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Effects of Perceived Professional Learning and Supportive Work Environment on Job Satisfaction and Transfer of Training

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Abstract: In all those functions which require cognitive thought process, trainability is recently recognized as a major problem for managers. Despite considerable amount of investment in training and development, managers often remain unsuccessful to transfer the training contents to others in their organizations. This paper analyzes a) the impact of perceived professional learning, supervisor support, and peer support on job satisfaction and in turn, on the transfer of training; and b) whether job satisfaction mediates the relationship between three variables (perceived professional learning, supervisor support, and peer support), and transfer of training. A useable sample of 384 managers is drawn from five private hospitals of Karachi, Pakistan. A measurement model is constructed with high validity and reliability, whereas hypotheses are tested using a covariance-based structural equation modeling (CB-SEM) method. We used SPSS, AMOS and Jamovi® software applications for data analysis. The results show that perceived professional learning and peer support have a significant and positive effect on job satisfaction and in turn, on the transfer of training. Similarly, job satisfaction mediates the relationship between the two variables (perceived professional learning and peer support), and transfer of training. Nevertheless, contrary to our hypotheses, supervisor support does not have a significant effect on job satisfaction, and job satisfaction does not mediate the relationship between supervisor support and transfer of training too. This study contributes to the training literature in three different ways. First, it extends the findings of Western studies to the private healthcare institutions of Pakistan. Second, it is perhaps the first report to reveal job satisfaction as a significant new predictor of transfer of training. Third, job satisfaction also mediates the positive relationship between perceived professional learning and transfer of training as well as between peer support and transfer of training. Theoretical contributions, managerial implications, limitations, and directions for future studies are discussed.

Keywords: Transfer of training, job satisfaction, perceived professional learning, supervisor support, peer support, healthcare, Pakistan.

Introduction

Undoubtedly, training is a very useful tool in the workplace to enhance knowledge and skills of the workforce (Brahma & Chakraborty, 2019) and in return, the senior management of an organization believes that the trainees would disseminate the learning out-

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comes of the trainings in order to benefit their organization as a whole. In other words, transfer of training refers to a consistent dissemination of knowledge, skills and abilities gained during trainings to others in the workplace (Baldwin & Ford, 1988). Indeed, transfer of training, transfer of learning, transfer of knowledge, learning transfer, training transfer and skills transfer are analogous terminologies that have been used interchangeably in the training literature.

In organizational context, an employee is considered to have transferred the training contents when the person applies the learned KSAs in the workplace and remain consistent over a period of time (Ford, Baldwin, & Prasad, 2018). Early notable proponents of transfer of training have argued that transfer of training only takes place when both the designs of training and the characteristics of the trainees jointly affect the training outcomes such as learning and knowledge-sharing (Baldwin & Ford, 1988). Literature has concluded that transfer of training positively affects the overall organization in achieving a competitive advantage. Moreover, substantial amount on training has revealed improved innovative performance and better growth in organizational profits. In short, it has been argued that employees should apply and transfer what they have learnt from training interventions if the organization intends to gain such level of organizational performance which could enable it to gain a competitive advantage over rival companies (Saks & Burke-Smalley, 2014).

Trainings demand three types of commitments from managers: before, during and after commitments (Priest, 2009). Therefore, “..transfer is not a one-time-only event but a complex process extending over different time periods” (Govaerts, Kyndt, Vreye, & Dochy, 2017). Nevertheless, serious concerns have been raised in the training literature regarding the overall benefits of the training interventions and the factors which cause trainees to inhibit knowledge transfer (Baldwin, Kevin Ford, & Blume, 2017). It is because of the fact that trainability in all such functions which require enriching cognitive thought processes has been recognized as one of the major issues in organizations in general and a very peculiar problem for organizational managers, in particular (Zhao & Jia, 2019). Similarly, it has been recently argued that huge sum of financial and relationship resources of organizations are invested in managers’ trainings, however, very little benefits of the trainings are actually transferred to concerned members of the organization (Islam, 2019; Priest, 2009) or they use a very tiny fraction of these trainings in their own routine jobs (Hart, Steinheider, & Hoffmeister, 2019) as daily operational practices (Govaerts et al., 2017) or most of the trainings even extinguish over a period of time. In short, it is meaningful and yet to know the specific factors which actually satisfy organizational managers in transferring the knowledge which they have earned through training programs in their respective organizations.

Indeed, a market-driven organization tends to extract substantial amount of money from their earned profits for training and development programs having a profound belief that these trainings will potentially benefit trainees, colleagues as well as organizations. This has been regarded as an attempt to help the workforce become more employable, productive and creative (Hurt, 2016). However, this mammoth investment on trainings from organizational profits could hardly manage to transfer only 15% of the total learning gained through trainings (Cromwell & Kolb, 2004), whereas most of the training pro-

grams are finished without any learning or knowledge transfer (Islam & Ahmed, 2018).

In addition, the training literature have further maintained that it takes at least a year to disseminate learning that was earned through training programs. Despite several meta-analyses (Schwaighofer, Fischer, & Bühner, 2015) which provide a list of antecedences of transfer of training, Brahma and Chakraborty (2019) recently echoed that there is still a paucity of research in detailing how several factors are actually correlated with each other in pursuit of transfer of trainings. In short, most recent literature on transfer of training visualizes it as a major problem in today's hyper competitive era and it is projected to be a looming problem for organizations in near future too (Govaerts et al., 2017).

Amongst several predictors, supervisor and peer support constitute a meaningful supportive work environment which are the most crucial predictors of transfer of training (Brahma & Chakraborty, 2019). With respect to inconsistent findings, few studies (Chiaburu & Tekleab, 2005) have revealed a non-significant effect of supervisor support on transfer of training. Similarly, some studies (Fitzgerald, 2003) have also documented a non-significant but negative association between the two variables. Moreover, there is a dearth of knowledge which could correlate perceived professional learning with job satisfaction and transfer of training in the context of developing country such as Pakistan.

Unlike Western counties, Pakistan presents a relatively different organizational culture which is mainly characterized by moderate-to-high power distance, high collectivism, equally-distributed masculinity, moderate-to-strong uncertainty avoidance, and very short-term orientation (Hofstede, Hofstede, & Minkov, 2010). In addition, past studies appear to be concentrated more on investigating the phenomenon of transfer of training among non-managerial employees in the Western contexts. In contrast, Adil, Owais, and Qamar (2018) investigated the effects of occupational stress, interpersonal trust and the three types of organizational commitment on valence, organizational citizenship behavior and finally, on job satisfaction of 90.1% managers and the remaining 9.9% supervisors working in public, private, semi-government and missionary healthcare institutions of Karachi, Pakistan. With one exception of Adil et al. (2018) in which the authors did not investigate the individual outcomes of job satisfaction, several studies (Liu & Ren, 2019) have determined the effect of organizational learning on the job satisfaction of entry-level employees, however, a very little is known about the same relationship for managers, in particular. Consequently at this juncture, our knowledge is still very limited about transfer of training, which is an outcome of job satisfaction, in other business sectors such as private healthcare, and particularly in Asian developing countries such as Pakistan.

Similarly, the knowledge about transfer of training is too limited and unclear in determining its relationship with job satisfaction (Govaerts et al., 2017; Zumrah & Boyle, 2015) which are originated from supervisor and peer support. In addition, Baldwin et al. (2017) identified that literature on transfer of training has not yet stated about the satisfaction of trainees.

Theoretical Background and Hypotheses

Perceived Professional Learning and Job Satisfaction

Workplace learning refers to a comprehensive mechanism for the development of knowledge, skills and work attitudes among employees in order to perform a given job effectively and efficiently (Gil & Mataveli, 2017). A learning organization is formed when this mechanism of learning is collectively applied and shared by all employees with review to create, acquire and disseminate knowledge, skills and work attitudes. More precisely, professional learning in the workplace has been acknowledged as a fundamental source of high-performance work systems, however, organizations are increasingly facing problems in meeting the demands of developing the competitive knowledge and skillset of their employees because the needs of professional learning have been spread over numerous facets, dimensions, and complexities (Ryu & Moon, 2019). Employee development is found to be an important aspect for increasing employee productivity and ultimately, gaining competitive advantage in the telecommunications sector of Pakistan (Jehanzeb & Mohanty, 2018).

The need of professional learning has been continuously and rapidly increasing in the context of healthcare, because clinical and administrative works in hospitals are continuously being transformed by new information and communication technology (ICT) and specifically, in the developments of medical treatments (Mikkelsen & Olsen, 2019). At one side, these transformations due to advancements certainly require employees to change their working attitudes and behavior, however, on the other side, it is becoming a challenge for managers in the healthcare sector to instill these transformations without having their subordinates feel job dissatisfaction (Mikkelsen & Olsen, 2019) and more importantly, to avoid career shocks (Kraimer, Greco, Seibert, & Sargent, 2019). In short, professional learning of managers is more required where an organization faces rapid institutional changes.

Job satisfaction denotes an emotional state of an employee in the workplace as a result of cognitive appraisal of his/her work experiences which is also inferred as having a comparison between what an employee perceives to obtain from his/her job and what the job actually provides (Edwards, 2008). In simple terms, job satisfaction tends to increase when employees receive what they intend to receive against their services (Hendri, 2019). The relationship between organizational learning and job satisfaction has been a popular consideration in management and organizational studies (Liu & Ren, 2019). Previous studies (Cortini, 2016) have examined the relationship between organizational learning and job satisfaction. Similarly, several studies have determined the effect of organizational learning on the job satisfaction of entry-level employees (Liu & Ren, 2019), however, a very little is known about the same relationship for managers, in particular. Therefore, the following hypothesis is formulated:

H1. Perceived professional learning has a positive effect on job satisfaction.

Supportive Work Environment and Job Satisfaction

Supervisors and peers constitute major proportion of supportive work environment. Supervisor support denotes the mechanism in which a supervisor not only extends his/her support to subordinates but also fosters the effective and efficient application of training in the workplace, whereas peer support encompasses a horizontal transfer of training (Saks & Burke-Smalley, 2014) which represents the degree to which a colleague extends his/her tangible and intangible support (such as emotional support) to reinforce the application of learning in the workplace (Massenberg, Schulte, & Kauffeld, 2017). Supervisor support has been identified as the most important variables in the work environment throughout the process of transfer of training which attempts to promote the transfer of training (Govaerts et al., 2017). In other words, negative consequences may emerge in case of lack of supervisor support.

Indeed, in a systematic meta-analytical review of 99 studies on transfer of training (including 21 review articles and 78 empirical examinations), Govaerts and Dochy (2014) revealed that supervisors perform a total of 24 different roles in organization to extend their support for transfer of training process such as support in setting annual goals for trainees and the work units, support in terms of constructive feedback, informal reinforcements and providing meaningful and timely opportunities to practice the KSAs learned as a result of training interventions. Moreover, having a detailed discussion on the application of potential learning is another form of supervisor support (Ghosh, Chauhan, & Rai, 2015) which provides trainees with ample opportunities to clarify their doubts or confusion before transfer of training. In their influential model, Baldwin and Ford (1988) revealed supervisor support as one of the most critical work environment factors impacting transfer of training. Similarly, in their Learning Transfer System Inventory, Holton III, Bates, and Ruona (2000) also included supervisor support as a key factor which could either enhance or impede transfer of training.

Past studies Zamani, Ataei, and Bates (2016) have endorsed a significant positive effect of supervisor support on transfer of training. But, following a new stream of research particularly to answer the research call of Govaerts et al. (2017), we concentrate on an outcome of supervisor support (i.e. job satisfaction) which is originated by supervisor support first which, in turn, leads to transfer of training.

Supervisors play a key role in organizing the working environment and providing useful information and constructive feedback to their subordinates therefore, the behavior of supervisors creates an affective reaction in the form of job satisfaction among employees. Besides, supervisors not only develop role but also establish expectations for subordinates (Graen & Scandura, 1987). Moreover, supervisors make several efforts to appropriately model his teams and define fundamental rules for these teams so that team members could be adequately engaged in various team processes (McIntyre & Salas, 1995). Furthermore, supervisors serve as an important organizational resource that enables subordinates resolve their work-related problems as well as managing customer requirements and complaints (Ibrahim, Suan, & Karatepe, 2019). In particular, immediate supervisors also provide useful information on its required time to all concerned employees which could be helpful in managing and leading organizational change initiatives. Hence, it

has been confidently concluded that supervisor support positively affect the overall job satisfaction of subordinates (Griffin, Patterson, & West, 2001).

The direct and positive effect of supervisor and/or peer support on job satisfaction has been reported in numerous studies, inter alia, in the context of two state universities (Charoensukmongkol, Moqbel, Gutierrez-Wirsching, & Shankar, 2016); among direct care staff (Rhodes & Toogood, 2016); in public research and development facility of Saudi Arabia (Alshitri, 2013); in pharmaceutical companies of Bangladesh (Parvin & Kabir, 2011); among correctional officers in Taiwan (Hsu, 2011); in nursing care units (Hall, 2007), etc. Based on the theoretical relationship followed by numerous empirical evidences, following hypotheses are suggested:

H2. Supervisor support has a positive effect on job satisfaction.

H3. Peer support has a positive effect on job satisfaction.

Job Satisfaction and Transfer of Training

Job satisfaction refers to how people feel about their jobs and different aspects of their jobs. Essentially, it is the extent to which people like or dislike their jobs. It is a complex phenomenon which reflects an affective reaction of an individual about his/her job and other associated facets of the job. Job satisfaction has been a very prominent factor in management, leadership and organizational psychology literature for various organizational outcomes. In particular, employees are more likely to transfer training when they are satisfied with their job.

In a broader context, employees are actively engaged in organizational activities which require social exchange mechanisms such as transfer of training. A few studies have noted job satisfaction as one of the most important predictors of transfer of training (Baldwin & Ford, 1988), however, Zumrah and Boyle (2015) urged that there is still a research need to investigate the effect of job satisfaction on transfer of training particularly in the context of Asian countries.

Although, literature on transfer of training (Baldwin & Ford, 1988; Brown & Warren, 2014; Islam & Ahmed, 2018) has conveyed the significance of individual-level characteristics of trainees for the success of transfer of training, the relationship between job satisfaction and transfer of training is somewhat unclear (Govaerts et al., 2017; Zumrah & Boyle, 2015).

According to the expectancy theory of motivation, expectation is the first stage in which an individual anticipates the potential occurrence of his/her desired outcomes. The main tenet over here is to develop the first stage though, an incomplete sense of motivation. It follows the instrumentality stage in which the same person now establishes a perception that he/she will be rewarded if he/she performs as per the expectations of superiors such as leader expectations for employee creativity (Adil & Ab Hamid, 2019). Consequently, it brings a feeling of energy amid trainees for an active participation in organizational affairs. Finally, the last stage is reached, called valence, in which the person starts comparing the rewards received in response of the services. Moreover, equity

theory of motivation opined that the individuals would perceive under-rewarded if they find less rewards than their services and similarly, over-rewarded in case when rewards are more than their services.

In the context of this study, we argued that satisfied trainees are more likely to transfer knowledge than less satisfied trainees because of two major reasons. First, satisfied trainees prefer to gain more knowledge and skills through multiple training interventions which lead them to transfer knowledge to other in the organizations. Second, motivated trainees tend to incorporate learning outcomes from training programs in generating novel and useful ideas for the betterment of their workplace and organization (Adil & Ab Hamid, 2019). In short, we argue that trainees with a higher level of job satisfaction are more likely to earn more knowledge and prowess for their personal and organization development. As a result, they self-motivate themselves for transfer of sharing knowledge. It leads us to suggest the following hypothesis:

H4. Job satisfaction has a positive effect on transfer of training.

Mediating Role of Job Satisfaction

Past studies (Clark, Dobbins, & Ladd, 1993; Fecteau, Dobbins, Russell, Ladd, & Kudisch, 1995; Nijman, Nijhof, Wognum, & Veldkamp, 2006) have established that there is an indirect relationship between supervisor support and transfer of training. According to Preacher and Hayes (2008) the direct effect from IV to DV is no longer required while testing a mediation hypothesis. Therefore, it leads us to follow the 'segmentation' approach (Rungtusanatham, Miller, & Boyer, 2014) to suggest the following three additional hypotheses for measuring the specific indirect effects:

H5: Job satisfaction mediates the positive relationship between perceived professional learning and transfer of training.

H6: Job satisfaction mediates the positive relationship between supervisor support and transfer of training.

H7: Job satisfaction mediates the positive relationship between peer support and transfer of training.

Figure 1
Hypothesized Framework



Methodology

Sample and Procedure

The target population of this study was all full-time managers working in the private healthcare institutions of Pakistan, however, only five healthcare institutions from Karachi constituted the accessible or study population. These institutions included Aga Khan University Hospital, Liaquat National Hospital, Patel Hospital, Children Cancer Hospital and Ziauddin Hospital. To form a sampling frame, several attempts were made to collect an updated list of full-time managers in all of these healthcare institutions, however, we could not gain access to the desired list. Consequently, we had to use non-probability convenience sampling technique for data collection.

A total of 500 questionnaires were distributed only to those managers who had recently attended a comprehensive professional training program sponsored by their respective institution; out of which 384 completed questionnaires were returned (response rate was 76.8%). Anonymity and confidentiality were maintained during the entire phase of data collection. With the established procedure of 'informed consent', respondents were intimated that their responses would only be used for academic purposes.

The useable sample (n=384) comprised of 52.1% female managers, whereas 38% managers were more than 35 years of age. In addition, 67.7% managers had at least 16 years of education. The sample included 39.8% lower managers, 56.8% middle managers and the remaining 3.4% were holding senior management positions. Interestingly, 99% managers reported their maximum monthly income up to PKR 60,000 only. Table 1 depicts a detail account of the useable data of this study:

Table 1
Composition of Data

Demographics	Characteristics	Frequency	Percent
Gender	Male	184	47.9
	Female	200	52.1
	Less than 25	67	17.4
Age (in years)	26 to 30	105	27.3
	31 to 35	66	17.2
	36 to 40	102	26.6
	Above 40 years	44	11.5
	Single	127	33.1
Marital Status	Married	257	66.9
	Bachelors	124	32.3
Education	Masters (16 years of education)	246	64.1
	M.Phil / Ph.D.	14	3.6
	Top Management	13	3.4
Level of Responsibility	Middle Management	218	56.8
	Lower Management	153	39.8
Monthly Income (In Pak Rupees)	Less than or Equal to 30,000	161	41.9
	30,001 to 60,000	219	57.0
	60,001 to Above	4	1.0

Note: N = 384

Measures

A total of 40 questionnaire items were adapted from previous studies which have shown good psychometric properties. Unless otherwise specified, these items were rated on a five-point Likert scale anchoring from 1 = *strongly disagree* to 5 = *strongly agree*. There were no dimensions to any of the measuring scales; all latent variables were self-reported and had reflective measurement.

Perceived Professional Learning

To measure perceived professional learning, of 33 items, only 7 indicator items were adapted from the *Application Potential of Professional Learning Inventory* (Curry, Lawler, Donnenwirth, & Bergeron, 2011). A sample item reads, "As a result of the training, I substantially increased my knowledge". Cronbach alpha = 0.86.

Supervisor Support

To measure supervisor support, eight items were adapted from four studies including (Bates, Holton III, Seyler, & Carvalho, 2000; Chiaburu & Tekleab, 2005; Fecteau et al., 1995; Galanou & Priporas, 2009). A sample item includes "My supervisor insures me about the opportunity to use the new skills in the workplace". Cronbach alpha = 0.89.

Peer Support

Peer support was measured by using seven items adapted from (Bates et al., 2000; Fecteau et al., 1995). A sample item states, "My co-worker encourages me to apply what I have learned from the training program". Cronbach alpha = 0.85.

Job Satisfaction

We adapted 10 items from the 100-item *Minnesota Satisfaction Questionnaire* (Weiss, Dawis, & England, 1967) to measure job satisfaction. An anchoring statement i.e. "On my present job, this is how I feel about:" is also added. A sample item reads, "The opportunities for advancement on this job". These items were rated on a five-point Likert type scale anchoring from 1 = *very dissatisfied* to 5 = *very satisfied*. Cronbach alpha = 0.87.

Transfer of Training

To measure transfer of training, eight items were adapted from (Chiaburu & Marinova, 2005; Fecteau et al., 1995). A sample item states, "I am able to apply the new skills acquired from the training program on my job." Cronbach alpha = 0.85.

Preliminary Analysis

Common Method Variance Bias

Since we used a mono-method for data collection therefore, it was essential to avoid any erroneous conclusions. Therefore, we assessed common-method variance bias using the conventional Harman's single factor test in Jamovi® using R codes. An unrotated factor solution of a principal component analysis revealed that the first factor merely accounted for only 32.62% of the total variance which is less than 50% of the threshold value. In other words, not only one factor accounts for total variance of the final solution therefore, we can concluded that there is no manifestation of CMV bias in this study.

Non-Response Bias

Non-response bias takes place when "... those who do not respond to a survey may have answered differently than those who do respond resulting in biased results that do not accurately reflect the population of interest" (Maitland et al., 2017). For this purpose, we applied the Extrapolation method which holds an assumption that those people who respond unwillingly or substantially late are more likely to bear the characteristics of non-respondents. Recently, Carrera and Wei (2017) applied the same method to investigate the mean difference amid undergraduate students between those who dropped out and those who did not drop out. In this study, we marked early respondents to those who responded within a month, however, those who responded after a month even after follow-up calls or emails, we had to tag them as late respondents. Of the 384 valid responses, there are 269 (70%) early responses and 115 (30%) late responses.

Table 2
Assessment of Non-Response Bias using Extrapolation Method

Group Descriptives					Levene's Test for Equality of Variances		t-test for Equality of Means			
Variables	Group	N	Mean	SD	SE	F	Sig.	t	df	Sig. (2-tailed)
PPL	ER	269	3.52	0.64	0.039	0.007	0.934	-0.96	218.16	0.339 [-0.208, 0.071]
	LR	115	3.59	0.63	0.059					
SS	ER	269	3.63	0.65	0.040	0.281	0.597	-0.79	220.80	0.436 [-0.197, 0.084]
	LR	115	3.69	0.63	0.059					
PS	ER	269	3.57	0.60	0.036	0.138	0.710	-0.84	205.63	0.391 [-0.190, 0.075]
	LR	115	3.63	0.63	0.059					
JS	ER	269	3.68	0.57	0.035	3.549	0.060	-0.95	181.96	0.302 [-0.206, 0.064]
	LR	115	3.75	0.70	0.066					
TOT	ER	269	3.84	0.53	0.032	0.077	0.781	-0.06	213.16	0.955 [-0.120, 0.114]
	LR	115	3.84	0.54	0.050					

Note: 95% CI of the mean difference is shown within brackets.

PPL = Perceived Professional Learning; SS = Supervisor Support; PS = Peer Support

JS = Job Satisfaction; TOT = Transfer of Training; ER = Early Respondents; LR = Late Respondents

An independent sample student's t-test was performed in Jamovi® to assess the potential presence of non-response bias in this study (Table 2). Levene's test for equality (or homogeneity) of variances indicates that there is a no significant difference of the variances between early and late responses for each of the variables which indicates that the homogeneity of variance can be assumed between both groups of each latent variable.

Moreover, the p-value of equality of means is also statistically non-significant suggesting that there is no significant difference in early and late responses. In other words, the useable sample is not affected by non-response bias hence, both groups of respondents actually represent the same target population.

Zero-Order Correlations

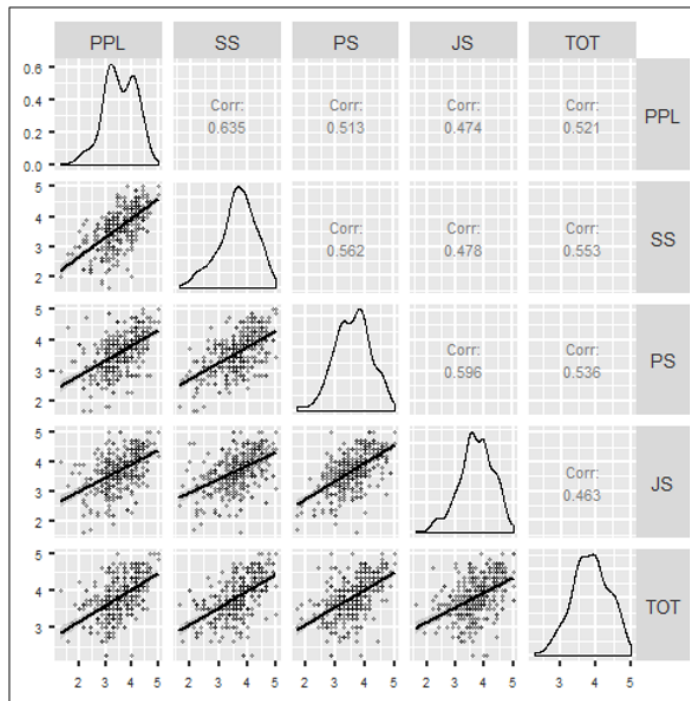
Table 3 shows descriptive statistics (such as mean, standard deviation), Cronbach's coefficient alpha and zero-order correlations between latent variables as produced by Jamovi®.

Table 3
Descriptive Statistics, Reliability and Zero-Order Correlations

Latent Variables	Mean	S.D.	Alpha	1	2	3	4	5
Perceived Professional Learning	3.54	0.64	0.86	1				
Supervisor Support	3.65	0.64	0.89	.635*** [0.571, 0.691]	1			
Peer Support	3.59	0.60	0.85	.513*** [0.435, 0.583]	.562*** [0.489, 0.626]	1		
Job Satisfaction	3.70	0.62	0.87	.474*** [0.393, 0.548]	.478*** [0.396, 0.551]	.596*** [0.528, 0.657]	1	
Transfer of Training	3.84	0.53	0.85	.521*** [0.444, 0.590]	.553*** [0.480, 0.619]	.536*** [0.480, 0.603]	.463*** [0.380, 0.538]	1

Notes: N = 384; ***p < .001; 95% CI lower and upper bound values are given in brackets.

Figure 2
Plots of Zero-Order Correlations



It depicts that the alpha value of each variable is in excess of 0.70 indicating that all latent variables have very good internal consistency reliability (the minimum alpha is 0.85). Moreover, all study variables have shown statistically-significant correlations with other variables at 99.99% CI ($p < .001$). In addition, with the help of 95% CI lower and upper bound limit values (as shown underneath each correlation coefficient within brackets), it can also be observed that the sample coefficient value of each variable lies between the population's parameter values.

For an illustrative purpose, the zero-order correlation between supervisor support (SS) and transfer of training (ToT) is represented by 'r' which equals to 0.553*** ($p < .001$) having 95% CI (lower limit = 0.480; upper limit = 0.619). It can be observed that the study can conclude with 99.99% confidence that the correlation coefficient value of 0.553 between the two variables lies between its population's range of values i.e. between 0.480 and 0.619. In addition, Figure 2 plots this correlation value to illustrate that there is a positive correlation between the two variables. In short, the zero-order Pearson's correlation between all study variables is statistically different from zero (Table 3) and there is a positive relationship between each variables (Figure 2), however, this correlational analysis does not predict the causal structure between the variables.

Data Analysis and Results

Confirmatory Factor Analysis (CFA)

We performed a CFA in AMOS version 22 which produces a covariance-based measurement model in order to ascertain the construct reliability, and construct validity (including convergent validity and discriminant validity) of each of the study variables. In fact, we followed a conventional practice of a two-stage approach in which we first developed a measurement model followed by hypothesis testing using a covariance-based SEM method in AMOS. Various notable authors have also endorsed that developing a measurement model is a prerequisite for SEM analysis ([Hair Jr, Hult, Ringle, & Sarstedt, 2016](#)). Sequentially, we looked into modification indices (MI), then standardized residual covariances (SRCs), then model-fit indices, and finally, we estimated validity and reliability of the latent variables (LV) used in the measurement model. These steps are illuminated below.

There were a total of 40 indicators in the baseline measurement model, however, only 21 indicators were successfully retained in the final reflective measurement model. All retained indicators were statistically different from zero at 99.99% CI ($p < .001$). Nevertheless, there is no violation of the three-indicator rule ([Hair, Black, Babin, Anderson, & Tatham, 2019](#)) because each LV loads at least three indicators having acceptable average outer loadings in excess of 0.708 under each LV ([Hair et al., 2017](#)).

After improving the measurement model with the help of modification indices (MI), we then assessed the SRCs which produced a symmetric matrix after dividing each residual covariance by its standard error. We found that all values in the SRC matrix were less than the cutoff value of $|2.58|$ suggesting that SRC values have a standard normal

distribution which is a further indicative of the conclusion that the measurement model is correct and there is no statistically significant discrepancy (i.e. residual) exist between the sample and the population covariance matrices of this measurement model.

Finally, we assessed the measurement model with the help of eight model-fit indices. These indices include three conventional badness-of-fit measures namely, the ratio of Chi-Square and Degree of Freedom denoted by CMIN/DF, Root Mean Square Error of Approximation (RMSEA) and Standardized Root Mean Residual (SRMR), whereas five goodness-of-fit measures namely, Goodness-of-Fit Index (GFI), Adjusted Goodness-of-Fit Index (AGFI), Normed Fit Index (NFI), Tucker-Lewis Index (TLI) and Comparative Fit Index (CFI).

The CMIN/DF value of the measurement model should be less than 3.0, whereas the values of RMSEA and SRMR should be less than 0.08. Very recently, [Hair et al. \(2019\)](#) further elaborated that when sample size is greater than 250 and the total number of retained indicators are in between 12 and 30 then the RMSEA value should be less than 0.07 with CFI of 0.94 or above, and the SRMR value should be less than 0.08 with CFI above 0.94. Table 6 shows that all of these three badness-of-fit measures completely satisfy the suggested cutoff values. Besides, literature suggest that the cutoff value of GFI, AGFI, NFI, TLI and CFI should be greater than 0.90 ([Hair et al., 2019](#)). Table 6 also illustrates that the observed values of all of these goodness-of-fit measures also sufficiently satisfy the cutoff value ([Hair et al., 2019](#)).

Finally, after reaching to an acceptable model-fit indices, we estimated the construct reliability, and construct validity (including convergent validity and discriminant validity) of each LV using the plugin of Master Validity Tool in AMOS ([Gaskin & Lim, 2016](#)). We used two measures of assessing construct reliability i.e. composite reliability and MaxR(H); two measures for determining convergent validity i.e. Average Variance Extracted (AVE) and Maximum Shared Variance (MSV). Finally, the conventional Fornell and Larcker Criterion (in short, FLC) was applied to ascertain discriminant validity (Table 4).

The CR and MaxR(H) values should be greater than 0.70; AVE should be greater than 0.50, whereas MSV should be less than its respective AVE value. More precisely, McDonald Construct Reliability, MaxR(H) in short, was suggested by ([Hancock, 2001](#)). They explained that “Coefficient H describes the relation between the latent construct and its measured indicators... coefficient H is unaffected by the sign of indicators’ loadings, drawing information from all indicators in a manner commensurate with their ability to reflect the construct” (p. 213).

Table 4 shows that the CR, MaxR(H), AVE and MSV values meet the cutoff value suggesting that the construct reliability and convergent validity have been achieved ([Hair et al., 2019](#)). Moreover, the diagonal values which denote the square root of AVE, are greater than off-diagonal values in both rows and columns (Table 4) and the covariances (i.e. standardized correlations) between LVs are less than 0.70 indicating that the discriminant validity has been established. Since the measurement model is both valid and reliable with very good model-fit indices, we can now confidently conclude that it is ready for testing hypotheses as delineated below.

Table 4
Measurement Model: Validity and Reliability

Construct	Construct Reliability		Convergent Validity		Discriminant Validity Using FLC				
	CR	MaxR(H)	AVE	MSV	JS	PPL	SS	PS	TOT
PPL _e	0.85	0.90	0.54	0.39	0.736				
SS _e	0.84	0.85	0.52	0.39	0.620***	0.722			
PS _e	0.89	0.90	0.63	0.45	0.487***	0.557***	0.792		
JS _e	0.85	0.88	0.65	0.45	0.453***	0.414***	0.671***	0.808	
TOT _e	0.78	0.78	0.54	0.35	0.548***	0.595***	0.525***	0.467***	0.735

Notes: *** 99.99% CI ($p < .001$); Square root of AVE is shown in bold face on the diagonal.

CR = Composite Reliability; AVE = Average Variance Extracted; MSV = Max. Shared Variance

PPL = Perceived Professional Learning; SS = Supervisor Support; PS = Peer Support

JS = Job Satisfaction; TOT = Transfer of Training

Hypothesis Testing Using CB-SEM

A covariance-based SEM analysis in AMOS version 22 shows that perceived professional learning, supervisor support and peer support are exogenous LVs, job satisfaction as an intervening and endogenous LV, and transfer of training as the endogenous LV. Following the fundamental principle of CB-SEM, covariances were drawn between exogenous LVs, whereas unobserved residual (called disturbances) were added to both JS and TOT. The model-fit indices of the structural model also satisfy all of the suggested threshold values.

Using the recommended 5,000 non-parametric bootstrap resampling method (Hair Jr et al., 2016) with maximum likelihood estimation, Table 5 shows that perceived professional learning has a significant and positive effect on job satisfaction (0.210; $p = 0.002^{**}$). Supervisor support has a non-significant effect on job satisfaction (-0.008; $p = 0.907$). Peer support has a significant and positive effect on job satisfaction (0.601; $p = 0.000^{***}$). Job satisfaction also has a significant and positive effect on transfer of training (0.526; $p = 0.000^{***}$). Therefore, with an exception of H2, we accept H1, H3, and H4. Overall, perceived professional learning, supervisor support and peer support accounted for 51% of the total variance in explaining job satisfaction, whereas, job satisfaction alone accounted for 28% of the total variance in explaining transfer of training.

Table 5
Hypothesis Testing

Hypothesis	SEM Path	Standardized Estimates	p-value	Decision	R-square
H1	PPL to JS	0.210	0.002**	Supported	JS = 0.51 TOT = 0.28
H2	SS to JS	-0.008	0.907	Not Supported	
H3	PS to JS	0.601	0.000***	Supported	
H4	JS to TOT	0.526	0.000***	Supported	
Specific Indirect Effect					
H5	PPL - JS - TOT	0.108	0.008**	Supported	
H6	SS - JS - TOT	-0.004	0.922	Not Supported	
H7	PS - JS - TOT	0.316	0.000***	Supported	

Notes: ** 99% CI ($p < .01$); *** 99.99% CI ($p < .001$)

PPL = Perceived Professional Learning; SS = Supervisor Support; PS = Peer Support

JS = Job Satisfaction; TOT = Transfer of Training

Mediation Analysis

Table 5 also shows the results of mediation analysis (H5 to H7) including standardized indirect effect from an exogenous LV to endogenous LV through job satisfaction. We adopted the most recent guidelines of [Preacher and Hayes \(2008\)](#) for testing a mediation analysis. In particular, it only requires to test the indirect effect using bootstrapping method to conclude the mediation analysis. Therefore, we did not draw a direct causality link from the three exogenous LVs (i.e. perceived professional learning, supervisor support and peer support) towards the final endogenous LV (i.e. transfer of training). Consequently, the direct effect between IV and DV is not determined in Preacher and Hayes's method, however, it used to be a compulsory step in old and highly-criticised method of testing mediation analysis through [Baron and Kenny \(1986\)](#) or even in determining the type of mediation analysis in case of both statistically significant and non-significant indirect effects. In simple words, following the 'segmentation' approach ([Rungtusanatham et al., 2014](#)), this study bootstrapped the indirect effects to determine whether there is a mediation between IV and DV. Moreover, the direct effect between IV and DV is not estimated in this method, the type of mediation analysis (e.g. complementary mediation, competitive mediation, direct-only non-mediation etc.) is therefore, beyond the scope of this analysis.

Table 5 illustrates that job satisfaction mediates the positive relationship between perceived professional learning and transfer of training (0.108; $p = 0.008^{**}$) as well as between peer support and transfer of training (0.316; $p = 0.000^{***}$), thus H5 and H7 are supported. Nevertheless, on contrary to our hypothesis, job satisfaction did not mediate the relationship between supervisor support and transfer of training (-0.004; $p = 0.922$), thus H6 is not supported. Figure 3 depicts the final model of this study.

Figure 3
Final Model of the Study

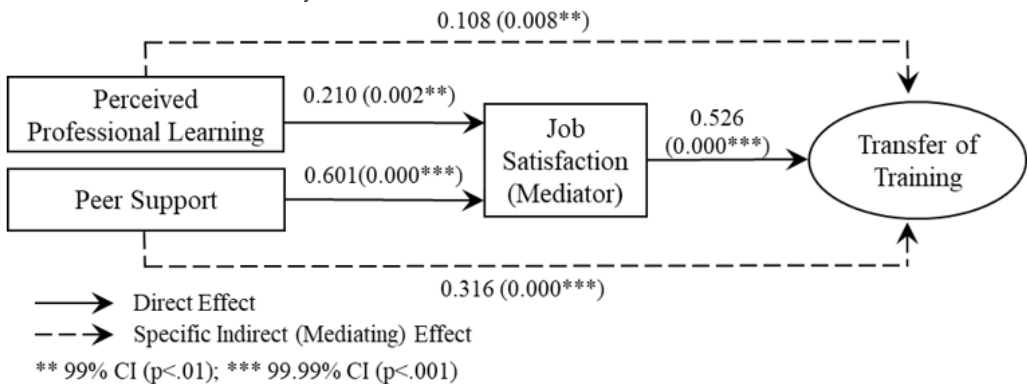


Table 6
Model Fit Indices

	CMIN/DF (p-value)	RMSEA	SRMR	GFI	AGFI	NFI	TLI	CFI
Measurement Model	1.9 (.000)	0.047	0.034	0.93	0.90	0.94	0.96	0.97
Structural Model	2.3 (.000)	0.058	0.078	0.92	0.89	0.92	0.94	0.95

Discussion and Managerial Implications

This study finds that perceived professional learning (henceforth, ‘PPL’) has significant and positive effect on job satisfaction of managers working in the private healthcare institutions of Karachi, Pakistan. Undoubtedly, every employee needs professional training mostly in early and mid-stage of career in order to optimize his/her professional learning which could enable him/her to excel at his/her job responsibilities. Unlike many other services and manufacturing organizations, PPL is found to be an essential predictor of job satisfaction particularly in the healthcare sector because it often involves life-threatening circumstances where managers are held accountable for their decisions.

Single-loop learning (Argyris, 1977) is important in which an individual (whether managerial and/or non-managerial employees) makes decisions based on goals and certain rules, however, we mainly suggest that double-loop learning (Argyris, 1991) is rather more important and very useful for managers because the decisions what they have already taken might have started to receive some kind of feedback either in the form of success or a failure. Managers specifically in the private healthcare sector of Pakistan should learn from this feedback mechanism and by applying double-loop learning, they ought to make future decisions in light of their experiences. Notably, this suggestion may sound irrational and inappropriate for the Western developed countries because they try to make decisions (single-loop) and then based on trial-and-error, they learn and revisit their decisions in light of learned experiences (double-loop). In contrast, this suggestion seems quite reasonable in the context of Asian developing countries where the literacy rate is very low followed by a very low proportion of the entire population with ‘real’ Montessori education in which they learn how to learn by doing things by themselves. In short, we strongly believe that top management should articulate appropriate organizational policies which could facilitate as well as streamline the wide-spread implementation of double-loop learning in the private healthcare institutions of Pakistan. In light of the findings of this study, it is expected that PPL if attached with double-loop learning will have a significant positive effect on managers’ job satisfaction.

Indeed, peer support is characterized by an organizational mechanism in which employees tend to share their knowledge and experiences and prefer to extend their social, pragmatic, and timely assistance to others in the workplace. It is important for every organizations because peer support not only saves others’ occupational time and resources but also help others in learning a diverse range of skill sets. Therefore, by virtue of this knowledge-sharing behavior, employees find others quite confident and comfortable in extending their support for the benefits of their peers. Furthermore, a market-driven organization always prefers to institutionalize such organizational culture in which its employees especially managers confidently and selflessly extend their support to other

managers, in particular. Peer support which has shown the highest path coefficient of 0.601, is actually different from a social support or perceived organizational support in the sense that a colleague in the workplace is the primary source for the peer support. Therefore, we argue that peer support is another very important and useful predictor of managers' job satisfaction in the private healthcare institutions of Pakistan which is why, PPL and peer support cumulatively accounted for over 51% of the total variance alone in explaining job satisfaction of managers in the private healthcare institutions of Karachi, Pakistan.

Supervisor support has been an important component of supportive work environment in the management and training literature which leads to employee job satisfaction and in turn, to different individual-, team-, and organizational-level outcomes such as transfer of training. However, this study reveals that supervisor support has a non-significant effect on job satisfaction. A likely reason is that the sample was drawn only from the managers which do only hold sufficient administrative power but also hold substantial structural and psychological empowerment to manage organizational affairs they are made responsible for. Moreover, they require minimal organizational support to get them satisfied as they belong to management cadre where several tangible and intangible resources are within their easy access including timely information. Therefore, it may be quite reasonable to comprehend that supervisor support of managers are less likely to affect their job satisfaction which might also serve as a plausible reason of not having a mediating effect of job satisfaction between supervisor support and transfer of training. This specific research finding may be observed in other service industries too.

The relationship between job satisfaction and transfer of training has been found very important in this study with a very strong path coefficient of 0.526. We have initially argued that job satisfaction has been a neglected variable in determining transfer of training (Govaerts et al., 2017; Zumrah & Boyle, 2015). This study answers the research calls from these authors following a very strong premise that high job satisfaction would certainly lead to higher rate of transfer of training. Notwithstanding, with an exception of supervisor support, this study reveals that both PPL and peer support have the strongest effect on job satisfaction. In light of the context of our study, we would like to maintain that managers are more likely to transfer knowledge when they have job satisfaction. It leads us to suggest that the top management of the private healthcare institutions of Pakistan should actively work out in developing managers' job satisfaction through different dimensions provided that they [the top management] intends to inculcate a culture of transfer of training in their organizations. Furthermore, we also believe that it is equally important for the top management to prioritize required attitude and behavior for managers in the workplace because it expects to strategize the needed skills and competencies, and also communicate the expectancies of the top management to all concerned managers.

In fact, trainings demand three types of commitments from managers: before, during and after commitments (Priest, 2009). We argue that these commitments may only be materialized when managers are satisfied with their jobs. Regardless the level of employee job satisfaction, the person will continue to transfer knowledge if his/her motivation to transfer is high. This study ponders that job satisfaction mediates the relationship between PPL and transfer of training as well as between peer support and transfer of

training. Therefore, it is recommended that the top management of private healthcare institutions should primarily concentrate on improving employees' job satisfaction through their perceived professional learning and peer support knowing the fact that job satisfaction is one of the integral predictors of transfer of training.

Theoretical Contribution

Unlike Western countries, Pakistan presents a relatively different national culture which is mainly characterized by moderate-to-high power distance, high collectivism, equally-distributed masculinity, moderate-to-strong uncertainty avoidance, and very short-term orientation (Hofstede et al., 2010). Therefore, the findings of this study theoretically contributes in the training literature about transfer of training in the context of Pakistan in the following three ways:

First, there are several empirical investigations which have studied the relationship between supervisor support and peer support on motivation to transfer and in turn, on transfer of training in the Western context. However, this study finds that job satisfaction is another intervening variable between perceived professional learning and transfer of training and similarly, between peer support and transfer of training. In other words, it is perhaps the first report which suggests that job satisfaction can serve as a new significant predictor of transfer of training. This finding is originated and also empirically investigated in the context of private healthcare institutions of Pakistan. Second, this study extends the similar findings of Western studies to an under-researched context of an Asian developing country (i.e. Pakistan) in which it also reveals that perceived professional learning and peer support significantly predict job satisfaction of managers which in turn, explains their transfer of training. Third, on contrary to several past studies, this study argues that supervisor support is neither a significant predictor of job satisfaction nor it has an indirect effect on transfer of training via job satisfaction. At this juncture, it is important to note that the findings of this study only account for the responses and perceptions of the managers who are working in the private healthcare hospitals of Karachi, Pakistan that might be different in case of non-managerial employees even within the same social context of Pakistan.

Conclusion

Transfer of training is still a complex, yet very interesting organizational phenomenon which possibly results in better individual, team and organizational performance. This study asserts that perceived professional learning and peer support predict managers' job satisfaction. Moreover, the present study is the first report to identify job satisfaction as a new significant predictor of transfer of training. We also argue that supervisor support does not affect job satisfaction and it is not indirectly related with transfer of training through job satisfaction too. We suggest that double-loop learning should be properly introduced and reinforced by the top management in the private healthcare institutions.

We expect that this study may direct future studies in different streams of quantitative as well as qualitative research. For instance, it may be worthwhile to further identify any moderating variable (e.g. leader-member exchange, psychological empowerment, career orientation, intrinsic motivation, creative self-efficacy, financial rewards, leader's humility, self-serving behavior, creative personality etc.) which could strengthen the positive relationship between job satisfaction and transfer of training. Similarly, there are other moderating variables (e.g. workplace ostracism, tyrannical leadership, workplace incivility, organizational politics, job tension etc.) which could dampen the same positive relationship between job satisfaction and transfer of training. In short, there are numerous variables which are yet to be examined in future studies to substantiate the theoretical connections of suggested variables in the transfer of training literature, in particular.

References

- Adil, M. S., & Ab Hamid, K. B. (2019). The relationships between leader creativity expectations, intrinsic motivation, and creative performance. *SEISENSE Journal of Management*, 2(2), 58–68.
- Adil, M. S., Owais, M., & Qamar, A. (2018). Impact of occupational stress, interpersonal trust, and organizational commitment on valence, ocb and job satisfaction: A variance-based sem analysis. *Journal of Management Sciences*, 5(1), 38–61.
- Alshitri, K. I. (2013). An investigation of factors affecting job satisfaction among R&D center employees in Saudi Arabia. *Journal of Human Resources Management Research*. doi: 10.5171/2013.279369
- Argyris, C. (1977). Double loop learning in organizations. *Harvard Business Review*, 55(5), 115–125.
- Argyris, C. (1991). Teaching smart people how to learn. *Harvard Business Review*, 69(3), 1–12.
- Baldwin, T. T., & Ford, J. K. (1988). Transfer of training: A review and directions for future research. *Personnel Psychology*, 41(1), 63–105.
- Baldwin, T. T., Kevin Ford, J., & Blume, B. D. (2017). The state of transfer of training research: Moving toward more consumer-centric inquiry. *Human Resource Development Quarterly*, 28(1), 17–28.
- Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173–1182.
- Bates, R. A., Holton III, E. F., Seyler, D. L., & Carvalho, M. A. (2000). The role of interpersonal factors in the application of computer-based training in an industrial setting. *Human Resource Development International*, 3(1), 19–42.
- Brahma, S. S., & Chakraborty, H. (2019). A moderated mediation analysis of supportive work environment, motivation to transfer and training transfer in the small and medium retail firms in Saudi Arabia. *IUP Journal of Business Strategy*, 16(2).
- Brown, T. C., & Warren, A. M. (2014). Evaluation of transfer of training in a sample of union and management participants: A comparison of two self-management techniques. *Human Resource Development International*, 17(3), 277–296.
- Carrera, S. G., & Wei, M. (2017). Thwarted belongingness, perceived burdensomeness, and depression among Asian Americans: A longitudinal study of interpersonal shame as a mediator and perfectionistic family discrepancy as a moderator. *Journal of Counseling Psychology*, 64(3), 280–291.
- Charoensukmongkol, P., Moqbel, M., Gutierrez-Wirsching, S., & Shankar, R. (2016). The role of coworker and supervisor support on job burnout and job satisfaction. *Journal of Advances in Management Research*, 13(1), 4–22.
- Chiaburu, D. S., & Marinova, S. V. (2005). What predicts skill transfer? An exploratory study of goal orientation, training self-efficacy and organizational supports. *International Journal of Training and Development*, 9(2), 110–123.
- Chiaburu, D. S., & Tekleab, A. G. (2005). Individual and contextual influences on multiple dimensions of training effectiveness. *Journal of European Industrial Training*, 29(8),

604-626.

- Clark, C. S., Dobbins, G. H., & Ladd, R. T. (1993). Exploratory field study of training motivation: Influence of involvement, credibility, and transfer climate. *Group & Organization Management*, 18(3), 292–307.
- Cortini, M. (2016). Workplace identity as a mediator in the relationship between learning climate and job satisfaction during apprenticeship. *Journal of Workplace Learning*, 28(2), 54-65.
- Cromwell, S. E., & Kolb, J. A. (2004). An examination of work-environment support factors affecting transfer of supervisory skills training to the workplace. *Human Resource Development Quarterly*, 15(4), 449–471.
- Curry, D., Lawler, M., Donnenwirth, J., & Bergeron, M. (2011). Application potential of professional learning inventory- APPLI 33. *Human Services*, 6, 129–139.
- Edwards, J. R. (2008). 4 person–environment fit in organizations: An assessment of theoretical progress. *Academy of Management Annals*, 2(1), 167–230.
- Facteau, J. D., Dobbins, G. H., Russell, J. E. A., Ladd, R. T., & Kudisch, J. D. (1995). The influence of general perceptions of the training environment on pretraining motivation and perceived training transfer. *Journal of Management*, 21(1), 1–25.
- Fitzgerald, C. G. (2003). Transfer of training and transfer climate: The relationship to the use of transfer maintenance strategies in an autonomous job context.
- Ford, J. K., Baldwin, T. T., & Prasad, J. (2018). Transfer of training: The known and the unknown. *Annual Review of Organizational Psychology and Organizational Behavior*, 5, 201–225.
- Galanou, E., & Priporas, C.-V. (2009). A model for evaluating the effectiveness of middle managers' training courses: evidence from a major banking organization in greece. *International Journal of Training and Development*, 13(4), 221–246.
- Gaskin, J., & Lim, J. (2016). *Master validity tool*. Retrieved from <https://drive.google.com/drive/folders/0B3T1TGdHG9aESXcyMFdZSzlZVWc>
- Ghosh, P., Chauhan, R., & Rai, A. (2015). Supervisor support in transfer of training: Looking back at past research. *Industrial and Commercial Training*, 47(4), 201-207.
- Gil, A. J., & Mataveli, M. (2017). Learning processes and job satisfaction in the Spanish wine sector. *Personnel Review*, 46(3), 624-643.
- Govaerts, N., & Dochy, F. (2014). Disentangling the role of the supervisor in transfer of training. *Educational Research Review*, 12, 77–93.
- Govaerts, N., Kyndt, E., Vreye, S., & Dochy, F. (2017). A supervisors' perspective on their role in transfer of training. *Human Resource Development Quarterly*, 28(4), 515–552.
- Graen, G. B., & Scandura, T. A. (1987). Toward a psychology of dyadic organizing. *Research in Organizational Behavior*, 9, 175-208.
- Griffin, M. A., Patterson, M. G., & West, M. A. (2001). Job satisfaction and teamwork: The role of supervisor support. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, 22(5), 537–550.
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2019). *Multivariate data analysis*. Hampshire, UK: Cengage Learning EMEA.
- Hair Jr, J. F., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2016). *A primer on partial least squares structural equation modeling (PLS-SEM)*. Sage publications.

- Hall, D. S. (2007). The relationship between supervisor support and registered nurse outcomes in nursing care units. *Nursing Administration Quarterly*, 31(1), 68–80.
- Hancock, G. R. (2001). Rethinking construct reliability within latent variable systems. *Structural Equation Modeling: Present and Future*, 195–216.
- Hart, S. L., Steinheider, B., & Hoffmeister, V. E. (2019). Team-based learning and training transfer: A case study of training for the implementation of enterprise resources planning software. *International Journal of Training and Development*, 23(2), 135–152.
- Hendri, M. I. (2019). The mediation effect of job satisfaction and organizational commitment on the organizational learning effect of the employee performance. *International Journal of Productivity and Performance Management*, 68(7), 1208–1234.
- Hofstede, G., Hofstede, G. J., & Minkov, M. (2010). *Cultures and organizations: Software of the mind, intercultural cooperation and its importance for survival*. New York, NY: McGraw Hill.
- Holton III, E. F., Bates, R. A., & Ruona, W. E. (2000). Development of a generalized learning transfer system inventory. *Human Resource Development Quarterly*, 11(4), 333–360.
- Hsu, Y. R. (2011). Work-family conflict and job satisfaction in stressful working environments. *International Journal of Manpower*, 32(2), 233–248.
- Hurt, K. J. (2016). A theoretical model of training and its transference: The pivotal role of top management team composition and characteristics. *Human Resource Development International*, 19(1), 44–66.
- Ibrahim, S. N. H., Suan, C. L., & Karatepe, O. M. (2019). The effects of supervisor support and self-efficacy on call center employees' work engagement and quitting intentions. *International Journal of Manpower*, 40(4), 688–703.
- Islam, T. (2019). Motivation to transfer training in learning organizations. *Journal of Management Development*, 38(4), 273–287.
- Islam, T., & Ahmed, I. (2018). Mechanism between perceived organizational support and transfer of training. *Management Research Review*, 41(3), 296–313.
- Jehanzeb, K., & Mohanty, J. (2018). Impact of employee development on job satisfaction and organizational commitment: person–organization fit as moderator. *International Journal of Training and Development*, 22(3), 171–191.
- Kraimer, M. L., Greco, L., Seibert, S. E., & Sargent, L. D. (2019). An investigation of academic career success: The new tempo of academic life. *Academy of Management Learning & Education*, 18(2), 128–152.
- Liu, G., & Ren, H. (2019). Organizational learning and job satisfaction of trainee auditors: A case study of Chinese CPA firms. *Accounting Research Journal*, 32(2), 70–87.
- Maitland, A., Lin, A., Cantor, D., Jones, M., Moser, R. P., Hesse, B. W., ... Blake, K. D. (2017). A nonresponse bias analysis of the health information national trends survey (hints). *Journal of Health Communication*, 22(7), 545–553.
- Massenberg, A.-C., Schulte, E.-M., & Kauffeld, S. (2017). Never too early: Learning transfer system factors affecting motivation to transfer before and after training programs. *Human Resource Development Quarterly*, 28(1), 55–85.
- McIntyre, R. M., & Salas, E. (1995). Measuring and managing for team performance: Emerging principles from complex environments. *Team Effectiveness and Decision*

- Making in Organizations*, 16, 9–45.
- Mikkelsen, A., & Olsen, E. (2019). The influence of change-oriented leadership on work performance and job satisfaction in hospitals—the mediating roles of learning demands and job involvement. *Leadership in Health Services*, 32(1), 37–53.
- Nijman, D.-J. J., Nijhof, W. J., Wognum, A. I., & Veldkamp, B. P. (2006). Exploring differential effects of supervisor support on transfer of training. *Journal of European Industrial Training*, 30(7), 529–549.
- Parvin, M. M., & Kabir, M. N. (2011). Factors affecting employee job satisfaction of pharmaceutical sector. *Australian Journal of Business and Management Research*, 1(9), 113–123.
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, 40(3), 879–891.
- Priest, N. (2009). *All roads lead to learning transfer*. Retrieved from www.trainingjournal.com
- Rhodes, J. A., & Toogood, S. (2016). Can active support improve job satisfaction? *Tizard Learning Disability Review*, 21(2), 54–60.
- Rungtusanatham, M., Miller, J., & Boyer, K. (2014). Theorizing, testing, and concluding for mediation in scm research: tutorial and procedural recommendations. *Journal of Operations Management*, 32(3), 99–113.
- Ryu, G., & Moon, S.-G. (2019). The effect of actual workplace learning on job satisfaction and organizational commitment. *Journal of Workplace Learning*, 31(8), 481–497.
- Saks, A. M., & Burke-Smalley, L. A. (2014). Is transfer of training related to firm performance? *International Journal of Training and Development*, 18(2), 104–115.
- Schwaighofer, M., Fischer, F., & Bühner, M. (2015). Does working memory training transfer? A meta-analysis including training conditions as moderators. *Educational Psychologist*, 50(2), 138–166.
- Weiss, D. J., Dawis, R. V., & England, G. W. (1967). *Manual for the minnesota satisfaction questionnaire*. Minneapolis: University of Minnesota, Industrial Relation Center. Retrieved from <http://vpr.psych.umn.edu/instruments/msq-minnesota-satisfaction-questionnaire>
- Zamani, N., Ataei, P., & Bates, R. (2016). The use of the persian translation of the learning transfer system inventory in the context of agricultural sustainability learning in iran. *International Journal of Training and Development*, 20(1), 92–104.
- Zhao, X., & Jia, L. (2019). Training and transfer effects of interference control training in children and young adults. *Psychological Research*, 83(7), 1519–1530.
- Zumrah, A. R., & Boyle, S. (2015). The effects of perceived organizational support and job satisfaction on transfer of training. *Personnel Review*, 44(2), 236–254.