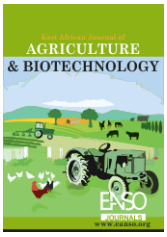
East African Journal of Agriculture and Biotechnology, Volume 8, Issue 1, 2025
Article DOI : https://doi.org/10.37284/eajab.8.1.2716



East African Journal of Agriculture and Biotechnology
eajab.eanso.org
Volume 8, Issue 1, 2025
p-ISSN: 2707-4293 | e-ISSN: 2707-4307
Title DOI: https://doi.org/10.37284/2707-4307

EAST AFRICAN NATURE & SCIENCE ORGANIZATION

Original Article

Unraveling the Mediating Factors in Agricultural Training Transfer for Ugandan Extension Workers

Pontious Mubiru Mukasa[1,2], Richard Miiro[2], Bernard Obaa[2], Henry Mutebi[3], James Kizza[2] & Joseph Kiwanuka[1]*

[1] Makerere University, P. O. Box 7062, Kampala, Uganda.
[2] University of Kisubi, P. O. Box 182, Entebbe, Uganda.
[3] Makerere University Business School, P. O. Box 756, Arua, Uganda.
* Author for Correspondence Email: Pontiousmubiru@gmail.com

Article DOI : https://doi.org/10.37284/eajab.8.1.2716

Date Published:

24 February 2025

Keywords:

Training Transfer, Agricultural Risk Management, Extension Workers, Work Environment, Training Design, Mediating Factors.

ABSTRACT

Purpose: This paper investigated the mediation role of transfer work environment and training design on training transfer of agricultural management skills on the population of extension. Work environment and training design are expected to mediate the relationship between trainee characteristics (independent variables) and the transfer of training (dependent variable). **Methodology:** Data was collected from 281 agricultural extension workers who completed training on holistic agricultural management skills training programs at Makerere universities. This was achieved through a survey questionnaire anchored on a 5-point Likert scale and analyzed using Structural equation modelling using Analysis of Moment of Structures. **Findings:** Based on the results; we established a positive significant relationship between trainee characteristics, work environment, training design and perceived training transfer as insinuated by the Learning Transfer System Inventory. Additionally, the work environment and training design of extension workers partially mediate the relationship between trainee characteristics and perceived training transfer as well as training design between work environment and perceived training transfer. **Implications:** To optimize training outcomes, attention should not only be given to individual trainee characteristics but also to the conducive work environment and well-designed training programs. Fostering a supportive work context and tailoring training designs to align with organizational needs become crucial strategies.

APA CITATION

Mukasa, P. M., Miiro, R., Obaa, B., Mutebi, H., Kizza, J. & Kiwanuka, J. (2025). Unraveling the Mediating Factors in Agricultural Training Transfer for Ugandan Extension Workers. *East African Journal of Agriculture and Biotechnology*, *8*(1), 94-113. https://doi.org/10.37284/eajab.8.1.2716

CHICAGO CITATION

Mukasa, Pontious Mubiru, Richard Miiro, Bernard Obaa, Henry Mutebi, James Kizza and Joseph Kiwanuka. 2025. "Unraveling the Mediating Factors in Agricultural Training Transfer for Ugandan Extension Workers". *East African Journal of Agriculture and Biotechnology* 8 (1), 94-113. https://doi.org/10.37284/eajab.8.1.2716

Article DOI : https://doi.org/10.37284/eajab.8.1.2716

HARVARD CITATION

Mukasa, P. M., Miiro, R., Obaa, B., Mutebi, H., Kizza, J. & Kiwanuka, J. (2025) "Unraveling the Mediating Factors in Agricultural Training Transfer for Ugandan Extension Workers", *East African Journal of Agriculture and Biotechnology*, 8(1), pp. 94-113. doi: 10.37284/eajab.8.1.2716.

IEEE CITATION

P. M. Mukasa, R. Miiro, B. Obaa, H. Mutebi, J. Kizza & J. Kiwanuka "Unraveling the Mediating Factors in Agricultural Training Transfer for Ugandan Extension Workers", *EAJAB*, vol. 8, no. 1, pp. 94-113, Feb. 2025.

MLA CITATION

Mukasa, Pontious Mubiru, Richard Miiro, Bernard Obaa, Henry Mutebi, James Kizza & Joseph Kiwanuka. "Unraveling the Mediating Factors in Agricultural Training Transfer for Ugandan Extension Workers". *East African Journal of Agriculture and Biotechnology*, Vol. 8, no. 1, Feb. 2025, pp. 94-113, doi:10.37284/eajab.8.1.2716

INTRODUCTION

In today's rapidly evolving landscape, investing in training and skill development is paramount for organizations aiming to remain competitive and adaptive. Training programs are thus important in improving the capabilities and competencies of employees to perform better in their jobs (Naji, 2020). However, to truly unlock the value of these investments, it becomes imperative to shift focus from mere training provision to a comprehensive evaluation of training transfer by ensuring that acquired knowledge and skills are effectively applied in real-world contexts, thereby maximizing the return on investment and fostering sustainable growth (McKenzie, 2020).

Learning Transfer System Factors (LTSI)

Trainee characteristics, training design, and work environment were identified as the three main elements that could promote favoured training transfer in the original assessments by Baldwin & Ford (1988). In this context, "trainee characteristics" refers to unique attributes that influence how trainees interact with and gain from training, such as motivation. On the other hand, work environment refers to the social and physical context in which training takes place, impacting how well learning is applied in the workplace. Training design, on the other hand, is the planning and structuring of training programs to ensure they meet learning objectives and facilitate knowledge transfer (Bates et al., 2012).

Numerous studies on trainee traits have been conducted (Colquitt et al., 2000; Holton et al., 2009; Kiwanuka et al., 2020; Miiro, Mazur, & Matsiko, 2012). Studies that have aimed to comprehend the factors leading to the transfer of agricultural training were initiated by Miiro et al. (2012), with subsequent studies following suit (Kiwanuka, Miiro, Matsiko, & Nkalubo, 2020; Muthoni & Miiro, 2016; Zamani, Ataei, & Bates, 2016). Several factors have been identified in these transfer studies. For example, Miiro et al. (2012) conducted an investigation into the facilitation of governance transfer by leaders of farmers' marketing organizations and ascertained that several crucial factors included personal capacity for transfer, transfer design, supervisory support, and feedback on performance. Zamani et al. (2016) discovered that the prediction of farmers' sustainability learning transfer relied significantly on factors such as performance self-efficacy, supervisor support, motivation to transfer performance outcome expectations, opportunity to use, and supervisor sanctions.

Interestingly, all the aforementioned studies have attempted to understand the direct influence of LTSI factors on the transfer of agricultural training. It was only Twase et al. (2021) who initiated the focus on the non-linear effect of LTSI on the transfer of agricultural training. He examined the effect of content validity on motivation and training transfer among smallholder farmers in Central Uganda and found that perceived content validity mediated the relationship between intrinsic motivation to implement acquired knowledge and training

Article DOI : https://doi.org/10.37284/eajab.8.1.2716

transfer. Based on the above, it is timely that this study examines the mediational role of training design (Govaerts, Kyndt, & Dochy, 2018) and work environment on the relationship between trainee characteristic factors and the transfer of agricultural risk management training in Uganda.

In the realm of training transfer research, trainee characteristics have emerged as a critical factor influencing the effectiveness of knowledge and skill application in the workplace. A range of studies have delved into the significance of trainee characteristics, shedding light on their impact and implications.

Several studies have extensively investigated the subject of trainee characteristics in the literature, resulting in a nuanced comprehension of their contribution to the transfer of training. For instance, Colquitt et al. (2000) conducted research that revealed the importance of trainee characteristics in facilitating the transfer of training. Their findings underscored the pivotal role played by trainees' individual attributes, such as motivation, self-efficacy, and prior knowledge, in determining the effectiveness with which training is transferred to job performance. Velada et al. (2009) further expanded upon this exploration by examining trainee characteristics such as learning orientation and self-regulation.

Their study illuminated that these characteristics significantly influenced the transfer of training, highlighting the multifaceted nature of trainee attributes. Kiwanuka et al. (2020) further emphasized the relevance of trainee characteristics by examining the influence of traits like self-efficacy and motivation on training transfer within the context of agricultural management. Their findings underscored the importance of intrinsic motivation and self-efficacy in driving the successful application of acquired knowledge in agricultural settings. This suggests that trainee characteristics may have industry-specific implications for training transfer. While the literature has provided substantial insights into the relationship between trainee characteristics and training transfer, recent trends have encouraged the study of interaction and mediation effects within this framework. The rationale for this shift lies in the recognition that the transfer of training is a complex and multifaceted process that is influenced by numerous variables. As a result, scholars are increasingly advocating for studies that explore the intricate interplay between various factors, seeking to uncover mediating mechanisms that clarify how and why certain variables impact training transfer.

The role of mediating elements in the process of training transfer has not been sufficiently addressed in previous investigations. Previous researchers have viewed the transmission procedure as a direct connection. According to Burke and Hutchins, 2007. training transfer refers to "the utilization of trained information and skills back on the job"

Coaching for the purpose of enhancing performance, opposition to altering established practices, one's belief in their ability to perform well, exertion put forth to apply newly acquired skills, expectations of performance, anticipations of performance outcomes, opportunities to utilize acquired knowledge and skills, support from colleagues, support from supervisors, disapproval from supervisors, and personal consequences (both negative and positive) have been recognized as influential factors in the process of transferring training (Bates et al., 2012; Holton et al., 2000; Hussain et al., 2017).

Multiple investigations (Govaerts et al., 2017; Reinhold et al., 2018; Tonhäuser & Büker, 2016; Blume et al., 2010; Burke & Hutchins, 2007; Cheng & Hampson, 2008; Gegenfurtner et al., 2009; Saks & Burke-Smalley, 2014) have indicated a connection between the work environment and the effective transfer of training. (Blume et al., 2010; Burke & Hutchins, 2007; Cheng & Hampson, 2008; Gegenfurtner, 2011b; Gegenfurtner et al., 2009a) Highlight the salient role of the work environment in the context of training transfer, as gleaned from a comprehensive examination of the referenced

Article DOI : https://doi.org/10.37284/eajab.8.1.2716

studies. Firstly, a consistent pattern emerges in these investigations, including the works of Blume et al. (2010), Burke & Hutchins (2007), Cheng & Hampson (2008), Gegenfurtner (2011b), Gegenfurtner et al. (2009a), and Saks & Burke-Smalley (2014), elucidating a robust correlation between the work environment and training transfer. This correlation indicates the palpable influence wielded by workplace conditions and elements in shaping the effective application of training within job tasks. Furthermore, these studies posit that the work environment, when perceived as conducive and supportive by employees, engenders a positive impact on the actualization of training transfer, thereby strengthening the propensity for the application of freshly acquired knowledge and skills in their professional roles.

In this regard, the supportive facets of the work environment, whether manifested through supervisory support, peer support, or organizational backing, emerge as pivotal catalysts for facilitating training transfer. Notably, the studies underscore the multifaceted impact of the work environment, extending its reach to influence broader organizational performance by fostering improved employee attitudes and behaviours, ultimately enhancing organizational outcomes. Nevertheless, this body of research reveals a pertinent call for further in-depth investigation, inviting scholars to scrutinize the intricate nuances underpinning the relationship between the work environment and training transfer. Furthermore, it emphasizes the necessity to investigate the mediating and moderating functions of training design and trainee characteristics in this correlation, as these variables offer the potential to enhance the understanding of the mechanisms that govern the transfer of training.

Perceived work environment support and trainee characteristics have gained significant attention in the realm of training transfer research. One notable area of focus is supervisory support, which has been extensively studied for its vital role in ensuring the transfer of skills leading to behavioural change. The literature provides substantial evidence that supervisory support correlates with perceived training transfer (Chauhan, Ghosh, Rai, & Kapoor, 2017; Muduli & Raval, 2018; Nijman, Nijhof, Wognum, & Veldkamp, 2006). The transfer of training is facilitated when participants receive additional support (Muduli & Raval, 2018). The work environment system helps organizations cultivate desired outcomes, such as organizational performance, while perceived support from the work environment significantly influences personal and work-related outcomes (Islam et al., 2017; Kula, 2017).

Multiple investigations have discovered that the milieu of the work setting possesses the capability to exert an impact on outcomes at the individual level (Ahmed and Nawaz, 2015). Nevertheless, a dearth of scholarly discourse exists regarding the moderating function fulfilled by the workplace environment in the association between characteristics of training and the transfer of said training. This highlights the need to explore the mediating and moderating roles of the workplace environment within this relationship, as these factors hold the promise of shedding additional light on the mechanisms governing training transfer. Therefore, the hypothesis that perceived work environment support mediates the relationship between trainee characteristics and training transfer is a critical area of exploration in the current research landscape.

The role of mediating elements in the process of training transfer has not been sufficiently addressed in previous investigations. Previous research primarily treated training transfer as a direct process, overlooking potential mediating elements. Several influential factors have been identified as contributors to training transfer, including coaching for performance, resistance to change, performance self-efficacy, transfer effort, performance expectations, performance outcome expectations, opportunity to utilize, peer support, supervisor support, supervisor sanction, and personal outcomes

Article DOI : https://doi.org/10.37284/eajab.8.1.2716

(both negative and positive). However, the mediating mechanisms through which these factors exert their influence remain largely unexplored.

In an attempt to address this gap, three separate studies have been carried out focusing on learning transfer system factors to provide valuable insights into the mediating and moderating roles of transfer-enabling factors. Miiro et al. (2023) conducted a study with trainee farmers in Uganda, and the results showed that the relationship between farmer capacity to transfer and training transfer, as well as the association between performance self-efficacy and training design, are partially mediated by a motivation to transfer. Furthermore, Chauhan et al. (2016) expanded upon this investigation by examining the influence of supervisory support on the connection between transfer design and training transfers in India. Through a meticulous analysis that included bootstrapping, the study confirmed that motivation to transfer moderates the relationship between supervisory support and training transfer. This underscores the multifaceted nature of these relationships. Chauhan's study was conducted in India.

The study "Mediation of perceived content validity on motivation and training transfer among smallholder farmers in central Uganda" which was carried out by Twase et al. in 2021 uncovered a compelling mediating effect, revealing that perceived content validity acts as an intermediary between intrinsic motivation to apply newly acquired knowledge and the successful transfer of training. This finding underscores the nuanced nature of training transfer and the potential influence of mediating variables.

The field of training transfer research has made significant progress in understanding the intricate relationships between various factors, yet it remains crucial to probe deeper into the mediation and interplay of these elements. This study seeks to address the gap in the literature by investigating the mediating role of the transfer work environment and training design in the context of agricultural management skills training for extension workers in Uganda. Trainee characteristics, training design, and work environment have been identified as pivotal factors that could influence the successful transfer of training. While extensive research has examined the direct effects of these factors, there is a lack of in-depth exploration of their mediating relationships. Therefore, this study aims to shed light on how these variables interact and influence the transfer of agricultural training.

Existing research has highlighted a positive association between work environment and training design, trainee characteristics, and training transfer. However, without additional evidence, it remains unclear whether these relationships are straightforward or mediated by training design or work environment factors. Moreover, little is known about how trainee characteristics and training design influence the relationship between training transfer and the work environment. It is further noted that factors that influence transfer differ based on; content, context, training type, and time (Ataei & Zamani, 2015a; Kiwanuka et al., 2020a; Muthoni & Miiro, 2017a; Velada et al., 2009, Yaghi & Bates, 2020b), thus the need to gain a deeper understanding of the complex nature of training transfer is what spurred this study. Previous research has primarily treated training transfer as a direct process, overlooking potential mediating elements. As training transfer is integral to organizational success, a deeper understanding of these mediating factors is essential.

The following hypotheses for further research have been developed after a thorough review of the literature and taking into account the limitations of previous studies. Much as studies, by Chauhan et al. (2016), Twase et al. (2021) and Miiro et al. (2023), shed light on the mediating role of factors such as motivation and content validity in the transfer process, performance self-efficacy, personal capacity to transfer, and training design, further the understanding of mediating role of work

Article DOI : https://doi.org/10.37284/eajab.8.1.2716

environment and training design in the training transfer process.

Hypotheses

H_1: Training characteristics are positively associated with perceived training transfer

H_2: Trainee characteristics are positively associated with the work environment.

H_3: The work environment is positively associated with the perceived transfer of training

H_4: Work environment mediates the relationship between trainee characteristics and training transfer

H_5: The Trainee characteristics are positively associated with training design.

H_6. Training design is positively related to perceived training transfer

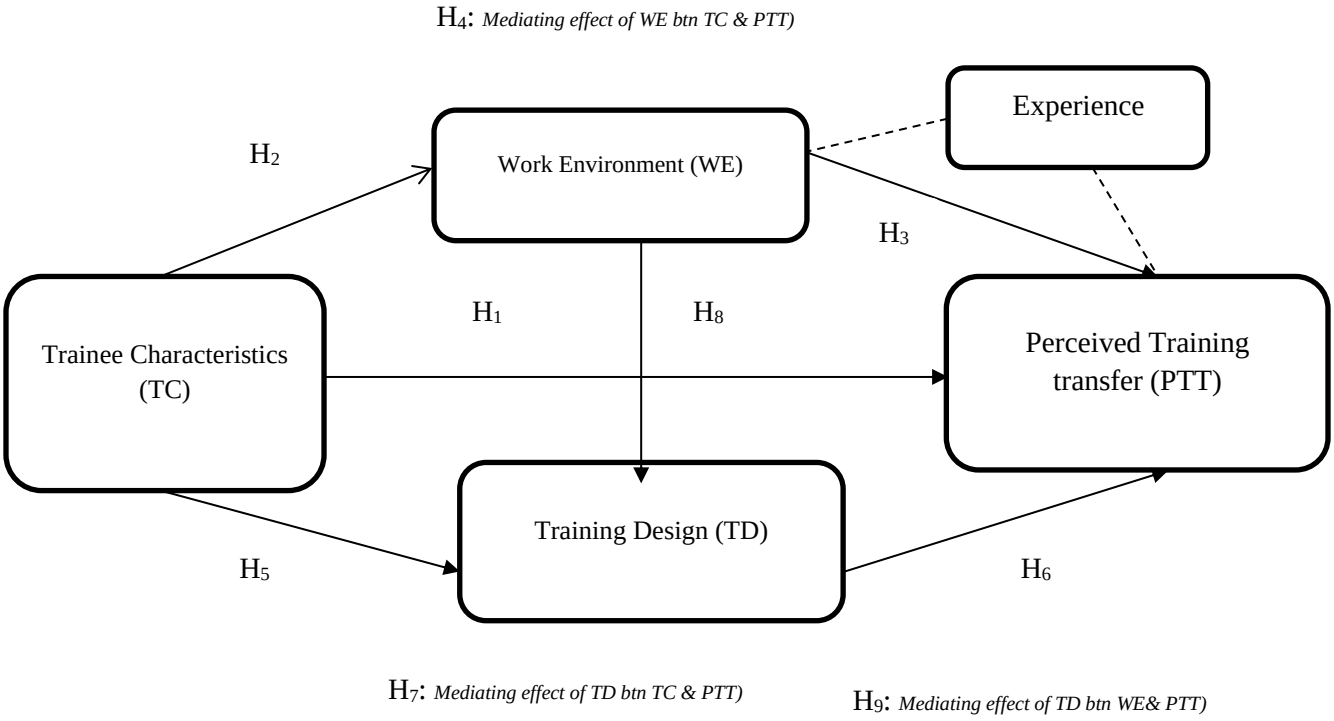
H_7: Training design mediates the relationship between Trainee characteristics and training transfer.

H_8: work environment positively relates to training design

H_9: Training design mediates the relationship between work environment and perceived training transfer.

All the above hypotheses are summarized in the Figure 1.

Figure 1: Conceptual Framework of the Study.



Context of the Study

To better support its farming population, the Government of Uganda, through the Ministry of Agriculture, Animal Industries, and Fisheries (MAAIF), has undertaken efforts to better understand and analyze risk and to develop an agricultural risk management (ARM) strategy

Article DOI : https://doi.org/10.37284/eajab.8.1.2716

aimed at reducing the risk exposure of farmers (Hamilton-Webb et al, .2017). In 2018, the Ministry of Agriculture, Animal Industry, and Fisheries (MAAIF) and Makerere University trained 300 agricultural extension officers across the country in holistic agricultural risk management approaches, who in turn were expected to transfer the same to farmers.

To train the extension staff (trainees) in agricultural risk management (ARM), the Ministry of Agriculture, Animal Industry, and Fisheries (MAAIF) hired lecturers from Makerere University College of Agriculture. The lecturers focused on risk assessment and prioritization, market risk management, institutional and personal risk management, gender issues in agricultural risk management, and agricultural risk policy**.** The main aim of this training was to transfer the agricultural risk management skills learned to real-life work. Since this is training, like any other training, it was also affected by training transfer factors.

METHODOLOGY

Data Collection, Population, Sample Size and Sampling Design

The research utilized a quantitative cross-sectional survey approach to gather data from 281 trainees, specifically public extension workers from various categories such as environmental offices, veterinary officers, entomologists, and fisheries officers. These trainees participated in agricultural risk management training organized by the Ministry of Agriculture in collaboration with Makerere University College of Agriculture and Environmental Sciences. The training encompassed a diverse range of skills, programs, durations, content, facilitators, and knowledge bases. The selection of these trainees for the survey was based on their ability to attend the training for the two weeks and those who did not complete they were excluded. The study's sample predominantly comprised male participants (83.6%), with females making up just 16.4%. Most respondents were aged between 25-35 years, accounting for 55.5% of the participants. Additionally, over half of the extension workers had more than five years of experience, with an average of 3.263 years (standard deviation of 1.485).

Data were collected through a self-administered LTSI questionnaire (Bates et al., 2012), employing a Likert scale ranging from 1 (strongly disagreeing) to 5 (strongly agreeing). The survey took place on the last day of the two-week training at Kabanyoro Agricultural Research Training Institute, with respondents given 30 minutes to one hour for questionnaire completion based on their convenience. Upon completion, respondents returned the surveys to the training organizers, who then informed the researcher to collect the sealed envelopes containing the questionnaires.

Instrument Development and Measurement

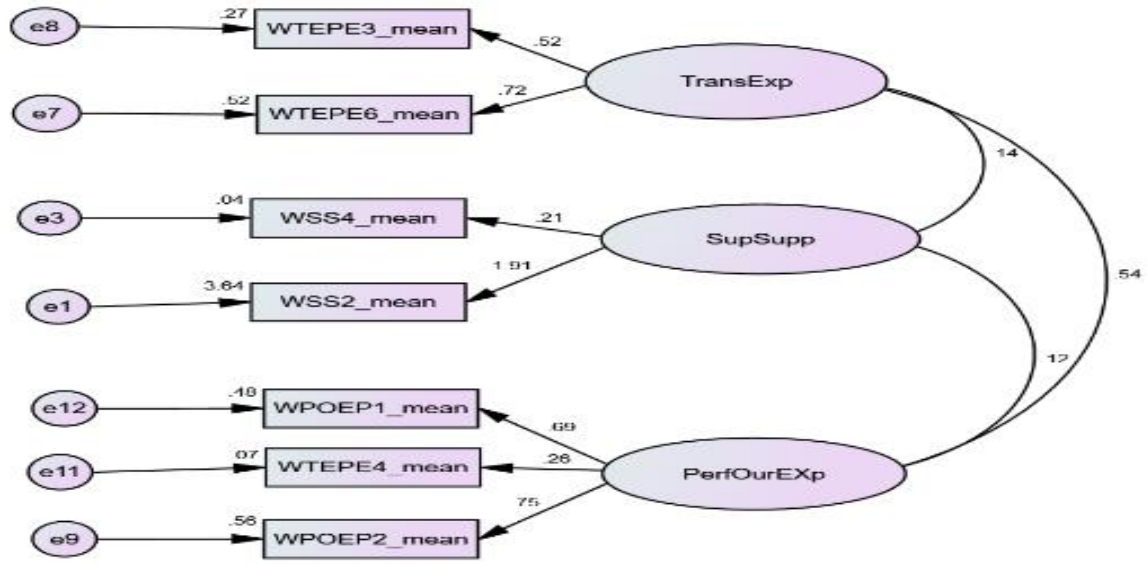
The instrument for this study was devised based on the perceptions of the trainee respondents. Trainee Characteristics (TC) were gauged through self-efficacy, motivation to transfer, readiness to learn, and personal capacity to transfer. The measurement of Training Design (TD) involved assessing transfer design and content validity. Factors related to the Work Environment (WE) were measured by organizational, supervisor, and peer support, as well as the opportunity to apply learned skills. Perceived Training Transfer (PTT) was evaluated based on the trainee's ability to generalize the knowledge acquired during training and sustain the acquired skills. All constructs of the study variables were derived from the LTSI instrument developed by Holton & Bates (1998), ensuring consistency and reliability in the measurement approach. Further, based on previous studies, we included work experience in our conceptual model as a control variable for training design and perceived training transfer. Work experience was calculated as the number of years one has spent in the organisation which was achieved as the natural logarithmic of ten.

Article DOI : https://doi.org/10.37284/eajab.8.1.2716

Measurement Validation

Cronbach's alpha and composite reliability cut-off values of 0.7 were recommended by Hair et al. (2017) for both observed and unobserved variables, signifying the internal consistency of the instrument. Factor analyses, both exploratory and confirmatory, were then conducted. Kaiser-Meyer-Olkin (KMO) and Bartlett's tests of sphericity were used to evaluate sample adequacy and suitability prior to Exploratory Factor Analysis (EFA) (Watkins, 2018). Using a Vari-Max rotated component matrix, the KMO value exceeded 0.7 and the Bartlett's sphericity test was significant at the 0.000 level, indicating that the sample was adequate and suitable for EFA (Zhang et al., 2020). Indicators of convergence validity included an Average Variance Extracted (AVE) of >0.5 and total variance explained >50%. Total variances for all study variables exceeded 50%, with three and two factors explaining 70.57%, 71.34%, and 73.08% variance for TC, TD, WE, and PTT, respectively. Based on the AVE values of all study constructs, we conclude that the instrument captured existing practices of TC, TD, WE, and PTT among the trainees. To further ensure reliability and validity, a confirmation factor analysis was conducted. Normed fix indices were >0.90, signifying reliability, while item loadings exceeded 0.5, indicating convergent validity (Hair et al., 2017). Results demonstrated that the square root of the AVEs for each study variable surpassed the correlation between variables, suggesting that distinct independent variables contribute to PTT (Sahoo, 2019). Lastly, the presented measurement model in Figures 2–4 adhered to all fit indices, confirming construct validity (Thakkar & Thakkar, 2020; Hair et al., 2013).

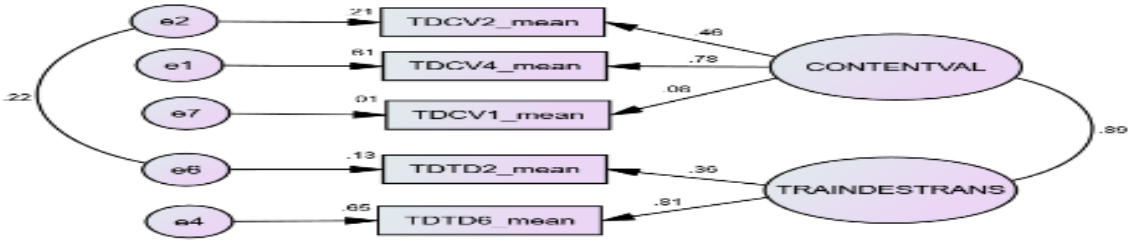
Figure 2: Confirmatory Factor Analysis for the Work Environment.



CMIN= 2.045; DF = 2, P = .318; CMIN/DF = 1.023; GFI = .986; AGFI = .968; NFI = .987; RFI = .937; IFI = .986; TLI = .978; CFI = .9986; RMSEA = .053; PCLOSE = .329

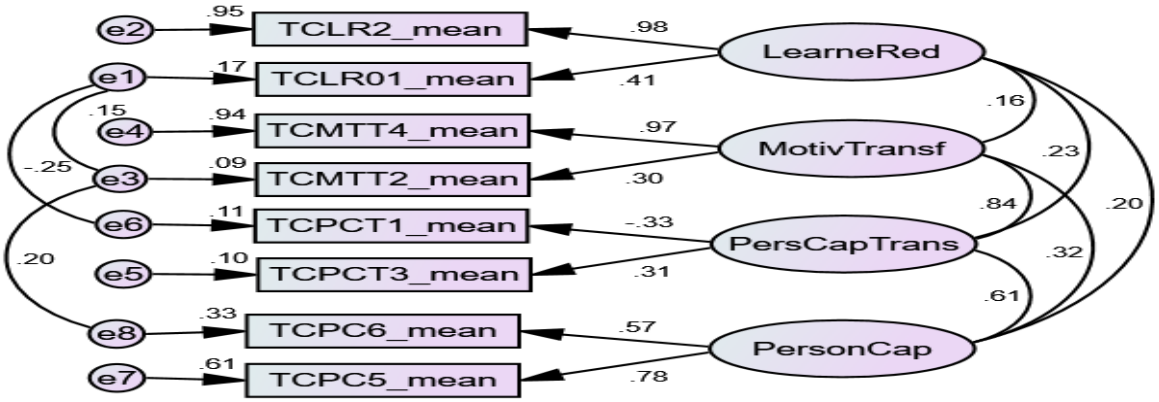
Article DOI : https://doi.org/10.37284/eajab.8.1.2716

Figure 3: Confirmatory Factor Analysis for Training Design Factors.



CMIN= 4.065; DF = 3, P = .418; CMIN/DF = 1.355; GFI = .956; AGFI = .968; NFI = .987; RFI = .937; IFI = .956; TLI = .978; CFI = .956; RMSEA = .061; PCLOSE = .229

Figure 4: Confirmatory Factor Analysis for Trainee Characteristics.



CMIN= 4.245; DF = 3, P = .118; CMIN/DF = 1.415; GFI = .966; AGFI = .968; NFI = .987; RFI = .947; IFI = .966; TLI = .978; CFI = .966; RMSEA = .053; PCLOSE = .529

Common Method Bias (CMB)

To address potential common method bias (CMB), both an ante remedy and a post-hoc test were employed following the recommendations of Kock et al. (2021) and Fuller et al. (2016). In order to simplify our measures, we adopted items from other researchers, avoiding the use of complex items. Despite collecting data from the same source, we ensured that it was gathered at different points in time. Furthermore, Herman's single-factor analysis revealed that a single factor explained only 22.4% of the variance, which is below the suggested threshold of 50% (Podsakoff et al., 2003). To address any lingering doubts regarding CMB not detected by Herman's analysis, a latent common method factor was computed by incorporating latent constructs with no uniquely observed indicators, as suggested by Kock et al. (2021). The study's results indicate the absence of common method variance between models with and without common factors, aligning with the findings of Chin et al. (2013).

Data Analysis

Utilizing covariance-based structural equation modelling (CB-SEM) and Analysis of Moments of Structures (AMOS) facilitated the exploration of relationships between latent variables, offering more realistic models compared to standard multivariate statistics or multiple regression models. Both direct and indirect hypotheses were subjected to testing. To assess the significance of multiple hypotheses, 5,000 sub-samples were bootstrapped, and a 95% biased confidence interval was applied, following the methodology proposed by Sahoo (2019) and Zhao et al. (2010). Model fit was evaluated based on criteria such as Chi-

Article DOI : https://doi.org/10.37284/eajab.8.1.2716

square/df < 5, Goodness of Fit Index, Comparative Fit Index, Tucker–Lewis Index > 0.95, and a Root Mean Square Error Approximation of 0.08, as outlined by Sahoo (2019), ensuring a comprehensive assessment of the model's appropriateness.

OUTCOMES AND DISCUSSION

The Demographic of the Unit of Inquiry

Table 1, reveals that the majority of participants were male (83.6%) followed by female (16.4). Males are more likely to manage extension services because of their flexibility given the fact that such services are provided in rural areas. Moreover 60% and above had an education level of a diploma and above, demonstrating their ability to interpret and provide valid responses to the instrument items. Further, more than half of extension workers have been providing the services for more than five years with an average mean experience in years of 3.263 (1.485, indicating their knowledgeability and can give more informed answers. Lastly, the majority of the respondents belonged to the age group 25–35 years (55.5 percent).

Table 1: Unit of Inquiry Characteristics Results

Gender of respondents	**F**	**%**	**Tenure**	**F**	**%**
Male	235	83.6	Less than 2 years	45	16.1
Female	45	16.4	2-5 years	128	45.6
Total	**281**	**100**	6-10 years	74	26.3
Education level	**F**	**%**	Above 10 years	34	11.96
Certificate	39	13.8	**Total**	**281**	**100**
Diploma	57	20.4	**Age of respondent**	**F**	**%**
Degree	162	57.7	21-30 years	116	41.3
Masters	22	8	31-40 years	137	48.8
Total	**281**	**100**	41-50 years	25	9
			50+ years	3	0.9
			Total	**281**	**100**

Source: Primary Data

Hypotheses Testing Results

As presented in Table 2, TC, WE, and TD are positively and significantly related to PTT (β = 0.14, p = 0.010; β = 0.16, p = 0.011; β = 0.37, p = 0.00) that supports H_1, H_3, and H_6. Additionally, TC has a significant and positive relationship with WE (β = 0.50, p = 0.000) supporting the hypothesis. Similarly, WE has a significant and positive relationship with TD (β =0.37, p = 0.000) supporting. TC and TD are positively but not significantly related (β =0.03, p = 0.720). WE partially mediate TC and PTT (β = 0.16, p = 0.000), TD partially mediates WE and PTT (β = 0.14, p = 0.000) while WE, partially mediate TC and TD (β = 0.19, p = 0.000). Similarly, PTT and WE are influenced by the experience of the workers. TC, WE, and TD influence PTT by 30% when considering the experience of workers (see Figure 5).

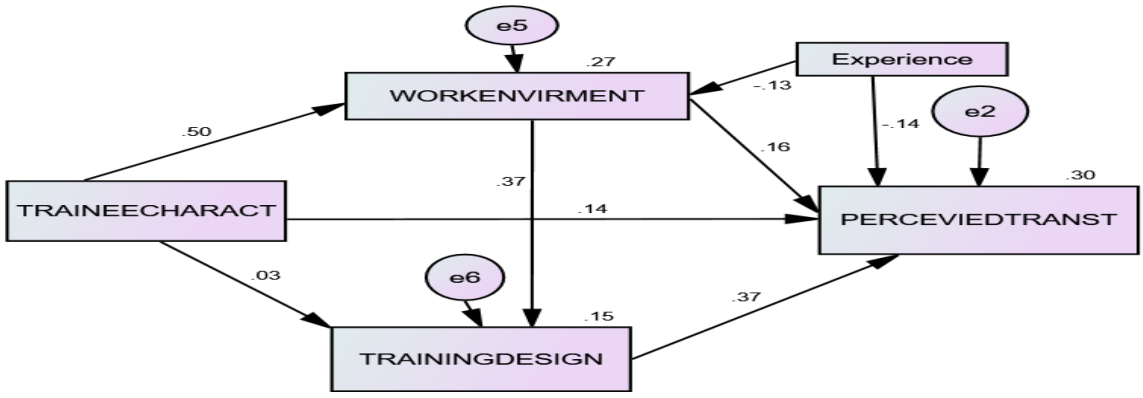
Article DOI : https://doi.org/10.37284/eajab.8.1.2716

Table 2: Hypotheses Results

Direct effects			β	S. E	C.R	C.I LB	C.I UB	P-value
WE	<---	TC	0.50	0.04	11.83	0.41	0.58	0.000
TD	<---	TC	0.03	0.07	4.03	-0.12	0.17	0.720
PTT	<---	TC	0.14	0.05	0.22	0.04	0.24	0.010
WE	<---	Experience	-0.13	0.05	2.8	-0.23	-0.03	0.018
PTT	<---	Experience	-0.14	0.05	2.25	-0.23	-0.05	0.002
TD	<---	WE	0.37	0.06	5.56	0.26	0.49	0.000
PTT	<---	WE	0.16	0.06	8.14	0.04	0.28	0.011
PTT	<---	TD	0.37	0.05	2.17	0.27	0.46	0.000
Indirect effects			**β**	**S. E**	**C.R**	**C.I LB**	**C.I UB**	**P-value**
PTT<--- WE<---TC			0.16	0.04	2.24	0.08	0.24	0.000
PTT<--- TD<---WE			0.14	0.04	2.24	0.09	0.20	0.000
TD<--- WE<---TC			0.19	0.03	2.24	0.12	0.27	0.000
Total effects			**β**	**S. E**	**C.R**	**C.I LB**	**C.I UB**	**P-value**
WE	<---	TC	0.50	0.04	6.83	0.41	0.58	0.000
TD	<---	TC	0.22	0.07	4.00	0.08	0.34	0.004
PTT	<---	TC	0.30	0.05	1.00	0.20	0.40	0.000
WE	<---	Experience	-0.13	0.05	2.80	-0.23	-0.03	0.018
PTT	<---	Experience	-0.18	0.05	2.25	-0.27	-0.09	0.001
TD	<---	WE	0.37	0.06	6.00	0.26	0.49	0.000
PTT	<---	WE	0.30	0.06	8.50	0.17	0.41	0.000
PTT	<---	TD	0.37	0.05	2.50	0.27	0.46	0.000

Source: Primary Data

Figure 5: Structural Equation Model



Source: Analysis of SEM using AMOS

CMIN= 3.045; DF = 2, P = .218; CMIN/DF = 1.522; GFI = .996; AGFI = .968; NFI = .987; RFI = .937; IFI = .996; TLI = .978; CFI = .996; RMSEA = .043; PCLOSE = .429

DISCUSSION

Direct Hypotheses

The aim of this paper was to investigate the mediating role of work environment in the relationship between trainee characteristics

Article DOI : https://doi.org/10.37284/eajab.8.1.2716

and perceived training transfer as well as the mediating role of training design in the relationship between work environment and perceived training transfer and work environment between trainee characteristics and training design of agricultural management skills among public extension workers.

The findings indicate a favourable correlation between the trainee characteristics of extension workers and the perceived transfer of agricultural risk management training. Trainee characteristics are crucial for the transfer of training; the findings are in line with Harris, Chung, Hutchins, & Chiaburu (2014). As educated extension workers, they appear to have been affected by their characteristics in a similar manner to any other regular employee in other types of organizations; they need to be motivated, have self-efficacy, be ready to learn, and have a personal capacity to transfer (Rebecca & Sangarandeniya, 2023; Celestin & Yunfei, 2018; Miiro et al., 20 12; Muthoni & Miiro, 2016). Hence, enhancing perceived training transfer.

The results indicate a positive and significant link between trainee characteristics and the work environment within the Learning Transfer System Inventory (LTSI) model, aligning with ongoing discussions in training and development literature. Trainee characteristics, like motivation, self-efficacy, and prior knowledge, are crucial, as highlighted by Baldwin and Ford (1988) and Burke and Hutchins (2007), emphasizing their role in effective training programs. This bolsters the theory that trainees who are self-sufficient and driven are more likely to apply their newly acquired abilities at work. In a similar vein, the relationship between learning transfer and the workplace reinforces the body of research that focuses on organizational characteristics. The work environment includes peer interactions, company culture, and supervisor assistance. Holton et al. (2000) and Tannenbaum and Yukl (1992) emphasize how crucial a supportive work environment is for learning transfer. This research indicates that employees are more likely to apply their training in real-world scenarios when their workplace fosters learning transfer.

This is consistent with current discussions on training design that incorporates trainee characteristics and the workplace. Salas and Cannon-Bowers (2001) and Colquitt et al. (2000) make the case for a comprehensive strategy that takes into account both organizational and human characteristics. The findings support the notion that well-designed training initiatives should take into account company culture in addition to improving individual performance. When analyzing these data, it's crucial to take into account any potential restrictions and subtleties. The generalizability of the results may be impacted by the context-specific nature of training and the variety of businesses.

Furthermore, it was discovered that the work environment positively correlated with the perception of training transfer (Park et al., 2022; Bhat et al., 2022). This means that a supportive work environment, such as supervisory and peer support, as well as the opportunity to apply learned skills, will ensure the transfer of the acquired agricultural risk management skills. Therefore, relevant district supervisors and peers should ensure a conducive environment for the implementation of the skills acquired by the trainee.

The study found that there is a positive connection between trainee characteristics and training design, but it is not strong enough to be statistically significant. This means that, while many might expect a clear link within the LTSI model, the lack of a strong statistical link makes us take a closer look at how trainee traits and

Article DOI : https://doi.org/10.37284/eajab.8.1.2716

training design are related. The fact that there isn't a significant link suggests that the process of transferring what is learned is complicated. This idea lines up with what Grossman and Salas talked about in 2011 - that learning transfer is intricate and influenced by many factors. So, when we think about how trainee traits and training design impact learning transfer, we need to consider the whole picture. Velada and others in 2007 suggest that this link might depend on other things, like the kind of skills being taught, how complex the subject is, or how customized the training is. To make training programs better, we should think about these factors. Even though the result isn't statistically significant, the positive connection means that adjusting training to fit the traits of trainees is still a good idea. Differences between individuals, such as what they already know or how they prefer to learn, can still help decide how training is done, following the principles of personalized learning from Baldwin and Ford in 1988. Those doing training should also think about factors that might change how trainee traits and training design are connected like Velada and others suggested in 2007. Understanding the specific situations where this connection becomes important can help improve training programs. Stressing the importance of regularly checking and adjusting, the result that isn't significant reminds us to stay flexible. Organizations should keep evaluating how well training works based on the changing traits of trainees and the situations they are in, matching with Holton and others call for always getting better in 2000.

Similarly, training design was found to have a positive direct association with perceived training transfer (Park et al., 2022; Bhat et al., 2022; Yaqub et al., 2021; Salahuddin et al., 2020). Thus, there is a greater chance that training will be implemented successfully in the workplace when the program's material is seen as pertinent to and similar to their work context and is well-designed to assist the transfer of information and skills. For this reason, it's critical to make sure the content is relevant to the trainee's context and that the facilitator employs a range of instructional techniques.

Discovering a strong and positive link between the work environment and training design, according to the Learning Transfer System Inventory (LTSI) model, is crucial for companies focused on training and development. This connection suggests that how well employees perform after training is influenced by the workplace atmosphere. Professionals such as Rouiller & Goldstein (1993) and Colquitt et al. (2000) emphasize that effective training results depend on a favourable work environment since it increases motivation, engagement, and the use of newly acquired skills in the workplace. In the study context, these results emphasize that for companies seeking effective training, aligning the training setup with the workplace atmosphere is vital. This alignment makes it easier for employees to use their new knowledge in daily tasks. Recognizing this positive link highlights the importance of companies supporting their employees in applying what they've learned. This support might involve training leaders to be more helpful or creating plans to improve the work environment for learning, as suggested by Baldwin and Ford (1988) and Tannenbaum and Yukl (1992). The strong positive connection also emphasizes the need for ongoing assessment and adaptation of training programs to stay in line with workplace changes. This aligns with recommendations from Holton et al. (2000) to continually enhance training practices. To make the most of this positive connection, companies can promote employee involvement through open communication, appreciation of efforts, and teamwork. These measures enhance the effectiveness of training in a positive work environment.

Article DOI : https://doi.org/10.37284/eajab.8.1.2716

Mediation Analysis

The study results highlight a crucial aspect within the Learning Transfer System Inventory (LTSI) framework, specifically focusing on the mediating roles of the work environment and training design. The findings indicate that the work environment acts as a partial mediator between trainee characteristics and perceived training transfer, emphasizing the interdependence of these factors. This aligns with existing research in the field, demonstrating the mediating role of the work environment (Lathabhavan & HL, 2023; Chapagain et al., 2022). Effective trainee characteristics not only directly improve perceived training transfer but also contribute to fostering a positive work environment, facilitating successful training transfer.

Similarly, the study reveals that training design acts as a partial mediator between the work environment and perceived training transfer. The association between the work environment and perceived training transfer is not solely direct but is influenced, in part, by training design. This resonates with prior research highlighting the mediating role of training design (Nafukho et al., 2023; Nafukho et al., 2017). The success of perceived training transfer is facilitated by the alignment of a positive work environment with well-designed training methods and relevant content. This emphasizes the holistic approach needed within the LTSI framework, where both the work environment and training design play pivotal roles in shaping the effectiveness of training transfer.

Furthermore, the study uncovers that the work environment fully mediates the relationship between trainee characteristics and training design. The impact of trainee characteristics on the perceived difficulty of training design is entirely channelled through the work environment, highlighting its profound influence. This aligns consistently with existing research on the mediating role of the work environment (Lathabhavan & HL, 2023; Chapagain et al., 2022). An enriched work environment, characterized by support and conducive conditions, significantly contributes to a positive perception of training design difficulty. This intricate interplay emphasizes the importance of a positive work environment in shaping how trainees perceive and engage with the complexity of training design.

In conclusion, the study's comprehensive findings also explore the influence of workers' experience on the work environment and training transfer within the LTSI framework. The collective impact of the work environment, trainee characteristics, and training design explain 30% of the total variance in training transfer outcomes, emphasizing their enduring importance. These results underscore the intricate relationships and cumulative impact of these factors within the LTSI framework, advocating for a holistic approach in designing training programs that consider the diverse experiences of workers for optimal learning transfer outcomes.

Implications

Theoretical Contribution

The findings of establishing a partial mediating role of the work environment in the relationship between trainee characteristics and perceived training transfer contribute significantly to the Learning Transfer System Inventory (LTSI) theoretical framework. This result adds nuance to our understanding of the complex dynamics involved in the learning transfer process. The LTSI model, which encompasses key elements such as trainee characteristics, training design, work environment and transfer climate gains depth by recognizing the intermediary influence of the work environment.

Furthermore, the identification of the mediating role of training design in the relationship between the work environment and perceived training transfer adds another layer to the LTSI model. This insight underscores the intricate interplay between training design and the work environment, shedding light on

Article DOI : https://doi.org/10.37284/eajab.8.1.2716

how the effectiveness of training programs is shaped by the interaction of these factors.

The overall theoretical contribution lies in enhancing the comprehensiveness of the LTSI framework. By acknowledging the mediating roles, the model becomes more holistic, capturing the dynamic connections between trainee characteristics, training design, work environment, and perceived training transfer.

Practical Contribution:

Practically, the results have important implications for the design and implementation of agricultural management skills training programs among public extension workers. Understanding the partial mediating role of the work environment emphasizes the significance of cultivating a conducive workplace atmosphere to facilitate the application of newly acquired skills. Organizations can leverage this insight by incorporating strategies that enhance the work environment, such as fostering supportive peer relationships, providing supervisor guidance, and promoting an organizational culture that encourages continuous learning.

Analogously, the need to customize training programs to fit the unique features of the workplace is underscored by the recognition of the mediating function of training design in the relationship between the work environment and perceived training transfer. The practical consequences entail customizing training methods and materials to the organizational setting and making sure that the design blends in with the current workspace to maximize the transfer of knowledge.

In the context of agricultural management skills training for public extension workers, these practical implications can lead to more effective training initiatives. Organizations can prioritize creating supportive work environments while customizing training designs to suit the unique needs of the agricultural sector, ultimately maximizing the impact of training on job performance.

CONCLUSION

This study delves into the complexities of perceived training transfer among public extension workers in agricultural management, emphasizing the mediating roles of work environment and training design. The findings highlight the positive correlation between trainee characteristics and the successful transfer of agricultural risk management training, underlining the importance of motivation, self-efficacy, and readiness to learn.

The study identifies a supportive work environment as instrumental, with positive direct effects observed. Factors like supervisory and peer support, coupled with opportunities to apply learned skills, significantly contribute to the successful transfer of agricultural risk management skills. District supervisors and peers play a crucial role in cultivating an environment conducive to skill application.

Additionally, well-designed training programs demonstrate positive direct effects on perceived training transfer, emphasizing the importance of relevance and contextual alignment. The mediation analyses reveal the critical roles of work environment and training design in mediating the relationships between trainee characteristics and perceived training transfer. The interconnectedness of these factors is evident, with an enriched work environment contributing to a more favourable perception of training design difficulty.

Experience emerges as a significant factor influencing the work environment, trainee characteristics, and training design. The collective impact of these factors on training transfer explains 30% of the variance, emphasizing the need for a nuanced approach tailored to the diverse needs of the workforce based on experience levels.

Limitations and areas for further research

This cross-sectional quantitative survey, conducted to assess literature-based hypotheses, has inherent limitations in fully

Article DOI : https://doi.org/10.37284/eajab.8.1.2716

elucidating the underlying reasons for the observed findings. The complexity of the issue demands a complementary approach involving qualitative case studies and in-depth interviews. Notably, the study's sample selection, limited to those who participated in the training, may not represent the views of all extension workers in Uganda.

To enhance the external validity of the results, future research should encompass all extension agricultural workers across Uganda's districts. The study primarily focuses on establishing the mediating effect of the work environment between trainee characteristics and training design, along with the mediating effect of training design on perceived training transfer. To refine our understanding, future investigations could explore the moderating effects of specific trainees (nature of the skills being trained, the complexity of the subject matter, or the level of individualization in training design) and work environment factors (peer support, leadership support, and alignment with organizational goals) on the learning transfer process.

Conflict of interest.

There is no conflict of interest.

Acknowledgement

This study was partly funded by the Regional Universities Forum for Capacity Building in Agriculture (RUFORUM).

REFERENCES

Baldwin, T. T., & Ford, J. K. (1988). Transfer of training: A review and directions for future research. *Personnel Psychology*, *41*(1), 63-105.

Bates, R., Holton III, E. F., & Hatala, J. P. (2012). A revised learning transfer system inventory: factorial replication and validation. *Human Resource Development International*, *15*(5), 549-569.

Bhat, Z. H., Mir, R. A., Rameez, R., & Rainayee, R. A. (2022). The influence of learner characteristics, instructional design and work environment on the transfer of training. Industrial and Commercial Training, 54(4), 566-588.

Blume, B. D., Ford, J. K., Baldwin, T. T., & Huang, J. L. (2010). Transfer of training: A meta-analytic review. *Journal of Management*, *36*(4), 1065-1105.

Brad Harris, T., Chung, W., M. Hutchins, H., & S. Chiaburu, D. (2014). Do trainer style and learner orientation predict training outcomes? *Journal of Workplace Learning*, *26*(5), 331-344.

Tonhäuser, C., & Büker, L. (2016). Determinants of transfer of training: A comprehensive literature review. *International journal for research in vocational education and training*, *3*(2), 127-165.

Burke, L. A., & Hutchins, H. M. (2007). Training transfer: An integrative literature review. *Human resource development review*, *6*(3), 263-296.

Burke, L. A., & Hutchins, H. M. (2008). A study of best practices in training transfer and proposed model of transfer. Human Resource Development Quarterly, 19(2), 107–128. https://doi.org/10.1002/hrdq.1230

Celestin, B. N., & Yunfei, S. (2018). The impact of learner characteristics on training transfer expectation: A survey of Thai teachers' perception of cloud computing tools. International Journal of Training and Development, 22(4), 256–273. https://doi.org/10.1111/ijtd.12137

Chapagain, R. K., Gurung, S. K., Ranabhat, D., Adhikari, S., & Gurung, P. (2022). Relationship Between Training Effectiveness and Work Performance: Mediation of Workplace

Article DOI : https://doi.org/10.37284/eajab.8.1.2716

Environment. Quest Journal of Management and Social Sciences, 4(1), 58-70.

Chauhan, R., Ghosh, P., Rai, A., & Kapoor, S. (2017). Improving transfer of training with transfer design. Journal of Workplace Learning, 29(4), 268–285. https://doi.org/10.1108/jwl-08-2016-0079

Chauhan, R., Ghosh, P., Rai, A., & Shukla, D. (2016). The impact of support at the workplace on transfer of training: A study of an Indian manufacturing unit. International Journal of Training and Development, 20(3). https://doi.org/10.1111/ijtd.12083

Cheng, E. W., & Hampson, I. (2008). Transfer of training: A review and new insights. *International journal of management reviews*, *10*(4), 327-341.

Chin, S. C. (2013). *Knowledge transfer: what, how, and why*. University of Iowa.

Colquitt, J. A., LePine, J. A., & Noe, R. A. (2000). Toward an integrative theory of training motivation: a meta-analytic path analysis of 20 years of research. *Journal of Applied Psychology*, *85*(5), 678.

David, McKenzie. (2020). Small Business Training to Improve Management Practices in Developing Countries: Reassessing the Evidence for 'Training Doesn't Work'. Oxford Review of Economic Policy, doi: 10.1093/OXREP/GRAB002

Fuller, C. M., Simmering, M. J., Atinc, G., Atinc, Y., & Babin, B. J. (2016). Common methods variance detection in business research. *Journal of business research*, *69*(8), 3192-3198.

Gegenfurtner, A. (2011). Motivation and transfer in professional training: A meta-analysis of the moderating effects of knowledge type, instruction, and assessment conditions. *Educati onal research review*, *6*(3), 153-168.

Gegenfurtner, A. (2011). Motivational influences on transfer: Dimensions and boundary conditions.

Govaerts, N., Kyndt, E., & Dochy, F. (2018). The Influence of Specific Supervisor Support Types on Transfer of Training: Examining the Mediating Effect of Training Retention. Vocations and Learning, 11(2), 265–288. https://doi.org/10.1007/s12186-017-9190-y

Grossman, R., & Salas, E. (2011). The transfer of training: what really matters. *International journal of training and development*, *15*(2), 103-120.

Hair Jr, J. F., Matthews, L. M., Matthews, R. L., & Sarstedt, M. (2017). PLS-SEM or CB-SEM: updated guidelines on which method to use. *International Journal of Multivariate Data Analysis*, *1*(2), 107-123

Hamilton-Webb, A., Manning, L., Naylor, R., & Conway, J. (2017). The relationship between risk experience and risk response: a study of farmers and climate change. *Journal of Risk*

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.

Islam, T., Khan, M. M., Khawaja, F. N., & Ahmad, Z. (2017). Nurses' reciprocation of perceived organizational support: The moderating role of psychological contract breach. International Journal of Human Rights in Healthcare, 10(2), 123–131. https://doi.org/10.1108/IJHRH-12-2016-0023

Kiwanuka, J., Miiro, R. F., Matsiko, F. B., & Nkalubo, S. (2020). Using the Learning Transfer System Inventory to test the effects of trainee and training design characteristics on the transfer of agricultural training in Uganda. International Journal of Training and

Article DOI : https://doi.org/10.37284/eajab.8.1.2716

Development, 24(4), 374–383. https://doi.org/10.1111/ijtd.12202

Kock, F., Berbekova, A., & Assaf, A. G. (2021). Understanding and managing the threat of common method bias: Detection, prevention and control. *Tourism Management*, *86*, 104330.

Kula, S. (2017). Occupational stress, supervisor support, job satisfaction, and work-related burnout: Perceptions of Turkish National Police (TNP) members. Police Practice and Research, 18(2), 146– 159. https://doi.org/10.1080/15614263.2016.1250630

Lathabhavan, R., & HL, C. (2023). The mediating effects of work conditions on the relationship between intrinsic motivators and training transfer. *The Learning Organization*.

Lathabhavan, R., & HL, C. (2023). The mediating effects of work conditions on the relationship between intrinsic motivators and training transfer. The Learning Organization.

McKenzie, David. (2020). Small Business Training to Improve Management Practices in Developing Countries: Reassessing the Evidence for 'Training Doesn't Work'. Oxford Review of Economic Policy. doi: 10.1093/OXREP/GRAB002

Miiro, R. F., Mazur, R. E., & Matsiko, F. B. (2012). Factors in the Transfer of Governance-Facilitation Skills within Farmers' Marketing Organizations in Uganda. Journal of Agricultural Education and Extension, 18(3), 231– 245. https://doi.org/10.1080/1389224X.2012.670051

Miiro, R., Kiwanuka, J., Matsiko, F., & Ugen, M. (2023). Performance self-efficacy and training transfer: The mediating effects of training design and motivation to transfer among farmer trainees in Uganda. The Journal of Agricultural Education and Extension, 1-18.

Muduli, A., & Raval, D. (2018). Examining the role of work context, transfer design and transfer motivation on training transfer: Perspective from an Indian insurance industry. *European Journal of Training and Development*, *42*(3/4), 266-282.

Muthoni, R. A., & Miiro, R. F. (2016). What influences transfer of training in an African agricultural research network? The Journal of Agricultural Education and Extension, 8622(July), 1– 15. https://doi.org/10.1080/1389224X.2016.1207550

Nafukho, F. M., Alfred, M., Chakraborty, M., Johnson, M., & Cherrstrom, C. A. (2017). Predicting workplace transfer of learning: A study of adult learners enrolled in a continuing professional education training program. *European Journal of Training and Development*, *41*(4), 327-353.

Nafukho, F. M., Irby, B. J., Pashmforoosh, R., Lara-Alecio, R., Tong, F., Lockhart, M. E., ... & Wang, Z. (2023). Training design in mediating the relationship of participants' motivation, work environment, and transfer of learning. European Journal of Training and Development, 47(10), 112-132.

Nijman, D. J. J. M., Nijhof, W. J., Wognum, A. A. M., & Veldkamp, B. P. (2006). Exploring differential effects of supervisor support on transfer of training. Journal of European Industrial Training, 30(7), 529–549. https://doi.org/10.1108/03090590610704394

Park, S., Kim, E. J., & Kang, H. S. (2017). Does supervisor support make a difference in employees' training and job performance? In *Academy of Management Proceedings* (Vol. 2017, No. 1, p. 11418). Briarcliff Manor, NY 10510: Academy of Management.

Park, Y., Lim, D. H., & Lee, J. (2022). Moderating effect of career planning on job support and motivational process of training

Article DOI : https://doi.org/10.37284/eajab.8.1.2716

transfer. *European Journal of Training and Development*, *46*(1/2), 194-213.

Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. *Journal of Applied Psychology*, *88*(5), 879.

Rebecca, E., & Sangarandeniya, Y. M. S. W. V. (2023). The Impact of Trainee Characteristics, Training Design, and Work Environment on the Transfer of Training: A Study of Executive Level Employees of a Selected Tea Manufacturing Company in Sri Lanka.

Reinhold, S., Gegenfurtner, A., & Lewalter, D. (2018). Social support and motivation to transfer as predictors of training transfer: testing full and partial mediation using meta-analytic structural equation modelling. *International Journal of Training and Development*, *22*(1), 1-14.*Research*, *20*(11), 1379-1393.

Rouiller, J. Z., & Goldstein, I. L. (1993). The relationship between organizational transfer climate and positive transfer of training. *Human resource development quarterly*, *4*(4), 377-390.

Sahoo, M. (2019). Structural equation modeling: Threshold criteria for assessing model fit. In *Methodological issues in management research: Advances, challenges, and the way ahead* (pp. 269-276). Emerald Publishing Limited.

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.

Salahuddin, S., Mehar, Q., & Kazi, H. (2020). Factors influencing transfer of training: Empirical evidence from public sector schools Hyderabad Pakistan. *Indian Journal of Science and Technology*, *13*(18), 1796-1802.

Salas, E., & Cannon-Bowers, J. A. (2001). The science of training: A decade of progress. *Annual review of psychology*, *52*(1), 471-499.

Shaddad, Ahmed, Naji. (2020). The importance of Training Programs in the Development of performance of Employees and Companies: A review of Related Concepts. doi: 10.31305/RRIJM.2020.V05.I10.008

Tannenbaum, S. I., & Yukl, G. (1992). Training and development in work organizations. *Annual review of psychology*, *43*(1), 399-441.

Thakkar, J. J., & Thakkar, J. J. (2020). Applications of structural equation modelling with AMOS 21, IBM SPSS. *Structural Equation Modelling: Application for Research and Practice (with AMOS and R)*, 35-89.

Tonhäuser, C., & Büker, L. (2016). Determinants of transfer of training: A comprehensive literature review. *International journal for research in vocational education and training*, *3*(2), 127-165.

Twase, I., Miiro, R. F., Matsiko, F., Ndaula, S., & Ssamula, M. (2022). Mediation of perceived content validity on motivation and training transfer among smallholder farmers in Central Uganda. *International journal of training and development*, *26*(1), 55-68.

Velada, R., Caetano, A., Bates, R., & Holton, E. (2009). Learning transfer–validation of the learning transfer system inventory in Portugal. *Journal of European Industrial Training*, *33*(7), 635-656.

Velada, R., Caetano, A., Michel, J. W., Lyons, B. D., & Kavanagh, M. J. (2007). The effects of training design, individual characteristics and work environment on transfer of training. International Journal of Training and Development, 11(4),

Article DOI : https://doi.org/10.37284/eajab.8.1.2716

Watkins, M. W. (2018). Exploratory factor analysis: A guide to best practice. *Journal of Black Psychology*, *44*(3), 219-246.

Yaqub, Y., Singh, A. K., & Dutta, T. (2021). An empirical study of factors influencing training transfer in the management training intervention. *Journal of Workplace Learning*, *33*(5), 361-374.

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.

Zhang, H., Chen, Y., & Li, X. (2020). A note on exploratory item factor analysis by singular value decomposition LSE Research Online URL for this paper: http://eprints.lse.ac.uk/104166.

Zhao, X., Lynch Jr, J. G., & Chen, Q. (2010). Reconsidering Baron and Kenny: Myths and truths about mediation analysis. *Journal of Consumer Research*, *37*(2), 197-206.

