Effect of Managers’ Communication on Training Application with Motivation to Learn as an Intervening Variable

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Abstract

Research Aims - According to the present research concerning organizational training, managers’ communication are often seen as a critical training management issue that may help to maintain and enhance organizational competitiveness and performance in a borderless world and era of globalization. In this study, the relationship between managers’ communication, motivation to learn and training application was evaluated at military hospitals in Peninsular Malaysia.

Design/methodology/approach - The SmartPLS path model analysis was utilized to examine the research hypotheses and evaluate the validity and reliability of instrument used.

Research Findings - The results demonstrate that the capability of managers to communicate the training courses information will strongly invoke employees’ motivation to learn.

Theoretical Contribution/Originality - As a result, this motivation may lead to an improved training application in a military health context.

Managerial Implication in the South East Asian context - Managers play a critical role in dissemination of the organisation’s aspiration to the rank and file.

Research limitation & Implications - The conclusion of this study should be taken carefully with some methodological and conceptual limitations.

Keywords - Managers’ communication, motivation to learn, training application, SmartPLS.

Introduction

Acceleration of global competition, changing marketplace and rapid development of digital technological innovation have altered the nature of working condition and demand a more flexible and competent workforce (Nikandrou, Brinia & Bereri, 2009; Al-Swidi & Al Yahya, 2017; Park, Kang & Kim, 2018). In order to meet the new demands of working environment, training and development have been identified as an effective approach for organizations to renew the skills and knowledge of their employees, increase employees’ performance, and prepare employees for new job requirements and career development (Chuang, Liao & Tai, 2005; Rowold, 2007). This exposure may form a strong human resource force to achieve organizational goals and gain competitive advantage in a borderless world and era of globalization (Nikandrou et al., 2009; Schwab, 2016, 2017).

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Brannick, Levine & Morgeson, (2007), Chow, Finney & Woodford (2010), Towler, Watson & Surface (2014), and Khan, Mufti & Nazir Ahmed (2015) state that organizations have invested multi-billion dollars to design work-oriented and employee-oriented methods to aid employees easily learn and master various core competencies such as necessary knowledge, latest skills, up to date cognitive and affective abilities, positive attitudes and new capabilities needed to overcome the current challenges. These competencies are very useful to help employees upgrade self-confidence, change negative attitudes, increase motivation levels, match skills and knowledge with the goals of the organization, groom employees to take on new challenges, incorporate advanced technologies, obtain high rewards, improve group performance, increase promotion opportunity, employ continuous improvements, maximize work quality and productivity, minimize staff turnover and improve service quality. Improvement in these aspects may lead to greater organizational competitiveness and productivity in an era of knowledge-based economy (Advantages of Training Programme, 2017; Azman & Nurul Inani, 2010; Ghosh, Satyawadi, Joshi, Ranjan, & Singh, 2012; Kucherov & Manokhina, 2017).

Present literature relating to human resource development emphasizes that although training programs are constructed well, it may not be capable to accomplish their goals if managers have insufficient competencies to execute effective communication in organizations (Azman, Hua, Ismail, Abu Samah, Abu Bakar & Ibrahim, 2015a; Al-Swidi & Al Yahya, 2017). According to many scholars such as Ellinger, Ellinger and Keller (2005), Keller & Ozment (2009) and Azman, Nurul Afiqah, Rizal, Norzanah & Herwina (2015b), managers are intermediate officers between top management and employees, and they are empowered by top management to execute, lead and monitor the performance of operational employees. Irrefutably, managers’ effective communication is important in successful organizations. Findings from the 21st century training management studies indicated that the capability of managers to incorporate effective communication when designing and administering training programs will strongly evoke their subordinates’ motivation to acquire new competencies in the training programs. As a result, this motivation may lead to greater training application in organizations (Azman et al., 2015b; Park et al., 2018). Although the nature of this relationship has been extensively investigated, the effect size and nature of managers’ communication as a vital intervening variable had been largely ignored among the vast organizational training studies (Ng, 2015; Park et al., 2018).

Many prominent scholars argue that this condition may be due to a few reasons: First, past studies have conceptually discussed the various concepts of organizational training, such as definitions, categories and general significance of training management in public, private and/or non-profit organizations (Dawley et al., 2008; Ng, 2015). Second, many past studies have largely utilized a direct effects model using simple correlation and comparison analytical methods, namely: a) respondent perceptions toward general training management (e.g., design, support, assignment and instructional strategy), b) evaluating the association between general training management and general training motivation (e.g., motivation to learn, motivation
to engage and motivation to transfer), and c) evaluating the association between training motivation and general training outcomes (e.g., satisfaction, engagement and innovative work behavior) (Azman et al., 2015b; Dawley et al., 2008; Park et al., 2018). The model analysis is important, but it is unable to assess the effect size and nature of motivation to learn as an important intervening variable between managers’ communication and training application in the organizational training research literature (Al-Swidi & Al Yahya, 2017; Lancaster, Milia & Cameron, 2013). As a result, findings from the above studies have produced general recommendations that does not offer much help in providing useful guidelines to practitioners in understanding the difficulty of motivation to learn construct, and formulating high commitment management initiatives to upgrade the effectiveness of training programs in a market winner organization (Al-Swidi & Al Yahya, 2017; Nan-nan, Chaiprasit & Pukkeeree, 2017).

Within the context of Malaysian military health, numerous studies on managers’ communication through top-down protocols and devices, as well as their impact on training motivation have extensively been discussed in military training programs (Azman, Nurul Afiqah, Nur Atiqah, Norazila, Zafir Khan, 2014; Azman et al. 2015b), but the intervening effect of hospital employees’ motivation to learn new competencies (i.e., necessary knowledge, latest skills, current cognitive, emotional and positive attitudes, psychomotor and other present abilities) in the relationship between managers’ communication and training application is given less emphasized in Malaysian military hospitals (Azman, 2015b).

Thus, the above discussion inspires the researchers to fill this gap by evaluating the intervening effect of motivation to learn in the relationship between managers’ communication and training application. Therefore, this study is conducted to evaluate three primary relationships:
(1) To examine the relationship between managers’ communication and motivation to learn.
(2) To examine the relationship between managers’ communication and training application.
(3) To examine the relationship between managers’ communication, motivation to learn and training application.

Hence, this paper is structured to discuss the literature review, method, results, discussion and implications, and conclusion.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Manager’s communication

Managers’ communication is often viewed as an important element of training management where it consists of two key words: managers and communication. Managers are often related to intermediate officers that receive duties and responsibilities from their employers to plan, organize, lead and control operational staff in order to accomplish their organizations’ objectives and strategy (Li, Duverger &
Yu, 2018; Keller & Ozment, 2009). On the other hand, communication is broadly defined as individuals delivering messages to other individuals or groups through certain media in order to mutually understand or share the messages (Badeaa, 2014; Osman, 2014).

In a training management context, managers’ communication is broadly defined as managers openly, adequately and honestly delivering information concerning the training program aims, advantages of the program, appropriate knowledge to be acquired (process, content and assignments), suitable skills to be gained, clear performance feedback, and interpersonal obstacle solutions on before, during and/or after attending the training program (Azman, Hasan Al Banna, Ahmad Zaidi & Suriaawi, 2010; Harris, Simon & Bone 2000; Ng, 2015). Recent studies advocate that the ability of managers to effectively communicate the information relating to such training programs may act as an important antecedent of motivation to learn and training applications in competitive organizations (Alnowaiser, 2017; Lim, 2015).

Motivation to learn
Motivation to learn is a vital component of training motivation where it has two key words: learning and motivation. Motivation is frequently viewed as an individual’s path, perseverance and hard work to achieve his/her certain objectives. Meanwhile, learning is normally defined as a somewhat fixed change in behavior in response to a particular stimulus or set of stimuli (Azman et al., 2015a; Gegenfurtner & Vauras, 2012; Noe, 1986). The above discussion shows that motivation to learn is intense and persistent, and the path of learning new attitudes, knowledge or skills may be often influenced by individuals who have clear-cut goals, value results, have high self-efficacy and highly satisfied with the treatments of their managers (Azman et al., 2015a; Park et al., 2018). Extant studies in training motivation advocate that individuals with high level of motivation to learn will have high capabilities to overcome discouraging learning factors and willing to follow, involve and commit to learning activities. In a training management context, motivation to learn is interpreted as an important outcome of managers’ communication (Park et al., 2018) and a determinant of training application in manufacturing and service based organization (Abdulkarim, Musaed & Abdulla, 2009; Khan et al., 2015; Scaduto, Lindsay & Chiaburu, 2008).

Training application
Training application is an important component of training success where it consists of two major words: training and application. Training is broadly defined as individuals learning new competencies through many exercises in order to decrease daily job deficiencies and improve their job performance (Azman et al., 2010; Lim, 2015). Conversely, application is generally defined as individuals’ desire to use mastered competencies gained from training programs directly or indirectly to perform job in their organizations (Azman et al., 2015b; Nikandrou et al., 2009, Noe, 1986).
Pham, Segers, and Gijselaers (2013) and Khan et al., (2015) report that training program is still relevant with present situation, but rate of application of the learned competencies to job and organization is not convincing. To illustrate further, past literatures have indicated that only 10 percent of the training expenditure were transferred as learned behaviors (Holton, 2005; Velada, Cateano, Michael, Lyons, Kavanagh & Hutchins, 2007). It was also found that some studies indicated only 40% of employees’ skills acquired from the training programs were directly transferred to the workplace (Burke & Baldwin 1999; Facteau, Dobbins, Russell, Ladd, & Kudisch, 1995). According to Baldwin and Ford (1988) and Khan et al., (2015), the ability of trainees to apply new competencies is not easy because it is contingent upon training input factors, training outcomes, and conditions to transfer. The above discussion shows that application of new competencies gained from training programs is much lower as compared to the investment costs, and this issue should be further explored by practitioners and researchers to overcome such problems (Burke & Hutchins, 2007; Holton, Bates, & Ruona, 2000; Khan et al., 2015; Park et al., 2018).

In a training management literature, training application is usually interpreted as employees learning new competencies (i.e., knowledge, latest skills, up to date cognitive and emotional abilities, and positive attitudes received in a learning setting) in training environments and they have high desires and effort to use such competencies directly or indirectly to perform daily job in their organizations (Azman et al., 2015b).

Many training studies advocate that managers’ communication is a vital determinant of motivation to learn. For example, several surveys were conducted at various organizational samples, such as views of 110 training participants at a state public work agency located in East Malaysia (Azman et al., 2010), 306 training participants at a large Malaysian government agency (Ng, 2015), and 216 participants in professional training workshops of education organizations in Midwest and Southern parts of the United States (Park et al., 2018). Results from these surveys showed that managers practised an effective communication to upgrade employees’ appreciation about the training goals and benefits, usefulness of training content, and ease of using training methods in the training sessions. Messages are openly, adequately, honesty and accurately transmitted over using traditional and information technology media to trainees. Consequently, this communication initiative could result in an improved employees’ training application in different organizations (Azman et al., 2010; Ng, 2015; Park et al., 2018). Thus, the following hypothesis is formulated:

H$_1$: Managers’ communication are positively related to motivation to learn

Numerous studies about training management support that managers’ communication have been an important antecedent of training application. For example, several surveys were done at different organizational settings, such as perceptions of 346 employees at a manufacturing facility in US (Dawley et al., 2008), 306 employees at a large government agency (Ng, 2015), 706 employees at three city halls in Sarawak, Malaysia (Azman et al., 2015b), 85 supervisors and 91 supervisees
from Boomers, Generations X and Y generations among Emiratis and UAE expatriates (Lim, 2015), 126 participants of the computer software operation and design introduction in Taiwan (Tai, 2016), and 500 officers of Public Security Organisation in Saudi Arabia (Alnowaiser, 2017). Outcomes from such empirical studies found that managers had used effective communication to assist employees in recognizing the training goals and benefits, usefulness of training frames, and practicality of training procedures in the training sessions. These information are openly, adequately, honestly and accurately conveying via traditional and information technology media to trainees. Consequently, this communication style would result in higher employees’ training application in the different organizations (Alnowaiser, 2017; Azman et al., 2015a; Dawley et al., 2008; Lim, 2015). Thus, the following hypothesis is established:

\[ H_2: \] Managers’ communication are positively related to training application

**Relationship between motivation to learn and training application**

Effect of motivation to learn on training application is consistent with the notion of training motivation model. Tombs (2011) has reviewed two training motivation models: first, Noe’s (1986) Model of Motivational Influences on Training Effectiveness explaining the features of motivation to learn and its impact on general trainee outcomes (e.g., learning, behavior change and results) through individual and contextual variables. Second, Colquitt, LePine & Noe’s (2000) Integrative Model of Motivation to Lean describing the characteristics of motivation to learn and its role as an important contributing factor of general learning outcomes, such as declarative knowledge, skill acquisition, post-training self-efficacy, and reactions. In these motivation models, the characteristics of motivation to learn are well discussed, but its direct relationship with training application has not received well support from the training management research literature (Tombs, 2011). In order to overcome the deficiency of the above theories, Beier and Kanfer’s (2010) Stage Model of Motivation in Training and Learning Activities discloses that trainees’ motivation during learning and training sessions may strongly upgrade employees’ motivation to apply the learned knowledge and skills to the work environment. The concepts proposed by this theory have received strong backing from various training management studies (Locht, Dam & Chiaburu, 2013; Ng & Rusli, 2018).

Various studies related to training motivation advocate that motivation is an essential predictor of training application. For example, surveys done at different organizational backgrounds, such as perceptions of 287 public employees in Saudi Arabia (Abdulkarim et al., 2009), 595 managers who joined in a management training program in Netherlands (Locht et al., 2013), 216 respondents from educational companies in the United States (Park et al., 2018), and 31 trainees attending management training programs organized by a public sector training provider in Malaysia (Ng & Rusli, 2018). Findings from these surveys reported that managers had practiced effective communication to assist employees in understanding the training goals and benefits, usefulness of training frames and applicability training procedures in the training sessions. These messages have been openly, adequately, honesty and ac-
curately disseminated via traditional and information technology media to trainees. As a result, implementation of an effective communication system could lead to greater employees’ training application in the different organizations (Abdulkarim et al., 2009; Locht et al., 2013; Ng & Rusli, 2018; Park et al., 2018). Thus, the following hypothesis is formulated:

H₃: Motivation to learn is positively correlated to training application.

**Relationship between managers’ communication, motivation to learn and training application**

Role of motivation to learn as an important intervening variable between managers’ communication and training application is in line with the essence of Naquin and Holton’s (2002) Motivation to Improve Work through Learning Model. This model suggests that trainees with high motivation to learn have stronger desires and efforts to join, engage and acquire new competencies in training development programs. This learning process may bring about an enhanced positive behavior in organizations (Machin & Treloar, 2004; Holton, 2005; Ng & Rusli, 2018). Recent studies have evaluated the essence of the theory and revealed that motivation to learn is an essential outcome of training management issues, such as managers’ communication (Azman et al., 2010; Park et al., 2018), and motivation to learn also can act as an important intervening variable between managers’ communication and training application (Ng, 2015; Park et al., 2018).

Limited recent training management studies have provided strong evidences supporting the intervening role of motivation to learn between managers’ communication and training application. For instance, some surveys were done at different organizational samples, such as perceptions of 123 employees at a Malaysian military based health centre (Azman et al., 2015b), 306 employees at a large government agency (Ng, 2015), and 216 participants in professional development workshops of education organizations in the United States (Park et al., 2018). Results from these studies revealed that the capability of managers to openly, sufficiently, honestly and accurately deliver the information about training programs via traditional and/or technology communication media would strongly invoke employees’ motivation to learn new competencies (i.e., necessary knowledge, latest skills, up to date cognitive and affective capabilities, positive attitudes and other present abilities) in the training sessions. Therefore, this learning information could lead to greater training application in the examined organizations (Azman et al., 2015b; Ng, 2015; Park et al., 2018). Thus, the following hypothesis is established:

H₄: Effect of motivation to learn on training application is indirectly affected by managers’ communication.

**RESEARCH METHOD**

A cross-sectional research design is used as it provides flexibility to the researchers in incorporating the training management and the actual survey as data collection procedure for the present research. The utilization of this process may assist in
gaining precise data, reduce bias data and boost the quality of the data collected (Cresswell, 1998; Sekaran & Bougie, 2010). The present research is done at military hospitals located at three military bases in Peninsular Malaysia, namely Kuala Lumpur, Melaka and Negeri Sembilan. The names of hospitals are kept confidential for reasons of privacy. These hospitals have been supplied with up-to-date therapeutic and diagnostic facilities to deliver curative and preventive medical care to military employees, their dependents and other authorized users (Malaysia Military Hospital Directory Hospital.com.my, 2018; The Star Online, 2018).

These hospitals play a major role in providing medical services to the military employees during peace and wartime (Zin, 2003). In order to enhance the quality of healthcare services, the Ministry of Defense, Malaysia has established the Institute of Health Training with the responsibilities to implement various types of training for doctors and medical assistants in the Armed Forces. For example, they deliver programs for nurses, medical and health assistants, dental hygienists, dental assistants, operation theatre technicians, x-ray technicians, lab assistants and also deliver the Medical and Dental Officers Orientation Course (Worldwide Military Medicine.Com, 2018).

Although such training methods and content are well planned, their effectiveness is contingent upon the capability of managers to implement effective communication in the training courses. In order to enhance the effectiveness of training programs, managers have taken proactive actions to extensively use non-verbal (e.g., body language and postures) and verbal (e.g., written and oral communication) to deliver the information about training programs, such as training objectives, course outline, and training policy and procedures to employees. This information is very useful to upgrade employees’ motivation to learn new competencies which related to health care services, and this learning process may result in higher training application in the training programs. With the paucity of empirical evidence, there is an urgent need to further discover the effectiveness of employees’ motivation to learn as an intervening variable in the training model of military hospitals.

At the beginning, the questionnaires were prepared in English based on the training management. Then after, a back-to-back translation method was used to translate the questionnaires into Malay and English languages in order to increase the reliability and validity of research outcomes (Cresswell, 1998; Sekaran & Bougie, 2010).

Instruments

The questionnaires consist of three major parts: firstly, managers’ communication has 4 items adapted from workplace training literature (Machin & Fogarty, 2004; Lancaster et al., 2013; Na-nan et al., 2017). Secondly, motivation to learn has 4 items adapted from trainees’ motivation literature (Weinstein & Meyer, 1994; Yi & Davis, 2003). Finally, training application has 4 items adapted from training application literature (Al-Swidi & Al Yahya, 2017; Azman & Nurul, 2010; Noe & Schmitt, 1986; Holton et al., 2000). All the items are evaluated using a 7-ratings
scale ranging from “strongly disagree/dissatisfied” (1) to “strongly agree/satisfied” (7). The characteristics of the participants have been treated as controlling variables as this research centered on attitudes of employees.

**Sample**

This study used a purposive sampling plan to distribute 1000 survey questionnaires to employees in the hospitals. In this sampling plan, the survey questionnaires were distributed to employees with diverse background and experience attending healthcare training programs working in different departments or divisions in the hospitals. This is to ensure that the researchers gather relevant and adequate information from participants who have good knowledge about the healthcare training programs. From the number of survey questionnaires distributed, only 395 (39.5%) usable questionnaires have been received by the researchers. Participation in this study is voluntary, confidential and anonymous.

The adequacy of this sample has been assessed based on the thumb rule, “the sample size should be equal to or larger than 10 times the largest number of structural paths directed at a particular construct in the structural model” (Hair, Hult, Ringle, & Sarstedt, 2017), and “the measurement models have an acceptable quality of terms of outer loading (i.e., loadings should be above the common threshold of 0.70)” (Hair et al., 2017). In this study, managers’ communication has 4 items and this was the largest number of formative indicators in the survey questionnaires. Based on this rule, the sample size should be at least 40 participants. With reference to the 10 times rule, the number of samples used in this study is adequate. Thus, the sample can be used for further analysis.

**Data Analysis**

Hair et al. (2017), and Henseler, Ringle and Sinkovics (2009) recommend to use SmartPLS 3.0 to analyze data obtained. This statistical package is capable of delivering latent variable scores, handle small sample size issues, and measure complex models. Relying on the above researchers’ guidelines, the procedure of data analysis consists of confirmatory factor analysis which is used to measure the reliability and validity of the instrument. Then, SmartPLS path model analysis is utilized to test the hypothesized model. The outcomes of testing direct effects model will reveal the significant relationship between the independent variable and the dependent variable if the value of t statistic is more than 1.65 (Henseler et al., 2009). While, the outcomes of testing indirect effects model will reveal the significant relationship between the independent variable, intervening variable and the dependent variable if the value of t statistic is more than 1.96 (Henseler et al., 2009). After which, the $R^2$ value is used as a guide of the overall predictive strength of the model based on the standards: 0.19 (weak), 0.33 (moderate) and 0.67 (substantial) (Hair et al., 2017; Henseler et al., 2009). Next, the $f^2$ value is utilized as a measure to decide the effect size of predicting variable in the model based on the criteria: 0.02 as weak, 0.15 as medium and 0.35 as large (Hair et al. 2017). Lastly, if the Q2 value for dependent variable is more than 0, the model has predictive relevance (Hair et al., 2017).
RESULTS

Respondents’ characteristics

Table 1 reveals that most of the participants were females (58.0%), aged between 26 and 30 years of age (32.7%), are married (70.4%), SPM/MCE graduates (65.1%), allied health science staff (78.2%), and employees who have 6 to 10 years of service (29.6%).

Measurement model

Table 2 shows that the results of convergent validity analysis. The factor loadings for each construct are more than 0.70 in their own constructs within the model, while the correlation between items and factors have loadings more than other items in the distinctive constructs. Overall, the findings reveal that the items demonstrating each construct satisfy the standard for convergent validity analysis (Henseler et al., 2009). Each of the constructs possess average variance extracted (AVE) values greater than 0.50, showing that the constructs have satisfied the criterion of convergent validity (Barclay, Thompson & Higgins, 1995; Fornell & Larcker, 1981; Henseler et al., 2009).

Tables 3 displays the discriminant validity and construct reliability results. Each construct has a value of \( \sqrt{\text{AVE}} \) in diagonal that is higher than the squared correlation with other constructs in off diagonal, revealing that all constructs have satisfied the criterion of discriminant validity analysis (Henseler et al., 2009). In addition, the composite reliability value for each construct is higher than 0.80, showing that the constructs have high internal consistency (Henseler & Chin., 2010; Nunally & Bernstein, 1994).

Table 1
Respondent Characteristics (N=395)

<table>
<thead>
<tr>
<th>Respondent</th>
<th>Sub Profile</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male</td>
<td>42.0</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>58.0</td>
</tr>
<tr>
<td>Age</td>
<td>&lt;25</td>
<td>31.4</td>
</tr>
<tr>
<td></td>
<td>26 – 30</td>
<td>32.7</td>
</tr>
<tr>
<td></td>
<td>31 – 35</td>
<td>19.7</td>
</tr>
<tr>
<td></td>
<td>&gt;36</td>
<td>16.2</td>
</tr>
<tr>
<td>Marital status</td>
<td>Single</td>
<td>31.1</td>
</tr>
<tr>
<td></td>
<td>Married</td>
<td>70.4</td>
</tr>
<tr>
<td>Education</td>
<td>Degree and above</td>
<td>2.8</td>
</tr>
<tr>
<td></td>
<td>Diploma</td>
<td>20.0</td>
</tr>
<tr>
<td></td>
<td>STPM/HSC</td>
<td>9.6</td>
</tr>
<tr>
<td></td>
<td>SPM/MCE</td>
<td>65.1</td>
</tr>
<tr>
<td></td>
<td>PMR/SRP/LCE</td>
<td>2.5</td>
</tr>
<tr>
<td>Work Group</td>
<td>Medical officers</td>
<td>1.8</td>
</tr>
<tr>
<td></td>
<td>Administration staff</td>
<td>19.7</td>
</tr>
<tr>
<td></td>
<td>Allied health science staff</td>
<td>78.5</td>
</tr>
<tr>
<td>Length of Service</td>
<td>&lt; 5 years</td>
<td>22.0</td>
</tr>
<tr>
<td></td>
<td>6 to 10 years</td>
<td>29.6</td>
</tr>
<tr>
<td></td>
<td>11 to 15 years</td>
<td>21.3</td>
</tr>
<tr>
<td></td>
<td>16 to 21 years</td>
<td>20.3</td>
</tr>
<tr>
<td></td>
<td>&gt; 22 years</td>
<td>6.8</td>
</tr>
</tbody>
</table>

Note: SPM/MCE : Sijil Pelajaran Malaysia/ Malaysia Certificate of Education
STPM/HSC : Sijil Tinggi Pelajaran Malaysia/ Higher School Certificate
PMR/SRP/LCE : Penilaian Menengah Rendah/Sijil Rendah Pelajaran/Lower School Certificate
**Analysis of the constructs**

Table 4 displays the variance inflation factor and descriptive statistics results. The mean values for the constructs range from 5.8038 to 6.0051, showing that most of the participants view that the levels of managers’ communication, motivation to learn, and training application range from high (4) to highest level (7). Whereas, the variance inflation factors’ values for the relationship between the independent variable (i.e., managers’ communication) and the intervening variable (i.e., motivation to learn), and between the mediating variable (i.e., motivation to learn) and the dependent variable (i.e., training application) are lower than 5.0, revealing that the data have no critical collinearity issues (Hair et al., 2017).

**Outcomes of Testing Hypotheses 1 and 2**

Table 5 shows that the inclusion of managers’ communication in the analysis has contributed 37 percent in the variance of motivation to learn, and 41 percent in the variance of training application. Both results provide moderate support for the model (Hair et al., 2017; Henseler et al., 2009). Moreover, the findings of testing the research hypotheses display two essential results: first, managers’ communication is significantly correlated with motivation to learn (B=0.605; t=13.933; p=0.000),
therefore $H_1$ is supported. Second, managers’ communication is significantly correlated with training application ($B=0.641; t=18.524; p=0.000$); thus $H_2$ is supported. The results confirm that managers’ communication and motivation to learn are important antecedents of motivation to learn and training application.

As an extra test, effect size ($f^2$), and predictive relevance ($Q^2$) have been further tested using the Bootstrapping and Blindfolding procedure, respectively. The results of Bootstrapping show two important outcomes: first, the $f^2$ value for the relationship between managers’ communication and motivation to learn ($0.577$) is higher than $0.35$ (Hair et al., 2017), revealing that it has large effect. Second, the value of $f^2$ for the relationship between managers’ communication and training application ($0.696$) is higher than $0.35$ (Hair et al., 2017), revealing that it has large effect. Further, the findings of Blindfolding illustrate two important outcomes: first, the $Q^2$ value for motivation to learn ($0.258$) is greater than zero (Hair et al., 2017), revealing that it has predictive relevance. Second, the $Q^2$ value for training application ($0.283$) is greater than zero (Hair et al., 2017), showing that it has predictive relevance.

**Results of Examining Hypothesis 3**

Table 6 shows that the inclusion of motivation to learn in the analysis has contributed 48% to the variance of training application which provides moderate support for the model (Hair et al., 2017; Henseler et al., 2009). As a result, motivation to learn is significantly correlated with training application ($B=0.762; t=16.751; p=0.000$); thus, $H_3$ is supported. This confirms that motivation to learn is an essential antecedent of training application.

As an extra test, effect size ($f^2$), and predictive relevance ($Q^2$) are further tested using the Bootstrapping and Blindfolding procedure, respectively. The results of Bootstrapping show that the $f^2$ value for the relationship between motivation to learn and training application ($0.911$) is more than $0.35$ (Hair et al., 2017), revealing a large effect. Further, the findings of Blindfolding show that the value of $Q^2$ for training application ($0.330$) is higher than zero (Hair et al., 2017), revealing that it has predictive relevance.

**Results of Examining Hypothesis 4**

Table 7 displays that the inclusion of managers’ communication and motivation to learn has shown a 48% in the variance of training application which indicates mod-
erate support for the model (Hair et al., 2017; Henseler et al., 2009). Further, the results of testing the research hypotheses show that relationship between managers’ communication and motivation to learn is significantly correlated with training application ($B=0.762; t=16.751; p=0.000$), therefore, $H_4$ is supported. This result confirms that motivation to learn is an essential intervening variable in the relationship between managers’ communication and training application.

As an extra test, effect size ($f^2$), predictive relevance ($Q^2$) and type of mediating effect are further tested using the Bootstrapping and Blindfolding procedure, respectively. The results of Bootstrapping show two essential outcomes: the value of $f^2$ for the relationship between managers’ communication and motivation to learn (0.573) is higher than 0.35 revealing that it has a large effect (Hair et al., 2017). Next, the value of $f^2$ for the relationship between motivation to learn and training application (0.914) is higher than 0.35 revealing that it has a large effect (Hair et al., 2017). Third, the findings of testing the hypotheses show that a direct path from managers’ communication to motivation to learn and training application is significantly correlated, and an indirect path from managers’ communication to training application through motivation to learn is also significantly correlated. These results indicate that the type of mediation effect is competitive mediation type. Further, the results of Blindfolding show two important findings: first, the value of $Q^2$ for motivation to learn (0.258) is higher than zero revealing that it has predictive relevance (Hair et al., 2017). Second, the $Q^2$ value for training application (0.330) is higher than zero (Hair et al., 2017), showing that it has predictive relevance.

**DISCUSSIONS AND IMPLICATIONS**

Findings from this research show that motivation to learn is an essential intervening variable in the relationship between managers’ communication and training application. Within the setting of this research, managers took proactive actions to properly design and execute training courses founded upon the wide policies put forth by their stakeholders. The majority of the participants view that the levels of managers’ communication, motivation to learn and training application are high. This illustrates that the ability of managers to appropriately communicate the information about training courses will encourage employees’ motivation to learn, which in turn, it may result in more training application in organizations.

This research offers three key contributions: theoretical implication, strength of research method, and practical input. In terms of theoretical input, this research proves that relationship between managers’ communication and motivation to learn has enhanced training application. This findings is in par with the concept of Naquin and Holton’s (2002) Motivation to Improve Work through Learning Model, which shows that the capability of managers to appropriately deliver information

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Beta</th>
<th>T Value</th>
<th>P Value</th>
<th>Decision</th>
<th>R²</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>$H_4$: Relationship between managers’ communication, motivation to learn and training application</td>
<td>0.762</td>
<td>16.751</td>
<td>0.000</td>
<td>Supported</td>
<td>0.478</td>
<td>Moderate support</td>
</tr>
</tbody>
</table>

Note: Significant at * $t > 1.96$ (Two Tail Testing)
about training courses through appropriate verbal communication (e.g., through telephone calls, face to face communication, video conferencing and voice chat), and non-verbal communication (e.g., body language, facial expression, tone of voice, eye contact and touch) will strongly invoke employees’ motivation to learn new competencies (i.e., new knowledge, latest skills, up to date cognitive and affective capabilities, positive attitudes and other abilities) in the training courses. As such, this learning activity may result in greater training application in organizations. Results of this research support and broaden studies that have been carried out by Azman et al. (2015b), Ng (2015) and Park et al. (2018).

Conversely, several past studies reveal that effect of managers’ communication is dependent upon the types of training assignment, namely mandatory assignment and voluntary assignment (Chaloner, 2006; Machin & Treloar, 2004; Noor Azmi, Ahmad Bashawir, Azman, Safar, Muhammad & Mohd Hasanur, 2016). For example, results from studies by Machin and Treloar (2004), Chaloner (2006), and Noor Azmi et al., 2016) advocate that the ability of managers to openly and clearly explain the purpose, types of training and consequences of mandatory training assignment will help employees to better understand the benefits and advantages of attending the training programs, as well as negative consequences of not attending the training programs. This information may strongly invoke employees’ motivation to attend, learn, involve and commit with training programs. On the other hand, the readiness of managers to openly and clearly explain about the purposes, types of training and positive or negative consequences of voluntarily training assignment will help employees to understand the benefits and advantages of attending the training programs. Hence, the training information is crucial to assist employees in understanding the usefulness of training programs in their careers.

With respect to the strength of research method, the questionnaires utilized in this research have met the criteria of reliability and validity standards, thereby producing precise and accurate findings. With regards to practical input, the results of this research may be of use to practitioners as guides to enhance the management of training courses in various organizations. Nonetheless, managers need to emphasis on the following aspects in order to meet this goal. First, training methods and content should be updated as per the nature of technology-based jobs and its expectations. This will help employees with differing age and status to learn and practice new competencies (i.e., required knowledge, latest skills, newest cognitive and affective capabilities, positive attitudes and other present abilities), thereby supporting their organizational strategies and goals. Secondly, recruitment and selection policy need to be oriented to hiring employees having good academic qualifications, good previous service records and proactive behavior to fulfil critical and important positions. Such employees may play important roles as mentors, coaches and/or counselors for new employees in overcoming daily job problems, improving current performance, fulfilling customer demands and expectations and upgrading organizational images in a global economy. Third, performance-based reward should be introduced to encourage employees confidently using new competencies gained from training programs to enhance their job performance, invent
new products or services, reduce operational costs and save organizational expenditures. Finally, the nature of leadership styles in military organizations has a vast difference when compared to private and other public organizations. As an organization that is hierarchical in structure and communications are based on ranks and positions, directive and transactional leadership styles are widely practiced in daily job operations. Although this leadership approach may bring positive impacts, it is not adequate to motivate diverse employees’ ranks and positions to achieve their organizations’ strategic vision and missions. In order to complement with the existing leadership approach, top management of the military organizations should promote employee-oriented leadership. This leadership paradigm may inspire managers and employees to use more consultative and participative styles in daily job operations. In practice, a consultative and participative management style promotes good oral and verbal speeches, positive emotion, empathy, responsive, interaction and negotiates with different people. This relationship practice may motivate employees, hence reducing job failures, enhancing job performances and achieving job targets. These suggestions, if prioritized can encourage employees to support their organizations’ training goals.

CONCLUSION

The outcomes of this study illustrate that the ability of managers to appropriately communicate the training courses information will encourage employees’ motivation to learn new competencies (i.e., new knowledge, latest skills, up to date cognitive and affective capabilities, positive attitudes and other new abilities) in the training courses. Subsequently, the learning motivation may strongly encourage employees to apply such competencies when they return to their organizations. The results from this study have also support and extend the various training management research literatures published in Asian and Western countries. Therefore, present research and practice within organizational training need to incorporate managers’ communication as a crucial element of the training management domain. This study further recommends that the ability of managers to openly, adequately, honestly and accurately communicate the information about training programs via traditional and information technology media will intensely bring about succeeding positive individual attitudes and behavior (e.g., satisfaction, performance, commitment and quality). Consequently, these positive findings may result in maintaining and enhancing the organizational competitiveness and performance in the 21st century.

The conclusion of this study should be taken carefully with some methodological and conceptual limitations: first, this study used a cross-sectional research design to collect survey questionnaire data at one time during the period of the present research, and information gathered may only describe general respondent perceptions about the relationship between the variables of interest in one organizational sector. Second, this study has not evaluated the relationship between specific characteristics for the independent variable, intervening variable, and dependent variable. Finally, purposive sampling technique was used to select the sample which may result in response biases. These limitations may prevent the researches in generalizing the
outcomes of this study to other types of organizations.

This research provides few recommendations for future research: firstly, researchers may further explore several other respondent characteristics in which may show significant outlooks for appreciating how the diversity of respondents’ characteristics affects the organizational training. Second, data collection via longitudinal research design should be considered because it is capable of clarifying the patterns of change and the path and degree of causal relationships among the variables of interest. Thirdly, effect size and nature of managers’ communication as an intervening variable can be clearly understood if future studies make comparisons involving more than one organizational type. Fourth, other dimension of managers’ communication, such as interpersonal communication, information justice, feedback, information sharing, and information technology media have been widely appreciated as an important determinant for various types of employee outcomes, such as satisfaction, performance and prosocial behavior. These variables should be used in future study (Anand, Vidyarthi & Rolnicki, 2018; Hassan & McCann, 2015; Raley, Meenakshi, Dent, Willis & Duzinski, 2017). Fifth, other specific theoretical constructs of motivation to learn such as learner’s sense of self, interest, locus of control, individual effort, orientation of goals, self-regulation, self-efficacy and self-esteem have been broadly identified as an essential link between managers’ communication and various types of employee outcomes. These variables should be considered in future research (Harlen & Deakin Crick, 2002; Kong, Liu & Wang, 2018; Muho & Kurani, 2013; García-Carbonell, Fernando Martín-Alcázar & Sánchez-Gardey, 2016). Sixth, in order to enhance the representativeness of studied population, a larger sample size must be gathered to accurately reflect the member of the entire population. Finally, other features of training application such as near transfer, far transfer, generalization and maintenance should be focused more because their roles are regularly deliberated in many training management researches (Iqbal & Dastgeer, 2017; Muduli & Raval, 2018). The significance of these variables needs to be further explored in future research.

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