribute to a more promising future, construction companies and undertakings must place emphasis on and introduce original methods for recognizing, devising, executing, and validating ESG strategies. These strategies should not only align with regulatory obligations and investor expectations but also foster advantages for the localities in which they

function. Consequently, contemporary construction businesses are integrating ESG values into their strategic planning and day-to-day functioning, embracing a spectrum of methodologies that yield differing levels of achievement (O'Brien et al., 2022). For instance, in the tendering and early planning stages of projects, construction companies and their supply chains will be expected to demonstrate their ESG credentials (credible and assured measurements as well as progress towards goals) and innovation. To make progress in this area and to innovate at scale, construction companies will need to focus heavily on nurturing and exploiting a highly innovative mindset, workforce, and supply chain (O'Brien et al., 2022).

In Malaysia, the importance of sustainable construction practices has been increasingly recognized in recent years, and rapid urbanization and economic development have resulted in a surge in construction activities. Based on the report by the Department of Statistics Malaysia (2023), the value of construction work done increased in 2022 by 23.2% to RM30.5 billion compared to 2021 6.1% RM29.9 billion). However, this growth has also led to environmental and social challenges that need to be addressed, which could be evidenced by the criticism for its inherent inefficiencies, contentious relationships, and comparatively lower levels of productivity and profit margins when measured against other industries. (Koskela, 2000; Sarhan et al., 2017).

Additionally, even though the industry provides a number of vacancies and creates a nation's income, staff turnover is constantly becoming a problem for management since a shortage of talent and excessive recruitment expenses immediately influence profitability and negatively affect the financial business. Undeniably, human resource management (HRM) stands as the primary competitive advantage for any organization, given its impact on organizational performance by way of influencing employees' commitment (Nishii et al., 2008). Furthermore, there is a heightened emphasis on environmental concerns as modern employees exhibit greater commitment and satisfaction toward organizations that take proactive steps to support sustainability (Ahmad, 2015).

In the realm of workplace research, employee commitment (EC) and job satisfaction emerge as the more crucial elements (Martha et al., 2021; Nanjundeswaraswamy, 2021). According to Mwesigwa et al. (2020), employees who find contentment in their jobs tend to foster innovation and create a favorable organizational work atmosphere, which later results in morale and performance increase, positive attitude, and healthy relations among other employees.

Employee commitment (EC) refers to the intention to behave in some way that is beneficial to the organization. It is a predictor of organizational performance (Caillier, 2012) as employees who are dedicated to their organization invest greater effort into their work. Further, employees can go beyond their regular responsibilities if they are proud to work for the organization hence, demonstrate employee commitment, and these committed employees are often loyal, which results in better performance (Allen & Shanock, 2013). Employees' commitment to the environment relies on their desire to share and care about the environmental concerns of their organization (Paille & Valeau, 2020). Hence, organizational green goals can be achieved if the employees are committed. It has been found that higher levels of EC led to enhanced organizational performance and increased organizational productivity (Owens, 2006).

In keeping with Manjenje and Muhanga (2021), an individual's success in any organization is dictated by his or her actions, which, in turn, affects the organization's outcome. Several factors may affect an individual's or employee's actions, encouraging or discouraging certain activities (Osabiya, 2015). On a global scale, it is widely acknowledged that financial incentives and opportunities for advancement positively influence EC and allegiance. Individuals choose to remain with an organization because the perceived disadvantages of leaving outweigh the value of joining another one. Financial benefits and rewards establish the foundation for heightened engagement and employee drive, consequently securing the ongoing employment connection (Manjenje & Muhanga, 2021). Nevertheless, monetary incentives by themselves are inadequate and cannot function in isolation; they must be complemented by additional forms of incentives, for instance, non-financial incentives (Bates, 2004) or intrinsic motivational factors such as advancement, achievement, training, promotion, recognition and growth, as stated by Herzberg et al. (1959) in Shaikh, Shaikh and Shaikh (2019).

Based on the preceding explanation, it becomes evident that while sustainable construction has gained significant attention, the role of employees and their commitment to sustainability remains a crucial yet understudied area. Thus, understanding the factors that influence employee commitment to sustainable construction practices is essential for organizations seeking to embed sustainability as a core value and drive positive change within the industry. Therefore, based on the Social Exchange Theory and Herzberg's two-factor theory, this study aimed to bridge this research gap by investigating the mediating role of job satisfaction (JS) on the relationships between the motivational factors, namely recognition (RE), training (TR) and promotion (PR), and employee commitment (EC) to sustainable construction.

2. Literature review and the development of hypothesis

In this segment, the interrelationship among study variables, employee commitment, job satisfaction and motivational factors was reviewed for the establishment hypothesis and to conceptualize the research framework for the stated objectives. There are seven hypotheses designed to fulfil the research objectives.

The research hypotheses are framed based on social exchange theory and used Herzberg's Motivation-Hygiene Theory as supporting theory for motivation factor. Social exchange theory recommends that the social behaviour of an employee is the effect of an exchange process. If the model of the exchange process is satisfied, a trustworthy association will develop among employees (Cropanzano and Mitchell, 2005). This trustworthy association motivates the employees for the high mutual benefits than the previous (Flynn, 2003). In our study, social exchange theory has been used to describe how motivation factors of the superiors and organization practice various interventions of job satisfaction of employees, which enhances to development of a commitment of an employee towards the organization.

2.1 Employee commitment

Employee commitment is a state of an employee in which he/she exhibits a sense of loyalty towards the organization to achieve the predefined organizational goals (Lambert and Paoline, 2008). A committed employee stays with the organization all the time, protects the organization assets, regularly attends the work and shares the company goals (Meyer and Allen, 1997). From the plethora of literature, it is identified that EC is a multidimensional construct, and it includes three significant dimensions such as affective, normative and continuance commitment (Islam et al., 2016). Affective, continuance and normative are types of commitment (Meyer and Allen, 1991). Affective commitment refers to the "emotional attachment," continuance commitment indicates the "recognition of benefits" and normative commitment represents the "employee's feelings of obligation." The employee's intention to quit the job from the organization is because of the lack of EC (Appelbaum et al., 2013). Rusbult (1980) proposed an investment model of commitment. According to this model, commitment of an individual is influenced by three independent variables such as satisfaction level, amount of investment and quality of alternatives.

2.2 Job satisfaction

Job satisfaction is the degree to which an employee will enjoy his/her work (Ellickson and Logsdon, 2002), and Shim et al. (2002) defined job satisfaction as the degree to which an employee is satisfied with his/her job. Job satisfaction among the employees will vary based on the affective and cognition perception towards the job (Thompson and Phua, 2012). Employees satisfied with their job are more innovative and establish a positive work environment in the organization (Mwesigwa et al., 2020). A satisfied employee is more productive than an unsatisfied employee (Saari and Judge, 2004). Job satisfaction among employees enhances morals, performance, a positive attitude and healthy relations among the employees (Mwesigwa et al., 2020). Job satisfaction is a multidimensional construct; it includes both intrinsic and extrinsic indicators (Nanjundeswaraswamy, 2019). An unsatisfied employee is the first enemy of the organization; they always try to get right outside job opportunities. According to Herzberg's two-factor theory, the work environment regulates the job satisfaction of the employee in three ways: the first one is the work itself, the second one is the responsibility associated with that particular work and the third one is the recognition for performing the work effectively. Higher employees' absenteeism and turnover, and less active participation in the work is because of the low level of job satisfaction among employees (Camp, 1994).

2.3 Motivational factor - Recognition and employee commitment

Pitts, (2005) as quoted by Agbenyegah (2019: 123) defines recognition as the "demonstration of appreciation for a level of performance, an achievement or a contribution to an objective. It can be confidential or public, casual or formal. Participation has a positive effect on success, according to job motivation theories like Maslow's hierarchy of needs and cognitive assessment theory. Engagement can satisfy people's social and self-satisfaction needs, according to Maslow's hierarchy of needs. As a consequence, it is a manager's acknowledgment of an employee's achievement and commitment to the goals of an organisation and appropriate objectives by paying particular attention to the employee's acts, efforts, and attitudes, which may be physical, psychological, or both.

It is a means of coping with the moods of employees. Employee appreciation is one of the most powerful forms of empowering workers, increasing employee attraction and retention by making them feel valued. Some businesses use publicity to recognize employee accomplishments, while others, use it to boost their company's overall efficiency (Oburu and Atambo, 2016).

Recognition has been considered to be a strong non-financial motivator. Some employees are just moved by the fact that their boss will always appreciate they do well and also encourage them when they face some challenges. Individuals also like to share their achievements with others and have it recognised and celebrated. When this need is satisfied, it works as an excellent motivator. If employers rely on a financial incentive alone to recognise contribution and achievement, it is most possible that the employee's objective will become modified to secure the pay and nothing more and this in turn will lead to a degraded culture of the organisation. When used correctly recognition is a cost-effective way of enhancing achievements and enable people to feel involved in the company culture.

H1. Recognition is positively significant with employee commitment.

2.4 Motivational factor - Training and employee commitment

The prospect of potential financial rewards, Employees are motivated to learn new skills and technology during training through promotions and appreciation. The discrepancy between the trainee's actual and expected outcomes is discussed in a training program which may begin with a requirement's assessment. Following that, training objects are created. After deciding who needs to participate training and what kind of training would be offered, then the training program is introduced and initiated. The final stage is to figure out how successful training programs are (Oburu and Atambo, 2016). If the organisation's manager is not trained, they would be unaware of the skills, capabilities, and experience that are compulsory for development performance and motivation. Usually work organisations introduce training agenda programs in response to active changes through the market environment, in which improves employee engagement and contributes to employees being rewarded as a result of the training they got. Human resource training increases employee efficiency more than other programs, so businesses that invest more in employee training are more developed.

H2. Training is positively significant with employee commitment.

2.5 Motivational factor - Promotion and employee commitment

The lack of opportunities for career advancement has an effect on motivation and success. Employees would feel respected and empowered if they are given opportunities to advance their careers by adapting skills, technology and capabilities that are required for performance enhancement and promotion. Employees will be motivated, according to this definition, if their goals for target achievement are linked to concrete actions taken by the organisation's management. As a result, employee productivity will grow because they will be continually reminded that their efforts will not only help them accomplish their objectives, but will also improve their chances of promotion.

Motivation is goal-oriented behaviour (Oburu and Atambo, 2016). Employees may be motivated through the establishment of occasions for education and career growth in the workplace (Armstrong, 2001). Organisations place a greater emphasis on their employees' development and motivational components such as self-esteem and self-actualisation. As a result, they will be able to achieve the best possible results. Employee productivity will be increased by enthusiasm if there are similar prospects for job advancement and a fair payment structure and training (Oburu & Atambo, 2016).

H3. Promotion is positively significant with employee commitment.

2.6 Job satisfaction and employee commitment

In workplace studies, EC and job satisfaction of employees are the more vital components. This is because these two factors largely impact the effectiveness (Laschinger, 2001) and performance (Riketta, 2002) of the organization. Job satisfaction is one of the major predictors of EC (Marta et al., 2021; Sejjaka and Kaawaase, 2014; Lok and Crawford, 1999; Mannheim et al., 1997). Extremely satisfied employees are more committed to the firm (Lambert and Paoline, 2008). Job satisfaction of employees has a significant relationship with EC (Saridakis et al., 2020; Redondo et al., 2019; Odoch and Nangoli, 2014; Srivastava, 2013; Mathur and Salunke, 2013; Turinawe 2011). Consequently, only a few research studies explored that there is no significant relationship between job satisfaction and EC (Kelly, 2015; Fatokun, 2007; Ogunyinka, 2007 and Curry et al., 1986). Leadership styles of the superior influence the commitment of employees through the effects on job satisfaction (Williams and Hazer, 1986). Both intrinsic and extrinsic characteristics of job satisfaction are strongly associated with normative commitment (Gunlu et al., 2010). Nanjundeswaraswamy's (2019) research found a significant association between EC and job satisfaction in a mechanical manufacturing firm in India; thus, the author hypothesizes that

H4. Job satisfaction is positively significant with employee commitment.

The following hypothesis was developed to investigate the mediation influence of work satisfaction between superior motivator factors and employee commitment to the organization:

H5. Job Satisfaction mediates the relationship between recognition and employee commitment.

H6. Job Satisfaction mediates the relationship between training and employee commitment.

H7. Job Satisfaction mediates the relationship between promotion and employee commitment.

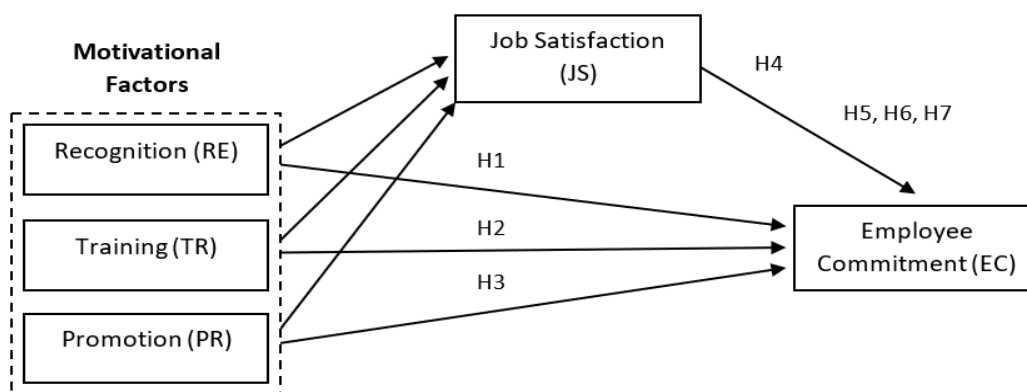


Figure 1: The research framework

3. Methods

3.1 Measurements

After a thorough evaluation of prior studies, the questionnaire items concerning the employee commitment (EC), motivational factors (Recognition (RE), Training (TR) Promotion (PR)), and job satisfaction (JS) were selected. In accordance with prior research, all items were assessed on a five-point Likert scale, with one indicating they strongly disagree and five indicating they strongly agree. The content validity of the very first iteration of this instrument was pretested by 30 senior managers from companies that chose not to participate in the main research to ensure that it was valid. Respondents were asked to provide information on each question, including the structure, content, and text. Unclear items were rephrased in response to participant input. After revising the questionnaire considering the pilot results, questionnaires were sent to 300 construction industry. The subsequent subsections go into further depth on each measurement.

Table 1: Measurement constructs with items

Constructs	Items	Source
Employee commitment	5	Ashar et al., (2013); Mahmood Aziz et al., (2021)
Promotion	3	Aarabi, Subramaniam, & Akeel (2013)
Recognition	3	Kim, Leong, & Lee, (2005).
Training	3	Aarabi, Subramaniam, & Akeel (2013)
Job Satisfaction	5	Egan, yang, & Bartlett (2004); Kanwal, & Tariq (2016).

3.2 Data collection, sample size and population of the study

In this study, data was gathered from the senior management of construction industry in Malaysia. One hundred fifty companies whose identities were collected from construction companies were asked to complete printed questionnaires provided by the individual. There was a total of 300 questionnaires distributed to these companies. The completed questionnaires were returned over two months for 185 responses. There were 35 of them answered insufficiently and were therefore considered invalid for further study. The total number of valid questionnaires received was 150, resulting in a response rate of 61 percent.

3.3 Profile of respondents

The participants in this study were drawn from both the private and public sectors of the Malaysian construction industry, providing a comprehensive view of the workforce. This demographic profile offers valuable insights into the composition of professionals within the Malaysian construction industry, encompassing gender distribution, occupational roles, age groups, educational backgrounds, years of experience, and sector representation. These insights can inform strategic decisions and policies aimed at enhancing the industry's workforce, fostering diversity, and addressing the needs of professionals at various career stages. 61% of the participants were male, and 31% were female. Furthermore, 40% worked as human resources managers, 38% as finance managers, and 22% as marketing managers, among other positions. In terms of age, 6% were under the age of 25, 40% were between the ages of 31 and 40 years, 30% were between the ages of 41 and 50 years, and 24% were beyond the age of 50. 53% had a bachelor's degree, and 47% had a master's degree. According to the survey results, around 11% of participants had five years or less of experience, 22% had between six and ten years of experience, 47% had between eleven and twenty years of experience, and 37% had more than twenty years of experience. The companies in concern were all from the private and public sector.

4. Results

The stated hypotheses were statistically evaluated in this study with the help of Smart-PLS 4.0.9.5. The justification for choosing Smart-PLS 4.0.9.5 is that it provides better findings and is more capable of dealing with basic as well as sophisticated or big methodological approaches. Additionally, there is no necessity for a normality test (Wong, 2019; Risher & Hair Jr, 2017). Furthermore, some previous studies have discovered that the PLS-SEM approach produces superior outcomes when compared to the covariance-based technique (Hair Jr, Matthews, Matthews, & Sarstedt, 2017; Rigdon, Sarstedt, & Ringle, 2017). In the PLS-SEM technique, two different models have been tested: the measurement (outer) and the structural (inner) model. In this study, we use both models that have already been addressed.

a. Measurement model (outer model)

Three main things need to be calculated to estimate the measurement (outer model): content validity, convergent validity, and the third one, discriminant validity (Hair Jr, Howard, & Nitzl, 2020).

i. Convergent validity:

In the context of convergent validity, a scenario exists where items of certain constructs effectively reflect their associated indicators (Hair et al., 2017; Lohana et al., 2023). Convergence validity is required by three factors, according to Hair Jr, Howard, and Nitzl (2020), including factor loadings, composite reliability (CR), and the average variance extracted (AVE). According to Hair et al. (2017), the AVE and factor loadings values must be more than 0.50, and the CR value must be greater than 0.70. For CR and AVE, any components with a factor loading of less than 0.50 must be removed in order to get a better result, as advised by the literature (Awang, Afthanorhan, Mohamad, & Asri, 2015; Alhammadi, Kasim, & Lohana, 2022). Cronbach's alpha value should be more than 0.60, according to Nunnally (1978). Table 2 and Figure 2 illustrate that this research meets the convergent validity requirement in terms of its findings.

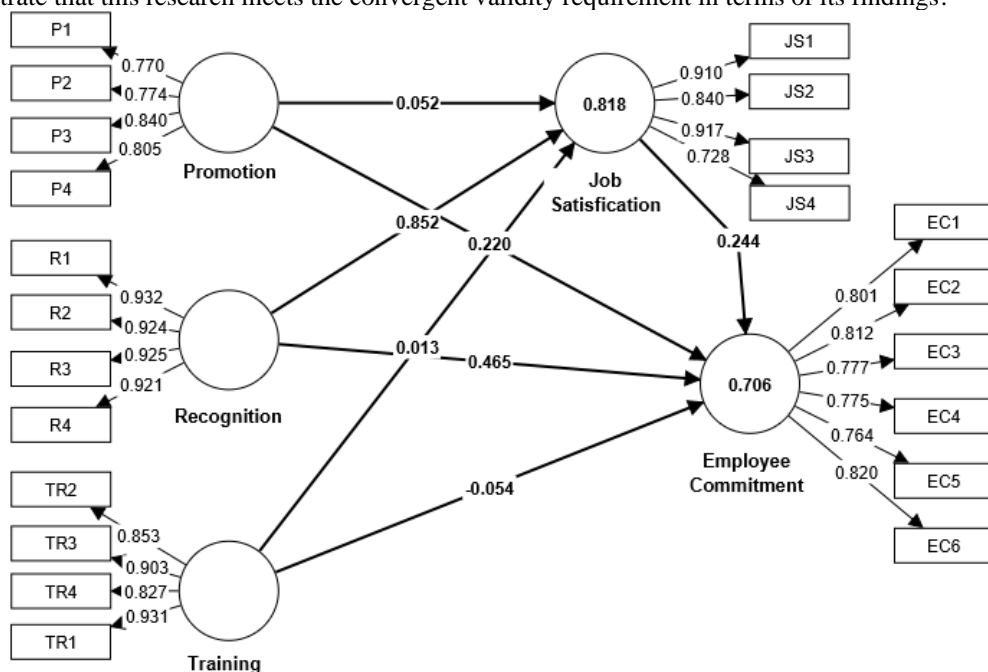


Figure 2: Measurement model

Table 2: AVE, CR, and factor loadings

Constructs	Items	Factor loadings	Cronbach Alpha	CR	AVE
Employee Commitment	EC1	0.801	0.883	0.910	0.627
	EC2	0.812			
	EC3	0.777			
	EC4	0.775			
	EC5	0.764			
	EC6	0.820			
Promotion	P1	0.770	0.811	0.875	0.636
	P2	0.774			

	P3	0.840			
	P4	0.805			
Recognition	R1	0.932	0.944	0.960	0.857
	R2	0.924			
	R3	0.925			
	R4	0.921			
Training	T1	0.853	0.902	0.932	0.773
	T2	0.903			
	T3	0.827			
	T4	0.931			
Job Satisfaction	JS1	0.910	0.872	0.913	0.726
	JS2	0.840			
	JS3	0.917			
	JS4	0.728			

ii. Discriminant validity:

A circumstance in which a researcher observes that every indicator of a theoretical framework is significantly different is referred to as discriminant validity (Henseler, Ringle, & Sarstedt, 2015). The term "discriminant validity" refers to the situation under which researchers determine whether two variables are statistically distinct or not. A variable's real difference from those other variables is shown by how the variable differs from other variables based on quantitative measurements (Shaffer, DeGeest, & Li, 2016). Components of the specified variable should have a larger variance than the other variables in the theoretical model to be included. In the present study, discriminant validity was assessed based on Fornell and Larcker's recommendation (1981). In order to apply this criterion, we must compare the diagonal higher values obtained by taking the square root of AVE with the values obtained underneath. The higher value of the diagonal must be bigger than the lower values of the same column and row in order to be valid. Table 3 reveals that the predefined requirements for discriminant validity are met in this investigation, as seen in the results (see Table 3).

Table 3: Discriminate validity (Fornell & Larcker, criteria)

	Employee_Compmitment	Job_Satisfaction	Promotion	Recognition	Training
Employee_Compmitment	0.792				
Job_Satisfaction	0.792	0.852			
Promotion	0.737	0.744	0.798		
Recognition	0.822	0.904	0.801	0.925	
Training	0.606	0.678	0.687	0.737	0.879

Henseler, Ringle, and Sarstedt (2015) introduced a new approach for determining discriminant validity called the Heterotrait-Monotrait ratio, or HTMT, and verified that the standard measurement is not an adequate tool for determining discriminant validity. Henseler et al. (2015) indicated that the standardized value for HTMT is 0.85 for conceptually distinct constructs and 0.90 for variables that are theoretically the same. Table 4 shows that all of the numbers are less than 0.85; thus, the discriminant validity criteria are contentious. Based on the findings of this research, it seems that the standardized requirements for the Heteroretrait-Monotrait ratio (HTMT) are met (see Table 4) (Hair Jr, Howard, & Nitzl, 2020).

Table 4: Discriminant validity Heterotrait-Monotrait ratio (HTMT) criteria

	Employee_Compmitment	Job_Satisfaction	Promotion	Recognition	Training
Employee_Compmitment					
Job_Satisfaction	0.866				
Promotion	0.827	0.862			
Recognition	0.871	0.989	0.889		
Training	0.643	0.751	0.782	0.794	

b. Structural model (inner model)

Following the execution of the measurement model in the previous part, we will now discuss the measures to be taken to verify the hypotheses given. SmartPLS 4.0.9.5. is used to estimate the research model and assess the structural path, and the hypotheses are examined in order to do so. The measurement model (see figure 3) was conducted in the previous part, and the structural model, also known as the inner model, is included in this portion. The researchers compute the p-value

and the t-value in the inner model, which is used to test the hypotheses that have been suggested. Acceptance of the presented hypotheses is determined by the t-value being larger than 1.96, the p-value is less than 0.05, and vice versa as shown in Table 5. Refer to figure 3.

Table 5: Direct and indirect hypothesis relationships

Hyp.	Paths	Beta value	STDEV	T-value	P-value
H1	Recognition -> Employee Commitment	0.465	0.140	11.406	0.001
H2	Promotion -> Employee Commitment	0.220	0.079	2.797	0.005
H3	Training -> Employee Commitment	-0.045	0.047	1.154	0.249
H4	Job Satisfaction -> Employee Commitment	0.244	0.134	1.816	0.069
H5	Promotion -> Job_Satisfaction -> Employee_Ccommitment	0.013	0.026	0.485	0.628
H6	Training -> Job_Satisfaction -> Employee_Ccommitment	0.003	0.013	0.250	0.803
H7	Recognition -> Job_Satisfaction -> Employee_Ccommitment	0.208	0.108	1.920	0.055

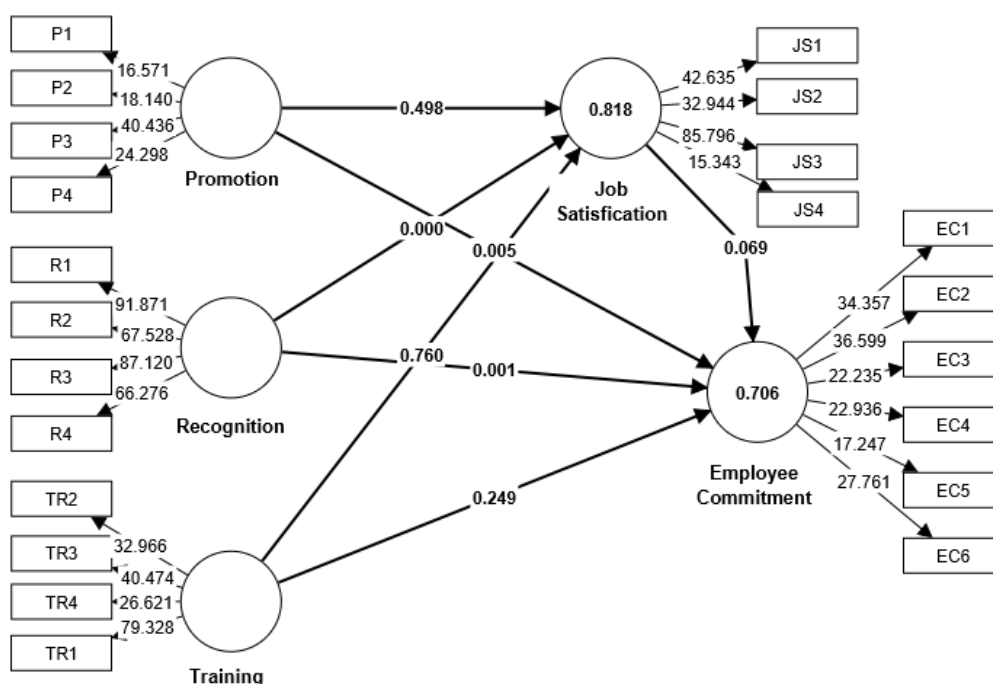


Figure 3: Structural model

i. The predictive relevance and effect size

In the present study, the researcher focuses on two situations to obtain the predictive relevance of theoretical models of studies, namely cross-validated redundancy and R-squared correlation coefficients. The variance that describes all dependent and mediator constructs is referred to as the R-square. Table 6 demonstrates that (70 percent, and 81 percent) of the variance is explained separately by each independent variable. Cohen (1988) defines R-square as follows: a value of R² between 0.02 and 0.13 is regarded weak, 0.13–0.26 is considered moderate, and more than 0.26 is considered substantial. In this research, the R² values of all variables are substantial.

Furthermore, the cross-validated redundancy of the research model is evaluated in order to estimate the overall accuracy of the model. Cross-validated redundancy is determined in SmartPLS using the blindfolding approach. This procedure necessitates the removal of a small number of data values that are considered missing values on the researcher's end. Q²'s value must be larger than zero to be valid (Henseler et al., 2017). As shown in Table 6, the present research satisfies the predefined evaluation criteria.

Table 6: R² and Q²

Constructs	R Square	R Square Adjusted	Q2
Employee_Ccommitment	0.706	0.700	0.680
Job_Satisfaction	0.818	0.816	0.808

5. Discussion and conclusion

The main aim of this study is examining the relationship between motivational factors namely recognition, promotion, training, job satisfaction, employee commitment in sustainable construction industry. This study not only explores the direct relationships between motivational factors and employee commitment but also examines the mediating role of job satisfaction in influencing employee commitment. This mediating role is crucial in understanding how motivational factors indirectly impact employee commitment through the intermediary of job satisfaction. This study indicates that three motivational factors, recognition and, promotion, have significant direct relationships with employee commitment. Training was found to be negative and, insignificantly to employee commitment. This aligns with previous research, including Herzberg (1986); Ahmad, & Bakar (2003); and Kim, Leong, & Lee, (2005), which emphasized the importance of training and development opportunities in enhancing employee commitment. However, this study also introduces the concept of job satisfaction as a mediator between motivational factors and employee commitment. Job satisfaction is known to be a critical factor in employee commitment (Mowday et al., 1982). The results suggest that job satisfaction partially mediates the relationship between some motivational factors (recognition, promotion, and training) and employee commitment. The findings of this study have practical implications for Malaysian construction organizations. While recognition and promotion are significant predictors of employee commitment, they should also pay attention to training as it directly influences employee commitment and indirectly does so through job satisfaction. Organizations should strive to create an environment where employees feel valued and acknowledged, as this can enhance their job satisfaction and ultimately lead to greater commitment. Additionally, the non-significant relationships between training and employee commitment, as well as job satisfaction and employee commitment, suggest the need for further investigation or potential contextual factors that may influence these relationships in the Malaysian construction industry. In conclusion, this study contributes to the understanding of how motivational factors impact employee commitment and job satisfaction in the context of the Malaysian construction industry. It highlights the importance of not only providing training and promotion opportunities but also recognizing and satisfying employees to enhance their commitment to the organization.

6. Recommendation

Based on the findings and implications of this study, several recommendations can be made for construction organizations in Malaysia and other similar industries seeking to enhance employee commitment and promote sustainable practices: Organizations should implement structured recognition and promotion programs that acknowledge and reward employees for their contributions to sustainable construction practices. Regularly recognizing and promoting employees who excel in sustainability efforts can boost their commitment to the organization. While the direct relationship between training and employee commitment was not significant in this study, it is essential for organizations to invest in employee training and development programs. Training can improve employee skills and knowledge, making them more capable of contributing to sustainability initiatives. Additionally, organizations should ensure that training programs are aligned with sustainability goals. Organizations should prioritize creating a work environment that fosters job satisfaction. This includes providing opportunities for employees to participate in sustainability initiatives, offering a supportive and inclusive workplace culture, and ensuring fair compensation and benefits. A satisfied workforce is more likely to exhibit higher levels of commitment. Regularly measure and monitor employee commitment and job satisfaction levels within the organization. Conduct surveys or feedback sessions to gauge employee opinions and identify areas for improvement. Use this data to tailor recognition, promotion, and training programs to better align with employee needs and preferences.

7. Limitations of the Study

As in other investigations, this study has some limitations. The study's sample size was limited to a specific region and industry, which may not fully represent the broader workforce. Future research could expand the sample to include a more diverse set of organizations and industries. The study utilized a cross-sectional design, which captures data at a single point in time. Longitudinal studies could provide a more comprehensive understanding of how these relationships evolve over time. The data collected in this study relied on self-reported measures, which can introduce response bias. Future research could incorporate objective measures or performance indicators related to sustainability practices. The study was conducted in the Malaysian construction industry, and cultural and contextual factors may influence the results. Researchers should consider conducting similar studies in different cultural and organizational contexts for a more comprehensive understanding.

8. Suggestions for Future Research

While this study focused on job satisfaction as a mediator, future research could explore other potential mediators that may explain the relationship between motivational factors and employee commitment, such as organizational culture or leadership style. Comparative studies across different industries and regions could provide valuable insights into how motivational factors and their impact on employee commitment vary across contexts. Longitudinal studies can provide a more dynamic understanding of how motivational factors influence employee commitment and job satisfaction over time. Qualitative research methods, such as interviews or focus groups, can help uncover in-depth insights into the experiences and perceptions of employees regarding motivational factors and sustainability practices. Conducting intervention studies to test the effectiveness of specific recognition, promotion, or training programs in promoting sustainability and enhancing employee commitment. This study offers valuable insights into the relationships between motivational factors, job satisfaction, and employee commitment in the context of sustainable construction in Malaysia. However, further research is needed to generalize these findings and explore additional factors that contribute to employee commitment in diverse organizational settings.

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