



Developing a Culture of Continuous Learning for Sustainable Job Performance: TEVT Sector as Learning Organization, Pakistan.

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Abstract: This study explores the role of Technical Support (TS) and Leadership Support (LS) in enhancing Employee Performance (EP) through the development of a Culture of Continuous Learning (CCL) in the Technical Education and Vocational Training (TEVT) sector of southern Punjab. Data from 291 TEVT trainers were analyzed using Smart PLS4. The results show that TS and LS have a positive impact on CCL, leading to improved EP. Employee Engagement (EE) moderates these effects, revealing barriers such as overwhelmed employees, limited relevance of learning programs, and a perceived lack of support and recognition. To overcome these challenges, organizations can provide support structures like mentoring and coaching. These findings emphasize the importance of TS, LS, and CCL in enhancing EP in the TEVT sector and suggest further research to explore additional factors for improved employee performance in resource-constrained environments.

Introduction

Effective management of human resources is crucial for maintaining a balance between the needs of employees, the capabilities and Employee Performance (EP) demands of the company, and the significance of having a competent workforce for the advancement of the organization (Mappamiring, AKOB, Putra, & Business, 2020). Therefore, keeping in view the current fast-paced and ever-changing business environment, organizations that want to survive and thrive need to develop a Culture of Continuous Learning (CCL), which includes factors such as the availability of learning

opportunities, the emphasis on learning and development in performance evaluations, and the extent to which employees are encouraged to pursue learning outside of their job requirements (Umu Latifatul Chanani & Udik Budi Wibowo, 2019).

And effective management entails aligning the perceptions and perspectives of both employees and leaders to achieve company goals and enhance EP (Lin & Huang, 2021), which can be achieved through fostering a positive work mentality characterized by Technical & leadership support and effective coordination

from leaders to their subordinates (AKOB, ARIANTY, & Putra, 2020), as there is significant positive relationship exists between Leadership Support (LS) and EP (Purwanto, 2020). Organizations that foster a CCL tend to experience greater success in performance either at the individual level or at the team level through the mediating role of EE, which refers to the degree to which employees are engaged in their work and motivated to enhance their skills and abilities (Hoon Song, Hun Lim, Gu Kang, & Kim, 2014) because it creates an environment that motivates employees to enhance their skills and abilities to perform tasks more effectively (Zaitouni, Harraf, Kisswani, & Management, 2020) and has both direct and indirect effects on EP which includes factors such as productivity, quality of work, and ability to adapt to changing circumstances (Park, Song, Yoon, Kim, & Development, 2014).

In Pakistan, the Technical Education and Vocational Training (TEVT) sector plays a vital role in developing skilled human resources to support economic growth. However, the sector faces challenges such as limited resources, inadequate training facilities, and a lack of a culture of continuous learning. Therefore it is crucial to establish a CCL within an organization, as it offers several advantages to a learning-oriented entity, providing the necessary encouragement, learning avenues, and resources to its members (Umu Latifatul Chanani & Udik Budi Wibowo, 2019). Studies have shown that a learning culture that develops over time, Thomas and Brown (2011) can lead to sustainable development and improved performance (Kumar, 2005; Reardon, 2010), and the development of a CCL can be facilitated by factors such as LS, which encompasses resource allocation for learning and development, leaders' commitment to learning, and their accountability in fostering a learning culture. Additionally, TS plays a role, including the availability of e-learning platforms, the use of gamification to promote learning, and leveraging technology for employee collaboration and knowledge sharing.

These factors contribute to the establishment of a CCL (Umu Latifatul Chanani & Udik Budi Wibowo, 2019).

The presence of TS, which refers to the provision of assistance from technicians, has the potential to improve employees' use of technology in the form of instructional design and is crucial for CCL (Al-Busaidi & Al-Shihi, 2010) and subsequently, findings suggests that the degree to which employees engage in sharing knowledge with their colleagues receive favorable LS, which refers to the degree to which leaders within the organization support and has a significant impact on an organization's success in the development of CCL (Muhammed & Zaim, 2020) because it is the culture which empowers all staff to improve the work with an emphasis on the process (Flug et al., 2022; van Breda-Verduijn & Heijboer, 2016b).

This study, by investigating the mediating role of CCL between the relationship of TS, LS, and EP in the TEVT sector in Pakistan, will contribute to the literature gap and examines how the TEVT sector in Pakistan, due to a lack of adequate training facilities and resources, as reported in the Economic Survey of Pakistan (Finance, 2021-22) can develop a CCL because it emphasizes the importance of mutual benefits and rewards in relationships between individuals and organizations supported by Social Exchange Theory (SET). This study will provide novel insights into how the TEVT sector, by providing opportunities for growth and development, can foster a CCL that benefits both employees and the organization by investigating the mediating role of CCL and moderating role of EE; the study aims to provide practical insights for organizations in the TEVT sector in Pakistan on how to improve EP despite limited resources.

Literature Review & Hypothesis Development

Literature Review

Technical Support (TS) in the form of incentives, learning resources, and infrastructure to its members establish a Culture of Continuous

Learning within an organization promotes continuous learning which is characterized by a collection of standards and principles that motivate individuals to engage in ongoing learning (U. L. Chanani & U. B. J. K. S. S. Wibowo, 2019). The results of this research highlight the importance of providing practical training opportunities for educators to effectively incorporate emerging technology into their curriculum, ultimately promoting sustainable education. This reinforces the Culture of Continuous Learning (Lee & Hwang, 2022). The development of a CCL and improvement was facilitated by leadership support through the implementation of sustainable, positive measures such as systems thinking, leaders with determination, and thoughtful planning, while also addressing factors that impeded progress, such as system uncertainty, staff turnover, sluggish resolution of obstacles, and competing demands. This approach empowered the organization to establish a sustainable, constructive momentum (Quatman-Yates et al., 2019). Both the CCL and LS have a considerable, favorable, and direct impact on Job Performance (Lwanga, Korir, & Bonuke, 2023). According to the study, a culture of ongoing learning has a significant positive effect on job performance. The study's conclusion is that continuous training and development programs should not be underestimated as they contribute to improving and enhancing EP (Buba, Dahiru, & Nuhu, 2023), and Mohamed and Fook (2022) argued in their study that LS plays a crucial role in developing a CCL which motivate the employees to perform better because studies have revealed that learning programs play a significant role in improving organizational effectiveness, promoting growth, and enhancing EP in various scenarios (Mvuyisi & Mbukanma, 2023; van Breda-Verduijn & Heijboer, 2016a). The research findings suggest that learning and development significantly impact EP, and EE serves as a partial mediator between the relationship between learning and development and EP (Abdullahi, Raman, Solarin, & Adeiza,

2023). Employees who work in resourceful environments experience higher levels of EE and EP (Breevaart, Bakker, Demerouti, & Van Den Heuvel, 2015). Additionally, the results underscore the significance of researching EE as a means of enhancing EP (Corbeanu & Iliescu, 2023).

Hypothesis Development

H1: There is a significant positive effect of TS on CCL.

H2: There is a significant positive effect of TS on EP.

H3: There is a significant positive effect of LS on CCL.

H4: There is a significant positive effect of TS on EP.

H5: There is a significant positive effect of CCL on EP.

H6: CCL mediates the relationship between TS and EP.

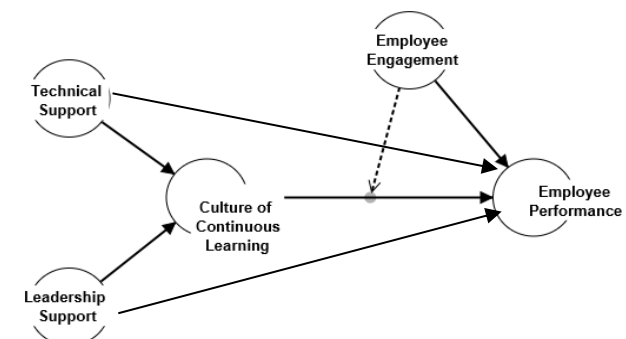
H7: CCL mediates the relationship between LS and EP.

H8: EE positively moderates the positive relationship between CCL and EP.

Conceptual Framework/Model

Figure 1

Conceptual Framework/Model



Research Design & Methodology

This study utilized a cross-sectional survey design and a self-administered questionnaire to gather data from TEVT Trainers employed in various technical and vocational institutes in southern Punjab. A simple random sampling technique was employed, focusing on TEVT

trainers as the primary unit of analysis. The sample size of 290 TEVT Trainers was determined to ensure sufficient statistical power for the study. To determine the sample size, the table provided by (Krejcie & Morgan, 1970) was consulted, recommending a sample size of 291 for a population of 1200 TEVT Trainers working in TEVT Institutes. This sample size was considered representative of inferential statistical analysis. The structural Equation Modeling (SEM) technique was applied for data analysis, following the approach of previous researchers such as (Syafri, 2022), using the Smart PLS-SEM application, which is widely utilized in exploring complex relationships in the field of human resource management (Sarstedt, Ringle, & Hair, 2021).

Instrument Development

Data was obtained through the utilization of a self-administered questionnaire comprising validated scales, which were employed to assess the constructs under investigation, such as for Technical Support (TS) measures through 03-items in this study were based on existing literature by (Compeau, Higgins, & Huff, 1999; Deng, Doll, & Truong, 2004; Doll & Deng, 2010), the measurement of Leadership Support (LS) is evaluated using a set of 09-items outlined by (Van Wart, 2017), To assess the Culture of Continuous Learning (CCL), the abbreviated version (07-Items) of the Dimensions of the Learning Organization Questionnaire (DLOQ), originally established by (Van Wart, 2017) and later authenticated in research studies made by (Yang, Watkins, & Marsick, 2004) was employed. And one dimension consists of 03-items "Affective Engagement" of the ISA Engagement Scale that captures three facets of engagement: intellectual, social, and affective engagement is utilized for measuring Employee Engagement (EE) developed by (Soane et al., 2012). And finally, for Employee Performance (EP), an adaptive scale of 09 items of Adetola, Ayinde, Asaolu, and Olabumuyi (2022) was used.

Data Analysis & Results

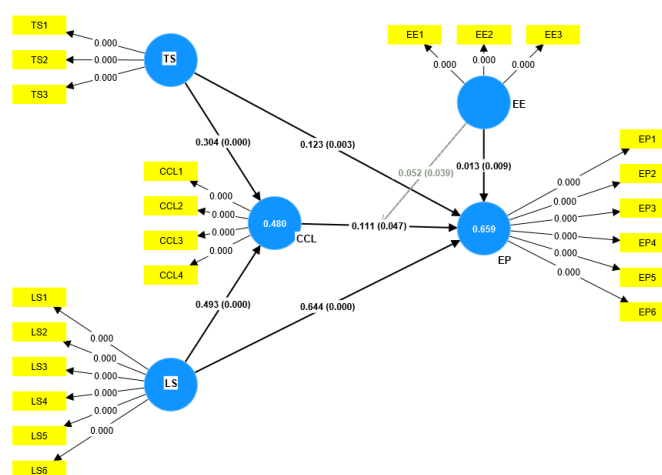
To assess the reliability and validity of the questionnaire, PLS-SEM analysis was conducted on the 31 items. The findings obtained from this analysis were utilized to interpret and enhance the questionnaire. Through the analysis, it was determined that 22 out of the 31 recommended questions played a crucial role in improving the accuracy of the indicators in the tested model. While a single-item measure can capture the essence of the constructs being studied, offering an alternative measure (Cheah, Sarstedt, Ringle, Ramayah, & Ting, 2018), it may have limitations in terms of criterion validity (Sarstedt et al., 2021). Nonetheless, employing a multi-item measure may be more appropriate and potentially advantageous.

Validity & Reliability (Construct & Convergent Validity)

In the evaluation of a reflective measurement model, the first step involves examining the factor loadings. It is desirable for the loadings to be 0.708 or higher, indicating that the construct accounts for more than 50% of the variability in the indicator and ensures satisfactory item reliability. The acceptable results obtained from this analysis are presented in Table 1 and Figure 2.

Figure 2

Outer Model=Factor Loadings, Inner Model=T-Values & Constructs with R^2



The evaluation of internal consistency reliability commonly utilizes Cronbach's Alpha and Composite Reliability. However, for enhanced precision and consideration of item weights, this study employed CR (Werts, Rock, Linn, & Jöreskog, 1978). Convergent validity was assessed using the AVE, with an AVE value of 0.50 or higher deemed acceptable (Werts et al., 1978). Collinearity among formative indicators was

evaluated through the VIF, with higher values indicating increased collinearity. VIF values exceeding 5 suggest significant collinearity issues, although concerns may arise even with values as low as 3. Ideally, VIF values close to or below 3 are desirable to mitigate collinearity concerns (Becker, Rai, Ringle, & Völckner, 2013). The results, as shown in Table 1, indicate satisfactory VIF values.

Table 1

Construct & Convergent Validity

Constructs with Indicators	Factor Loadings	Alpha	rho-C	AVE	VIF
CCL1 <- Culture of _Continuous _Learning	0.845	0.796	0.867	0.622	2.083
CCL2 <- Culture of _Continuous _Learning	0.721				1.397
CCL3 <- Culture of _Continuous _Learning	0.815				1.960
CCL4 <- Culture of _Continuous _Learning	0.767				1.461
EE1 <- Employee Engagement (Affective Engagement)	0.888	0.871	0.921	0.794	2.397
EE2 <- Employee Engagement (Affective Engagement)	0.885				2.223
EE3 <- Employee Engagement (Affective Engagement)	0.901				2.313
EP1 <- Job _Performance	0.814				2.297
EP2 <- Job _Performance	0.825	0.904	0.926	0.675	2.407
EP3 <- Job _Performance	0.841				2.525
EP4 <- Job _Performance	0.829				2.483
EP5 <- Job _Performance	0.847				2.678
EP6 <- Job _Performance	0.770	0.877	0.907	0.618	1.875
LS1 <- Leadership _Support	0.804				2.459
LS2 <- Leadership _Support	0.815				2.217
LS3 <- Leadership _Support	0.825				2.835
LS4 <- Leadership _Support	0.745	0.816	0.891	0.731	2.140
LS5 <- Leadership _Support	0.752				1.925
LS6 <- Leadership _Support	0.773				2.033
TS1 <- Technical Support	0.832				1.557
TS2 <- Technical Support	0.864	0.868			2.039
TS3 <- Technical Support	0.868				2.119

Discriminant Validity

To assess construct distinctiveness, the Fornell & Larcker Criterion (1981) was used. This criterion compares the Average Variance Extracted (AVE) with inter-construct correlations squared. The

HTMT (Heterotrait-Monotrait Ratio) proposed by (Henseler & Fassott, 2010) was also employed. The findings in Table 2 confirm discriminant validity, as HTMT values are below the recommended thresholds.

Table 2*Discriminant Validity*

Fornell & Larcker (1981)-Matric						Heterotrait - Monotrait Ratio (HTMT)					
Constructs	CCL	EE (AE)	JP	LS	TS	Constructs	CCL	EE (AE)	JP	LS	TS
CCL	0.788					CCL	0.763				
EE (AE)	0.893	0.891				EE (AE)	0.727	0.605			
JP	0.619	0.540	0.822			JP	0.766	0.591	0.782		
LS	0.647	0.521	0.780	0.786		LS	0.664	0.705	0.600	0.572	

Regression Analysis (PLS-SEM Direct Analysis)

The study confirmed Hypothesis 1-5 was supported, revealing a significant positive effect of Technical Support (TS), Leadership Support (LS) on Culture of Continuous Learning (CCL) and Employee Performance (EP), which aligns with Social Exchange Theory, suggesting that when employees perceive strong support from their leaders, they are more likely to engage in continuous learning activities. This reciprocal

relationship fosters a culture that values ongoing learning and development (Zhan & Cao, 2023). Similarly, when employees receive adequate technical support and resources, they are more motivated to engage in continuous learning. This leads to a culture that prioritizes skill enhancement and encourages employees to contribute to their own learning and the organization's growth (Muthamia & Kilika, 2022).

Table 3*PLS-SEM (Bootstrapping H1, & H2 results)*

PLS-SEM (Bootstrapping)						
Hypothesis & Path	Beta	Mean	SD	T	P	Results
H1: TS -> CCL	0.304	0.305	0.050	6.126	0.000	Accepted
H2: TS-> EP	0.123	0.123	0.044	2.768	0.003	Accepted
H3: LS -> CCL	0.493	0.494	0.048	10.238	0.000	Accepted
H4: LS-> EP	0.644	0.645	0.045	14.168	0.000	Accepted
H5: CCL-> EP	0.111	0.107	0.085	3.300	0.047	Accepted

Mediation Analysis

The classic approach to investigating mediation effects in regression analysis was introduced by Baron and Kenny (1986); (Sobel, 1982). However, alternative methods proposed by researchers such as (Hair, Ringle, & Sarstedt, 2011; Henseler, 2010; MacKinnon, Lockwood, & Williams, 2004) have emerged. One such alternative method involves using PLS-SEM with independent variables (IVs) and dependent variables (DVs) (Iacobucci, Saldanha, & Deng, 2007). In this study, mediation analysis was conducted to examine the hypotheses regarding the mediating role of the Culture of Continuous Learning (CCL) in the relationships between Technical Support

(TS) and Employee Performance (EP), as well as between Leadership Support (LS) and EP. The statistical significance of the factors was assessed using bootstrapping, employing the Bias-Corrected and Accelerated (BCa) method with one-tailed tests and parallel processing, following the recommended approach by (Hair Jr et al., 2021). PLS-SEM bootstrapping was performed according to the approach suggested by Preacher and Hayes (2004). The results of the hypotheses (H3 and H4) indicate a significant positive impact of TS and LS on EP through the mediating role of CCL. These findings are consistent with previous studies (Musah et al., 2023; Pacheco & Coello-Montecel, 2023; Tang,

Zhang, & Tian, 2023) and support the concept of social exchange theory (Raza, St-Onge, & Ali, 2023). The theory posits that when employees receive support and resources, they reciprocate with increased commitment and performance (Aldabbas, Pinnington, & Lahrech,

2023). In this context, the presence of a conducive culture of continuous learning (CCL) acts as a mediator, enhancing the positive effects of TS and LS on EP within the framework of social exchange theory.

Table 4

Mediation Analysis

PLS-SEM (Bootstrapping) Mediation Analysis											Results	
Total Effect			Direct Effect			Specific Indirect Effects						
Beta	T	P	Beta	T	P	Hypothesis 6-7	Beta	T	P	LLCI	ULCI	
0.157	0.156	0.051	0.123	0.123	0.044	TS -> CCL -> EP	0.034	0.033	0.002	0.010	0.078	Accepted
0.699	0.698	0.045	0.644	14.168	0.000	LS -> CCL -> EP	0.055	0.053	0.004	0.016	0.126	Accepted

Moderation Effects

Further moderation effect of EE in the relationship of TS on EP through CCL and LS on EP through CCL was examined to analyze either to what extent the existing relationship among constructs changed.

Therefore, Hypothesis 8 was assessed that without the inclusion of the moderating effect of EE, the value of R^2 value for EP was examined, which is 0.656, and shows 65.5% change in EP is accounted for by TS & LS through CCL. And with the inclusion of interaction terms (CCL X EE), R^2 raised to 65.9%, demonstrating a very small and neglectable change of 0.04% rise in the explained variance of the dependent variable (EP). Hence H8 is rejected, and these results are logically related to the overwhelmed employees and lack of relevance of some aspects of their learning programs that are not directly related to their career goals. Further, TEVT employees perceive a lack of support or recognition for their efforts in engaging with the CCL; their motivation and engagement levels can decline. If the organization does not provide the necessary support structures, such as mentoring, coaching, or feedback, employees may feel disengaged and less motivated to apply their learning to their performance. Hence, Hypothesis H8 is rejected, and no further analysis was made.

Discussion

Theoretical Implications

The results of this study revealed theoretical significance, and it contributes to the social exchange theory by examining how TS and LS can enhance EP by developing a CCL. Firstly, the study advances the social exchange theory by examining how organizations can create a CCL as an instrument for excellence in performance to reward their employees. Secondly, this study provides insight into the importance of EE in moderating the relationship between CCL and EP, and by investigating the mediating role of CCL in the relationship between TS, LS, and EP, the study will contribute to the literature on human resource management, organizational behavior, and social exchange theory.

Thirdly, the findings of the study will contribute to the existing literature by highlighting the significant positive effects of TS and LS on the development of a CCL among TEVT trainers. And it suggests that providing adequate support and resources in the form of technical guidance, training, and leadership support can foster a conducive learning culture within the organization. Lastly, the identification of EE factors such as feeling overwhelmed, lack of relevance, and limited support and recognition as negative moderators provide valuable insights

into the complexities of the relationship between CCL and Employee Performance (EP).

Practical Implications

This study also provided strategic implementation strategies for the TEVT sector to foster the CCL. *Firstly*, upon results, it was revealed that the TEVT sector should invest in providing TS and LS to trainers to facilitate the development of a CCL, and it can be achieved by the implementation of targeted training programs, sound mentorship, and by an inductive environment that values and recognizes continuous learning efforts.

Secondly, to address the EE factors that negatively moderate the relationship between CCL and EP, such as employees feeling overwhelmed and perceiving a lack of relevance to the contents of training programs, the TEVT sector has to enhance the CCL and EP of trainers by prioritizing manageable and directly applicable learning opportunities which are aligned with the trainers' roles, supportive and recognition-rich contents & environment.

Thirdly, the TEVT sector should develop and implement TS programs that provide trainers with access to up-to-date resources, tools, and training and promote a leadership culture that values and supports continuous learning. Encouraging leaders to actively engage with trainers, providing mentorship, and creating opportunities for dialogue and feedback and the supportive role of leaders can inspire the trainers to embrace continuous learning and create an environment conducive to growth and development.

Fourthly, Facilitate the formation of learning communities or networks among trainers. Encourage trainers to collaborate, share experiences, and exchange knowledge and best practices. Ensure that the learning opportunities provided to trainers are relevant to their roles and aligned with industry needs. Incorporate real-world projects, case studies, and practical

experiences to make the learning process engaging and applicable.

Fifthly, implement recognition and reward systems that acknowledge and celebrate trainers' efforts in continuous learning by establishing a feedback and evaluation system that provides trainers with regular input on their performance and progress in continuous learning. And this can be done by incorporating industrial participation in training programs that can provide exposure to real-world challenges and advancements.

Future Research Recommendations

Based on the findings of this research, some recommendations for future research are narrated. *Firstly*, further exploration of strategies through which TS and LS influence the development of a CCL would be valuable. *Secondly*, the mediate or moderating this relationship by investigating additional factors that between CCL and EP beyond employee engagement could enhance our understanding of the complex dynamics involved. *Lastly*, longitudinal studies can help examine the long-term effects of CCL on job performance and explore potential reciprocal relationships between the two constructs.

Conclusion

In conclusion, this research demonstrates the positive effects of TS and LS on the development of a CCL in the TEVT sector of Pakistan. However, the presence of negative moderation by factors related to EE highlights the need for organizations to address these challenges to fully leverage the benefits of CCL on EP. By recognizing the importance of TS, LS, and EE factors, organizations can create a conducive learning environment and foster continuous learning practices that ultimately enhance EP. These findings contribute to both theoretical understanding and practical implications for organizations in the TEVT sector, and future research can build upon these findings to further advance our knowledge in this area.

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