



## Research Article

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# Relationship between Supervisors' Roles in the Administration of Training Programmes, Learning Motivation and In-Role Behaviour

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## Abstract

*This study examines the mediating role of learning motivation in the relationship between supervisors' roles in the administration of training programmes and in-role behaviour. A cross-sectional study was used to collect 370 survey questionnaires from employees at different divisions/departments in the Malaysian public sector. The SmartPLS is utilised to evaluate the quality of the study instrument and subsequently test the study's hypotheses. The structural equation modelling test indicated that in-role behaviour is affected by supervisors' roles in the administration of training programmes. Hence, the effect of supervisors' roles in the administration of training programmes on in-role behaviour is mediated by learning motivation. This finding has contributed to the supervisors, managers and operation employees, as well as to the study related to learning motivation in dynamic organisations.*

**Keywords:** supervisors' roles in the administration of training programmes, learning motivation, in-role behaviour

## 1. Introduction

Training has recently been a critical theme in personnel management, where leaders will plan and implement training programmes to maintain and enhance their organisations' competitiveness and

productivity (Palomino, Valdivia & García, 2022; Kumpikaitė-Valiūnienė et al., 2022). Since the second half of the 19<sup>th</sup> century in European countries and the United States, training has been recognised as a vital ingredient in traditional organisational theories. For example, training is seen as an essential determinant of work efficiency in the Scientific Management Theory (Taylor, 1947), a vital personnel factor in the organisational mission and vision of the Administrative Theory (Fayol, 1949) and a fundamental principle of the organisational effectiveness in the Weber's Bureaucratic Theory (Udy, 1959). These theories have guided contemporary management scholars to establish new training management thoughts for commercial and non-commercial organisations in a rapidly changing environment (Palomino, Valdivia & Garca, 2022; Kumpikait-Valinien et al., 2022).

In an era of rapid global change, competition is growing between organisations. Therefore, an organisation needs to quickly adapt to this condition to supersede its competitors (Bhat, Mir, Rameez & Rainayee, 2022; Ha & Vanaphuti, 2022). Thus, they must update their employees' competencies through new training management thoughts. Under this new thought, training is not only viewed as a routine function of personnel development, but its role has been recognised as collaborative and developmental learning that is responsible for equipping employees with new skills, knowledge, and abilities, which in turn will lead to higher individual productivity and organisational effectiveness (Alwedyan, 2021, Bhat, Mir, Rameez & Rainayee, 2022; Kumpikait-Valinien et al., 2022). Successful organisations have taken proactive actions to reach this objective by formulating special task forces and committees involving staff managers, line managers, and professional consultants. This team will identify the current critical development requirements for the organisation, task, and personnel. Thoughtful recommendations and suggestions gathered from this team will be used by management teams to establish objectives, content, methods, and administrative support for their organisations' training programmes (Jehanzeb, 2020; Suyudi et al., 2022; Tahiry & Ekmekcioglu, 2022). Human resource development studies recognised that providing employees with technical and soft skills through a variety of on-the-job and off-the-job training approaches would lead to organisational sustainability in a highly competitive market. The stability provided by training is vital when facing the competitive nature of the present market, as it enables organisations to sell their products to customers and encourages customers to remain loyal to their products (in the domestic and/or foreign market) (Piwowar-Sulej, 2020; Alwedyan, 2021, Bhat et al., 2022). It will also enable them to manage challenging situations caused by the COVID-19 pandemic (e.g., employees are required to work from home, communication between organisations and customers is conducted via online media, and only the most critical issues are permitted to be discussed in face-to-face meetings between employees and between employees and customers due to strict safety and health procedures) (Mohamad et al., 2020a; Afrianty, Artatanaya & Burgess, 2021).

During the period of the COVID-19 pandemic, for instance, many public and private organisations in the world have experienced very high levels of uncertainty, depression and distress, but they are still able to implement creative training programmes for their employees and at the same time, comply with the strict safety and health procedures (Afrianty, Artatanaya & Burgess, 2021; International Labour Organization, 2020). For example, relationship-oriented training activities, such as coaching, mentoring and counselling programmes using online media, are extensively used by managers and supervisors to inspire, guide and facilitate employees to improve their job performance and achieve their job targets (Afrianty, Artatanaya & Burgess, 2021; International Labour Organization, 2020). In addition, online training programmes via Google Meet, Zoom Meetings and Microsoft Teams are frequently used to help employees perform their job from home (Afrianty, Artatanaya & Burgess, 2021; International Labour Organization, 2020). On top of that, internal trainers and professional consultants provide critical competency and professional courses to certain employees as part of their lifelong learning programmes (International Labour Organization, 2020; Giorgi et al., 2020). Finally, affective-oriented training such as e-counselling services and e-employee support programmes are extensively provided to help employees handle dysfunctional conflict, anxiety and mental illness due to unemployability, insufficient incomes and distressful situations (Giorgi et al., 2020; Afrianty, Artatanaya & Burgess, 2021). These training programmes are expected to

develop, retain and inspire employees to perform innovatively to improve product quality, upgrade service performance, support institutional transformation and enhance organisational competitive edge in times of global market challenges and difficulties (Mohamad et al., 2020a; Afrianty, Artatanaya & Burgess, 2021).

Many studies about workplace training in the past suggested that significant determinants of training programmes' effectiveness are learners' traits (e.g., cognitive ability, motivation and self-efficacy), instructional design elements (e.g., behaviour modelling and management of error) and workplace environments (e.g., support and follow up) (Baldwin & Ford, 1988; Bhat, Mir, Rameez & Rainayee, 2022; Ha & Vanaphuti, 2022). These training effectiveness determinants are widely accepted, but recent studies are still inadequate to explore the influence of supervisors' roles in the administration of training programmes (Ramlan, Zainol & Tajuddin, 2021; Shaheen & Soomro, 2022). Nevertheless, the significant role of supervisors as a leading edge of the training effectiveness has been stated in some recent organisational learning studies, whereby it has been claimed that the effectiveness of the training programme will not be achieved if supervisors do not implement effective roles in the training programmes. (Mohamad et al., 2019; Andoh, Mensah & Owusu, 2022).

In organisations, supervisors play fundamental roles as an aide to their managers to ensure employees follow the directives and training policies. In the administration of training programmes, supervisors are often given opportunities to plan and handle training programmes, which include determining the training goals, selecting appropriate coaches, developing lesson plans, selecting programme methods and techniques, preparing materials and programme schedules, as well as conducting a training needs analysis. In the end, supervisors will implement the training programmes based on their managers' instructions (Johlke & Duhan, 2000; Tahiry & Ekmekcioglu, 2022; Amoo & Adam, 2022).

High-performance work culture, as practised in successful organisations, highly encourages delegation of power where superior (managers) will empower their subordinates (supervisors) in planning, managing and monitoring the training programmes (Ramlan, Zainol & Tajuddin, 2021; Mohamad, Ismail & Mohamad Nor, 2021). According to Park, Kang and Kim (2018) and Tahiry and Ekmekcioglu (2022), effective supervisors have the ability to carry out two salient roles, namely comfortable communication and evaluation method. In managing training programmes, supervisors often practice comfortable communication by delivering information about training framing, discussing work methods, providing advice and guidance and sharing task techniques before, during and after training sessions. In contrast, the evaluation method is usually done by supervisors to determine the achievable learning objectives (learning content) and the applicability of those training results to upgrade performance on the job (training transfer) (Kraiger, Ford & Salas, 1993). In measuring training effectiveness, an evaluation process begins with identifying the latest training needs, and this is followed by assessing participants' reactions, learning, behaviour change and results to stakeholders using various techniques, such as interviews, survey forms and suggestion boxes (El Hajjar & Alkhanaizi 2018; Park, Kang & Kim, 2018). This evaluation process will provide accurate and reliable information, in which supervisors can report employees' latest job performance, inform employees' strengths and weaknesses, and provide constructive insights (Park, Kang & Kim, 2018; Tahiry & Ekmekcioglu, 2022).

The importance of supervisors' roles in administering training programmes in numerous and various types of organisations cannot be denied (Mohamad, Ismail & Mohamad Nor, 2021; Amoo & Adam, 2022). Prior training impact studies advocate that the ability of supervisors to appropriately implement their roles in the administration of on-the-job and off-the-job training programmes may significantly impact employee outcomes by promoting learning motivation and in-role behaviour (Ramlan, Zainol & Tajuddin, 2021; Shaheen & Soomro, 2022). From an organisational behaviour perspective, learning motivation is generally understood as employees who have a high desire to learn and master necessary knowledge, new skills, latest cognitive and affective abilities, as well as other capabilities needed in the present world of work environments (Urbanová, et al., 2021; Shaheen & Soomro, 2022). Conversely, in-role behaviour is broadly defined as employees who have

high motivation to manage and complete formal tasks, day-to-day task operations and develop new talents, skills and knowledge to perform the specified job listings and descriptions (Hsu, Shih & Li, 2017; Gómez-Trigueros, Ponsoda & Díez, 2021). Furthermore, several latest findings from the workplace training studies published in the 21<sup>st</sup> century disclosed that the relationship between supervisors' roles in the administration of training programmes and learning motivation might lead to higher in-role behaviour (Rahman, Uddin & Dey, 2021; Andoh, Mensah & Owusu, 2022). Although this relationship has been extensively examined, the effect size and nature of learning motivation as a vital mediating variable is largely ignored in the workplace training research literature (Mohamad, Ismail & Mohamad Nor, 2020b; Rahman, Uddin & Dey, 2021; Andoh, Mensah & Owusu, 2022).

To address this gap, many researchers argue that this situation may be strongly influenced by several factors. First, most previous studies have emphasised the internal features of learning motivation, such as definition, purpose, types and importance of the variable in public and private organisations (Van den Elsen, Vermeeren, & Steijn, 2022; Rahman, Uddin & Dey, 2021). Second, many prior studies prefer to use a direct effects model to examine the correlation between the cause variable and effect variable, revealing employee perceptions toward supervisors' roles in the training programmes (Twase et al., 2021; Mohamad, Ismail & Mohamad Nor, 2020b), the correlation between supervisors' role in the administration of training programmes and learning motivation (Twase et al., 2021; Rahman, Uddin & Dey, 2021), and the correlation between learning motivation and trainee outcomes (Elumalai et al., 2020; Lees & Dhanpat, 2021). The models were tested using a simple statistical analysis (e.g., measuring percentage, frequency, mean, standard deviation, testing descriptive statistics and bivariate statistics). The outcomes of testing these models show that the nature and degree of correlation between such variables, while the effect size and nature of learning motivation as an important mediating variable have been ignored in the studies (Mohamad, Ismail & Mohamad Nor, 2020b; Rahman, Uddin & Dey, 2021). As a result, this study result has only provided general findings and may not offer sufficient recommendations to be used by practitioners in understanding different views of learning motivation and establishing lifelong-oriented training programmes to upgrade organisational sustainability in a rapidly changing world (Twase et al., 2021).

This study adds three major contributions to the existing literature. First, it contributes to prior studies by highlighting a learning motivation process that is driven by supervisors' roles rather than learners' traits, instructional design and/or general work environment, in which supervisors' roles act as a significant predictor of employees' in-role behaviour (Ramlan, Zainol & Tajuddin, 2021; Shaheen & Soomro, 2022). Second, this study extends the in-role behaviour literature by exploring supervisors' roles in the administration of training programmes as a major determinant, which has been understudied thus far. It is important to note that supervisors' roles may indirectly enhance employees' in-role behaviour through employees' learning motivation (Amoo & Adam, 2022; Tahiry & Ekmekcioglu, 2022). Third, this is the first attempt to specifically investigate the combined effects of supervisors' roles in determining in-role behaviour, disclosing that in-role behaviour is strongly affected by two major factors, including communication and evaluation (Amoo & Adam, 2022; Tahiry & Ekmekcioglu, 2022). Therefore, this situation inspires the researcher to extend the literature by measuring the mediating effect of learning motivation in the relationship between supervisors' roles in the administration of training programmes and in-role behaviour.

## 2. Literature Review

### 2.1 Relationship Between Supervisors' Roles and In-Role Behaviour

The influence of supervisors' roles on employees' in-role behaviour is consistent with the notion of Leader-Member Exchange Theory (LMX) (Graen & Scandura, 1987). This theory posits that different management levels have adopted crucial roles as leaders. Organisations have three levels of management, namely top-level management, middle-level management (e.g., line managers) and lower-level management (e.g., supervisors). LMX relationships consist of two major forms: high-

quality LMX relationships and low-quality LMX relationships. A high-quality LMX relationship is characterised by social exchange, promoting feelings of mutual obligation and reciprocity (Gouldner, 1960; Liden, Sparrowe, & Wayne, 1997), loyalty, commitment, support, and trust (Cropanzano & Mitchell, 2005; Uhl-Bien & Maslyn, 2003). For example, the willingness of leaders from different management levels to practice favourable treatments (i.e., mutual reciprocation) embodied in this relationship may significantly enhance employees' positive actions.

Conversely, a low LMX relationship is initiated by economic exchange based on formally agreed on, immediate and balanced reciprocation of tangible assets, such as employment contracts focusing on reward for a job well done (Blau, 1964). Implementing job operations based on materials (e.g., a reward for a job well done) and psychological benefits (status in life, loyalty from partners and general approval in professional and personal life) are also known as profitable social exchanges that manifest in this relationship. They generally lead to higher trust and attraction (Blau, 1964). For example, if the relationship between leaders and members has experienced higher costs (e.g., employees receive monetary and/or non-monetary rewards less than their contribution) compared to the benefits (e.g., employees receive rewards more than their contributions). This relationship will be terminated or abandoned (Emerson & Cook, 1976). The application of this theory in the administration of training programmes shows that the idea of leaders' favourable treatment is often interpreted as the supervisors' comfortable communication and evaluation method (Tahiry & Ekmekcioglu, 2022; Amoo & Adam, 2022). The role of these variables in influencing employee outcomes has received strong support from the training administration literature (Mohamad, Ismail & Mohamad Nor, 2021; Amoo & Adam, 2022).

Many previous studies supported the influence of supervisors' roles in the administration of training programmes on in-role behaviour. For example, some surveys conducted in different organisational settings, such as the perceptions of 300 employees at Central Government Agencies in Putrajaya, Malaysia (Mohamad, Ismail & Mohamad Nor, 2021), perceptions of 190 employees from public TVET colleges in Gauteng, South Africa (Amoo & Adam, 2022) and 193 full-time employees working in private healthcare institutions in Ankara, Turkey (Tahiry & Ekmekcioglu, 2022). Findings from these studies found that the ability of the supervisors to implement comfortable communication (e.g., guidance and direction affective) and evaluation method (e.g., feedback and participation in activities) in the administration of on-the-job and off-the-job training sessions had strongly been a significant determinant of employees' in-role behaviour in the different organisations (Amoo & Adam, 2022; Mohamad, Ismail & Mohamad Nor, 2021; Tahiry & Ekmekcioglu, 2022). Thus, the hypotheses were formulated as follows:

H1a: Supervisor's comfortable communication is positively related to employees' in-role behaviour

H1b: Supervisor's evaluation method is positively related to employees' in-role behaviour

Numerous studies advocated the effect of supervisors' roles in the administration of training programmes on learning motivation. For instance, several surveys were conducted in diverse organisation types, such as perceptions of 300 staff at Central Government Agencies in Putrajaya, Malaysia (Mohamad, Ismail & Mohamad Nor, 2021), perceptions of 227 teachers in secondary schools in the Midwest of the USA (Kim, Park & Kang, 2019), perceptions of 3112 staff within various industries based in South Africa, Southern Africa and the United States of America (Lees & Dhanpat, 2021) and perceptions of 288 respondents in Public Institutes of Higher Learning in Malaysia (Ramlan, Zainol & Tajuddin, 2021). Results from these studies reported that the ability of supervisors to execute comfortable communication (e.g., acted in a way that was consistent and supportive) and evaluation method (e.g., response and learning) in managing on-the-job training and off-the-job training programmes was an important predictor of employees' in-role behaviour in the respective organisations (Kim, Park & Kang, 2019; Lees & Dhanpat, 2021; Mohamad, Ismail & Mohamad Nor, 2021; Ramlan, Zainol & Tajuddin, 2021). Thus, the hypotheses are established as follows:

H2a: Supervisors' comfortable communication is positively related to learning motivation

H2b: Supervisors' evaluation method is positively related to learning motivation

## 2.2 Relationship Between Supervisors' Roles, Motivation to Learn and In-Role Behavior

The mediating role of learning motivation between supervisors' roles and in-role behaviour is in line with the essence of adult learning theory. For example, Adult Learning Theory by Knowles (1984) states that individuals learning by observing a situation will determine their interest in learning and mastering useful knowledge, skills and behaviour. This learning process may lead to higher positive actions. Further, Motivation to Improve Work through a Learning Model by Naquin and Holton (2002) posits that motivation to learn is a vital element in this construct that is activated by employees who have stronger desires and efforts to join, engage, acquire and master new competencies in training programmes. This learning process may result in more good behaviour in organisations. Similarly, this theory states that the determination of individuals to learn and master all knowledge and skills is the result of their abilities to observe a situation and how their thinking can analyse the situation efficiently and effectively to produce positive actions. Application of the theories in the administration of training programmes shows that the notion of motivation to learn and interest to learning is usually translated as learning motivation (Shaheen & Soomro, 2022; Ramlan, Zainol & Tajuddin, 2021). The role of this variable as an important mediating variable between supervisors' roles and in-role behaviour has received strong backing from the training administration literature (Ramlan, Zainol & Tajuddin, 2021; Mohamad, Ismail & Mohamad Nor, 2021). Some recent studies acknowledged that the effect of supervisors' roles in the training administration on in-role behaviour is indirectly affected by learning motivation. For example, some latest surveys done in different types of organisations, such as perceptions of 288 employees in Public Institutes of Higher Learning in Malaysia (Ramlan, Zainol & Tajuddin, 2021), perceptions of 300 employees at Central Government Agencies Malaysia (Mohamad, Ismail & Mohamad Nor, 2021), and perceptions of 253 NGOs located in Karachi-based agencies of the United Nations (Shaheen & Soomro, 2022). Results from these surveys showed that the ability of supervisors to execute comfortable communication (e.g., acting in a way that was consistent and supportive) and evaluation methods (e.g., method suggestion, report recent performance and positive outlook on performance) in the administration of on-the-job training and off-the-job training programmes had powerfully invoked employees' learning motivation. Consequently, this motivation could lead to higher employee in-role behaviour in the respective organisations (Mohamad, Ismail & Mohamad Nor, 2021; Ramlan, Zainol & Tajuddin, 2021; Shaheen & Soomro, 2022). Thus, the hypotheses are established as follows:

H3a: Relationship between supervisors' comfortable communication and in-role behaviour is mediated by learning motivation.

H3b: Relationship between supervisors' evaluation method and in-role behaviour is mediated by learning motivation.

The literature has been used as a foundation for formulating the research model. Figure 1 shows that comfortable communication and evaluation method are the independent variables, learning motivation is the mediating variable, and in-role behaviour is the dependent variable. The effect of supervisors' comfortable communication and evaluation method on in-role behaviour is mediated by learning motivation.

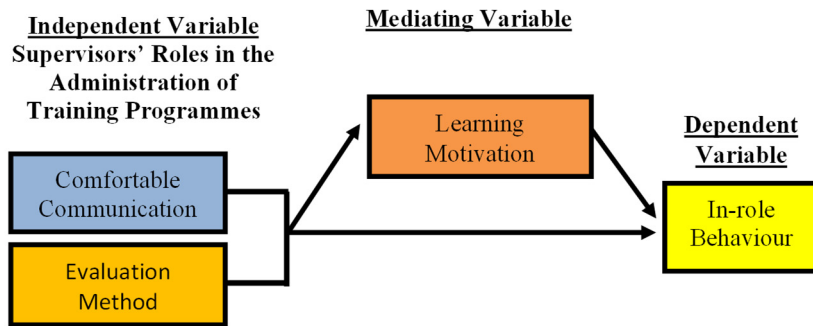


Figure 1: Research Model

### 3. Method

#### 3.1 Procedure

A cross-sectional method was used to collect data from survey questionnaire forms. This approach can assist researchers in obtaining more relevant, accurate data, as well as reducing bias and improving the quality of the data (Creswell, 2015; Sekaran & Bougie, 2016). The questionnaire items were first created based on a literature review on organisational training management. Then, using the retranslation approach suggested by Wright (1996), the questionnaire items were translated from English to Malay and then from Malay to English to determine the consistency and clarity of meanings. In the translation process, the researcher enlisted the help of experts from Universiti Kebangsaan Malaysia, Bangi, Selangor, including several instructors in the fields of English and Malay, as well as four lecturers in the field of human resource development. This translation technique can ensure the study questions' accuracy, authenticity and dependability, and that may be used in the subsequent analytic process. After that, the questionnaire items for the actual study were formatted for distribution to the actual study.

#### 3.2 Sample

The sample of this study comprised employees who served in various categories of positions in the public sector in Malaysia. Purposeful sampling techniques were used to distribute 420 printed questionnaires to employees in various departments and units. This sampling technique was chosen by the researcher because the human resource management could not attach a list of registered employees for reasons of compliance with organisational policies and maintaining the reputation of the organisation. This constraint did not allow the researcher to apply the random method in selecting the study's sample. A total of 370 (88.09%) usable questionnaires were answered and returned.

All the respondents answered based on agreement from the organisation and employees, and there was no element of coercion and confidentiality was maintained. Furthermore, the findings of Harman's Single Factor analysis reported that the percentage of variance in this study was 49%. This value was less than the critical value of 50%, which means that the study sample obtained is free from serious bias problems (Eichhorn, 2014; Podsakoff et al., 2003). The majority of respondents were between the age of 34 and 39 (35.4%), married (70.5%), Malay (92.7%), Muslim (93.2%), female (71.6%), had a bachelor's degree (40.3%) and worked in the group management and professional services (55.1%).

### 3.3 Instruments

The survey questionnaire had four parts. First, comfortable communication had five items that were modified based on a literature review of training programme development (Burke & Badwin, 1999; Tharenou, 2001). Second, the evaluation method had six items that were modified based on a literature review of training programme development (Burke & Badwin, 1999; Tharenou, 2001). Third, learning motivation was measured based on five items adapted from the training management literature (Burke & Badwin, 1999; Tharenou, 2001). Fourth, in-role behaviour was measured based on six items adapted from organisational behaviours literature review (Wallace, Chernatony & Buil, 2011; Podsakoff, Ahearne & MacKenzie, 1997). Finally, all these items were evaluated based on a scale ranging from one (strongly disagree/ very dissatisfied) to seven (strongly agree/ very satisfied). The range of scale was chosen because it can produce neutral feedback and higher reliability (Lewis, 1993; Cox, 1980). Meanwhile, the demographic items acted as control variables because their role as predictor variables did not get strong support from previous theories and empirical studies related to research objectives, research framework and hypothesis development (Mohamad, Ismail & Mohamad Nor, 2021; Yaghi & Bates, 2020). As such, this survey investigated research issues based on employee perceptions in general.

## 4. Results

### 4.1 Instrument Validity and Reliability Analysis

Table 1 reports the convergent validity tests measured based on the outer loading values, mean-variance extract values (AVE) and composite reliability. For the correlation between items and constructs, the recorded outer loading values are greater than 0.70. In contrast, the AVE value is greater than 0.50 (Hair et al., 2017). Next, the composite reliability value records a value greater than 0.70. This means that the study constructs are able to meet the level of convergent validity standards suggested by Hair et al. (2017).

**Table 1:** Convergent validity analysis

Constructs	Outer Loading	Composite Reliability	Average Variance Extracted (AVE)	Cronbach Alpha
<b>Comfortable Communication</b>				
A1: Provide assistance to implement new methods	0.877	0.939	0.753	0.918
A2: Give task direction effective	0.893			
A3: Suggest sufficient time	0.882			
A4: Encourage thoughtful ideas	0.831			
A5: Give training encouragement	0.855			
<b>Evaluation Method</b>				
B1: Report on recent performance.	0.873	0.954	0.777	0.943
B2: Provide a positive view of achievement	0.881			
B3: Set task objectives	0.886			
B4: Provide performance improvement suggestions	0.894			
B5: Assess performance based on training competencies	0.891			
B6: Informed performance over time	0.863			
<b>Learning Motivation</b>				
C1: Excited to learn training content	0.864	0.943	0.767	0.924



C2: Interested in attending training.	0.870			
C3: Committed to deepening new knowledge	0.877			
C4: Interested in training content	0.891			
C5: A sense of responsibility to attend training	0.876			
<b>In-Role Behaviour</b>				
D1: Assured of high-quality work	0.837	0.942	0.729	0.926
D2: Be able to develop new skills	0.875			
D3: Capable of overcoming task obstacles	0.846			
D4: Solve task problems	0.864			
D5: Determined to perform the task better	0.858			
D6: Manage tasks more efficiently	0.843			

Table 2 reports the discriminant validity test measured based on the heterotrait-monotrait ratio (HTMT) test. This analysis reports that each construct has a value of less than 0.85. This means that all the constructs are able to achieve the level of discriminatory validity that has been recommended by Hair et al., (2017).

**Table 2:** Discriminant validity analysis

Constructs	Comfortable Communication	Evaluation Method	Learning Motivation
Comfortable Communication			
Evaluation Method	0.851		
Learning Motivation	0.549	0.589	
In-Role Behaviour	0.556	0.558	0.726

Table 3 presents the variance inflation factor (VIF) and descriptive construct analysis. The correlation coefficients between the independent variables (comfortable communication, evaluation method), mediating variable (learning motivation) and dependent variable (in-role behaviour) have a VIF value of less than 5.0 (Hair et al., 2017), confirming that all constructs are free from serious collinearity problems. Overall, the results further confirmed that all constructs met the validity and reliability criteria. Next, the mean value ranges from 5.732 to 6.048. This means that the constructs of comfortable communication, evaluation method, learning motivation and in-role behaviour are at a high level (5) and very high (6) level.

**Table 3:** Variance inflation factor and descriptive constructs analysis

Constructs	Learning Motivation	In-Role Behaviour	Mean	Std. Deviation
Comfortable Communication	2.932	2.980	5.732	0.743
Evaluation Method	2.932	3.168	5.758	0.727
Learning Motivation		1.459	5.976	0.631
In-Role Behaviour			6.048	0.581

Table 4 presents the Standardised Root Mean Square Residual (SRMR) analysis and direct hypothesis testing. The value of SRMR is 0.048, which is less than 0.10 or 0.08 (Hu & Bentler, 1999), indicating that the direct model used in this study is appropriate and a good fit reflective model. Next, the results of direct hypotheses testing yield four important findings. First, comfortable communication has a significant relationship with in-role behaviour ( $\beta = 0.516$ ;  $t = 11.874$ ). Therefore, H1a is

supported. Second, evaluation method has a significant relationship with in-role behaviour ( $\beta = 0.527$ ;  $t = 11.249$ ). Hence, H1b is supported. Third, comfortable communication has a significant relationship with learning motivation ( $\beta = 0.511$ ;  $t = 11.854$ ); therefore, H2a is supported. Fourth, the evaluation method has a significant relationship with learning motivation ( $\beta = 0.551$ ;  $t = 12.962$ ). Thus, H2b is supported. Next, the values of  $R^2$  yield four main findings. First, the entry of comfortable communication into in-role behaviour has contributed 26%. Second, the entry of comfortable communication into in-role behaviour has contributed 27%. Third, the entry of comfortable communication into learning motivation has contributed 25%. Fourth, the entry of the evaluation method into learning motivation has contributed 30%. All these values are greater than 26%, confirming that this research model has a substantial effect (Cohen, 1992).

**Table 4:** Results of testing the direct effects model

Hypothesis	SRMR	R <sup>2</sup>	B	T Statistics	Result
H1a: Comfortable Communication → In-Role Behavior	0.048	26%	0.516	11.874	Supported
H1b: Evaluation Method → In-Role Behavior		27%	0.527	11.249	Supported
H2a: Comfortable Communication → Learning Motivation		25%	0.511	11.854	Supported
H2b: Evaluation Method → Learning Motivation		30%	0.551	12.962	Supported

The effect size ( $f^2$ ) and predictive relevance ( $Q^2$ ) were assessed. The  $f^2$  test analysis shows that the value of the relationship between comfortable communication and in-role behaviour is 0.363. Second, the relationship between the evaluation method and in-role behaviour is 0.385. Third, the value of the relationship between comfortable communication and learning motivation is 0.353. Fourth, the value of the relationship between the evaluation method and learning motivation is 0.437. All these values are higher than 0.35, indicating that the effect of the independent variable (comfortable communication, evaluation method) on the dependent variable (in-role behaviour, learning motivation) is substantial (Cohen, 1992). Furthermore, the  $Q^2$  analysis reports that the relationship between (a) comfortable communication and in-role behaviour has a  $Q^2$  value of 0.190, (b) the evaluation method and in-role behaviour has a  $Q^2$  value of 0.198, (c) comfortable communication and learning motivation has a  $Q^2$  value of 0.197 and (d) evaluation method and learning motivation has a  $Q^2$  value of 0.230. All these values are larger than zero, meaning that all the constructs in this study have predictive relevance (Hair et al., 2017).

Table 5 presents the Standardised Root Mean Square Residual (SRMR) analysis and indirect hypothesis testing. The value of SRMR is 0.045, which is less than 0.10 or 0.08 (Hu & Bentler, 1999), indicating that the indirect model used in this study is appropriate and a good fit reflective model. Next, the results of indirect hypotheses testing yield two important findings. First, the relationship between comfortable communication and learning motivation has a significant relationship with in-role behaviour ( $\beta = 0.284$ ;  $t = 8.214$ ). Therefore, H3a is supported. Second, the relationship between the evaluation method and learning motivation has a significant relationship with in-role behaviour ( $\beta = 0.305$ ;  $t = 8.672$ ). Hence, H3b is supported. Next, the values of  $R^2$  yield two important findings. First, the admission of learning motivation into comfortable communication and in-role behavior has contributed 49%. Second, the entry of learning motivation into evaluation and in-role behavior has contributed 49%. All these values are greater than 26%, confirming that this research model has a substantial effect (Cohen, 1992).

**Table 5:** Results of testing the mediating model

Hypothesis	SRMR	R <sup>2</sup>	B	T Statistics	Result
H3a: Comfortable Communication → Learning Motivation → In-Role Behavior	0.045	49%	0.284	8.214	Supported
H3b: Evaluation Method → Learning Motivation → In-Role Behavior		48%	0.305	8.672	Supported

Next, the effect size ( $f^2$ ) and predictive relevance ( $Q^2$ ) were evaluated. The  $f^2$  test finding shows that the relationship between comfortable communication, learning motivation, and in-role behaviour is 0.454. Second, the relationship between the evaluation method, learning motivation and in-role behaviour is 0.417. All these values are larger than 0.35, meaning that the effect of the relationship between independent variables (comfortable communication, evaluation method), mediating variable (learning motivation) and dependent variable (in-role behaviour) has a substantial size (Cohen, 1922). Next, the  $Q^2$  analysis reports that the relationship between (a) comfortable communication, learning motivation and in-role behaviour is 0.355 and (b) between evaluation method, learning motivation and in-role behaviour is 0.350. All these values are larger than zero, meaning that all the constructs have predictive relevance in this model (Hair et al., 2017).

Table 6 shows the analysis of the performance forecasting test using PLS. The findings of the analysis confirm that the values of the regression model (LM) are higher than the values of the PLS-SEM root mean squared error (RMSE), meaning that this model in this study has a high predictive level (Shmueli, Ray, Velasquez Estrada, 2016).

**Table 6:** PLS predict

ITEM	PLS SEM RMSE	LM RMSE	LM RMSE-PLS SEM RMSE	PLS SEM RMSE - LM RMSE
C2	0.656	0.661	0.005	-0.005
C4	0.638	0.649	0.011	-0.011
C5	0.637	0.648	0.011	-0.011
C3	0.621	0.630	0.009	-0.009
C1	0.608	0.607	-0.001	0.001
D3	0.615	0.630	0.014	-0.014
D2	0.606	0.601	-0.006	0.006
D5	0.606	0.610	0.004	-0.004
D6	0.603	0.615	0.013	-0.013
D1	0.596	0.586	-0.010	0.010
D4	0.617	0.615	-0.002	0.002

Table 7 presents the important performance matrix analysis (IPMA). The analysis reports that learning motivation has the highest importance value of 0.495 and records the highest performance value of 82.957. Meanwhile, learning motivation has the lowest importance of 0.454 and is reported with a performance value of 79.090. Thus, this result confirms that the construct of supervisors' roles in the administration of training programmes should be emphasised most to help practitioners improve training management practices in the organisation (Ringle & Sarstedt, 2016).

**Table 7:** Important and performance matrix analysis

Construct	In-Role Behaviour	
	Importance (Total Effect)	Performance (Total Index)
Supervisors' Roles in the Administration of Training Programmes	0.454	79.090
Learning Motivation	0.495	82.957

## 5. Discussion

The findings of this study have supported all research hypotheses for the direct effects model and mediating model. Specifically, the results of this study showed three important findings. First, comfortable communication and evaluation methods are significant determinants of in-role behaviour. This finding is consistent with the notion of the leader-member exchange theory (LMX) (Graen & Scandura, 1987), which posits that favourable treatments (i.e., mutual reciprocation) practised by supervisors in supervising employees can be a significant enhancer of employees' positive actions. The arguments posed by this theory is strongly supported by previous studies, which revealed that the ability of supervisors to properly implement comfortable communication (e.g., guidance and direction affective) and evaluation method (e.g., feedback and participation in activities) in executing daily jobs may lead to higher employees' in-role behaviour (Amoo & Adam, 2022; Mohamad, Ismail & Mohamad Nor, 2021; Tahiry & Ekmekcioglu, 2022).

Second, comfortable communication and evaluation methods are significant learning motivation determinants. These findings are in line with the essence of LMX Theory (Graen & Scandura, 1987), which explains that the quality of the relationship between leaders and followers (e.g., mutual trust, loyalty, support, respect, positive affectivity and openness) can be an essential enabler of employees' positive behaviour. The essence of this theory is strongly supported by previous studies, which disclosed that the ability of supervisors to properly implement comfortable communication (e.g., acting in a way that was consistent and supported) and evaluation method (e.g., response and learning) in performing day-to-day job operations might lead to improved employees' learning motivation (Kim, Park & Kang, 2019; Lees & Dhanpat, 2021; Mohamad, Ismail & Mohamad Nor, 2021; Ramlan, Zainol & Tajuddin, 2021).

Third, learning motivation acts as an important mediating variable in the relationship between supervisors' roles in the administration of training programmes and in-role behaviour. This finding is consistent with the notion of Adult Learning Theory by Knowles (1984) and Motivation to Improve Work through a Learning Model by Naquin and Holton (2002). These theories suggest that individuals learn by observing a situation, which will determine their interests to learn and master useful knowledge, skills and behaviour. This learning process may lead to more positive actions (e.g., efforts to join, strong motivation, engagement, acquiring and mastering new competencies in the training programmes). These theories are strongly supported by previous studies, which revealed that the ability of supervisors to properly implement comfortable communication (e.g., acting in a consistent way) and evaluation method (e.g., method suggestion, reporting recent performance and positive outlook in performance) in executing daily jobs would strongly invoke employees' learning motivation. As a result, this motivation may lead to higher employees' in-role behaviour (Mohamad, Ismail & Mohamad Nor, 2021; Ramlan, Zainol & Tajuddin, 2021; Shaheen & Soomro, 2022). In sum, the findings of this study have upgraded our understanding of learning motivation as an effective mediating variable in the relationship between supervisors' roles in the administration of training programmes and in-role behaviour within the training management models of the organisational sample. Thus, this study also supports and extends the previous studies, primarily published in Western and Asian countries.

The IPMA results (see Table 7) shows that supervisors' roles in the administration of training programmes are a critical management concern that should be overcome in organisations. To achieve this objective, employers should give more attention to the following issues: First, the supervisor should guide and support the subordinates to help them improve their performance. This situation will help talented employees improve their job satisfaction and may stimulate them to maintain and enhance organisations' performance in the future. Second, the supervisor should evaluate employee performance fairly and provide feedback to management regarding staff performance on specific tasks or projects. Third, supervisors need excellent verbal and written communication skills. For example, if the supervisor has important information to share with the employee, consider how best to deliver that message and remain flexible if another approach is required (e.g., ask questions and

welcome feedback from the employee). Fourth, supervisors should hold 15-minute daily meetings with their teams. During this period, the entire group will discuss work objectives, issues, progress on improvements and new ideas for improvement, as well as a positive mentality shift. This situation will help talented employees improve their job satisfaction, which may stimulate them to maintain and enhance their organisations' performance in the future.

There are some limitations in the conceptual and methodological aspects of the study. First, the cross-sectional study design was only able to describe the respondents' perceptions in general about the pattern of relationships between the study variables, such as the dependent variables (supervisors' roles in the administration of training programmes), mediating variables (learning motivation) and independent variables (in-role behaviour). Second, this study did not measure specific dimensions of the study variables. Third, this study only made a comparison between the direct effect model and the indirect effect model. Fourth, the sample of this study was only tested in the Malaysian public sector. Fifth, data collected using purposive sampling cannot control respondents' biases. These limitations may decrease the generalisability of the study findings to different organisations.

The current research provides some recommendations to strengthen further research. First, future studies should take into account certain significant demographic characteristics of the respondents, such as gender, age, education and group services. This may increase our understanding of the similarities and differences in the respondents' opinions about the study issues. Second, if researchers want to examine the efficacy of the hypothetical models between the subsamples, a longitudinal study should be explored in future research. Third, to improve the effectiveness of the study's framework, future research should include both the public and private sectors. Fourth, additional aspects of learning motivation, such as the desire to learn and motivation to transfer, should be attended to because previous studies have recognised their significance in both commercial and non-commercial organisations. Finally, particular components of in-role behaviour, especially the willingness to help colleagues voluntarily, offer assistance honestly, and do useful benefits to the organisation, should be given priority because they are extensively acknowledged in previous studies as significant results of the correlation between supervisors' roles in the administration of training programmes and learning motivation. If these recommendations are seriously considered, this can improve future research.

## 6. Conclusion

This study tested a conceptual framework developed based on workplace training literature. The study instrument met the standards of validity and reliability analyses. The finding of mediating model confirms that learning motivation is an effective mediating variable in the relationship between supervisors' roles in the administration of training programmes and in-role behaviour. This finding is consistent with and has broadened the prior studies primarily conducted in Western and Asian countries. Therefore, current research and practice within workplace training need to consider learning motivation as a key component in the administration of training programmes. This study further suggests that the ability of supervisors to properly practice comfortable communication and evaluation method will strongly invoke employees' learning motivation. Consequently, this motivation may enhance subsequent positive employee outcomes (e.g., fulfilling their duties, increasing high output and being able to perform tasks effectively). Thus, these positive outcomes may lead to maintaining and supporting the organisational strategies and goals. This study also proposes that learning motivation should be incorporated. Finally, these findings support the idea that supervisors' roles in the administration of training programmes can aid in increasing learning motivation (e.g., essential knowledge, latest skills, new cognitive and affective abilities, positive attitudes and current abilities). As a result, this motivation can lead to maintaining and upgrading organisational competitiveness and performance in an era of an uncontrolled changing world.

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