

# TRAINING ENVIRONMENT AND TACIT KNOWLEDGE TRANSFER: THE MEDIATING ROLE OF TRAINING MOTIVATION

**Nur Izzaty MOHAMAD**

*School of Humanities, Universiti Sains Malaysia, Penang, Malaysia*  
nurizzatymohamad@gmail.com

**Seyhan ÖZDEMİR**

*Faculty of Economics and Administrative Sciences, Suleyman Demirel University, Isparta, Turkey*  
seyhanozdemir@sdu.edu.tr

**Aminudin MOKHTAR**

*Centre of Global Business and Digital Economy, Faculty of Economics and Management, Universiti Kebangsaan Malaysia, Selangor, Malaysia*  
aminudin@ukm.edu.my

**Haslin HASAN**

*Faculty of Business, Information & Human Sciences, Infrastructure University of Kuala Lumpur, Malaysia*  
haslin@iukl.edu.my

## Abstract

The present study shows that training motivation acts as an essential mediating variable in the relationship between the training environment and tacit knowledge transfer. This study was carried out at a policy-making government organization in Malaysia. 185 survey data were included in the analysis and seven scales were used to collect data. The study sample has satisfactorily met the criteria of measuring and testing the study model. The study data was analyzed using SPSS and SmartPLS programs. The findings of the structural equation modeling show that training motivation mediates the effect of the training environment on tacit knowledge transfer. According to this study's findings, management's ability to create an environment of encouragement and interactive communication during training will be a significant precursor to eventual favorable employee outcomes.

**Keywords:** training environment; training motivation; tacit knowledge transfer; mediation.

## 1. INTRODUCTION

Global competition, changing market positions, and the rapid development of digital technology innovations have changed the nature and conditions of work to call for a more flexible and efficient workforce (Kodwani & Prashar, 2021; Sharif, Braimah & Dogbey, 2022). Due to the need to continually train employees, a thriving new industry has emerged as a result of the importance of workforce development to the growth of an organisation. Training programs have been identified as an effective approach for organisations to renew the current skills and knowledge of their employees, improve employee performance, and prepare employees for new job requirements and career development in order to meet the new demands of the work environment (El-Said, Al Hajri & Smith, 2020; Gautam & Basnet, 2020). In a world without borders and an era of globalisation, this circumstance can create a more competitive and robust human resource to help the organisation achieve its goals and gain a competitive edge. Training assistance is typically provided in two forms: formal training and informal training (Lee et al., 2019; Penning de Vries, Knies & Leisink, 2020). Informal training is the relationship between training managers and subordinates and is typically characterised by a practical approach, hands-on experience, task learning, and well-structured programmes (such as face-to-face or online workshops and/or seminars) that are implemented in a planned manner (Lee et al., 2019; Penning de Vries, Knies & Leisink, 2020). In contrast, informal training relationships are distinguished by role modeling and observation) and/or self-directed learning (e.g., guided reading). These practices may improve employees' efficiency, self-confidence, motivation, credibility, adaptability, and job performance (Flegl, Depoo & Alcázar, 2022; Othayman et al., 2022).

Training programmes are widely acknowledged as a critical physiological and psychological requirement for encouraging positive employee behaviour and supporting organisational goals. According to a report that was published by the Training Industry (2017), seventy per cent of organisational leaders believe that it is very important to spend the training allocation on training programmes in order to improve the employees' expertise, skills, and knowledge. While thirty percent of the leaders of organisations are in agreement that a training programme that has been carefully planned can build the level of employee development and their potential in the future (Training Industry, 2017). Therefore, management has a great ability to contribute to the professional development of its subordinates and act in the creation of common goals, promote solutions and maintain systematic communication that leads to collective involvement (Lee et al., 2019; Othayman et al., 2022).

The landscape of the training industry is changing (Kyoung-Joo Lee, 2018). A bulk of studies on training management have disclosed that the essential determinants of successful training programs are internal organizational factors, such as basic training management, training hours, competency development, generic and functional components, training records, governance (McCarty & Atkinson, 2012) and external organizational factors, such as psychological and physiological needs, demand and supply of training, labor unions, facilities, training environment and culture (McCarty & Atkinson, 2012). For examples, a visionary training environment has three specific steps: (1) vision (ideas), (2) communication (words), and (3) empowerment (actions) in organizations that promote training policies, work commitment and work culture emphasizing two important elements which are encouragement (ie providing beneficial training programs, increasing training opportunities, renewing existing knowledge and skills and creating a training climate that supports employee attendance) and interactive communication (sharing training information, providing direction, providing constructive feedback, help them make training decisions and give guidance in applying training learned) (Miner, 1986; Naquin & Holton, 2003). Therefore, training helps employees develop a positive attitude toward learning and improving their skills, resulting in increased workplace productivity and organisational competitiveness.

Surprisingly, training motivation has been recognized as an uncommon phenomenon when some latest organizational training management studies published in the 21st century disclose that the relationship between the training environment and training motivation may lead to higher tacit knowledge transfer (El-Said, Al Hajri & Smith, 2020; Mohamad, Othman & Ibrahim, 2022). Even though many studies have been done, the effect size and nature of training motivation as an important mediating variable is largely ignored in the training management research literature revealing further exploration of this relationship is imperative.

To highlight these gaps, many scholars argue that this situation may be affected by many factors. First, numerous prior studies have discussed the training motivation features, by describing the definitions, aims, methods, disturbances, and benefits of the construct in various types of business and non-business organizations (Carlson et al., 2020; Colquitt, LePine & Noe, 2000;). Second, many previous studies have developed a direct effects model to describe a simple causal relationship between the independent variable and dependent variables, such as between training environment and training motivation (Chatterjee, Pereira & Bates, 2018; Gautam & Basnet, 2020), between the training environment and tacit knowledge transfer (Chatterjee, Pereira & Bates, 2018; Gautam & Basnet, 2020) and between training motivation and tacit knowledge transfer (Ithnin et al., 2022; Sharif, Braimah & Dogbey, 2021). This model is evaluated using simple behavioural statistical methods (e.g., descriptive, and bivariate statistics). The outcomes of this test can only assess the degree of strength and nature of the association between the study variables. While, the effect size and nature of training motivation as a significant mediating variable are ignored in the hypothetical model analysis (Ismail, Foboy & Nor, 2018; Ithnin et al., 2022; Sharif, Braimah & Dogbey, 2021). Third, the results of the study approach have only produced general outcomes and this may not offer specific guidelines to be used by practitioners in understanding the various perspectives of training motivation concepts and formulating employee motivation to maintain and support their organization's business vision and missions.

This study provides three important contributions to the existing literature. First, this study contributes to previous training management studies by promoting the training environment as a more significant antecedent rather than material factors in upgrading positive employee outcomes, namely training motivation (Mohamad, Othman & Ibrahim, 2022; El-Said, Al Hajri & Smith, 2020) and tacit knowledge transfer (Gautam & Basnet, 2020).

Second, this study extends the work-related attitudes literature by exploring training motivation as a stronger antecedent rather than material factors in enhancing tacit knowledge transfer (Gautam & Basnet, 2020; Mohamad, Othman & Ibrahim, 2022) which has recently been given less attention thus far. Third, a review of the recent training management literature discovers that most theories related to training motivation (e.g., Gautam & Basnet, 2020; Naquin & Holton, 2003) are developed and tested in Western countries. While, the applicability of the theories as a mediating variable is little known in emerging countries, which is raised by various scholars. So, this study is done to overcome this shortage by testing the applicability of training motivation as an important mediating variable in the training management models of policy-making government organizations in Malaysia. Relying on some recent training management literature, it is predicted that training motivation in the relationship with the training environment can be an important link to tacit knowledge transfer (Mohamad, Othman & Ibrahim, 2022; Sharif, Braimah & Dogbey, 2021). Therefore, this evidence justifies testing a model, where perceived training motivation will be the crucial mediating variable in such relationships.

This study evaluates the training environment practices implemented in policy-making government organizations in Malaysia. It is a training practice that is oriented towards human relations which is very important to increase productivity based on knowledge, skills, and efficiency as recommended in the Eleventh Malaysia Plan (RMK-11), which is to deliver transparent services and speed to act (Public Service Department, 2020). To achieve these goals, management and supervisors are actively involved in evaluating training requirements, outlining the annual training operational plan, budgeting, and providing instrumental support to encourage employees to be able to train themselves, develop knowledge and create positive behavior while on duty in the organization (Public Service Department, 2020). New studies found that management and supervisors can increase their self-confidence to guide subordinates through encouragement (such as increasing morale, caring, being open, training encouragement) and practicing interactive communication (such as giving training guidance, sharing techniques in tasks, providing service advice) can encourage employees to increase training motivation (such as knowledge sharing) (Public Service Department, 2020).

Some past studies conducted at policy-making government organizations in Malaysia support that encouragement and interactive communication practiced in organizational training programs directly affect employee results such as training motivation and tacit knowledge transfer (El-Said, Al Hajri & Smith, 2020; Mohamad, Othman & Ibrahim, 2022). For example, training motivation shown by employees is through enthusiasm to attend training, high interest, sense of responsibility, commitment to obtain the latest skills and knowledge. (El-Said, Al Hajri & Smith, 2020; Mohamad, Othman & Ibrahim, 2022). On the other hand, tacit knowledge transfer shown by employees is through the mastery of knowledge in the task, applying the knowledge learned, taking advantage of the importance of training, sharing knowledge and can increase understanding related to the task (Ismail, Foboy & Nor, 2018; Ithnin et al., 2022; Sharif, Braimah & Dogbey, 2021). Although these studies have been much investigated, the mediating role of training motivation in the relationship between such variables is little discussed because of the paucity of empirical evidence published in the context of this study. Therefore, this situation stimulates the researchers to extend the literature by measuring the mediating role of training motivation in the relationship between training environment and tacit knowledge transfer.

## 2. LITERATURE REVIEW

### 2.1. Training Environment

The training environment has two important features, namely encouragement and interactive communication (El-Said, Al Hajri & Smith, 2020; Kyoung-Joo Lee, 2018; Sharif, Braimah & Dogbey 2022). Encouragement is typically associated with the actions of those who have a greater ability to influence others with a positive attitude, function more effectively, have greater self-confidence, and are more willing to contribute to the well-being of organisation members (Avinashi & Shah, 2022; El-Said, Al Hajri & Smith, 2020; Sharif, Braimah & Dogbey, 2022). Important elements of an organization's training context include managers' abilities to provide internal and external encouragement, such as encouraging employees to attend training and update existing skills, encouraging them to acquire new knowledge, taking into account employees' training needs, and convincing employees to improve the quality of their work through training programs (Mohamad, Othman & Ibrahim, 2022; Mourão, 2018). While interactive communication is commonly interpreted as the manager's capacity to engage in quality interactive communication with superiors and subordinates. Managers who can practice interactive communication skillfully and responsively can increase the level of employee trust in the

organization. This method of interactive communication is very beneficial for enhancing employee comprehension and preserving positive social relations. Further, recent studies about training management recognize that encouragement and interactive communication are important antecedents of training motivation and tacit transfer knowledge (El-Said, Al Hajri & Smith, 2020; Sharif, Braimah & Dogbey, 2022).

## 2.2. Training Motivation

Training motivation is a critical component in Social Learning Theory (Bandura, 1979) where it is concerned with aspects of social learning in cognitive processes and/or determination in response methods to observation, imitation, and modeling. Noe (1986) described training motivation as the employees' desire to learn and use the knowledge and skills mastered in the training and development program on the job. Below, five critical elements have identified that influence the training motivation process in the actual job setting (knowledge acquisition, situation identification, environmental factors, job requirements, and support). Most studies related to social learning state that training motivation is different from the expectancy theory of motivation because it describes the individual's interaction with the environment, positive behaviour that is observed, imitating the learning that is seen to obtain benefits and interests, and witnessing the experience to obtain positive rewards (Ismail, Foboy & Nor, 2018; Ithnin et al., 2022; Sharif, Braimah & Dogbey, 2021). From a training management system perspective, training motivation is often achieved by employees by cultivating a sense of responsibility, interest, desire, passion, commitment, satisfaction, encouragement, readiness, experience, acceptance, and learning (Ismail, Foboy & Mohamad Nor, 2018; Ithnin et al., 2022; Sharif, Braimah & Dogbey, 2021). Therefore, the environmental and cognitive factors combined to influence human learning and behaviour. Current research on training management acknowledges that training motivation is the most important outcome in the training environment and training transfer, and can act as a key mediating variable in the relationship (Ithnin et al., 2022; Sharif, Braimah & Dogbey, 2021).

## 2.3. Tacit Knowledge Transfer

A successful training programme includes several dimension phases: knowledge, skills, and positive behaviour (Michalak, 1981). According to Blume et al., (2019), Kim, Park, and Kang (2019), and Saks and Burke (2012), knowledge is the most important dimension in assisting employees to enhance their performance and sustain organisational performance. Several comparative studies of training dimensions indicate that the tacit knowledge transfer instrument is more significant than the skills and positive attitudes dimensions. The majority of management scholars believe that tacit knowledge transfer with learning components should be incorporated into organisational training programme activities to aid employees in identifying, managing, and completing tasks (Blume et al., 2017; Kim, Park, & Kang, 2019; Saks & Burke 2012). From a training management perspective, tacit knowledge transfer is frequently evaluated as a method of transferring techniques, knowledge, experience, and ideas from one individual to another. When returning to the workplace, employees can use the concept of tacit knowledge transfer to benefit from the training program's imparted knowledge (Gegenfurtner, Knogler & Schwab, 2020; Kim, Park, & Kang, 2019). Consequently, recent research on training management acknowledges that tacit knowledge transfer is a crucial outcome of the relationship between the training environment and training motivation (El-Said, Al Hajri & Smith, 2020; Mohamad, Othman & Ibrahim, 2022).

## 3. RESEARCH METHOD AND HYPOTHESIS DEVELOPMENT

### 3.1. Hypothesis Development

The impact of the training environment on the transfer of tacit knowledge is consistent with the principal meaning of leader-member exchange theory (LMX) (Graen & Uhl-Bien, 1995). This theory explains how high-quality relationships between leaders and members have facilitated interpersonal treatment and effective communication in the same and/or different groups (eg, leaders and members will reduce divergent opinions and increase focused opinions in performing daily work). This relationship will increase group members' positive perception that their leader cares about them. Therefore, this positive perception can result in increased cooperation and collaboration among employees in order to accomplish work objectives. While Dulebohn et al. (2012) Leader-Member Exchange Theory argues that the development of friendly interpersonal relationships between leaders and members based on similarity, liking, integration, self-promotion, assertiveness, support, and leader's trust in doing daily work can strengthen employees' ability to engage in positive behaviours, the Leader-Member Exchange Theory argues that the development of friendly interpersonal relationships between

leaders and members based on similarity, liking, integration, self-promotion and assert. This theory's application to workplace compensation demonstrates that the primary interpretation of high-quality LMX is frequently a training environment. This notion is strongly supported by research based on training management (Kim, Park & Kang, 2019; Mohamad, Othman & Ibrahim, 2022; Sharif, Braimah & Dogbey, 2021).

Prior research has shown that training environment is an important determinant of training motivation. For example, Sharif, Braimah & Dogbey (2021) examined 799 research samples involving lecturers, assistant professors, and professors in Pakistan's public and private universities. This study demonstrates that management's ability to provide high levels of encouragement (i.e., by providing beneficial training programmes and increasing training opportunities) and interactive communication (i.e., by sharing training information and providing direction) can able to increase employee training motivation to attend training. In addition, Mohamad, Othman, and Ibrahim (2022) conducted a survey to determine the perspectives of 650 sample employees at a government agency in Malaysia. These individuals had worked in the service for more than 11 years at the time of the survey. According to this study, the willingness of management to practice high training encouragement (i.e. encouragement to renew training skills and provide training facilities) and interactive communication (showing a caring attitude) has encouraged employees to increase training motivation (i.e. motivated and interested in attending training) in the organisation that was studied. Next, Kim, Park and Kang (2019) analysed the data that they collected from 216 workers at an educational organisation in the United States using the structural equation modeling method. This research involved collecting data from employees at the organisation. This finding found that the willingness of superiors to improve balanced training promotion practices in the organisation (i.e. renew existing knowledge and skills and create a training climate that supports employee attendance) and interactive communication (i.e. help them make training decisions and give guidance in applying training learned) had been an important determinant of training motivation in the organizations.

*H<sub>1</sub>: Encouragement is positively correlated with training motivation*

*H<sub>3</sub>: Interactive communication is positively correlated with training motivation*

Previous studies support that training environment is an important predictor of tacit transfer knowledge. For example, a study carried out by Chatterjee, Pereira & Bates (2018) involving 159 samples of employees in the field of strategy, leadership, general management, functional, finance, marketing, information technology and risk management in India reports that the ability of management to provide elements of high training encouragement in a formal and/or informal training environment (i.e. providing training facilities and giving motivational) and interactive communication (i.e. providing constructive feedback) can able to increase tacit knowledge transfer of employees in the organization being studied. While, Gautam and Basnet (2020) have investigated a sustainable training culture in a thriving organisation with 150 higher education faculties at Tribhuvan University. This study acknowledges that management's ability to implement balanced training promotion practices in the organisation (that is, being open, offering advice, and providing motivation) and interactive communication (sharing training information, practising two-way communication, attempting to solve employee training problems) can influence employees' attitudes toward better training motivation.

*H<sub>2</sub>: Encouragement is positively correlated with tacit knowledge transfer*

*H<sub>4</sub>: Communications positively correlated with tacit knowledge transfer*

The nation of the idea by Naquin and Holton's Improve Work Through Learning Model (Naquin & Holton, 2003) explains that effective learning quality through training motivation (i.e., having a high motivation to learn, a stronger desire and effort to participate in training, involves self to acquire new knowledge, competencies that are constantly updated in the development of the training programme) can result in positive behaviour in the organisation (Ismail, Foboy & Mohamad Nor, 2018; Ithnin et al., 2022). The application of this theory to workplace training management demonstrates that training motivation is frequently interpreted as a significant predictor of tacit knowledge transfer and as a significant mediating variable between training environment and tacit knowledge transfer (Ismail, Foboy & Mohamad Nor, 2018; Ithnin et al., 2022).

Numerous studies demonstrate that training motivation is a crucial factor in tacit knowledge transfer. For example, Ithnin et al. (2022) conducted a study involving 395 fire and rescue officers in the Klang Valley who utilised a training management model. This study indicates that employees' willingness to participate in training

programmes, accompanied by high levels of interest, dedication, and enthusiasm, will have a positive impact on the effect of individual behaviour, particularly on tacit knowledge transfer. While Ismail, Foboy & Mohamad Nor (2018) surveyed the opinions of 395 employees in military hospitals in Peninsular Malaysia reports that training motivation through the willingness of employees to attend the planned training program, understand the content of the training, show a high interest, and be excited to participate in the training is able to be an effective predictor of tacit knowledge transfer in the sample of organizations studied. In addition, Sharif, Braimah, and Dogbey (2021) examined organisational training management among 799 samples of Pakistani university employees from public and private institutions. This study's findings indicate that the ability of employees to increase training motivation through interesting training topics, a desire to renew skills, a sense of responsibility to attend training, and motivation can increase the positive effect on tacit knowledge transfer.

*H<sub>5</sub>: Training motivation is positively correlated with tacit knowledge transfer*

The importance of training motivation as a mediator between the training environment and tacit knowledge transfer is only partially supported by empirical studies. For example, a study carried out by Mohamad, Othman & Ibrahim (2022) involving 650 sample employees in a Public Sector in Malaysia. This study revealed that management's ability to practice high encouragement (i.e. taking care of employee training, providing relevant training, open-mindedness, caring, and giving high motivation) and interactive communication (i.e. solving training problems, instructing, open communication, and giving advice) in the training environment can increase employee training motivation (i.e. enthusiasm to attend training and a sense of responsibility in the employee-organizational relationship). As a result, the motivation of this training can lead to positive behavior and tacit knowledge transfer that is more meaningful in the organization being studied. In addition, a study by El-Said, Al Hajri and Smith (2020) analysed 302 samples of hotel employees in Oman in an effort to enhance the current training programme. This study's findings indicate that management's ability to increase positive training encouragement practises (e.g., taking care, being considerate, and always available) and interactive communication (e.g., problem-solving, discussing, providing training information, and setting goals) had strongly can able to increase employees' desire to attend training program and update existing skills. Consequently, this motivation will have a positive impact on the tacit knowledge transfer of employees in the studied organisation. Next, study by Saqib, Rafiq and Asadullah (2022), analysed 292 sample including managers and faculty members of Riphah International University Islamabad. This study's findings indicate that management's ability to increase encouragement in organisation (e.g., taking care, being considerate, positive work ethics, honest) and interactive communication (e.g., problem-solving discussion) had strongly can able to increase employees' intrinsic motivation. Therefore, this positive situation has a significant effect on the results of positive employee behaviour, especially on training motivation and tacit knowledge transfer. Therefore, management has a great ability to contribute to the professional development of its subordinates and act in the creation of common goals, promote solutions and maintain systematic communication that leads to collective involvement.

Consequently, this motivation will have a positive impact on the tacit knowledge transfer.

*H<sub>6</sub>: Training motivation mediates the relationship between encouragement and tacit knowledge transfer*

*H<sub>7</sub>: Training motivation the relationship between interactive communication and tacit knowledge transfer*

The literature has been used as foundation to formulate a conceptual framework for this study as illustrated in Figure 1.

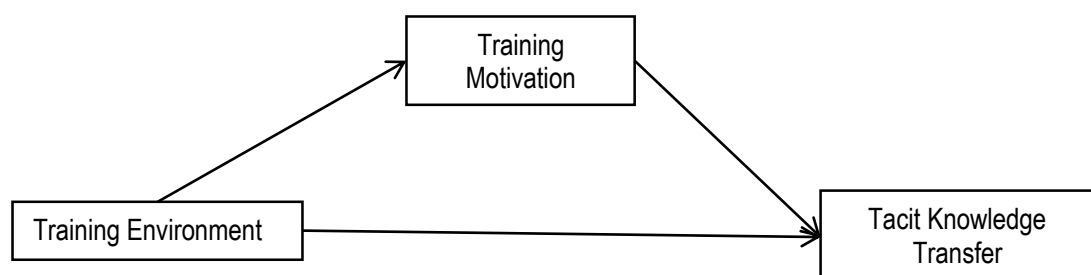


FIGURE 1 - RESEARCH MODEL

#### 4. METHODS

This study uses a survey method as the primary strategy that allows the researcher to use a cross-sectional study design to collect questionnaire data for this study. The main advantage of this data collection procedure is to help researchers to obtain relevant data, reduce data bias and improve data quality (Sekaran & Bougie, 2016). This study was carried out at a policy-making government organization in Malaysia. The actual names of these institutions are kept anonymous for confidentiality reasons. At the initial stage of this study, a survey questionnaire was formulated based on the workplace training management literature. Next, the survey questionnaire items were translated into English and Malay using the back-to-back translation technique by bilingual faculty members in human resource management and development. The English and Malay versions of the questionnaire were then translated into English by two bilingual faculty members specializing in human resource management and development. Next, these two bilingual faculty members examined the translated English version of the questionnaire to ensure consistency of item meaning, improve the quality of the research instrument and produce better results (Brislin, 1980; Sekaran & Bougie, 2016).

The survey questionnaire consists of three main parts: First, encouragement is measured using three items, and interactive communication is measured using four items adapted from workplace training management literature (Burke & Badwin, 1999; Chiaburu & Tekleab, 2005). Second, training motivation is assessed using four items adapted from organizational learning literature (Machin & Treloar, 2004). Third, tacit knowledge transfer is assessed using three items adapted from the training transfer literature developed by Machin and Treloar (2004) and Chiaburu and Tekleab (2005). All items are measured using a 7-item Likert scale, ranging from "Strongly Disagree/Dissatisfied" (1) to "Strongly Agree/Satisfied" (7). The sample profile is used as a control construct because this study focuses on employee perceptions

The unit of analysis of this study is for employees who serve from various categories of positions in policy-making government organizations in Malaysia. Purposive sampling techniques were used to distribute 300 sets of printed questionnaires to employees in various sections/units/divisions. This total questionnaire was distributed after taking into account the state of the organization's regulations and this quota sample was used to determine the size of the employee sample based on the suitability of the period and budget of the study. In addition, this sampling takes into account the characteristics of the study respondents (such as service group and work experience over five years). This sampling technique was chosen by the researcher because the human resource management could not attach a list of registered employees due to complying with the organization's policy and maintaining the organization's reputation. This obstacle does not allow the researcher to apply a random method in the selection of the study sample. The printed questionnaire was sent by the researcher himself in the sector through the officers responsible for distributing the questionnaire in sections/units and divisions respectively. The responsible officers collected and returned the questionnaire to the researcher. A total of 185 (61.66%) sets of questionnaires have been answered perfectly and returned. All respondents who answered this questionnaire are based on the agreement between two parties, that is the organization and the employees, and there is no element of coercion and confidentiality.

The adequacy of the study sample is measured based on the rule of thumb (Hair et al., 2017), which states that the largest number of formative indicators in the structural model should be at least 10 times, and the outer loadings for all items in the measurement models should be greater than 0.70. In this study, the construct of the training environment has the largest number of formative indicators in the structural model. This number is larger than the minimum sample (70 respondents) as required by the rule of thumb. Hence, Harman's Single Factor analysis was implemented to determine the level of biased feedback found in the study sample as suggested by Eichhorn (2014) and Podsakoff et al. (2003). The results of this test show that the percentage of variance found in the study sample is 45 percent. This value is less than the critical value of 50 percent, revealing that the response bias does not present in the study sample. In sum, the study sample has satisfactorily met the criteria of measuring and testing the study model.

The study data were analyzed according to Hair et al. (2017) data analysis procedure. Following this procedure, the Statistical Package for Social Sciences (SPSS statistics program) was first used to screen the survey questionnaire data. The results of the data screening showed survey questionnaire data with no missing values, and items for study constructs that did not have straight line answers, extreme values, as well as Skewness and Kurtosis, values smaller than +/-2.0 were used in the analysis. Further, the SmartPLS program was used to evaluate the measurement model (correlation between items and constructs) using the PLS Algorithm and

test the structural model (correlation between constructs) using Bootstrapping, Blindfolding, PLS-Predict, and Importance-Performance Map Analysis (IPMA). The main advantage of using the SmartPLS program is that it can produce latent variable scores, handle small sample sizes, and complex models, deal with less normal data, and evaluate many latent and manifest constructs in the study model (Hair et al., 2017).

## 5. RESULTS

### 5.1. Research Sample

Table 1 shows that most respondents are female (62.7%), aged between 34 to 39 years old (42.7%), HSC / STPM/ Diploma holders (45.4%), support group (75.9%), grade 19-26 (45.4%) and received monthly salaries from 3000 to 3900 Malaysian Ringgit (24.4%).

TABLE 1 - RESPONDENTS' CHARACTERISTICS

Respondent	Sub Profile	Percentage (%)
Gender	Male	37.3
	Female	62.7
Age	Less than 27 years old	11.4
	28 – 33 years old	24.3
	34 – 39 years old	42.7
	40 – 45 years old	15.1
	More than 46 years old	6.5
Education	LCE / SRP / PMR	.5
	MCE / SPM	19.5
	HSC / STPM/ Diploma	45.4
	Bachelor	24.3
	Master	8.6
Group of Services	PhD	1.6
	Top Management	2.2
	Management and Professional	21.9
Grade	Support	75.9
	54/ 56	6.2
	48/ 52	5.9
	41/ 44	13.0
	29-40	24.3
	19-26	45.4
Monthly Salary (Malaysian Ringgit)	1-18	5.2
	1000-1999	11.9
	2000-2999	35.1
	3000-3999	24.4
	4000-4999	8.6
	5000-5999	7.6
	6000-6999	4.3
More than 7000	8.1	

*LCE/ SRP/PMR:* Lower School Certificate/Sijil Rendah Pelajaran /Penilaian Menengah Rendah (lower secondary assessment examination)

*MCE / SPM:* Malaysia Certificate of Education/Sijil Pelajaran Malaysia (Upper secondary assessment examination)

*HSC/STPM:* Higher School Certificate/Sijil Tinggi Pelajaran Malaysia

### 5.2. Measurement Model

Table 2 displays that the study constructs have item loadings larger than 0.70 in their constructs within their models, and all the study constructs have average variance extracted (AVE) values larger than 0.50 (Henseler, Ringle & Sinkovics, 2009). This outcome shows that the study constructs fulfilled the requirements of convergent validity analysis. Hence, the composite reliability values for all the study constructs are bigger than 0.80, showing that the study constructs have high internal consistency (Nunally & Bernstein, 1994).



TABLE 2 - THE RESULTS OF CONVERGENT VALIDITY ANALYSIS

Construct	No of Item	Factor Loadings	AVE	Composite Reliability
Encouragement	3	0.870-0.925	0.809	0.927
Interactive Communication	4	0.925-0.946	0.872	0.965
Training Motivation	4	0.886-0.937	0.835	0.953
Tacit Knowledge Transfer	4	0.904-0.931	0.844	0.956

Table 3 reports the measured discriminant validity tests based on the Fornell-Lacker test. The value of the square root of two AVE ( $\sqrt{2 \times AVE}$ ) shown diagonally is greater than correlations between other constructs shown off-diagonally. This means the research construct used is to fulfill criteria for the validity of discrimination that have been established (Fornell-Lacker, 1981).

TABLE 3. RESULTS OF DISCRIMINANT VALIDITY USING FORNELL AND LARCKER ANALYSIS

Construct	Encouragement	Interactive Communication	Training Motivation	Tacit Knowledge Transfer
Encouragement	0.899			
Interactive Communication	0.860	0.934		
Training Motivation	0.620	0.544	0.914	
Tacit Knowledge Transfer	0.586	0.499	0.709	0.919

Table 4 shows that the values of the heterotrait-monotrait (HTMT) ratio of correlation for the study constructs are smaller than 0.90, and the confidential interval values for the study construct in the parenthesis are smaller than 1.0 (Hair et al., 2017; Henseler et al., 2009). This outcome shows that all the study constructs have satisfied the criteria of discriminant analysis.

TABLE 4 - RESULTS OF DISCRIMINANT VALIDITY USING HTMT ANALYSIS

Construct	Encouragement	Interactive Communication	Training Motivation
Encouragement			
Interactive Communication	0.939		
Training Motivation	0.676	0.571	
Tacit Knowledge Transfer	0.643	0.525	0.755

Table 5 presents that the means for the study constructs between 5.724 and 5.997, showing that the levels of encouragement, interactive communication, training motivation, and tacit knowledge transfer are from the high level (4) to the highest level (7). Hence, the variance inflation factor values for the correlation between the study constructs are smaller than 5.0, indicating that this correlation is not affected by a collinearity problem (Hair et al., 2017).

TABLE 5 - THE RESULTS OF THE VARIANCE INFLATION FACTOR AND DESCRIPTIVE STATISTICS RESULTS

Construct	Mean	Standard Deviation	Variance Inflation Factor			
			1	2	3	4
1. Encouragement	5.724	0.821			3.836	4.390
2. Interactive Communication	5.731	0.895			3.836	3.839
3. Training Motivation	5.978	0.707				1.626
4. Tacit Knowledge Transfer	5.997	0.722				

### 5.3. Structural Model

The results of structural model show three main findings: First, the value of standardized root mean square residual is 0.054, which is less than 0.1 (Hair et al., 2017) or 0.08 (Hu & Bentler, 1998), revealing a good fit model. Second, the type of mediating effect is a partial mediating effect. It is the direct effects model (relationship between the independent variable and dependent variable) and the indirect effects model (relationship between the independent variable, mediating variable, and dependent variable) that are significant and point in the same direction (Zhao et al., 2010). Third, the results of the effect size test acknowledge seven outcomes: First, the relationship between encouragement and training motivation has an  $f^2$  value of 0.639, which is bigger than 0.35 (Cohen, 1988). This result displays that encouragement has a substantial effect on training motivation. Second, the relationship between encouragement and tacit knowledge transfer has an  $f^2$  value of 0.525, which is greater than 0.35 (Cohen, 1988). This result indicates that encouragement has a substantial effect on tacit knowledge transfer. Third, the relationship between interactive communication and training motivation has an  $f^2$  value of 0.424, which is bigger than 0.35 (Cohen, 1988). This result indicates that interactive communication has a substantial effect on training motivation. Fourth, the relationship between interactive communication and tacit knowledge transfer has an  $f^2$  value of 0.340, which is bigger than 0.35 (Cohen, 1988). This result displays that interactive communication has a substantial effect on tacit knowledge transfer. Fifth, the relationship between training motivation and tacit knowledge transfer has an  $f^2$  value of 0.499, which is bigger than 0.35 (Cohen, 1988). This result displays that training motivation has a substantial effect on tacit knowledge transfer. Sixth, the relationship between interactive communication training motivation and tacit knowledge transfer has an  $f^2$  value of 1.007, which is bigger than 0.35 (Cohen, 1988). This result displays that training motivation has a substantial effect on interactive communication and tacit knowledge transfer. Seventh, the relationship between encouragement, training motivation and tacit knowledge transfer has an  $f^2$  value of 0.418, which is bigger than 0.35 (Cohen, 1988). This result displays that training motivation has a substantial effect on encouragement and tacit knowledge transfer. Finally, the results of blindfolding acknowledge that training motivation has a Q2 value of 0.313 and tacit knowledge transfer of 0.443 which are greater than zero (Hair et al., 2017). This outcome displays that these latent exogenous variables have predictive relevance.

### 5.4. Hypothesis testing

Table 6 displays the exploratory power of the research model. First, encouragement contributed 38 percent of the variance in training motivation, which is more than 0.26 (Cohen, 1988), showing that this model has a substantial effect. Second, encouragement has contributed 52 percent of the variance in tacit knowledge transfer, which is more than 0.26 (Cohen, 1988), showing that this model has a substantial effect. Third, interactive communication has contributed 42 percent of the variance in training motivation which is more than 0.26 (Cohen, 1988), showing that this model has a substantial effect. Fourth, interactive communication has contributed 24 percent of the variance in tacit knowledge transfer which is less than 0.26 (Cohen, 1988), showing that this model has a medium effect. Fifth, training motivation has contributed 49 percent of the variance in tacit knowledge transfer which is more than 0.26 (Cohen, 1988), showing that this model has a substantial effect. Sixth, training motivation has contributed 29 percent of the variance in interactive communication and tacit knowledge transfer (Cohen, 1988), showing that this model has a substantial effect. Seventh, training motivation has contributed 56 percent of the variance in encouragement and tacit knowledge transfer (Cohen, 1988), showing that this model has a substantial effect.

The direct effects model's hypothesis testing results show five key findings. First, encouragement is positively and significantly associated with training motivation ( $\beta = 0.625$ ;  $t = 11.294$ ), therefore H1 is supported. Second, encouragement is positively and significantly associated with tacit knowledge transfer ( $\beta = 0.587$ ;  $t = 9.508$ ), thus H2 is supported. Third, interactive communication is positively and significantly associated with training motivation ( $\beta = 0.545$ ;  $t = 7.885$ ), hence H3 is supported. Fourth, interactive communication is positively and significantly associated with tacit knowledge transfer ( $\beta = 0.503$ ;  $t = 7.318$ ), accordingly H4 is supported. Fifth, training motivation is positively and significantly associated with tacit knowledge transfer ( $\beta = 0.708$ ;  $t = 13.153$ ), therefore H5 is supported. This result shows that encouragement and interactive communication is an important outcomes of training motivation and tacit knowledge transfer

The results of hypothesis testing for the mediating model show two important findings: First, the relationship between interactive communication and training motivation is positively and significantly associated with tacit

knowledge transfer ( $\beta = 0.337$ ;  $t = 5.414$ ), so H6 is supported. Second, the relationship between encouragement and training motivation is positively and significantly associated with tacit knowledge transfer ( $\beta = 0.348$ ;  $t = 5.503$ ), consequently H7 is supported. This finding confirms that the effect of interactive communication and encouragement on tacit knowledge transfer is positively mediated by training motivation.

TABLE 6 - DIRECT AND MEDIATING HYPOTHESES TESTING

Hypothesis	Standardized Beta ( $\beta$ )	t Statistics	R <sup>2</sup>	Hypothesis Decision
H1: Encouragement → Training Motivation	0.625	11.294	0.387 Substantial Effect	Accepted
H2: Encouragement → Tacit Knowledge Transfer	0.587	9.508	0.341 Substantial Effect	Accepted
H3: Interactive Communication → Training Motivation	0.545	7.885	0.294 Substantial Effect	Accepted
H4: Interactive Communication → Tacit Knowledge Transfer	0.503	7.318	0.249 Medium Effect	Accepted
H5: Training Motivation → Tacit Knowledge Transfer	0.708	13.153	0.499 Substantial Effect	Accepted
H6: Interactive Communication → Training Motivation → Tacit Knowledge Transfer	0.337	5.414	0.292 Substantial Effect	Accepted
H7: Encouragement → Training Motivation → Tacit Knowledge Transfer	0.348	5.503	0.381 Substantial Effect	Accepted

Table 7 predicts the study model performance. All items in the PLS-SEM have the Q2-predict values from 0.199 to 0.370, and all items in the LM RMSE have Q2-predict values from 0.232 to 0.327. These values are larger than zero, showing that the prediction errors are highly symmetrically distributed. The PLS-SEM RMSE (root-mean-square error) has three negative values, and the LM RMSE (root-mean-square error) has four positive values. This outcome indicates that all PLS-SEM analysis indicators have smaller prediction errors than the LM RMSE indicators, showing that the study model has high predictive power (Shmueli et al., 2016).

TABLE 7 - PLS-PREDICT RESULTS

ITEMS	PLS	LM	LM RMSE-PLS SEM	PLS SEM-LM RMSE
G6	0.659	0.659	0.000	0.000
G7	0.611	0.632	0.021	-0.021
G8	0.699	0.684	-0.015	0.015
G10	0.642	0.655	0.013	-0.013
K3	0.705	0.701	-0.004	0.004
K4	0.652	0.644	-0.008	0.008
K5	0.677	0.674	-0.002	0.002
K6	0.657	0.676	0.018	-0.018

Table 8 reports the IPMA analysis of the study model performance. The analysis shows that encouragement, interactive communication, and training motivation are critical predecessors of the target construct, namely tacit knowledge transfer. Training motivation (0.572) is the highest importance for tacit knowledge transfer and followed by encouragement (0.249) and interactive communication (-0.039). While training motivation is the highest performance for tacit knowledge transfer and is followed by interactive communication (78.833) and encouragement (78.744). This result acknowledges that encouragement is a critical management problem, where it guides practitioners to pay more attention to improving training motivation in the management of training programs.

TABLE 8 - IPMA ANALYSIS

Constructs	Total Effect	Performance
Encouragement	0.249	78.744
Interactive Communication	-0.039	78.833
Training Motivation	0.572	82.969

## 6. DISCUSSIONS

This study shows that training motivation acts as an essential mediating variable in the relationship between the training environment and tacit knowledge transfer. In the study context, the majority of respondents viewed that the levels of encouragement, interactive communication, training motivation, and tacit knowledge transfer are high. It explains that the ability of management to promote encouragement and interactive communication will strongly invoke employee of training motivation. As a result, this training motivation may lead to greater tacit knowledge transfer in the organizational sample.

This study's findings have provided three major implications, namely theoretical contribution, the robustness of the research methodology, and practical contribution. Regarding a theoretical contribution, the hypothesis testing results display four significant findings: First, encouragement and interactive communication have been important determinants of training motivation and tacit knowledge transfer. This result is in line with the notion of the Leader-Member Exchange Theory (LMX) (Graen & Uhl-Bien, 1995). This theory explains how high-quality relationships between group leaders and members have facilitated effective communication and interpersonal treatment within the same and/or different groups (eg, leaders and members will reduce divergent opinions and increase focused opinions in performing daily work). The members of the group will have a more favorable perception that their leader cares about them as a result of this relationship. Therefore, as a result of this positive perception, increased cooperation and support among employees may result in the accomplishment of work-related goals.

The notion of this theory has received strong support from previous research on the management of workplace training revealing that the training environment is an important antecedent of two employee outcomes. First, encouragement and interactive communication have been essential predictors of training motivation. Encouragement was often done by management through providing beneficial training programs, increasing training opportunities, renewing training skills, providing training facilities and renewing existing knowledge, and creating a training climate that supports employee attendance. While interactive communication was usually practiced by management through sharing training information, providing direction, showing a caring attitude to help them make training decisions, and giving guidance in applying training learned. The capacity of managers to effectively implement such training environments had led to an increase in the training motivation of employees (Kim, Park & Kang, 2019; Mohamad, Othman & Ibrahim, 2022; Sharif, Braimah & Dogbey, 2021).

Second, encouragement and interactive communication have been significant determinants of tacit knowledge transfer. Encouragement was frequently facilitated by management in the form of the provision of training facilities, the delivery of motivational speeches, openness, the provision of advice, and the provision of motivation. Interactive communication was typically practised by management in the form of providing constructive feedback to employees, sharing information regarding training, practising two-way communication, and attempting to solve employee training issues. The capacity of managers to effectively implement such training environments had led to an increase in the tacit knowledge transfer of employees (Chatterjee, Pereira & Bates, 2018; Gautam & Basnet, 2020).

Third, training motivation has proven to be an effective tool for facilitating the transfer of tacit knowledge. Previous studies on the motivational effects of workplace training have provided substantial evidence in support of this outcome. Training motivation is typically achieved through interest, dedication, enthusiasm, attendance, comprehension of the training material, demonstration of a high level of interest and commitment, desire to renew skills, and a sense of personal responsibility to attend training. The ability of management to properly practice the training motivation of employees can lead to greater tacit knowledge transfer (Ithnin et al., 2022; Ismail, Foboy & Mohamad Nor, 2018; Sharif, Braimah & Dogbey, 2021)

Fourth, training motivation has been a significant mediating variable between the training environment and tacit knowledge transfer. This finding is consistent with the principal meaning of the Improve Work Through Learning Model (Naquin & Holton, 2003). This learning model explains that effective learning quality through training programmes that have been carefully designed by management will be able to influence high employee motivation to learn, stronger desire, effort to participate, involves self to acquire new knowledge, and competencies that are constantly updated in the development of the training programme can be able to achieve a positive behaviour within an organization. The notion of this theory has been supported by workplace training management studies, which reveal that the ability of management to practice encouragement and interactive

communication in training programs had strongly upgraded employees' training motivation. Consequently, this motivation could lead to higher tacit knowledge transfer (Mohamad, Othman & Ibrahim, 2022; El-Said, Al Hajri & Smith, 2020; Saqib, Rafiq & Asadullah, 2022).

Concerning the robustness of the research methodology, the survey questionnaire data used in this study has satisfactorily met the standards of validity and reliability analyses. This condition may lead to the production of accurate and reliable study outcomes. Further, in terms of practical contribution, the IPMA results recognize that encouragement is a critical management problem that should be paid more attention. To upgrade the encouragement perceptions in the workplace training environment, practitioners should consider the following aspects. Firstly, managers and employees should be required to complete a series of leadership training classes that are geared toward leaders and employees. This will help them gain a better understanding of the most recent training skills approaches, including support, consultation, and participation techniques. It is important for organisations to appoint training providers who are experts in the field of training to guide leaders and employees as they work to improve the quality of organisational training. Second, improve the quality of interactions between managers and employees by having conversations, exchanging opinions and ideas, and sharing information about how to better manage training. This strategy has the potential to improve understanding as well as social interaction between managers and their subordinates. This circumstance may encourage employees to learn new methods for a work assignment, which in turn may reduce errors made on a daily basis and improve overall work performance. Third, employees who successfully complete training and demonstrate excellent performance after returning to the organisation should be recognised in either a formal or informal setting. It is essential to proceed in this manner in order to boost the levels of motivation possessed by other workers so that they are aware of the significance of the training program and advancing their careers in the future.

The study has some methodological and conceptual limitations. First, data collected using a cross-sectional research design only describe the general perceptions of the correlation between study variables among respondents. Second, the correlation between the variables' indicators is not examined. Thirdly, the characteristics of respondents are not utilised to assess the correlation between the study variables and the hypothesised model variables. Fourth, data collected using a purposive sampling plan does not sufficient to represent the study population. Fifth, a longitudinal sampling plan should be used in future research if the researcher wishes to make a comparison between subsamples with the study sample. Finally, policy-making government organizations in Malaysia are only used in this study. These limitations may decrease the ability to generalize the study results to various other kinds of organizations.

## 7. CONCLUSIONS, LIMITATIONS, AND FUTURE RESEARCH

The study has developed a conceptual framework based on the workplace training program literature. The results of the measurement model confirm that the study instrument has met the criteria of validity and reliability analyses. The outcomes of structural equation modeling disclose that effect of the training environment on tacit knowledge transfer is mediated by training motivation. This outcome also has consistent with and extended most studies conducted in Western and Asian countries. Hence, the latest research and practice within organization need to view training motivation as salient element of the workplace training domain. This study further suggests that the ability of management to practise a positive training environment such as encouragement and interactive communication will be essential antecedents of subsequent positive employee outcomes (e.g., training motivation). Therefore, this positive behavior may drive to strengthen the sustainability of organization in an era of rapid global changes.

This study has some methodological and conceptual limitations. First, cross-sectional data only describe the general perceptions of respondents toward the correlation between the study constructs. Second, this study has only discussed the correlation between the latent constructs. Third, this study has not tested the role of respondent characteristics in the study model. Fourth, the purposive sampling plan is not adequate to characterize the study population. Finally, the study respondents are only taken from policy-making government organizations in Malaysia. These limitations may decrease the generalizability of the study findings to other institutions.

The study suggests certain tips to strengthen future research. First, certain essential respondents' backgrounds, such as gender, age, education, job group, and salary level should be considered in future

research because we understand their perceptions of the correlations between the study variables. Second, longitudinal studies may be considered if future research wants to understand the patterns of change and the direction and magnitude of cause-effect relationships between subsamples. Third, private and public sectors should be included in future research so we can assess the performance of the training environment as a predicting variable and training motivation as a mediating variable in the hypothetical models. Fourth, other indicators of the training environment, such as training information and training evaluation should be considered in future research because they have widely been recognized as an important antecedent of employee outcomes.

Finally, some elements of training motivation, such as interpersonal motivation should be considered in future research because they have been recognized as an important link between training motivation and tacit knowledge transfer. Lastly, certain dimensions of employee outcomes, such as organizational commitment, job satisfaction, and performance should be considered too as they have been given more attention in the organizational training research literature. Therefore, the above suggestions need to be a further advance in future research.

## REFERENCES

- Avinashi, A., & Shah, M. (2022). Investigating the mediating role of training motivation on training effectiveness, with respect to training culture and supervisor support. *Journal of Positive School Psychology*, 6(6), 9247–9260. <https://www.journalppw.com/index.php/jpsp/article/view/9276>
- Bandura, A. (1979). *Social learning theory*. Englewood Cliffs, NJ: Prentice Hall.
- Blume, B.D., Kevin, F.J. Eric A. S. Olenickd, J. (2017). A dynamic model of training transfer. *Human Resource Management Review*, 1-14.
- Brislin, R. W. (1980). Translation and content analysis of oral and written material. In H. C. Triandis & J. W. Berry (Eds.), *Handbook of cross-cultural psychology* (pp. 389–444). Boston: Allyn & Bacon.
- Burke, L. A. & Baldwin, T. T. (1999). Workforce training transfer: a study of the effect of relapse prevention training and transfer climate. *Human Resource Management*, 38(3), 227-242
- Carlson, D. S., Bozeman, D. P., Kacmar, K. M., Wright, P. M., & McMahan, G. C. (2000). Training motivation in organizations: An analysis of individual-level antecedents. *Journal of Managerial Issues*, 12(3), 271–287. <http://www.jstor.org/stable/40604311>
- Chatterjee, A., Pereira, A. & Bates, R. (2018). Impact of individual perception of organizational culture on the learning transfer environment. *International Journal of Training and Development*, 22(1), 15–33
- Chiaburu, D. S. & Tekleab, A.G. 2005. Individual and contextual influences on multiple dimensions of training effectiveness. *Journal of European Industrial Training*, 29(8), 604-625.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). New York: Routledge. <https://doi.org/10.4324/9780203771587>
- Colquitt, J. A., LePine, J. A., & Noe, R. A. (2000). Toward an integrative theory of training motivation: A meta-analytic path analysis of 20 years of research. *Journal of Applied Psychology*, 85(5), 678–707. <https://doi.org/10.1037/0021-9010.85.5.678>
- Dulebohn, J. H., Bommer, W. H., Liden, R. C., Brouer, R. L., & Ferris, G. R. (2012). A Meta-Analysis of Antecedents and Consequences of Leader-Member Exchange. *Journal of Management*, 38, 1715–1759. <https://doi.org/10.1177/0149206311415280>
- Eichhorn B. R. (2014). Common Method Variance Techniques. Paper AA11. <https://www.lexjansen.com/mwsug/2014/AA/MWSUG-2014-AA11.pdf>
- El-Said, O.A., Al Hajri, B., & Smith, M. (2020). An empirical examination of the antecedents of training transfer in hotels: the moderating role of supervisor support. *International Journal of Contemporary Hospitality Management*, 32(11), 3391-3417. <https://doi.org/10.1108/IJCHM-04-2020-0262>

- Flegl, M., L. Depoo., & M. Alcázar. (2022). The impact of employees' training on their performance improvement. *Quality Innovation Prosperity*, 26(1), 70-89. <http://doi:10.12776/qip.v26i1.1665>.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39–50. <https://doi.org/10.2307/3151312>
- Gautam, D.K. & Basnet, D. (2020). Organizational culture for training transfer: The mediating role of motivation. *International Journal of Organizational Analysis*, 29(3), 769-787. <https://doi.org/10.1108/IJOA-04-2020-2147>
- Gegenfurtner, A., Knogler, M., & Schwab, S. (2020). Transfer interest: measuring interest in training content and interest in training transfer. *Human Resource Development International*, 23(2), 146–167. <https://doi.org/10.1080/13678868.2019.1644002>
- Graen, G.B. & Uhl-Bien, M. (1995). Relationship-based approach to leadership: Development of leader-member exchange (LMX) theory of leadership over 25 years: Applying a multi-level multi-domain perspective. *The Leadership Quarterly*, 6(2), 219-247. [http://10.1016/1048-9843\(95\)90036-5](http://10.1016/1048-9843(95)90036-5)
- Hair, J., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2017). *A Primer on partial least squares structural equation modeling (PLS-SEM)* (2nd ed.). Thousand Oaks: SAGE Publications Inc.
- Henseler, J., Ringle, C. M., & Sinkovics, R. R. (2009). The use of partial least squares path modeling in international marketing. In R. R. Sinkovics and N. G. Pervez (Eds.), *Advances in International Marketing*, 277–320. Bingley, UK: Emerald Group.
- Hu, L., & Bentler, P. M. (1998). Fit indices in covariance structure modeling: Sensitivity to under parameterized model misspecification. *Psychological Methods*, 3, 424–453. <https://doi.org/10.1037/1082-989X.3.4.424>
- Ismail, A., Foboy, N. A., & Nor, A. M. (2018). Effect of managers' communication on training application with motivation to learn as an intervening variable. *The South East Asian Journal of Management*, 12(2), 123–143. <https://doi.org/10.21002/seam.v12i2.9881>
- Ithnin, N. S., Ismail, M. D. D., Ismail, A., & Tharima, A. F. (2022). Drivers and outcome of motivation to improve work through learning: Evident from South East Asia. *The South East Asian Journal of Management*, 16(1), 113-138. <https://doi.org/10.21002/seam.v16i1.1086>
- Kim, E.J., Park, S. & Kang, H.S. (2019). Support, training readiness and learning motivation in determining intention to transfer. *European Journal of Training and Development*, 43(3), 306-321.
- Kodwani, A.D., & Prashar, S. (2021). Influence of individual characteristics, training design and environmental factors on training transfer: A study using hierarchical regression. *Evidence-based HRM*, 9(4), 354-373. <https://doi.org/10.1108/EBHRM-09-2019-0085>
- Kyoung-Joo Lee (2018). Antecedents and consequence of frontline employees' commitment to service quality in hotels: Proactivity, organizational learning culture, empowerment, and job efficacy. *Global Business & Finance Review*, 23(4), 23-35.
- Lee, S., Denniston, C., Edouard, V., Palermo, C., Pope, K., Sutton, K., Waller, S., Ward, B., & Rees, C. (2019). Supervision training interventions in the health and human services: realist synthesis protocol. *BMJ Open*, 9(5), e025777. <https://doi.org/10.1136/bmjopen-2018-025777>
- Machin, M. A., & Treloar, C. A. (2004). Predictors of motivation to learn when training is mandatory. In *Proceedings of the 39th Australian Psychological Society annual conference: Psychological science in action* (pp. 157-161). Australian Psychological Society.
- McCraty, R., & Atkinson, M. (2012). Resilience training program reduces physiological and psychological stress in police officers. *Global Advances in Health and Medicine*, 1(5), 44-66. <https://doi.org/10.7453/gahmj.2012.1.5.013>
- Michalak D. P. (1981) The neglected half of training. *Training and Development Journal*, 35, 22–28

- Miner, J.B (1986). Managerial role motivation training. *Journal of Managerial Psychology*, 1(1), 25 – 30  
<http://dx.doi.org/10.1108/eb017562>
- Mohamad, N.I., Othman, A.S., & Ibrahim, N. (2022). A case in the public sector: The role of motivation to transfer as a mediator in relationship between training support and job competency. *European Journal of Military Studies* 2(1), 7160-7174.
- Mourão, L. (2018). The role of leadership in the professional development of subordinates. In (ed.), leadership. *IntechOpen*. <https://doi.org/10.5772/intechopen.76056>
- Naquin, S., & Holton, E. (2003). Motivation to improve work through learning in human resource development. *Human Resource Development International*, 6(3), 355–370. doi:10.1080/13678860210154431
- Noe, R. (1986). Trainees' attributes and attitudes: neglected influences on training effectiveness. *Academy of Management Review*, 11, 736-749.
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory*. New York: McGraw-Hill.
- Othayman, M., Mulyata, J., Meshari, A., & Debrah, Y. (2022). The challenges confronting the training needs assessment in Saudi Arabian higher education. *International Journal of Engineering Business Management*. [https://doi.org/10.1177\\_18479790211049706](https://doi.org/10.1177_18479790211049706)
- Penning de Vries, J., Knies, E., & Leisink, P. (2020). Shared perceptions of supervisor support: what processes make supervisors and employees see eye to eye? *Review of Public Personnel Administration*, 42(1), 88–112. <https://doi.org/10.1177/0734371X20942814>
- Podsakoff, P., MacKenzie, S.B., Lee, L.Y.Y., & Podsakoff, N.P (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5):879-903. <http://doi:10.1037/0021-9101.88.5.879>
- Public Service Department (2020). <https://www.jpa.gov.my/> [28 February 2020]
- Saks, A.M., & Burke, L.A. (2012). An investigation into the relationship between training evaluation and the transfer of training. *International Journal of Training and Development*, 16(2), 118-127
- Sharif, S., Braimah, M. and Dogbey, A.E. (2022). Academic supports, motivation to learn, motivation to transfer and transfer of training: a comparative analysis of public and private universities. *European Journal of Training and Development*, <https://doi.org/10.1108/EJTD-05-2021-0068>
- Saqib, M., Rafiq, N., & Asadullah, M (2022). Mediating effect of intrinsic motivation on the relationship between islamic work ethics and job performance. *Journal of Islamic Business and Management*, 12(01), 111-124. <https://doi.org/10.26501/jibm/2022.1201-008>
- Sekaran, U., & Bougie, R. (2016). *Research methods for business: A skill building approach*. Hoboken, New Jersey: John Wiley & Sons.
- Sharif, S., Braimah, M., & Dogbey, A. E. (2022). Academic supports, motivation to learn, motivation to transfer and transfer of training: A comparative analysis of public and private universities. *European Journal of Training and Development, ahead-of-print*(ahead-of-print). <https://doi.org/10.1108/EJTD-05-2021-0068>
- Shmueli, G., Ray, S., Velasquez Estrada, J. M., & Chatla, S. B. (2016). The elephant in the room: Predictive performance of PLS models. *Journal of Business Research*, 69(10), 4552–4564. <https://doi.org/https://doi.org/10.1016/j.jbusres.2016.03.049>
- Training Industry, Inc. (2017). *Research report: The anatomy of the modern learning system*. <https://trainingindustry.com/research-report-anatomy-of-the-modern-learning-system/>
- Zhao, X., Lynch Jr., J. G., & Chen, Q. (2010). Reconsidering Baron and Kenny: Myths and truths about mediation analysis. *Journal of Consumer Research*, 37(2), 197–206. <https://doi.org/10.1086/651257>