

The Influencing Factors of Transfer of Training among the Academic Staff of UiTM

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Abstract

This study examined the relationships between employee readiness (attitude, organisational commitment, abilities and motivation to learn), training design (error management and perceived importance), work environment (supervisor's role and opportunity to use) and transfer of training among the academic staff of UiTM. This study also aimed to determine if motivation to transfer mediates the relationships between employee readiness, training design, work environment and transfer of training. By using the Structural Equation Model – Partial Least Square (SEM-PLS) for the final analysis, the results found that abilities, error management, supervisor's role and opportunity to use had significant and positive relationships with transfer of training. The study also confirmed the mediating effects of motivation to transfer between error management, opportunity to use and transfer of training.

Keywords: Transfer of training; Employee readiness; Training design; Work environment; Motivation to transfer.

1. Introduction

Crafting many training programs will not guarantee the expected outcomes demanded by employers. Workers with the passion or determination to learn new skills, knowledge and abilities may not result to the application and maintenance of the newly acquisitions. Therefore, the scholars and researchers have accepted the “sticky idea” of the figure 10 % as an average transfer rate which is not based on scientific evidence [1]. The poor teaching skills by some of the university's academic staff were responsible for the declining academic performance recorded among graduate students [2]. Indeed, they are the positive motivator for graduate attributes, in which defined as the qualities, skills and understandings a university community agrees its students would desirably develop during their time at the institution and, consequently, shape the contribution they are able to make to their profession and as a citizen [3].

1.1. Transfer of Training

The transfer of training as trainees effectively and continually applying what they have learned in training to their jobs [4]. This includes the generalisation of training and maintenance of learned material. Generalisation refers to the abilities of trainees to apply the acquired learning from training to their workplaces, whereas the maintenance of the learned material requires employees to continually use their acquired learning from training over time. This transfer will become beneficial if it is utilised by employees in their day-to-day activities.

1.2. Employee Readiness

The extent to which trainees are prepared to enter and participate in training is recognised as a critical element in the learning process and has been the subject of some researches. The readiness for training is whether employees have the personal characteristics (ability, attitudes, belief and motivation) necessary to learn program content and apply it to the job, and the work environment that will facilitate learning and not interfere with performance⁴. However, previous literature identified that one of the traits in the trainees that receives less attention from researchers and should be further explored to see the connection with the transfer of training is organisational commitment [5]. Accordingly, it can be hypothesised that:

H₁(a) Attitude has a significant relationship with transfer of training.

H₁(b) Organisational commitment has a significant relationship with transfer of training.

H₁(c) Abilities has a significant relationship with transfer of training.

H₁(d) Motivation to learn has a significant relationship with transfer of training.

1.3. Training Design

Training design is the process or systematic approach in developing training programs [4]. With error management, it allows employees to anticipate or forecast what can go wrong, and facilitate them with knowledge so that they will know how to handle any potential problems that may affect their performance [6]. They

realised that employees who perceive the importance of their training will be more motivated to attend and learn the capabilities to the job [7]. Therefore, this study assumes that:

- H₁e) Error management has a significant relationship with transfer of training
- H₁f) Perceived importance has a significant relationship with transfer of training

1.4. Work Environment

Several studies have identified an important role of supervisory support as work – environment variable that can encourage employees to learn new skills, behaviour and knowledge and later to apply as well as to maintain it over time. For instance, the employees should be given opportunities by their supervisor to practice or use what they have learned at their workplace [8]. Extending prior findings to a managerial training, it can be proposed that:

- H₁g) Supervisor’s role has a significant relationship with transfer of training.
- H₁h) Opportunity to use has a significant relationship with transfer of training.

1.5. Motivation to Transfer

Both transfer climate and trainees’ motivation to transfer were found significant in mediating the relationship between supervisor’s role and transfer of training [9]. However, the indirect effect of the supervisor’s support on transferring exercises is minimal. In a longitudinal study involving 119 employees, it also confirmed that the relationship between supervisor’s role and the maintenance of transfer was mediated by the supervisor’s role [10]. Therefore, building from previous studies, it can be hypothesised that:

- H₂a) Motivation to transfer mediates the relationship between attitude and transfer of training.
- H₂b) Motivation to transfer mediates the relationship between organisational commitment and transfer of training.
- H₂c) Motivation to transfer mediates the relationship between ability and transfer of training.
- H₂d) Motivation to transfer mediates the relationship between motivation to learn and transfer of training.
- H₂e) Motivation to transfer mediates the relationship between error management and transfer of training.

- H₂f) Motivation to transfer mediates the relationship between perceived importance and transfer of training.
- H₂g) Motivation to transfer mediates the relationship between supervisor’s role and transfer of training.
- H₂h) Motivation to transfer mediates the relationship between opportunity to use and transfer of training.

From the review of the literature, Figure 1 illustrates the research model for this study.

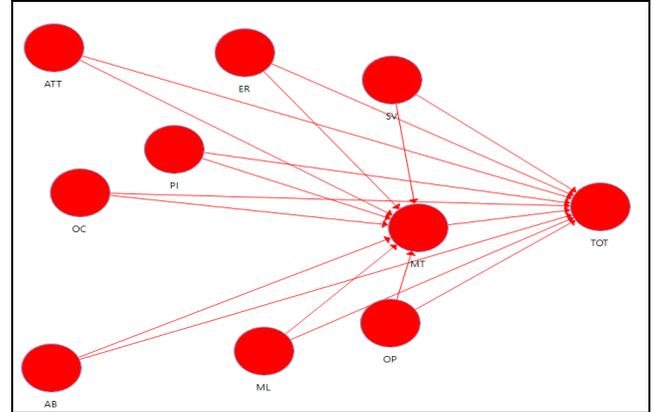


Fig. 1: Research Model

2. Methodology

The unit of analysis of this study is at an individual level. The focus is on academic staff of UiTM who underwent four training courses by the Institute of Leadership and Development (ILD) of UiTM. The aim of this study is to identify the determinants of transfer of training among the academic staff, as well as to examine the mediating role of motivation to transfer between the determinants of transfer and transfer of training. Two hundred and fifty-eight questionnaires were used for gathering data from the respondents with a total of 238 questionnaires were received and used for this analysis, which translates to about a 92% response rate. In testing the goodness of measures, Table 1 presents all the items measuring a particular construct loaded highly on that construct and loaded lower on the other constructs, thus confirming construct validity with a cutoff value for loadings at 0.7 as significant [11].

Table 1: Loadings and Cross-Loadings

	AB	AT	ER	ML	MT	OC	OP	PI	SV	TOT
AB1	0.807	0.524	0.524	0.693	0.611	0.605	0.567	0.655	0.453	0.528
AB2	0.899	0.576	0.678	0.706	0.610	0.672	0.567	0.582	0.496	0.669
AB3	0.886	0.647	0.718	0.797	0.703	0.737	0.645	0.646	0.551	0.711
AB4	0.878	0.552	0.554	0.726	0.539	0.659	0.563	0.683	0.532	0.565
AB5	0.733	0.480	0.526	0.592	0.400	0.593	0.497	0.510	0.382	0.520
AT1	0.438	0.786	0.448	0.439	0.580	0.501	0.588	0.478	0.368	0.505
AT2	0.610	0.866	0.606	0.598	0.633	0.642	0.570	0.522	0.404	0.595
AT3	0.531	0.895	0.487	0.570	0.619	0.615	0.540	0.541	0.427	0.566
AT4	0.533	0.913	0.545	0.587	0.644	0.636	0.590	0.594	0.425	0.618
AT5	0.571	0.777	0.488	0.610	0.481	0.640	0.577	0.557	0.370	0.486
AT6	0.572	0.719	0.470	0.578	0.448	0.487	0.477	0.501	0.408	0.539
AT7	0.592	0.802	0.563	0.622	0.546	0.607	0.527	0.527	0.481	0.615
ER1	0.594	0.475	0.843	0.570	0.589	0.569	0.548	0.536	0.397	0.630
ER2	0.642	0.557	0.890	0.607	0.620	0.593	0.512	0.570	0.476	0.623
ER3	0.688	0.609	0.915	0.673	0.677	0.663	0.587	0.603	0.543	0.702
ER4	0.658	0.596	0.920	0.657	0.660	0.643	0.578	0.592	0.514	0.666
ER5	0.615	0.556	0.853	0.611	0.605	0.611	0.554	0.563	0.475	0.603
ER6	0.631	0.567	0.853	0.555	0.685	0.591	0.566	0.605	0.481	0.638
ER7	0.546	0.420	0.805	0.500	0.572	0.498	0.506	0.429	0.433	0.632
ER8	0.551	0.501	0.770	0.563	0.516	0.570	0.457	0.481	0.464	0.543
ML1	0.672	0.543	0.530	0.801	0.541	0.600	0.482	0.535	0.517	0.474
ML2	0.669	0.544	0.562	0.818	0.541	0.701	0.604	0.567	0.481	0.571
ML3	0.718	0.557	0.626	0.850	0.555	0.677	0.583	0.573	0.469	0.569
ML4	0.686	0.647	0.574	0.810	0.654	0.655	0.552	0.579	0.518	0.586
ML5	0.777	0.583	0.649	0.861	0.593	0.714	0.584	0.608	0.501	0.617

ML6	0.726	0.549	0.566	0.863	0.568	0.651	0.513	0.568	0.530	0.555
ML7	0.669	0.633	0.583	0.839	0.711	0.677	0.608	0.622	0.541	0.618
ML8	0.718	0.576	0.551	0.875	0.637	0.662	0.594	0.602	0.531	0.598
MT1	0.597	0.592	0.594	0.607	0.860	0.583	0.712	0.611	0.562	0.703
MT2	0.563	0.581	0.566	0.604	0.875	0.586	0.690	0.611	0.483	0.667
MT3	0.647	0.632	0.659	0.685	0.930	0.687	0.734	0.701	0.581	0.726
MT4	0.612	0.631	0.631	0.666	0.909	0.644	0.716	0.661	0.498	0.705
MT5	0.596	0.604	0.636	0.615	0.912	0.658	0.683	0.639	0.550	0.730
MT6	0.605	0.641	0.649	0.604	0.885	0.632	0.695	0.604	0.551	0.752
MT7	0.654	0.603	0.701	0.677	0.889	0.682	0.716	0.567	0.523	0.736
MT8	0.663	0.644	0.711	0.677	0.890	0.689	0.741	0.634	0.584	0.769
OC1	0.607	0.582	0.507	0.555	0.579	0.733	0.679	0.587	0.392	0.479
OC2	0.708	0.680	0.644	0.694	0.715	0.901	0.738	0.731	0.596	0.721
OC3	0.632	0.588	0.411	0.622	0.486	0.776	0.579	0.612	0.383	0.450
OC4	0.675	0.561	0.575	0.679	0.552	0.814	0.609	0.596	0.516	0.625
OC5	0.631	0.601	0.589	0.712	0.597	0.872	0.635	0.616	0.457	0.547
OC6	0.699	0.673	0.622	0.737	0.663	0.916	0.691	0.693	0.593	0.657
OC7	0.688	0.591	0.639	0.720	0.667	0.906	0.695	0.656	0.501	0.598
OC8	0.635	0.573	0.659	0.661	0.604	0.846	0.626	0.619	0.482	0.640
OP1	0.482	0.502	0.454	0.516	0.649	0.632	0.857	0.543	0.413	0.589
OP2	0.625	0.647	0.580	0.647	0.798	0.711	0.856	0.706	0.586	0.728
OP3	0.591	0.665	0.605	0.629	0.788	0.716	0.882	0.698	0.556	0.710
OP4	0.468	0.442	0.505	0.471	0.510	0.582	0.756	0.443	0.430	0.572
OP5	0.538	0.467	0.449	0.481	0.596	0.626	0.858	0.532	0.428	0.527
OP6	0.530	0.485	0.453	0.520	0.528	0.624	0.816	0.505	0.505	0.569
OP7	0.658	0.606	0.571	0.602	0.662	0.587	0.773	0.618	0.587	0.676
PI1	0.528	0.489	0.445	0.482	0.510	0.596	0.622	0.780	0.447	0.464
PI2	0.543	0.521	0.502	0.506	0.540	0.596	0.631	0.833	0.509	0.535
PI3	0.609	0.495	0.565	0.534	0.568	0.571	0.466	0.769	0.384	0.474
PI4	0.562	0.546	0.570	0.576	0.610	0.600	0.585	0.841	0.486	0.646
PI5	0.682	0.562	0.569	0.616	0.604	0.657	0.611	0.888	0.507	0.592
PI6	0.652	0.505	0.540	0.572	0.569	0.603	0.616	0.841	0.471	0.527
PI7	0.606	0.542	0.440	0.597	0.530	0.630	0.539	0.806	0.522	0.412
PI8	0.584	0.538	0.529	0.637	0.641	0.676	0.563	0.767	0.540	0.540
SV1	0.551	0.494	0.552	0.556	0.596	0.537	0.553	0.551	0.871	0.586
SV2	0.505	0.423	0.451	0.546	0.535	0.509	0.508	0.488	0.868	0.500
SV3	0.485	0.410	0.404	0.487	0.514	0.489	0.504	0.597	0.874	0.508
SV4	0.503	0.435	0.447	0.545	0.500	0.514	0.516	0.487	0.916	0.578
SV5	0.515	0.433	0.504	0.561	0.537	0.524	0.555	0.525	0.943	0.642
SV6	0.506	0.424	0.511	0.543	0.505	0.506	0.576	0.470	0.917	0.615
SV7	0.541	0.436	0.519	0.551	0.548	0.528	0.578	0.495	0.911	0.643
SV8	0.524	0.512	0.548	0.565	0.599	0.576	0.576	0.627	0.862	0.632
TOT1	0.620	0.612	0.627	0.595	0.832	0.616	0.739	0.615	0.551	0.865
TOT2	0.595	0.590	0.642	0.566	0.726	0.586	0.682	0.587	0.528	0.832
TOT3	0.580	0.543	0.633	0.595	0.641	0.605	0.602	0.513	0.565	0.854
TOT4	0.652	0.614	0.663	0.622	0.728	0.645	0.682	0.601	0.568	0.917
TOT5	0.676	0.596	0.688	0.586	0.716	0.611	0.683	0.541	0.602	0.898
TOT6	0.649	0.640	0.632	0.621	0.729	0.637	0.684	0.553	0.584	0.903
TOT7	0.645	0.634	0.664	0.646	0.703	0.641	0.682	0.585	0.618	0.923
TOT8	0.647	0.581	0.651	0.612	0.641	0.631	0.626	0.584	0.646	0.869

Note: Bold values are loadings for items which are above the recommended value of 0.7.

Meanwhile, Table 2 explains that all value for loadings, composite reliability (CR) and average variance extracted (AVE) are above the cutoff values which require CR values to surpass the recommended value of 0.70 and AVE values should be higher than 0.50 in order to justify the use of the construct [11].

As depicted in Table 3, the square correlations for each construct are lower than the AVE by the indicators measuring constructs, indicating adequate discriminant validity. In total, the measurement model demonstrated adequate convergent validity and discriminant validity.

Table 2: Results of Measurement Model

Construct	Items	Loadings	CR	AVE
Abilities	AB1	0.807	0.924	0.711
	AB2	0.899		
	AB3	0.886		
	AB4	0.878		
	AB5	0.733		
Attitudes	AT1	0.786	0.937	0.681
	AT2	0.866		
	AT3	0.895		
	AT4	0.913		

	AT5	0.777		
	AT6	0.719		
	AT7	0.802		
Error management	ER1	0.843	0.957	0.735
	ER2	0.890		
	ER3	0.915		
	ER4	0.920		
	ER5	0.853		
	ER6	0.853		
	ER7	0.805		
	ER8	0.770		
Motivation to learn	ML1	0.801	0.950	0.706
	ML2	0.818		
	ML3	0.850		
	ML4	0.810		
	ML5	0.861		
	ML6	0.863		
	ML7	0.839		
	ML8	0.875		
Motivation to transfer	MT1	0.860	0.970	0.799
	MT2	0.875		
	MT3	0.930		
	MT4	0.909		

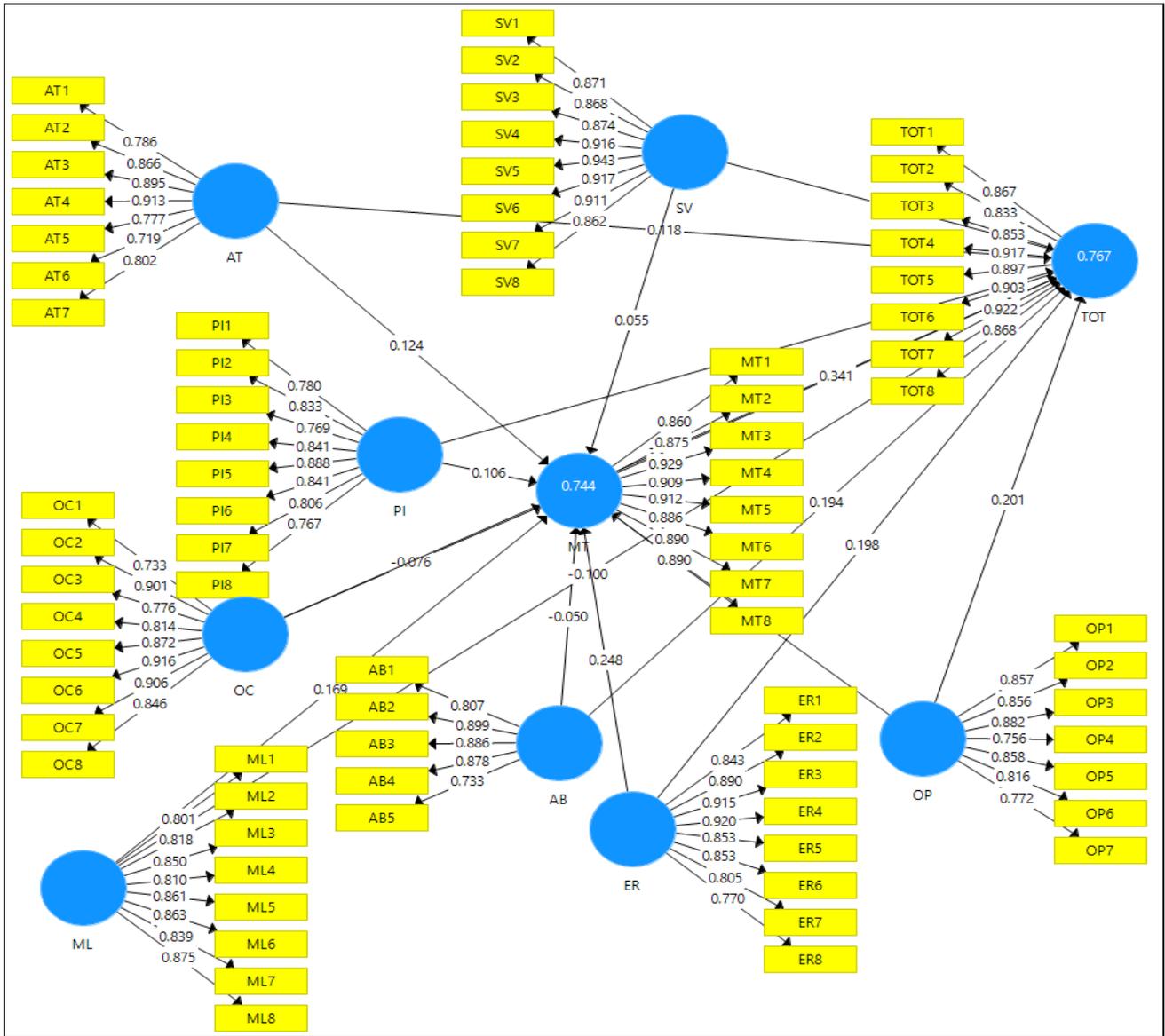


Fig. 2: Results of the Path Analysis

Table 5: Path Coefficients and Hypothesis Testing

Path	Direct Effect Model			Indirect Effect			Total Effect	VAF	Type of Mediation
	β	t-Stat a	p-Value	β	t-Stat a	p-Value			
AT → TOT c	0.118	1.590	0.112	0.042	1.717	0.086	0.16	0.263	No effect
OC → TOT c	-0.023	0.282	0.778	-0.026	0.959	0.338	-0.049	0.531	No effect
AB → TOT c	0.194	2.572	0.01	-0.017	0.552	0.581	0.177	0.096	Direct only
ML → TOT c	-0.1	1.097	0.273	0.058	1.85	0.064	-0.043	1.34	No effect
ER → TOT c	0.198	2.975	0.003	0.085	2.575	0.01	0.283	0.300	Complementary
PI → TOT c	-0.1	1.524	0.128	0.036	1.263	0.207	-0.064	0.563	No effect
SV → TOT c	0.183	3.011	0.003	0.019	0.962	0.336	0.202	0.094	Direct only
OP → TOT c	0.201	2.261	0.024	0.146	3.244	0.001	0.347	0.421	Complementary
Direct Effect Model									
MT → TOT b	0.341	3.842	0.000						
AT → MT a	0.124	2.003	0.045						
OC → MT a	-0.076	0.937	0.349						
AB → MT a	-0.05	0.558	0.577						
ML → MT a	0.169	2.151	0.032						
ER → MT a	0.248	3.188	0.001						
PI → MT a	0.106	1.254	0.21						
SV → MT a	0.055	0.983	0.326						
OP → MT a	0.427	6.589	0.000						

Notes: ^a t-statistics > 1.96 are significant (**) at p < 0.05 (two-tailed). AB = Abilities, AT = Attitudes, ER = Error management, ML = Motivation to learn, MT = Motivation to transfer, OC = Organisational commitment, OP = Opportunity to use, PI = Perceived importance, SV = Supervisor's role, TOT = Transfer of training

3. Results and Discussion

The findings of this paper confirmed the views that abilities, error management, supervisor's role and opportunity to use impact on transfer of training among the academic staff of UiTM. It can illustrate that the academic staff of UiTM have mental and physical capacity to learn and to use back the skills from training on their job performance, especially for teaching and learning practices. They are physically and mentally prepared for the absorption of knowledge, processing and storing it into their internal storage. This is due to the fact that many training programs designed by the ILD are also implemented at academic staff's own campuses, so that they do not have to think about the hassles of going to different places that will constraint their physical and mental factors. They are also encouraged to learn from their errors especially for teaching and learning practices. Besides that, voluntary participation in trainings regulated by supervisor rather than mandatory participation leads to positive outcome in which they were motivated to learn and transfer. Therefore, providing feedback will motivate employees to learn and, consequently, the support from supervisors before and after training will lead to a supportive work environment for transfer of training. Other than that, of four variables that had significant direct paths, the opportunity to use was found the most significant predictor of transfer of training among UiTM academic staff. This is due to adequate resources that were provided to them to enable them to use training such as financial, information and equipment. In terms of financial resources, grants are provided to all public universities and considered as opportunities to utilise their R & D competencies that can be learned through human resource development.

This present research also found that the relationships between error management, opportunity to use and transfer of training are mediated by motivation to transfer in a complementary pattern, providing support for these hypotheses (H_{2e} and H_{2h}). Complementary mediation indicates that besides influencing transfer of training indirectly via motivation to transfer, error management and opportunity to use also impact transfer of training directly, as supported by many scholars who have stated that employees may have opportunities to apply the acquired knowledge and skills upon returning to the workplace after training as if they have motivation to transfer. Consequently, the higher the level of motivation to transfer, the more likely the employees in a training program to apply and maintain the learned knowledge and skills one to three months after training. Most importantly, employees with the highest levels of motivation to transfer could sustain the application of the learned knowledge and skills approximately one year after training intervention. Hence, both direct and indirect effects are importance for error management and opportunity to use to enhance transfer of training. These findings are similar with previous research who examine the effects of attitude, relatedness, instructional satisfaction, peer support, supervisor support, motivation to transfer and transfer of training and found that motivation to transfer partially mediates the effects of attitudes, relatedness, instructional satisfaction, peer support and supervisor support on transfer of training [13-14]. This result is also supported by a number of prior studies indicate that error management and opportunity to use exert an indirect influence on transfer of training through various factors. The significant relationship between error management and training transfer is also consistent, whose work found motivation to transfer acts as a mediator between training design and training transfer [15].

4. Conclusion

This study is a novel exertion to determine the relationships between employee readiness (attitude, organisational commitment, abilities and motivation to learn), training design (error management and perceived importance), work environment (supervisor's

role and opportunity to use) and transfer of training. In addition, motivation to transfer was employed as a mediating variable between employee readiness, training design and work environment. Therefore, ability, error management, supervisor's role and opportunity to use were determined as important factors for the transfer of training among academic staff of UiTM. In addition, motivation to transfer is crucial regarding the indirect effects for the relationships between error management and opportunity to use on transfer of training.

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