

How supportive Transfer Climate Affects Individual's Motivation to Training Transfer

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Abstract

Training transfer is an important concern for researchers and practitioners due to the huge budget on training but lower estimation of transfer in practical domains. Researches revealed training design, trainees' characteristics and work environment characteristics are the most important sets of variables in a training context. This study intended to examine individuals' cognition of motivation with perceived organizational transfer climate by structural equation modeling (SEM) from broad industries in Taiwan. 500 questionnaires were sent to participants and 316 usable returns in 63.2% return rate were computed. The results revealed the predictor role of the positive organizational transfer climate to both motivation to learn and motivation to transfer. Both motivation to learn and motivation to transfer predict training transfer and played mediator roles of transfer climate to training transfer. Moreover, motivation to transfer also mediated motivation to learn to training transfer. In addition to confirm the prediction role of positive organizational transfer climate, this study contributed to reinforce the relationship among motivation to learn, motivation to transfer, and training transfer.

Keywords: Training transfer, Motivation to learn, Motivation to transfer, Transfer climate

1. Introduction

Training is one of the most popular ways to enhance the productivity of individuals and communicate organizational goals to new employees (Arthur, Bennett, Edens, & Bell, 2003), and is purposed to fill the gaps between organizational requirement and employees' need, which is focused on changing trainees' behaviors or instruct new behaviors to the individual trainee (Seyler, Holton, Bates, Burnett, & Carvalho, 1998). According to the different demands of organizations, training can be defined as a short-term intervention implement to improve individuals by instructing them with important and adequate knowledge, skills and attitudes that employees need to meet the environment change (Rothwell & Sredl, 2000), or, in contrast, that training is a long-term intervention implement with a systematic process, which develops the individuals' knowledge and competences for current or future jobs (Blancher & Thacker, 1999). Either intervention is purposed to reap benefits from training that employees apply what they have learned to the job setting (Salas & Cannon-Bowers, 2001). In other words, the ultimate goal of training should be positively transferred into the workplace (Berry & Morris,

2005). Unfortunately, research revealed there is only a lower percentage of learning actually transferred into job performance (Holton & Baldwin, 2000 ; Kupritz, 2002).

Training transfer (TT) is an important concern for training researchers and practitioners due to it being estimated that only a small percentage of the training actually results in transfer to the job (Baldwin & Ford, 1988). In organizational studies, the topic of TT has become popular while it is attributed to its importance in terms of HRD practice, as well as its failure at low rating of transfer (Kontoghiorghes, 2004). Although organizations spent an enormous amount of money, time and effort to train their employees, researchers disclosed that only about 40% of the contents transferred into job performance immediately following training (Wexley & Latham, 2002) and even worse in about 10 to 15% only (Baldwin & Ford, 1988 ; Broad & Newstrom, 1992 ; Burke & Baldwin, 1999 ; Facticeau, Dobbins, Russell, Ladd, & Kudisch, 1995). It has been widely reported in literature that training investment often does not succeed to deliver the desired and expected outcome. Therefore, this study intended to focus how organizations can enhance the TT before and after trainees attend the training program.

Climate is individuals' psychological state affected by organizational conditions or sense of the working setting, while transfer climate (TC) is the organizational culture, which support their employees in transferring the knowledge or skills obtained from training programs into job setting. Motivation is a foundational topic which describes the reasons of impelling individual and organizational behaviors (Mitchell & Daniels, 2003). In terms of research, studies revealed that positive TC has been shown to affect TT directly (Kontoghiorghes, 2001a ; Lim & Morris, 2006 ; Mathieu, Tannenbaum, & Salas, 1992 ; Tracey, Tannenbaum, & Kavanaugh, 1995), but one study by Burke and Baldwin (1999) indicated that TC is an indirect moderator between individual or organizational factors and TT. Based on the motivation theory, both intrinsic and extrinsic motivation is driven by how individual senses their goal or rewards of the particular task. This study intended to confirm if transfer climate in organization enhance people's motivation. In other words, it was the main purpose of this study to examine the mediation role of motivation in training transfer context. Besides, previous studies examined motivation variables as motivation to learn (MTL) and motivation to transfer (MTT) individually, or their aggregate (Tracey, Hinkin, Tannenbaum, & Mathieu, 2001). One more intention of this study was to explore the relationship between MTL and MTT individually and their effectiveness to TT with environment characteristics as transfer climate.

TT attributes to the grade of trainees who apply knowledge, skills, behaviors and attitudes into their job setting after training that requires a generalization of training to their work context and its perseverance over time to improve their job performance (Velada & Caetano, 2007). Kontoghiorghes (2004) demonstrated that most of the TT researches based on Vroom's (1964) expectancy theory and "transfer of training model" included the most important sets of variables which were revealed by Baldwin and Ford (1988) with training design, trainee characteristics, and work environment characteristics. Present study intended to explore the relationship among TC (environment characteristic), motivation (trainee characteristic) and TT. Based on the concern of the effectiveness of TC on the trainee characteristics in TT context, the purposes of this study were:

- (1). To identify the role of TC as a predictor of TT, MTL and MTT in training context.
- (2). Confirm the role of MTL and MTT as predictors to TT and mediators of TC to TT.
- (3). Confirm the relationship between MTL and MTT.

Subsequently, this study would be constructed with a literature review to assume its hypotheses, study methods, measures, analytical procedures, results and discussion. Finally, some theoretical and managerial implications and study limitations with future research suggestions were provided.

2. Theory Background and Hypotheses

2.1 Motivation theory

In psychological and organizational studies, motivation is a critical topic which revealed the reasons of impelling individual's action and explaining both individual and organizational behaviors (Mitchell & Daniels, 2003). In studies, it was categorized into intrinsic and extrinsic motivation. Intrinsic motivation refers to an individual who shows his/her motivation to engage in a task for interest and enjoyment (Lepper, Green, & Nisbett, 1973). In contrast, extrinsic motivated people express a motivation to engage in a task for obtaining outcomes external to the task itself (Amabile, 1993). In training context, MTL and MTT are critical motivation which may be enhanced by outside prediction variables such as TC which refers to how individuals sense their organizational culture of supporting their transferring the knowledge or skills obtained from training programs into job setting. Without motivation, TT may not be implemented by individual in organizational context.

2.2 Transfer climate

Historically, Fleishman, Harris and Burt (1955) were the pioneers who suggested that a supportive climate is a factor of TT. Afterwards increasing empirical works confirm the notion that work setting is an important factor in determining whether trainees apply knowledge and skills in their job setting. The initial work conducted by Baumgartel and his team (Baumgartel & Jeanpierre, 1972 ; Baumgartel, Reynolds, & Pathan, 1984) revealed managers make more efforts in applying new knowledge within more favorable environments (e.g., appreciation for performance and innovation). Since then, researchers had started exploring the notions of environmental favorability (Noe, 1986) and TC (Rouiller & Goldstein, 1993).

As a general concept, climate can be defined as the individual's sense of the meaningful work settings (James & Jones, 1976 ; Jones & James, 1979), or the psychological state of the individual affected by organizational conditions such as culture, structure and managerial behavior (Burke & Litwin, 1992). Nevertheless, in training, TC is a particular aspect of an organizational climate, which is described as a facet specific climate (Rousseau, 1988) and the notions of work environment that may directly influence the generalization and preservation of knowledge and skills obtained during training practice (Rouiller & Goldstein, 1993).

In term of the construction of TC, Baldwin and Ford (1988) revealed the TC comprises a range of organizational characteristics of TT such as support from one's supervisors and peers, situational constraints and opportunities to use the obtained knowledge and skills on job. Rouiller and Goldstein (1993) categorized TC into antecedents and consequences cues, which remind trainees of their training or provide the opportunities for trainees to use the knowledge and skills obtained in the training program. Based on the definition provided by Rouiller and Goldstein (1993, p. 379), TC is "situations and consequences that either inhibit or help to facilitate the transfer of what has been learned in training into the job situation," Mathieu and Martineau (1997) confirmed that organizational restraint affects TT by decreasing trainees' opportunities to perform their training tasks, and encouraged support from supervisors and coworkers. Lately, Lim and Johnson (2002) identified the factors of TC in work environment into organizational level factors such as commitment for training and whether the training program meet organizational goals setting, and individual level factors such as the supervisor's involvement in training and new knowledge and skills utilization. Therefore, TC may be described as either supportive or unsupportive characteristics of organization, supervisors and peers.

2.3 Motivation to learn and Motivation to transfer

Literature exposes learning motivation and training motivation is interchangeable (Kushnir, Ehrenfeld, & Shalish, 2008) as Kanfer (1991) defined training motivation as "the direction, intensity, and persistence of learning-directed behavior in training contexts." Previous studies

also named “training motivation” as “motivation to learn” (Chiaburu & Lindsay, 2008 ; Holton, Bates, & Ruona, 2000 ; Kontoghiorghes, 2002 ; Mathieu & Martineau, 1997 ; Tracey *et al.* , 2001) which were proved into same variable in different studies (Chiaburu & Lindsay, 2008 ; Klein, Noe, & Wang, 2006 ; Liao & Tai, 2006 ; Scaduto, Lindsay, & Chiaburu, 2008; Tai, 2006) which cited both same scales developed by Noe and Schmitt (1986) and Noe and Wilk (1993). Meanwhile, present study rather to call it as unilingual “motivation to learn” attributes trainee’s desire to learn the content of a training program (Noe, 1986). It is the critical determinant elements of individuals for engagement, attendant, and persistence in training activities.

Motivation plays a critical role in achieving training effectiveness even though trainees have the ability to learn the content of a training program, but may fail in receiving benefit from training due to their low MTL (Colquitt, LePine, & Noe, 2000 ; Noe, 1986). In other words, trainees are not able to receive full benefits of training without consideration of MTL (Tai, 2006). In a training context, motivation can influence the willingness of a trainee to attend the training program (Maurer & Tarulli, 1994 ; Noe & Wilk, 1993), to exert energy toward the program, and to utilize his/her learning on the job (Baldwin & Ford, 1988).

MTT is one of the critical concepts in HRD literatures, and it refers to the desires of participators to utilize and associate the knowledge and skills obtained in training programs to the workplace (Noe & Schmitt, 1986), that is, involved the drive or inspiration of an individual to reassign knowledge and skills from training to a job-specific context (Seyler *et al.*, 1998). To obtain the desirable degree of TT, it is necessary to understand the factors individuals choose to apply their knowledge, skills, and attitude in the workplace (Yamnill & Mclean, 2001). The theories of human behavior hypothesized by Holton (1996) help us to understand and predict behaviors that facilitate to performance in job-setting, as well as clarified the theories of expectancy, equity, and goal setting which were also discussed by Yamnill and McClean (2001) to explain MTT.

Vroom’s original argument of expectancy theory was located in the mainstream of contemporary motivation theory (Moorhead & Griffin, 1992), where he defined expectancy as "a momentary belief concerning the likelihood that a particular act will precede a particular outcome." (Vroom, 1964, p.17). Porter and Lawler (1968) argued if intangible intrinsic rewards such as a feeling of accomplishment, a sense of achievement are adequate, high levels of performance may direct to satisfaction, that employees may be MTT their knowledge and skills obtained from a training program in the environmental factors such as job motivation, opportunities for advancement (Kontoghiorghes, 2001b). Equity theory is simply described assuming that people desire to be treated fairly in relation to others (Adams, 1963) which was described its relationship with MTT by Noe (1986) that there is a greater chance to transfer the knowledge and skills by individuals who obtain equity in pay (tangible extrinsic rewards) or other sought-after rewards which may relate to intangible intrinsic rewards. In contrast, explicit goal-setting assignment in training program obtains a better application of knowledge and skill into job performance than a control group which has no goals assigned (Wexley & Nemeroff, 1975). According to the notion of Locke (1968), goals guide attention and action, additionally, they organize effort in proportion to perceive requirements of the goal or task (Locke, Shaw, Saari & Latham, 1981).

2.4 Training transfer

TT is described as “the application continued by learners to performance of jobs, individuals, community responsibilities of knowledge in learning activities” (Broad, 1997, p. 2). It assumes that individuals apply new learning in a changing environment over time. An effective training is not only an improvement in skills and knowledge of individuals, but also the trainees’ application abilities of the knowledge, skills and abilities gained in training into the job practices (Baldwin & Ford, 1988 ; Ford & Weissbein, 1997 ; Salas & Cannon-Bowers, 2001 ;

Tannenbaum & Yukl, 1992). In other words, TT attributes to the grade of trainees who apply knowledge, skills, behaviors and attitudes into their job setting after training that requires a generalization of training to their work context and its perseverance over time to improve their job performance (Baldwin & Ford, 1988 ; Velada & Caetano, 2007). It has become a key criterion for evaluating the effectiveness of training programs (Baldwin & Ford, 1988).

In empirical study, Tracey *et al.* (1995) examined 505 supermarket managers from 52 stores on the work environment of TC and found the social support system played a central role in TT. Besides, Cromwell and Kolb (2004) examined the relationship between four specific work environment factors (such as organization support, supervisor support, peer support and participation in a peer support network) and TT by quantitative and qualitative data collected from both trainees and their directly supervisors. One way ANOVA results of the aggregate data revealed that trainees who received higher levels of organization, supervisor, and peer support, and who also participated in a peer support network reported higher levels of knowledge and skills transfer. Therefore, this study hypothesized the relationship between TC and TT as below.

H1: Organizational positive TC will have a positive relationship with TT.

Cheng (2000) tested the knowledge and skills transfer among who had completed a part-time MBA program and found TC was positively related to MTL. Numerous researchers had utilized the main intervention variables of training design, trainee characteristics, and work environment characteristics into their studies based on “transfer of training model” (Chiaburu & Lindsay, 2008 ; Pidd, 2004 ; Velada & Caetano, 2007). As one of the predictors of TT, trainee characteristic is the most important factor that a success is carried out through people in organization (Pfeffer, 1994). Moreover, Cheng and Ho (2001) surveyed studies conducted in past years and concluded that MTL influenced trainees’ training performance and transfer outcomes. Therefore, this study hypothesized the relationship TC, MTL and TT as below.

H2: Organizational positive TC will have a positive relationship with MTL.

H3: MTL will have a positive relationship with TT.

In addition, Quiñones (1997) proposed a conceptual frame of “Influence of contextual factors on training effectiveness” which purported that TC influences training outcomes and transfer through the effectiveness of individual variables such as trainees’ MTL. Furthermore, another hypothesis was assumed as below.

H4: MTL mediates the relationship between TC and TT.

Among the relationship of TC, MTT and TT, Seyler *et al.* (1998) revealed the role of MTT as an outcome variable influenced by TC factors. Besides, empirical study done by Axtell, Maitlis and Yeara (1997) revealed MTT is a significant predictor of positive TT, while Chiaburu & Lindsay (2008) also found transfer is predicted primarily by MTT with strong relationship with training instrumentality. Finally, Colquitt *et al.* (2000) in their meta-analysis of the antecedents and outcomes of MTT also found the evidences of both direct and indirect influence of the TC on TT. The following hypotheses would be examined to clarify the relationship of TC, MTT and TT.

H5: Organizational positive TC will have a positive relationship with MTT.

H6: MTT will have a positive relationship with TT.

H7: MTT mediates the relationship between TC and TT.

Furthermore, the majority of studies have continued to investigate MTT as an outcome variable affected by participant MTL (Kontoghiorghes, 2002). Chiaburu and Lindsay (2008) also found that MTT mediates the MTL to TT. Therefore, this study raised last two hypotheses as below.

H8: MTL will have positively relationship with MTT.

H9: MTT mediates the relationship between MTL and TT.

3. Method

3.1 Participants

Training employees is concentrated on individuals more than on groups as the nature of the training goal is to facilitate the participant with knowledge and skills in training (Rothwell & Sredl, 2000). Organizations accomplishing their goals depend on their employees' intention to keep learning and utilize their training contents to improve their workplace. Besides, TC may be a critical role (variable) of TT. Therefore, this study intended to examine individuals' cognition of MTL and MTT with perceived organizational TC. Sampling is contained from broad industries in Taiwan. 500 questionnaires were distributed to the participants, with 316 usable returns in 63.2% response rate. Participants were 316 full-time employees, who volunteered to participate in this study with average age 36.3 years, 53.5% of the sample was male, and 43.0% was female. 71.5% of the participants were positioned as front-line workers/staffs, others were first-line managers (18.4%), middle managers (7.3%), and top managers (2.5%). Most of them were educated with graduate/college level in 79.1%.

3.2 Measures-Instruments

This survey questionnaire contained 18 items distributed into four variables as below. Participants indicated the extent to which they agreed with each of the statements on a 5-point Likert scale (1 strongly disagree to 5 strongly agree).

3.2.1 Training transfer

Four items from Xiao (1996) had been modified slightly to rate the level of TT such as "The quality of my work has improved after the training program," which reaps its internal consistency reliability in Cronbach's alpha .845 with a good model fit indices by implementation of Confirmatory factor analysis ($\chi^2/d.f.=2.979$, GFI=.991, RMR=.006, RMSEA=.079, AGFI=.956, CFI=.992, SRMR=.0184).

3.2.2 Transfer climate

Five items were selected from the TC scale which was created by Burke and Baldwin (1999) for rating the level of positive organizational transfer climate. The scale focused on the positive organizational TC especially from how supervisors concern employees' training matters such as the example that "My supervisor and I discuss the objectives of training programs that I attend," which has its internal consistency reliability in Cronbach's alpha .821 with a good model fit indices by implementation of Confirmatory factor analysis ($\chi^2/d.f.=2.150$, GFI=.987, RMR=.014, RMSEA=.060, AGFI=.962, CFI=.989, SRMR=.0238).

3.2.3 Motivation to learn

Four items from Noe & Schmitt (1986) were utilized to rate trainees' MTL with a sample item as "I am willing to exert considerable effort in training programs in order to improve my skills," which gains its internal consistency reliability in Cronbach's alpha .810 with a good model fit indices of Confirmatory factor analysis result ($\chi^2/d.f.=1.429$, GFI=.996, RMR=.005, RMSEA=.037, AGFI=.978, CFI=.998, SRMR=.0145).

3.2.4 Motivation to transfer

Five items created by Noe & Schmitt (1986) were utilized to rate trainees' MTT with a sample item as "I believe my job performance will likely improve if I use the knowledge and skills acquired in training programs," which obtains its internal consistency reliability in Cronbach's alpha .842 with a good model fit indices of Confirmatory factor analysis result ($\chi^2/d.f.=0.996$, GFI=0.994, RMR=0.005, RMSEA=0.000, AGFI=0.981, CFI=1.000, SRMR=0.0158).

4. Result

This study conducted Structural equation modeling (SEM) to explore the relationship among TC, MTL, MTT, and TT. As a multivariate statistical tool, SEM provides researchers an

absolute methodology to test and quantify hypotheses for reinforcement of theories (Joreskog & Sorbom, 1996). In addition, SEM also estimates the error and tests both direct and indirect structural hypotheses with analysis results are contrasted with established standards for estimated fit, which evaluates the strength of the finding compared to the proposed model as a confirmatory investigation by present study. Moreover, SPSS was also utilized to process to show means, standard deviations and correlations for variables in this study.

Table 1 reveals the means, standard deviations and correlations of variables in this study which shows the correlation between variables. The result shows no collinear problem between independent variables (inter-correlation < .8) (Katz, 1999). In examining the model fit and hypotheses test, we utilized AMOS18 to test on the path coefficients according research framework which brought the results as Figure 1 as below. Statistics revealed a good model fit indices include $\chi^2/d.f.$ in 1.815 which within an acceptable range lower than 3 suggested by Bagozzi and Yi (1988). The Goodness of Fit Index (GFI) is in .924, the Comparative Fit Index (CFI) is in .961, and the Adjust Goodness of Fit Index is in .900 which comforted to the acceptable values higher than .9. The root mean square residual (RMR) is .014, which meet to the acceptable values lower than .05, and the RMSEA, root mean square error of approximation is .051 which was suggested by Browne and Cudeck (1993) that the acceptable value is lower than .1. Finally, standardized root mean residual (SRMR) is .0548 which meet the acceptable value lower than 0.1 suggested Hu and Bentler (1999). Based on above indications, the overall structural model of this study is acceptable as the goodness of fit statistics stated in Table 2.

By testing the prediction role of TC on the TT, statistics expressed C.R. in .324 and $p > .05$. It demonstrated that hypothesis 1 was not supported in this study setting. Positive organizational TC was found positively associated with both MTL (C.R.=5.714, $p < .001$) and MTT (C.R.=6.946, $p < .001$) individually. Therefore, hypotheses 2 and 5 were supported.

At the individual's characteristics level, this study hypothesized that both MTL and MTT influence the TT. Statistics demonstrated that hypotheses 3 and 6 were supported that MTL predicts TT (C.R.=2.150, $p < .05$), and MTT also predicts TT (C.R.=4.330, $p < .001$).

Based on the motivation of this study, MTL was hypothesized as a predictor on MTT. Statistics result revealed the critical ration for regression weight of MTL on MTT is 8.355 ($p < .001$). It demonstrated that hypothesis 8 was supported, MTL is significant influence MTT.

Finally, to concentrate on the main purpose of this study, the mediator roles of MTL and MTT are necessary to be examined. Regarding the mediator roles of MTL and MTT, path coefficient is not the only criterion to decide the mediation effects, but also direct and indirect effects between independent and dependent variables with mediation variables. Table 3 shows the direct effects of TC on TT (.027) is less than the indirect effects of TC on TT (.560) through both MTL and MTT. The comparison results revealed both MTL and MTT act a critical full mediator between TC and TT because of the path coefficient between TC and TT was disappeared which demonstrated the full mediation roles of MTL and MTT to TT. Besides, the direct effect of MTL on TT (.234) is less than the indirect effects of MTL on TT (.402) through MTT. The comparison results also revealed MTT is a mediator between MTL and TT.

Table 1. Means, standard deviations, correlation matrix

Variables	Mean	SD	1	2	3	4
1. TC	3.54	.544	1.00			
2. MTL	4.09	.460	.395**	1.00		
3. MTT	3.87	.453	.632**	.660**	1.00	
4. TT	3.89	.480	.533**	.643**	.737**	1.00

* $p < 0.05$ ** $p < 0.01$

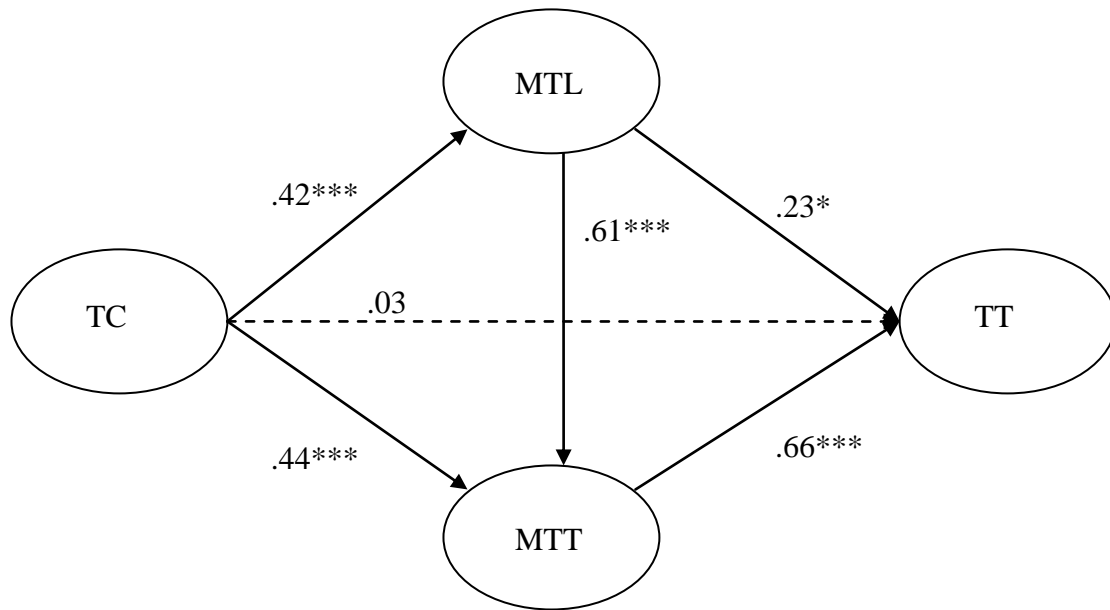


Figure 1. Tested model: path coefficients

Note: TC, Transfer climate; MTL, Motivation to learn; MTT, Motivation to transfer; TT, Training transfer.

* $p < 0.05$ ** $p < 0.01$ *** $p < 0.001$

Table 2. Goodness of fit statistics

Model/Construct	CMIN/D F	GFI	RMR	RMSEA	AGFI	CFI	SRMR
CFA	1.753	.928	.014	.049	.905	.965	.0411
Suggested Values	< 3	> .9	< .05	< .1	> .9	> .9	< .05

Table 3. Direct and Indirect Effects Matrix

	TC (Independent)	MTL (Independent)	Standard Effects
MTL (Mediation)	.424		Direct effects
	.000		Indirect effects
	.424		Total Effects
MTT (Mediation)	.442	.611	Direct effects
	.259	.000	Indirect effects
	.701	.611	Total Effects
TT (Dependent)	.027	.234	Direct effects
	.560	.402	Indirect effects
	.587	.636	Total Effects

4.1 Finding and Discussion

In testing the relationship between positive organizational TC and either MTL or MTT, we found TC positively associated with both MTL and MTT individually. The results extended and reinforced the finding by that positive organizational TC relates to MTL, and also extended and reinforced the finding by previous studies that positive organizational TC significantly affects MTT (Huczynski & Lewis, 1980 ; Roullier & Goldstein, 1993 ; Tracey *et al.*, 1995 ; Xiao, 1996). Theoretically, this study found that positive TC as organizational culture that drives individuals' motivation in training context. Present study showed the

importance of TC, which is not only revealed as important as training itself (Roullier & Goldstein, 1993), but also an important predictor to trainees' motivation.

At the individual's characteristics level, this study hypothesized that both MTL and MTT influences the TT. Statistics demonstrated that MTL and MTT act as prediction role on TT. Results extended and reinforced their relationship as previously stated, that MTL is a key variable linking training outcomes and having a potentially substantial impact on training effectiveness (Noe, 1986 ; Quiñones, 1995), while MTT significantly influenced positive transfer within one year after the training program (Axtell *et al.*, 1997). Results of this study also extended the finding by Chiaburu and Lindsay (2008) that training transfer is predicted primarily by MTT with training instrumentality. Our findings confirm and reinforce that either MTL or MTT is a critical predictor of skills transfer (Chiaburu & Tekleab 2005 ; Tracey *et al.*, 2001) theoretically. According to the Motivation Theory, when individuals are intrinsically motivated, they tend to execute particular tasks with their enjoyment, while individuals are extrinsically motivated who tend to perform the tasks in pursuit of external outcomes such as rewards or recognition. The findings of this study suggested a practical subject that organizations are obligated to build mechanisms in enhancing employees' enjoyment in learning surrounding such as intrinsic rewards as employees' feeling of accomplishment, and rewards system according to the Expectancy Theory with goal setting foundation.

Based on previous studies examined motivation variables as MTL and MTT individually, or their aggregate, this study intended to explore the effectiveness of MTL on MTT. Statistics revealed MTL significantly predicts on MTT, and MTT partially mediates the relationship between MTL and TT in current research model. Theoretically this finding confirmed to the previous study results which examined MTL and MTT separately and found MTL occurred before MTT in TT context.

According to the main purpose of the study, the medication roles of MTL and MTT were confirmed by the path coefficient disappeared since MTL and MTT intervene between TC and TT. Statistics revealed the effectiveness of TC on TT is not significantly because MTL and MTT intervenes the relationship between TC and TT, the direct relationship was individually replaced by both MTL and MTT. It revealed that MTL and MTT act an important full medication role of TC to TT individually in training contexts. It demonstrated again that the critical roles of MTL and MTT between TC and TT theoretically. As previous suggestion of this study, how to promote motivation of employees in training programs would be the most important issue for practical operation.

In addition to the above theoretical contribution, this study also confirmed the prediction role of TC with current research model. Previous study demonstrated TC as a moderator between individual or organizational factors and transfer (Burke & Baldwin, 1999), and as a mediator between the organizational environment setting and an individual's job attitudes and work behaviors (Holton, Ruona & Leimbach, 1998). In accordance with the research results, this study contributed the important role of the TC in training transfer context. Organizations may consider elevating higher level of the social supportive such as support from one's supervisors and peers, situational constraints and opportunities to use the obtained knowledge and skills on job. TC as key elements in training transfer context that may drive individuals' motivation before and after attending a training program. The results of this study are consistent with the finding by Tracey *et al.* (1995) which highlighted the importance of supportive factors while setting training environment. In addition, as a predictor of TT and mediator of TC to TT, motivation is constructed of theories of expectancy, equity, and goal setting (Yamhill & McClean, 2001). Organizations may concentrate on the intangible intrinsic rewards (Porter & Lawler, 1968) which combines with trainees' expectancies, tangible extrinsic rewards which satisfies trainees' equity feeling (Noe, 1986), and definite goal setting (Wexley & Nemeroff,

1975) to drive trainees' training transfer level after attending the training program. In practice, higher MTL will provide higher transfer motivation in accordance with the mediator role of the MTT between MTL and TT found in present study. In other words, the necessities of fostering trainees' motivation in training context is not only for participation in the training itself, but also for the following TT (Gaudine & Saks, 2004). However, present study found TC as an independent variable which influences on the individual factors such as MTL and MTT. It contributed to reinforce the multiple roles of TC in a TT context. Besides, this study examined the effectiveness of MTL and MTT separately on TT. Results contributed to advice practical implement to promote employees' motivation in training program sequentially by MTL than MTT.

5. Conclusions and limitations of this study

In accordance with the purposes of this study, the findings confirmed the predictor role of the positive organizational TC to both MTL and MTT excepted TT. It evidenced positive organizational TC drives trainees' MTL and MTT in TT context. The results also identified either MTL or MTT can be a predictor of TT, and, as a mediator of TC to TT individually. It revealed both MTL and MTT as center roles of the working environments in TT context. Moreover, MTT also mediates MTL to TT that showed the relationship of MTL and MTT sequentially. In conclusion, this study contributed to provide the important perception of how trainees' characteristics can be interacted with social support in the workplace to enhance TT in both theoretical and practical implications.

As to the study finding, some limitations of this study should be taken into consideration. First, TT was rated by self-report rather than actual behaviors, which may affect the study result. Despite previous researches have utilized self-report in rating TT (Chiaburu & Tekleab, 2005 ; Facticeau *et al.*, 1995), which provide the evidence that trainees can accurately self-report their level of TT, future research may examine the level of TT from both trainees and their supervisors. Secondly, this study collected the data from participant in broad industries without particular training implements. Future studies may collect the data from trainees who are in a training program from some particular training with longitudinal transfer condition that may spend a longer time on data collection but can receive future studies accurately.

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