

## WORK ENVIRONMENT FACTORS INFLUENCE ON TRANSFER OF TRAINING IN MYANMAR

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### ABSTRACT

*Transfer of training should be considered as an essential requirement for the effectiveness of training programs and for the advancement of real workplace. Of many theories of transfer of training, different researchers have identified numerous factors that affect transfer of training within the real job setting. The main issue of this study is to test how the work environment factors (supervisor support, peer support, opportunity to use and feedback) influence on transfer of training. For this purpose, data was collected from 350 employees of private manufacturing firms in the Yangon region, Myanmar. The results of SPSS version 17.0 with multiple regression analysis indicated that three work environment factors (peer support, opportunity to use, and feedback) were significantly and positively related to transfer of training. Contrary to expectation, supervisory support was not significantly related to transfer of training. The findings of this paper are helpful for manufacturing industry in order to design the supportive work environment to create successful transfer of training and to achieve the expected outcomes from the large amount of training expenditures. This paper discusses the implications of the findings for the human resource professionals and the directions for future research.*

*Keywords: work environment factors, transfer of training, private manufacturing firms*

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### 1. INTRODUCTION

Several organizations accept that training can create skillful workforce through an expensive investment in training. Training programs upgrade the individual performance with higher productivity, improved work quality, increased motivation and commitment (Seyler et al. 1998; Yamnill and McLean 2001). However, the investments in training programs often fail to provide the desired and expected outcome of the organizations (Kontoghiorghes 2004). The successor effectiveness of training basically depends on the learned skills which are actually apply or transferred to the real work environment (Chiaburu et al. 2010; Chiaburu and Lindsay 2008). Transfer of training is the degree to which an individual uses the knowledge and skills learned in the classroom on the job in an effective and continuous manner (Georgenson 1982). The application of new skills by individuals in the workplace is important for the organizations to gain an effective return on investment in training activities (Axtell et al. 1997). If the skills learned in training do not transfer to the job by trainees, organizations may not benefit from the investment in training (Grossman and Salas 2011). They stated that researchers have tried to explore the factors to solve the transfer problem.

According to the previous studies, several researchers have identified the factors that directly or indirectly affect the transfer of training in the real workplace (Bhatti et al. 2013). Several research studies suggest that work environment factors can create success or failure of the transfer of training and employees' decisions to apply their newly learned skills in real workplace (Baldwin and Ford 1988; Chiaburu et al. 2010; Tracey and Tews 2005). Work environment has been referred to as the transfer climate or those work environment factors perceived by trainees can encourage or discourage their use of knowledge, skills and abilities learned in training in the real work environment (Cromwell and Kolb 2004).

There are several studies that focused on the relationship between work environment factors and transfer of training (Bhatti et al. 2013; Cheng and Ho 2001; Chiaburu et al. 2010; Clarke 2002; Devos et al. 2007; Kontoghiorghes 2004; Velada et al. 2007). There is a lack of empirical evidences in the study of the impact of work environment factors (supervisor support, peer support, opportunity to use and feedback) on transfer of training in Myanmar. Moreover, although private manufacturing firms have emphasized on training to upgrade the individual performance, they cannot create effective work environment to give trainees the ability to transfer the trained skills, and to reinforce and support the trainees to apply those skills. Thus, they could not yield their satisfaction about the application of training outcomes, transfer of training, or higher performance of employees after the costly training programs.

This study emphasizes the importance of work environment factors in the transfer of training process to solve the problem of Myanmar private manufacturing firms by using the following research question.

“How do work environment factors (supervisor support, peer support, opportunity to use, and feedback) relate to transfer of training?”

To explore the influence of work environment factors (supervisor support, peer support, opportunity to use, and feedback) on transfer of training is the main objective of this study.

## 2. RELATED LITERATURE AND HYPOTHESES DEVELOPMENT

### 2.1 WORK ENVIRONMENT FACTORS

The workplace environment is defined to include the physical and social context within which any client system (a person, group, or organization) functions to achieve a goal (Xiao 1996, pp.57). Grossman and Salas (2011) stated that work environment factors provide trainees to exhibit learned knowledge, skills, and attitudes once they return to the work setting. They explained that positive transfer outcomes will not appear without the encouragement of work environment even the training programs are designed effectively. The post-training work environment influences trainees' judgments about the value of training and includes the social support which provides employees with the confidence about their learned skills to apply in job setting (Gilpin-Jackson and Bushe 2007).

In Dirani's (2012) empirical result, work-related factors and employee related factors are more important and better predictors of the transfer of training than other factors (individual, educational, and institutional). Different studies (e.g., Dirani 2012; Donovan et al. 2001; Hawley and Barnard 2005; Lim and Johnson 2002; Saks and Belcourt 2006; Yusof 2012) used different work environment factors such as supervisor support, supervisor sanctions, peer support, opportunity to use, feedback, openness to change, job utility. In the present study, only four work environment factors (supervisor support, peer support, opportunity to use and feedback) were selected to test how these factors influence on transfer of training.

**Supervisor support:** The essence of supervisor support is described as a situation in which supervisors provide reinforcement for the use of learning on the job (Russ-Eft 2002). The importance of supervisors was described by Baldwin and Ford (1988) that supervisors can create the opportunity for trainees to fully utilize their new skills and to improve their performance. Similarly, employees can create positive transfer of training if they receive the support from their supervisor to apply the new learned knowledge, skills, and attitudes on the job (Zumrah et al. 2012). According to Pham et al. (2013), work environment factors (supervisory support, job autonomy, and preferred support) have a significant relation with training transfer. However, Velada et al. (2007) reported that supervisor support did not significantly predict transfer of training. Chiaburu and Marinova's (2005), and Devos et al. (2007) also found no significant effect of supervisor support on transfer. Because of the different results of the relationship between supervisor support and transfer of training, the following hypothesis was developed in this study.

**Hypothesis 1: Supervisor support is positively related with transfer of training.**

**Peer support:** Peer support is the extent to which peers reinforce and support the use of learning on the job (Holton et al. 2000). The results of Facticeau et al. (1995) and Hawley and Barnard (2005) showed that peer support has positive impact on training transfer. In Bates et al.'s (2000) result, one of the three interpersonal variables is peer support which is a significant predictor of learning transfer. There is a positive effect of colleagues who reinforce and support the trainees to use the learned skills on the job (Donovan et al., 2001). Peer will support opportunity to apply the learned skills through training on the job, encourage each other, and show patience and appreciation to use those skills (Holton et al. 2007). On the other hand, Huczynski and Lewis (1980) argued that peers are not significantly important in learning transfer. Bates et al. (2000) and Bhatti and Hoe (2012) suggested that because of the lack of uniform results or the mixed findings of the past studies, more research is needed to understand the significant effects of supervisor support and co-worker or peer support in transfer. According to the suggestion of previous researchers, the present study tested the following hypothesis.

**Hypothesis 2: Peer support is positively related with transfer of training.**

**Opportunity to use:** The opportunity to use refers to the resources and tasks obtained by trainees to use the trained skills on the job (Holton et al. 2000). Having the opportunity to apply the trained skills on the job and to use the proper equipment, tools, and materials can create the skill transfer to the real workplace (Garavaglia 1993). Opportunity will create successful transfer of training if individual has the opportunity to use new skills gained in training on the job (Bates et al. 2000). Lim and Johnson (2002) found that the opportunity to use learned skills is regarded as a highest form of support for employees to create training transfer. If employee does not have any opportunity to apply newly learned skills, he or she will not transfer the newly trained skills to the workplace (Nikandrou et al. 2009). The opportunity to use the trained skills is an essential requirement for trainees to encourage their learning and application of acquired skills after training (Lancaster et al. 2013). Using the following hypothesis, the importance of opportunity to use in transfer of training was assessed in this study to support the previous findings (e.g. Bates et al., 2000; Johnson, 2002).

**Hypothesis 3: Opportunity to use is positively related with transfer of training.**

**Feedback:** Feedback refers to information provided to trainees about their performance (Baldwin and Ford 1988, p.67) and about an actual condition or position with respect to some ordered or required condition or position (Nickols 1995, p. 289). Feedback is the consequence of performance and the main purpose to provide feedback is to reduce the difference between the actual and expected performance and to upgrade the performance of individuals (Hattie and Timperley 2007). In the study of Velada et al. (2007), the hypothesis that feedback regarding the trainee's performance after training will be positively related to training transfer was completely supported and the researchers explained that individual receives feedback from others in the organization regarding his or her performance and this feedback can influence training transfer. Timely feedback is a valuable support for trainees to develop self-awareness, confidence, and effective behaviors and performance in the workplace (Lancaster et al. 2013). In this study, feedback was selected as one of the work environment factors to create successful transfer of training. Thus, this study explored the following hypothesis to test with the empirical data.

**Hypothesis 4: Feedback is positively related with transfer of training.**

**2.2 TRANSFER OF TRAINING**

Transfer of training is the application of trainees’ knowledge, skills, behaviors, and attitudes gained in training to the real job context (Holton et al. 1997). Transfer of training is one of the significant measurements of training effectiveness and it leads to gain higher performance of employees and organizations (Bhatti and Kaur 2010). Because of the poor training transfer, a substantial part of organizations’ investment in training is often wasted (Burke and Baldwin 1999). The significant model that influences the transfer of training research was Noe’s (1986) model in which the desire to use new skills in the work setting by trainees may have an important influence on behavior change in the real work situation and if the supports (necessary equipment and information, monetary, etc.) are not provided by the organization, the employees’ desire to transfer, and the expected organizational outcomes will not be realized (Noe 1986).

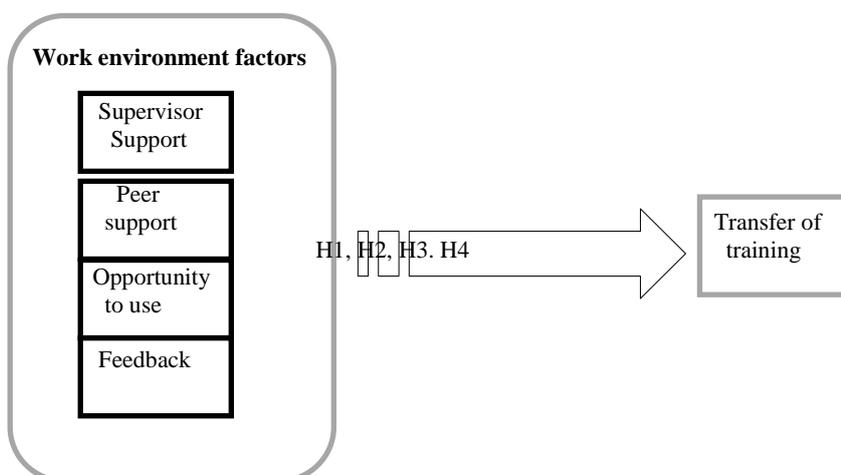
Baldwin and Ford’s (1988) model, one of the most influential and severely cited training transfer models, has attracted a lot of empirical studies to investigate the importance of proposed variables that affect transfer of training process (Cheng and Ho 2001). It has three main factors: training inputs (trainee characteristics, training design and work environment), training outputs (learning and retention), and conditions of transfer (generalization and maintenance). Based on Baldwin and Ford’s (1988) model, Brinia and Efstathiou (2012) explored the importance of factors such as supervisor’s support, colleague’s support, content of training and these variables have strong and positive effect on training transfer.

An empirical research of Xiao (1996) revealed that supervision and matching trainees’ knowledge, skills, and attitudes (KSAs) with work design are the most influential factors of transfer of training. Holton et al.’s (2000) Learning Transfer System Inventory (LTSI) model was also significantly applied by several researchers to validate the LTSI in different contexts (e.g. Devos et al. 2007; Yaghi et al. 2008; Yamkovenko et al. 2007). Yaghi et al. (2008) tried to validate the LTSI in the public sector in Jordan. Their result showed the importance of peer support, supervisor support and coaching to use the new trained knowledge and skills on the job.

Additionally, Kontoghiorghes (2004) attempted to validate the model of Kontoghiorghes (2002) in a different setting (employees of the information technology division of a large automaker in the United States). In this systemic model, training transfer climate factors are supervisor and coworker support, task cues, job and career utility, training accountability, opportunity to practice/use new skills and knowledge, and intrinsic and extrinsic rewards for using new skills and knowledge. Several literature of transfer of training revealed that several work environment factors can create transfer of training.

However, there are additional factors that are needed to be considered to understand the effectiveness of transfer of training in the organizational context (e.g., why employees want to apply their knowledge, skills, and attitudes in their work setting, and what factors are important to create a high level of transfer of training) (Yamnull and McLean 2001). The present study expected that the work environment factors (supervisor support, peer support, opportunity to use, and feedback) have a significant effects on transfer of training and those factors can create successful transfer of training of private manufacturing firms in the Yangon region, Myanmar. Based on the results of the previous studies of the relationship between work environment factors (supervisor support, peer support, opportunity to use, and feedback) and transfer of training, the present study proposed the following model to test the hypotheses.

**Figure I: Hypothesized model**



**3. RESEARCH INSTRUMENT AND RESPONDENTS**

Based on the existing literature, twenty-seven 5-Point Likert-type scale questionnaires were used to collect the data. Except for the general information, the questionnaire was arranged to answer with five-point Likert scale (from 1 strongly disagree to 5

strongly agree). The questionnaire was originally prepared in English version and then translated into Myanmar language which was used for the convenience of respondents. The respondents of this study were the employees of private manufacturing firms in the Yangon region of Myanmar. Those employees attended the training at least one time in year 2013, and they were selected as respondents for this study. Three hundred and fifty of 400 questionnaires were returned, giving 87.5 per cent response rate overall. Of these, 235 (67.1 per cent) were males. 30.6 per cent of respondents were between the age of 18 and 23 years and more than one-third (36.9 per cent) were the age between 24 and 29 years. 42.6 per cent had a high school degree and 35.1 per cent had a university degree. 45.7 per cent of respondents had the work experience between 0-2 years and 39.1 per cent were the work experience of 3-5 years. 74.3 per cent of respondents attended the training at least 1-2 times.

**4. RESULTS AND DISCUSSIONS**

All the statistical analyses were carried out using the SPSS statistical computer package, version 17.0. A principal component analysis (PCA) followed by varimax rotation was performed on the 27 survey items and multiple regression analyses were conducted to test the hypotheses with the empirical data. The reliability of data was checked by using Cronbach's alpha value in which the alpha value of selected variables were much more than 0.7, so the scales can be considered extremely high for a degree of reliability (Tabassi et al. 2012). In table 1, means, standard deviations, intercorrelations and reliabilities of the variables are presented. Hypotheses 1, 2, 3, and 4 predicted to have direct positive relationships between supervisor support, peer support, opportunity to use, feedback and transfer of training.

**Table I: Means, standard deviations, reliabilities and intercorrelations of study variables**

Variable	Mean	SD	SS	PS	OP	FB	TOT	Alpha	Item
SS	4.22	.506	—					0.814	5
PS	4.31	.357	.540**	—				0.727	6
OP	4.31	.443	.733**	.502**	—			0.774	5
FB	4.20	.428	.758**	.555**	.681**	—		0.768	6
TOT	4.31	.351	.596**	.615**	.605**	.597**	—	0.724	5

\*\* Correlation is significant at the 0.01 level (2-tailed)

SD = Standard deviation, SS = supervisor support, PS = peer support, OP = opportunity to use, FB = feedback, TOT = transfer of training

The results provided that four work environment factors (supervisor support, peer support, opportunity to use feedback) were positively related to transfer of training ( $r = 0.596, p < 0.01$ ), ( $r = 0.615, p < 0.01$ ), ( $r = 0.605, p < 0.01$ ), and ( $r = 0.597, p < 0.01$ ) respectively. Multicollinearity is likely to exist when a correlation between two independent variables exceeds .80 (Hatcher & Stepanski 1994). In this study, as shown in table 1, the correlation between the two independent variables was below the acceptable level of .80. Moreover, the tolerance and VIF scores of the model were presented in table 2 in which the value of tolerance for each independent variable was more than (.10) and the level of multicollinearity ( $VIF < 6$ ) is acceptable (Cohen 2003). Thus, there was no collinearity problem in the data.

**Table II: The tolerance and VIF scores of the variables**

Variables	Collinearity Statistics	
	Tolerance	VIF
Supervisor support (SS)	.331	3.024
Peer support (PS)	.649	1.541
Opportunity to use (OP)	.419	2.385
Feedback (FB)	.372	2.689

a. Dependent Variable: Transfer of training (TOT)

The results of the multiple regression analysis were presented in table 3.

**Table III: Results of multiple regression analysis**

Variables	Standardized Coefficients			R <sup>2</sup>	Adjusted R <sup>2</sup>
	Beta	t	Sig		
Supervisor support (SS)	.115	1.777	.076	.519	.514
Peer support (PS)	.346	7.474	.000		
Opportunity to use (OP)	.244	4.228	.000		
Feedback (FB)	.151	2.472	.014		
Model					

P < .05; Dependent Variable: Transfer of training (TOT)

Although the bivariate correlation between supervisor support and transfer of training was positive and significant ( $r = 0.596, p < 0.01$ ), the regression analysis did not support hypothesis 1 ( $\beta = 0.115, p = 0.076$  [ns]). Peer support, opportunity to use, and feedback positively related to transfer of training ( $\beta = 0.346; p < 0.05$ ), ( $\beta = 0.244; p < 0.05$ ), and ( $\beta = 0.151; p < 0.05$ ),

respectively. Thus, the results supported hypotheses 2, 3, and 4. Overall, the findings demonstrated that three of the proposed hypotheses had been supported. Supervisor support did not show any significant relationship with transfer of training. This model explained 51.4 percent of the total variance of transfer of training.

The results of this study demonstrated the influence of work environment factors on transfer of training, except supervisor support. Consistent with the previous studies, the results showed positive relationship between peer support and transfer of training (e.g., Hawley and Barnard 2005), opportunity to use and transfer of training (e.g., Bates et al. 2000; Lim and Johnson 2002), and feedback and transfer of training (e.g., Van den Bossche et al. 2010; Velada et al. 2007).

However, the results of this study did not support the dominant literature (e.g. Bates et al. 2000; Brinkerhoff & Montesino 1995; Saks and Belcourt 2006; Zumrah et al. 2012) that indicate that supervisory support is a critical variable in transfer of training. On the other hand, Chiaburu and Marinova's (2005), Devos et al. (2007) and Velada et al. (2007), found that supervisor support did not significantly predict transfer of training. The present study considered only the post-training supervisor support. Perhaps supervisory interventions in pre-training and during the training could have the stronger impact on transfer of training (Velada et al. 2007). Regarding the result of this study, supervisor support alone did not predict transfer of training. Other significant factors such as motivation to transfer should be considered as a supporting factor to create significant relationship between supervisor support and transfer of training. Thus, supervisor support is a variable to consider in future research.

## 5. CONCLUSION

### 5.1 THEORETICAL AND PRACTICAL IMPLICATIONS

Results of this study have potentially important implications not only for managers, policymakers, and human resource professionals of several organizations but also for future research and practice. To achieve the expected returns from training, firms might emphasize their work environment factors to create effective transfer of training. According to the results, supervisor support should be considered to have a significant impact on transfer of training with other factors such as the mediating or moderating effects of motivation to learn and motivation to transfer. Managers should emphasize certain levels of investment in order to retain competent employees by using formal and informal training to fulfill necessary skills and competency. They also need to encourage employees to actually apply their knowledge, skills, and abilities and support required feedback after training in the real workplace. Moreover, organizations should focus on several factors including work environment factors to eliminate poor transfer of training and to yield expected return or high performance from the training investment.

### 5.2 LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

This study has some limitations for future research to address and for the generalization of the study.

1. This study explored the relationship between work environment factors (supervisor support, peer support, opportunity to use and feedback) and transfer of training. It is also recommended that future research should determine the other factors such as trainee characteristics, training design, motivation to learn, and motivation to transfer to have significant and different impacts on transfer of training.
2. This study only focused on the transfer of training problem of private manufacturing firms in the Yangon region, Myanmar. Additional studies should examine the influence of work environment factors on transfer of training in different industries and service organizations in different regions of Myanmar and in other contexts.
3. There is a requirement for additional research that could use longitudinal study to collect the data to detect the importance of work environment factors and to focus on the different results of those factors in transfer of training.

### 5.3 CONCLUSION

Because of the unexpected result of the relationship between supervisor support and transfer of training, firms should pay more attention on supervisor support to upgrade the employees' behaviors to fully apply the trained skills with favorable supervisor support in the real workplace. Not only manufacturing but also service organizations should evaluate the effectiveness of their work environment factors. By creating favorable work environment factors, the successful transfer of training might be expected after the time and cost consumed training programs. Additionally, no such study has been conducted in the context of Myanmar. Although future research is required, the results of this study take as a first step to highlight a more comprehensive understanding of transfer of training in Myanmar.

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