

# **If and to What Extent Does Organizational Learning Culture Predict Turnover Intentions of Telecommuting Call Center Agents?**

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*This study focuses on measuring the relationship between organizational learning culture (OLC) and turnover intentions of telecommuting call center agents. Although many studies involve the call center industry from different perspectives, the literature is scant in studies that have assessed the relationship between OLC and turnover intent in telecommuting call center agents. Call centers exist in almost every organization worldwide. Organizations have centralized their customer service process through computer-based technologies allowing call center agents to work from home. In addition, in the post-COVID-19 era, telecommuting has become a permanent option for many call center employees. Indeed, in the call center industry, telecommuting has become an essential part of the business strategy that seeks to attract new and maintain current employees. In the call center industry, learning is a factor that influences job satisfaction and turnover intentions. Specifically, OLC increases job satisfaction and performance in telecommuting call center agents, influencing employees' turnover intentions. The study's findings indicate that OLC is a needed factor that helps lower turnover intentions of telecommuting call center agents in the United States.*

*Keywords: organizational learning, turnover intentions, call center, telecommuting*

## **INTRODUCTION**

Call centers exist for customers to interact with humans who genuinely understand their concerns and can help them to find answers about specific products or services. Indeed, organizations create call centers usually to market the product or service of the organization. The call center employees are often a department or third party removed from the organization's line of business (Rothwell, et al., 2011). A phone support system uses advanced technologies to route calls directly to live agents or to the interactive voice response (IVR) system that routes the calls to specific call center agents (TechTarget, 2023). Those call center agents are frontline employees who interact with customers via phone or computer-based technologies (Zito et al., 2018). Since the beginning of the 21<sup>st</sup> century, organizations in various industries worldwide have implemented call centers as the primary contact method between them and their customers

(Chicu et al., 2016; Dhanpat et al., 2018; Feyerabend et al., 2018). Since then, the call center has been an industry that continues growing and generates millions of jobs annually.

Organizations today seek to maintain employees' welfare and reduce employee turnover rates (Zito et al., 2018). Reducing turnover is one of the most significant challenges facing the call center industry (Hidayah Ibrahim et al., 2019). Turnover in the call center industry involves costs related to recruiting, hiring, and training new employees and their impact on maintaining the quality of service (Kraemer & Gouthier, 2014). Organizations that implement an organizational learning culture (OLC) have a positive impact on employees in which an increase in their level of job satisfaction, affective commitment, as well as a decrease in their turnover intentions may occur (Islam et al., 2016). In addition, the current technological era has produced changes in the nature of work in different industries, including the call center industry that allows workers, such as call center agents to telecommute.

Learning is also a factor that influences telecommuters' turnover intentions, such as not being exposed to critical information or face-to-face interaction, which are crucial to acquire tacit knowledge (Orhan et al., 2016). Several investigators proposed recommendations for further studies to identify variables associated with turnover intention in call centers (Dhanpat et al., 2018; Feyerabend et al., 2018; Orhan et al., 2016; Zito et al., 2018). However, the influence that OLC has on turnover intentions in telecommuting call center agents is a factor that has not been given too much attention. Therefore, the central purpose of this quantitative correlational study was to determine if and to what extent organizational learning culture predicts turnover intentions of telecommuting call center agents in the United States.

This article discusses the turnover intentions of telecommuting call center agents as a business problem. Turnover rates in call centers after the COVID-19 pandemic have increased significantly, surpassing levels seen in other industries. This article also discusses organizational learning culture as a factor that influences turnover intentions in the telecommuting call center work environment. The literature review provided the architecture that guided this investigation, specifically, the review of OLC and its influences on turnover intentions. It also discusses telecommuting employees as a business strategy and its effect on turnover intentions. The research methodology describes the rationale for the research design, the unit of analysis and unit of observations, the sample size, the recruitment strategy, and data collection. The data analysis section described the assumptions required to run a multiple regression analysis, descriptive findings, instrument reliability coefficient, and descriptive statistics for the variable of interest. The last section presents the study results, business implications, and recommendations for future investigations.

## **BUSINESS PROBLEM**

Organizations create call centers to assist their customers. Call centers exist for customers to interact with humans who truly understand their concerns and can help them to find answers about specific products or services. According to Kraemer and Gouthier (2014), the global call center industry experiences high turnover rates, which is a concern for many organizations in need of enhancing their business strategies to lower turnover rates. Employee turnover is one of the most significant challenges facing the call center industry. The estimated annual turnover rate in call centers in the United States and the United Kingdom in 2017 was 30% (ContactBabel, 2017, p. 355). Since the COVID-19 pandemic started, contact center attrition rates have reached up to 80%. Indeed, in 2021, the average annual attrition rates in call centers were up to 1.3 times higher than in other industries in the United States (Cresta, 2022). In the call center industry, high turnover rates cause a decline in organizational learning and knowledge management levels, leading to a lasting disintegrated knowledge base (Feyerabend et al., 2018).

The COVID-19 pandemic has forced many organizations to ask their entire call center staff to work from home. For example, in 2020, T-Mobile mobilized 12,000 call center agents in a virtual work environment (Pressman, 2020). In the post-COVID-19 era, telecommuting is becoming a permanent option for many employees. Some call centers offer remote working opportunities as part of the benefits to backfill positions or retain existing employees (Cresta, 2022). Learning is critical to increasing job satisfaction and lowering turnover intentions (Feyerabend et al., 2018). Specifically, organizations that established a culture

of learning could see a decrease in employees' turnover intentions, which could bring positive results for the financial performance of the organization (Lee & Welliver, 2018).

The need for lowering turnover rates in the call center industry led researchers to determine the extent to which an organizational learning culture could help reduce turnover in telecommuting call center agents in the United States. Therefore, the central research question for this study was the following: *If and to what extent does a predictive relationship exist between organizational learning culture and turnover intention of telecommuting call center agents in the United States?*

The null and alternative hypotheses for this study were the following:

***H<sub>10</sub>:*** *Organizational learning culture is not a statistically significant predictor of the turnover intention of telecommuting call center agents in the United States.*

***H<sub>1a</sub>:*** *Organizational learning culture is a statistically significant predictor of the turnover intention of telecommuting call center agents in the United States.*

The research question addresses the existing business problem facing the call center industry. It seeks to determine the extent to which OLC helps decrease turnover intentions in remote call centers in the United States. The hypothesis testing expresses the relationship between OLC and turnover intentions of telecommuting call center agents and whether this relationship is significant.

Watkins and Marsick's (1993) organizational learning theory makes up the seven dimensions of the learning organization: continuous learning, dialogue and inquiry, team learning, embedded system, empowerment, system connection, and strategic of leadership. Yang et al. (2004) measured and validated each of the seven dimensions of the learning organization. In addition, the investigators created separate scales for each of the seven dimensions based on the authors' personal experience and the relevant literature used in the learning organization construct, the Seven Dimensions of the Learning Organization Questionnaire (DLOQ).

Worldwide, scholars have used DLOQ to find relationships between the seven dimensions of the learning organization and numerous aspects, such as job satisfaction and organizational culture (Watkins & O'Neil, 2013). The DLOQ is measured on a 6-point Likert-type scale survey with questions ranging from 1 (almost never) to 6 (almost always). Scores indicate the extent to which the organization supports and utilizes learning at the individual, team and organizational levels.

The six-item version of the turnover intention scale (TIS-6) is a valid and reliable tool designed to measure turnover intentions and predict actual turnover. Questions included in the TIS-6 were validated and used to measure turnover intentions in an organization that offered information, communication, and technology services in South Africa (Bothma & Roodt, 2013). Each question employs a 5-point Likert scale ranging from 1 (never) to 5 (always). Lower scores indicate the least intention to leave the organization, and higher scores indicate the superior intention to leave the organization. The instrument also comprises two reversed scores ranging from "very satisfied" to "totally dissatisfied" and from "highly unlikely" to "highly likely." In summary, the DLOQ construct and the TIS-6 instrument help shape the research question and the hypotheses that drive this investigation.

## **LITERATURE REVIEW**

### **The Influence of OLC on Turnover Intentions**

This section provides a conceptual framework of the OLC and turnover intentions that leads to explore whether a relation between OLC and turnover intentions exists in the call center industry. Creating a culture of learning is critical for organizations to achieve a competitive advantage and remain in their markets. Organizations that implement an OLC positively impact employees by increasing their level of job satisfaction and affective commitment, decreasing turnover intentions (Islam et al., 2016). Indeed, when employees perceive a culture of learning, they tend to respond with retention and commitment (Islam et al., 2015).

Watkins and Marsick (1993) presented a different perspective of the learning organization. Watkins and Marsick developed a 43-item instrument that was built based on their experience working with various firms that were seeking to increase their learning capabilities. Later, Yang et al. (2004) reconstructed their model by creating the seven-item version, which since then, has been implemented by many scholars worldwide (Chai & Dirani, 2018). Beginning with the development of a 43-item instrument that sought to increase organizational learning capabilities, Yang et al. (2004) developed the seven dimensions of the learning organization based on the fundamental component of an organization—*people and structure*. To address the need of measuring and validating the seven dimensions, Yang et al. used the seven dimensions of the learning organization questionnaire (DLOQ) as an essential instrument to measure the relationship between the seven dimensions with knowledge management and financial performance as the two most significant organizational outcomes.

Turnover intention is a theme that continues calling the attention of scholars and business leaders who recognize its impact on financial outcomes, such as the cost of employee replacement and the loss of tacit knowledge. Scholars have provided different definitions of turnover intentions. Several authors agree that turnover intention is the employee's intention, demonstration, or manifestation to move from one organization to another while not yet in the realization stage of leaving the organization (Alatawi, 2017; Bothma & Roodt, 2013; Susilawati & Darma, 2019). Bothma and Roodt (2013) defined turnover intention as “the final step in the decision-making process before a person actually leaves a workplace” (p. 2). Kuruppuge and Gregar (2018) also defined turnover intention as “the mental readiness of employees to leave the firm” (p. 16). Thereby, lowering the turnover intention of talented employees will result in a gain to organizational performance because when an employee's action changes from intending to leaving to actually leaving, it puts the organization in an unfavorable position by increasing costs related to recruiting and training, as well as lowering productivity level (George, 2015; Susilawati & Darma, 2019). Turnover intention is considered the most direct precursor to actual turnover (Ro & Lee, 2017). Thereby, OLC is considered fundamental factors that influence employee turnover intentions in call centers.

### **Telecommuting Employees and Turnover Intentions**

The advancement of technology, globalization, and the need for organizations to offer a work-life balance to their employees are among the reasons that organizations have offered employees the option of working remotely. According to the U.S. Bureau of Labor Statistics (2019), 7.5% of the total wage and salary workers work from their homes one or two days per week, and 2.1% work five days or more from their homes. Telecommuting has been a subject of debate regarding to its impact on employee performance. Golden and Gajendran (2019) stated that CEOs and senior leaders have questioned whether telecommuting helps or hurts individuals' performance. Indeed, Narayanan et al. (2017) recommended further investigation of topics such as social isolation, job performance, job satisfaction, and work engagement. The extent to which these variables influence telecommuters vary and could affect the organizational performance differently. Telecommuters are also affected by the organizational objectives, type of business, and the industry.

Although telecommuting is considered an organizational strategy that increases productivity, lowers real estate expenses, and reduces turnover intentions (Hambly & Lee, 2019; Masuda et al., 2017), it also creates new challenges for organizations because leaders must adapt themselves to deal with geographic locations, time zones and cultural differences (Overbey, 2013). When these challenges are mismanaged, telecommuting turns into a negative work experience. In this sense, telecommuters can be affected in different ways, such as a lack of career development, feeling physical and psychological isolation, and experiencing low levels of job performance (Hambly & Lee, 2019; Masuda et al., 2017; Wang et al., 2020). Thereby, this hostile work environment could lower the level of job satisfaction, which causes an increase in the telecommuters' intentions to quit.

### **Organizational Leadership, Management of Technology, and OLC**

Organizational Leadership in call centers plays a significant role in job engagement, employee performance, and job stress. Executive Leadership can positively or negatively influence personal growth,

learning, and goal achievement. When corporate leaders fail to provide the support needed, employees struggle to achieve the desired performance standards (Shemueli et al., 2020). Therefore, trust must exist between the Organizational Leadership and employees. The lack of confidence in management causes employees to withhold their opinions and ideas concerning organizational matters impacting organizational learning (Oh, 2019). In addition, corporate leaders are responsible for providing their employees with the necessary training and tools to help meet organizational goals. One of the most critical factors influencing organizational learning is technology management.

Through technology, Organizational Leadership plays key responsibilities in acquiring, storing, and transferring knowledge (Argote & Hora, 2017). Sharing knowledge depends on the Organizational Leadership's ability to manage systems and the support they provide (Chatterjee et al., 2018). Zeraati et al. (2019) asserted that information technology tools are designed to enhance communication and knowledge transfers. The implementation of knowledge management relies on the management of technology. Therefore, technology is essential to ensure that knowledge flows effectively and efficiently (Rahman et al., 2022). Furthermore, regarding telecommuting, technology management is significant to help mitigate the effect of employees working from different geographic locations that affect knowledge transfer.

In short, a partnership between information technology leaders and Organizational Leadership is needed. Furthermore, the information technology infrastructure itself is insufficient to increase organizational performance. Indeed, a relationship between information technology and executive leaders enhances organizational performance (Mahdi, 2019). Therefore, in a telecommuting work environment, information technology enables Organizational Leadership to support learning which helps employees to acquire, store and share knowledge.

## **RESEARCH METHODOLOGY**

A quantitative methodology was used to examine the predictive correlation between the seven dimensions of the learning organization and turnover intention of telecommuting call center agents in the United States. A quantitative study measures the extent to which a correlation exists between two or more variables (Curtis et al., 2016). One of the advantages of using a quantitative technique is the isolation, measurement, and evaluation of variables under investigation, which are focused on predictability and control over time (J. Park & Park, 2016). Malik and Garg (2017) conducted a quantitative method to examine the relationship between the seven dimensions of the learning organization and work engagement in an Indian information technology (IT) organization. They hypothesized and confirmed that a relationship exists between the seven dimensions of the learning organization variables and work engagement. Islam et al. (2015) examined the correlation between the seven dimensions of the learning organization and perceived organizational support, affective commitment, and turnover intention among individuals working in the banking sector in Pakistan. They found a positive relationship between organizational learning culture, affective commitment, and perceived organizational support and a negative correlation with turnover intentions. One of the most significant benefits that this study could bring is the generalization of its results to be used to lower attrition rates in call centers that have implemented telecommuting as a business strategy from the organizational learning perspective.

### **Rationale for Research Design**

The researcher used a non-experimental predictive correlational design to explore whether there was a predictive relationship between the seven dimensions of the learning organization predictor variables and the turnover intention criterion variable of telecommuting call center agents in the United States. Since these seven dimensions, predictor variables, and the turnover intention criterion variable have not been studied together in a telecommuting call center work environment, conducting a non-experimental predictive correlational design was appropriate.

### **Unit of Analysis and Unit of Observation**

Call center agents are the unit of analysis, and the telecommuting call center agents are the subset and the target population for the research. The effect that OLC could have on telecommuting call center agents' turnover intentions is the unit of observation. Teleworkers and remote workers represent different conceptualizations of telecommuting. Thereby, telecommuting is when employees work from home, and their work is supported by telecommunications technology (Golden & Eddleston, 2020). According to the U.S. Bureau of Labor Statistics (2020), the estimated number of customer service representatives is 3 million. The U.S. Bureau of Labor Statistics (2020) defines customer service representatives as individuals who answer questions or requests from customers or the public and typically provide service by phone, though some also interact with customers via email, chat, or face-to-face conversation.

The target population for the proposed study was telecommuting call center agents in the United States. The U.S. Bureau of Labor Statistics (2020) does not provide a specific number of call center agents working from home but explains that work from home is possible for some call center agents. Indeed, about 53% of the call centers in the United States have a percentage of their call center agents working from home (Frost & Sullivan, 2020), and between 10%-20% of them telecommute (White, 2018), which indicates that between 300,000 and 600,000 call center agents in the United States telecommute.

### **Quantitative Sample Size**

A calculation in G\*Power was performed to assess the sample. The G\*Power 3.1.9.7 specifies the effect-size conventions. A small effect size is .02, a medium effect size is .15, and a large effect size is .35. Thereby, the medium effect size equal to .15 was used to estimate the sample size. Additionally, an alpha error of .05 and statistical power of .80 were utilized, and indicated that the *priori* sample size needed to be 103 participants. However, to be on the safe side, considering the need to discard the raw data file of incomplete questionnaires, the researchers considered an increase of 15% from the computed minimum sample size. Therefore, the sample size was 118 participants.

### **Recruitment Strategy and Process**

After the institutional review board approved guidelines to conduct the study using human subjects and permissions to utilize the DLOQ and TIS-6 were obtained, the researchers contracted with SurveyMonkey to obtain their potential participants audience. DLOQ assessed the construct of the learning organization of the telecommuting call center agents participating in the study and the TIS-6 instrument measured the participants' turnover intentions. Age, gender, job tenure, and level of education are the four demographic questions that were included in the questionnaires to provide descriptive information about the sample. A participant-informed consent form was added in the introduction of the questionnaires. The informed consent form included the research purpose, a brief description of the study, risks and benefits, confidentiality, withdrawal privilege, and voluntary consent.

### **Data Collections**

The study's population was limited to telecommuting call center agents in the United States, who worked full time and had been working for a call center between 2 months and 24 months. The researchers used the SurveyMonkey Audience panel to approach the target population via a convenience sampling method. Dhanpat et al. (2018) stated that using a convenience sample technique creates difficulties in generalizing results. The convenience sampling may limit the generalizability of the research finding because testing the entire population was practically impossible. However, the convenience sampling was valuable. The researchers collected 123 fully completed responses from the 118 required simple size.

From a total of 138 individuals who read the informed consent, 6 individuals did not agree to participate and 132 individuals agreed to participate. From the 132 participants, 6 did not complete the DLOQ by Yang et al. (2004), or TIS-6 by Bothma and Roodt (2013), 126 completed the DLOQ by Yang et al., TIS-6 by Bothma and Roodt (2013) and the demographic questionnaires, but three of the 126 skipped the job tenure question included in the demographic questionnaires. The demographic data of age, gender, job tenure, and

education level were collected to report the percentage of responses for each category which provided descriptive information about the sample.

## DATA ANALYSIS

The Statistical Package for Social Sciences (SPSS) software was used to conduct the analysis of data. In addition, descriptive findings, reliability coefficients, and univariate descriptive analysis were also conducted.

The criterion variable TIS-6 is set at a 5-point Likert scale (Bothma & Roodt, 2013). Taking the sum or calculating the mean of the answers from participants responding to Likert-type questions creates an approximately continuous variable (Statistics Solutions, 2020b). Therefore, the data were interval because the sum of the answers from the TIS-6 questionnaire was calculated to determine the participants' turnover intentions. The DLOQ contains seven predictor variables and are set at a 6-point Likert scales. Norman (2010) postulated that "Likert scales, consisting of sum across many items, will be interval" (p. 629). Therefore, criterion variable and the predictor variables were continuous.

The Durbin-Watson test showed a value of 2.007 (see Table 1). The Durbin-Watson statistics range between 0 and 4, and any value between 1.5 and 2.5 is considered approximately normal (Durbin Watson Test, 2020).

**TABLE 1  
MODEL SUMMARY**

Model	<i>R</i>	<i>R</i> <sup>2</sup>	Adjusted <i>R</i> <sup>2</sup>	<i>SE</i> of estimate	Durbin-Watson
1	.443 <sup>a</sup>	.196	.147	4.883	2.007

*Note.* The dependent variable is turnover intentions.

<sup>a</sup> Predictors: constant, strategic leadership, continuous learning, inquiry and dialogue, empowerment, embedded systems, team learning, and systems connections.

The correlation coefficient and the variance inflation factor (VIF) were the output of the multiple linear regression in SPSS, which were utilized to detect the presence of multicollinearity between predictors. If VIF results shows any value greater than 10, it indicates that multicollinearity is an issue (Statistics Solutions, 2020e). Collinearity tolerance, which is the inverse of VIF is also utilized to detect the absence of multicollinearity. If tolerance is less than 0.1 in all variables, multicollinearity is an issue (Statistics Solutions, 2021c). Table 2 presents the VIF and Collinearity Tolerance results for each predictor in this study. The Collinearity tolerance shows values greater than 0.1 and the VIF showed values no greater than 10 in all variables

**TABLE 2  
COEFFICIENTS: COLLINEARITY STATISTICS FOR TOLERANCE AND VARIANCE  
INFLATION FACTOR**

Variable	Collinearity tolerance	Variance inflation factor
Continuous learning	0.263	3.800
Dialogue and inquiry	0.173	5.779
Team learning	0.165	6.079
Embedded systems	0.178	5.622
Empowerment	0.140	7.140
Systems connection	0.134	7.475
Strategic leadership	0.164	6.106

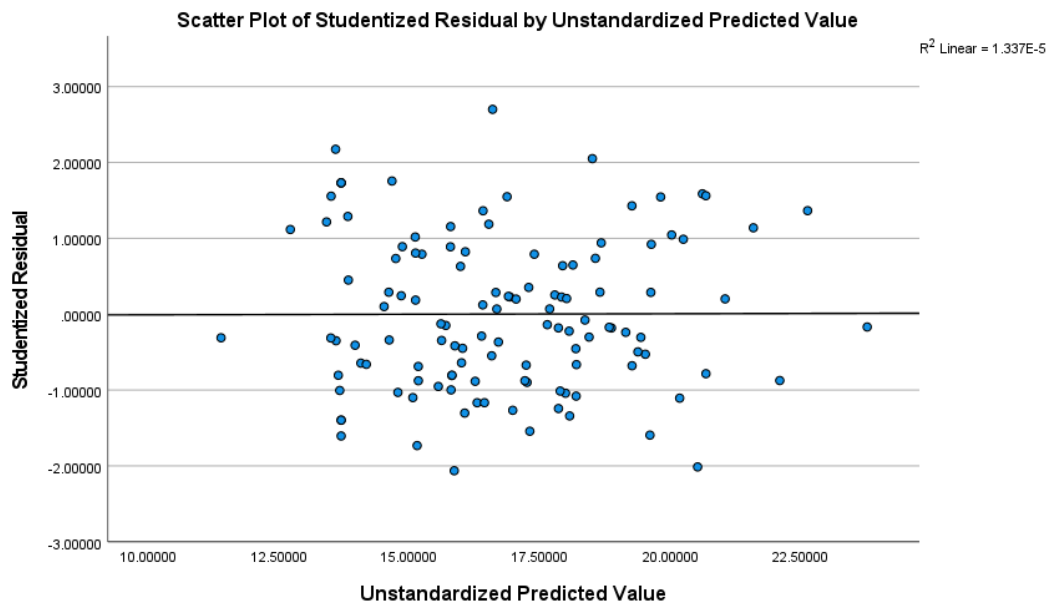
The result of the Kolmogorov-Smirnov test was .061, therefore, the researchers concluded that residuals were approximately normally distributed (Table 3). Test results greater than .05 indicates that residuals are normally distributed (Lyimo & Mang'ehe, 2021).

**TABLE 3  
TEST OF NORMALITY**

Variable	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	Df	P	Statistic	Df	p
Turnover intentions	.079	121	.061	.980	121	.076

The assumption of homoscedasticity was required by multiple regression analysis. When residuals are equally distributed, this indicates homoscedasticity (Statistics Solutions, 2021e). The researchers conducted a visual inspection of the scatterplots of studentized residuals against the unstandardized predictor variables (Figure 1). The results of plots showed randomization of points indicating a normal distribution of residuals along the fit line.

**FIGURE 1  
SCATTERPLOTS BETWEEN PREDICTOR AND CRITERION VARIABLES**



The researchers checked the Mahalabosis Distances (M-D) box when running the multiple regression analysis in SPSS to conduct a multivariate outlier computation. A new variable was generated in the Data View tab with a default name MAH\_1, which corresponded to M-D. The results were compared to a chi-square distribution, which generated another variable named Probability\_MAH\_1. Finally, the multivariate outliers were presented, and any value of the new probability variable that was less than .001 was considered an outlier (Statistics Solutions, 2020c). Two data points showed values of less than .001. They were identified and deleted. After deleting the two outliers, the researchers reran the multiple regression analysis for hypothesis testing. The researchers concluded that the study met the required assumptions to conduct a multiple regression analysis.



A multiple regression was performed for data analysis and to address the research question and test hypotheses. An essential part of conducting a multiple regression analysis is ensuring that the data that want to be analyzed can actually be analyzed.

### Descriptive Findings

This section presents the demographic data collected to describe and report the percentage of responses for each category: age, gender, the highest level of education, and job tenure. The sample consisted of 121 participants, who met the study requirements and answered all survey questions. The survey participants were 70 females (57.9%) and 51 males (42.1%). Participants were asked to select the most appropriate age range instead of providing the exact age, which protected participants for sharing personal information. As a result, there were 28 participants (23.1%) in the range of 18-29 years old, 64 participants (52.9%) in the range of 30-44 years old, 23 participants (19.0%) in the range of 45-60 years old, and 6 participants (5.0%) in the range of 61 and older.

The demographic questions on the highest level of education went from less than high school to graduate degree. Therefore, the demographic data collected on the highest level of education showed one participant (0.8%) with less than high school education, 12 participants (9.9%) had high school or equivalent, and 17 participants (14.0%) had an associate degree. Most of the study participants — 28 participants (23.1%) and 43 (35.5%) stated that they had some college but no degree and earned a bachelor’s degree, respectively. Twenty participants (16.5%) claimed to have a graduate degree. To further examine the correlation between the seven dimensions of the learning organization and turnover intentions, the demographic data on job tenure showed that 24 participants (19.8%) were between 2-6 months, 27 participants (22.3%) were between 6-12 months, 27 participants (22.3%) were between 12-18 months, and 43 participants (35.5%) were between 18-24 months (see Table 4).

**TABLE 4**  
**DEMOGRAPHIC PROFILE OF RESEARCH PARTICIPANTS**

Demographic category	<i>N</i>	%
Gender		
Female	70	57.9
Male	51	42.1
Age range (years)		
18–29	28	23.1
30–44	64	52.9
45–60	23	19.0
≥61	6	5.0
Highest level of education		
Less than high school	1	0.8
High school or equivalent	12	9.9
Some college but no degree	28	23.1
Associate’s degree	17	14.0
Bachelor’s degree	43	35.5
Graduate degree	20	16.5
Job tenure (months)		
2–6	24	19.8
6–12	27	22.3
12–18	27	22.3
18–24	43	35.5

*Note.* Percentages may not equal to 100% in each category due to rounding.

### Instrument Reliability Coefficients

The researchers conducted a Cronbach's alpha analysis to determine the internal consistency of the DLOQ, a 43-item questionnaire, and TIS-6, a six-item questionnaire used in this study. The DLOQ by Yang et al. (2004) was used to measure the seven dimensions of the learning organization predictor variables and the TIS-6 by Bothma and Roodt (2013) was incorporated to measure the turnover intentions criterion variable. The Cronbach's alpha was evaluated based on the D. George and Mallery's (2003) rules of thumb where  $\alpha > .90$  (excellent),  $\alpha > .8$  (good),  $\alpha > .7$  (acceptable),  $\alpha > .6$  (questionable),  $\alpha > .5$  (poor), and  $\alpha < .5$  (unacceptable). The internal consistency reliabilities result for the DLOQ were continuous learning  $\alpha = .90$ , inquiry and dialogue  $\alpha = .91$ , team learning  $\alpha = .93$ , empowerment  $\alpha = .93$ , embedded systems  $\alpha = .90$ , systems connection  $\alpha = .92$ , and strategic leadership  $\alpha = .94$  respectively. Therefore, the study demonstrated acceptable levels of internal consistency for the seven predictor variables included in the DLOQ scale (Cronbach's  $\alpha > .70$ ). Table 5 presents the DLOQ internal consistency reliability results and comparison with other studies.

**TABLE 5**  
**RELIABILITIES FOR THE SEVEN DIMENSIONS OF THE LEARNING ORGANIZATION QUESTIONNAIRE**

Dimension	No. items <sup>a</sup>	Cronbach's $\alpha$		
		This study	Goula et al. (2020)	Pokharel & Choi (2015)
Continuous learning	7	.90	.84	.79
Dialogue and inquiry	6	.91	.88	.83
Team learning	6	.93	.89	.85
Embedded systems	6	.93	.90	.85
Empowerment	6	.93	.93	.84
Systems connection	6	.90	.93	.71
Strategic leadership	6	.94	.94	.88

*Note.* <sup>a</sup>The number of question items used in the calculation.

Similarly, the internal consistency reliability result for the TIS-6 was  $\alpha = .84$ . Therefore, the study demonstrated acceptable levels of internal consistency for the TIS-6 scale, (Cronbach's  $\alpha > .70$ ). Table 6 presents the TIS-6 internal consistency reliability results and comparison with other studies.

**TABLE 6**  
**RELIABILITIES FOR THE TURNOVER INTENTIONS SCALE**

Study	Cronbach's $\alpha$
This study	.84
Su (2021)	.70
Bothma & Roodt (2013)	.80

*Note.* Six items were used in the calculation.

### Descriptive Statistic for Variable of Interest

The researchers performed a univariate descriptive analysis for the mean, standard deviation, standard error, minimum, maximum, skewness and kurtosis for the DLOQ and the TIS-6. The skewness and kurtosis results with absolute values less than 1 indicate that the value of the independent or dependent variable follows a normal distribution (Mishra et al., 2019). The skewness and kurtosis values all lie between  $\pm 1$ . The summary statistics for each variable are found in Table 7.

**TABLE 7**  
**DESCRIPTIVE STATISTICS FOR VARIABLES OF INTEREST**

Variable	<i>M</i>	<i>SD</i>	<i>SEM</i>	Minimum	Maximum	Skewness	Kurtosis
Continuous learning	3.98	1.13	0.10	1.57	6.00	-0.70	-0.94
Dialogue and inquiry	4.12	1.18	0.11	1.17	6.00	-0.29	-0.79
Team learning	4.05	1.24	0.11	1.00	6.00	-0.19	-0.79
Embedded systems	4.08	1.24	0.11	1.17	6.00	-0.35	-0.55
Empowerment	3.96	1.31	0.12	1.00	6.00	-0.21	-0.77
Systems connection	4.05	1.32	0.12	1.00	6.00	-0.26	-0.93
Strategic leadership	4.17	1.28	0.12	1.00	6.00	-0.43	-0.44
Turnover intentions	16.82	5.29	0.48	6.00	29.00	0.24	-0.40

Note. *N* = 121.

## RESULTS

The research question was designed to examine if the seven dimensions of the learning organization variables predicted turnover intentions. The null and alternative hypotheses addressed the relationship between all the seven predictor variables collectively and the criterion variable. The research question was the following: If and to what extent does a predictive relationship exist between the seven dimensions of the learning organization collectively and turnover intention of telecommuting call center agents in the United States?

The results of the multiple regression analysis provided a multiple correlation coefficient of  $R = .443$  and the percentage of variance of  $R^2$  of 19.6% and the adjusted  $R^2$  of 14.7%. The  $R^2$  is a goodness-fit-measure in relationship to the data. The  $R^2$  value indicated that the regression model counted for approximately 19.6% of the variation in the turnover intentions score. The results suggested that cumulatively the seven predictor variables have an effect on the change in turnover intentions within this data set. A statistical significance was determined in the regression model. The seven dimensions of the learning organization predictor variables collectively predicted turnover intentions,  $F(7, 113) = 3.943, p < .001$ . The null hypothesis for the research question was rejected. Therefore, the seven dimensions of the learning organization were collectively a predictor of the telecommuting call center agents' intentions to leave their organizations in the United States within this data set. Table 1 presented the model summary. Table 8 presents the ANOVA table.

**TABLE 8**  
**ANALYSIS OF VARIANCE**

Source	<i>SS</i>	<i>Df</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Regression	658.023	7	94.003	3.943	<.001
Residual	2,693.977	113	23.841		
Total	3,352.000	120			

Note. Dependent variable: turnover intentions. Predictors: constant, strategic leadership, continuous learning, inquiry and dialogue, empowerment, embedded systems, team learning, and systems connection.

The coefficients table output from SPSS (Table 9) allowed the researcher to examine the individual contribution of the seven dimensions of the learning organization variables to predict turnover intentions. The results shown in the coefficient table indicated that any dimension of the seven dimensions of the learning organization did not statistically significantly predict turnover intentions because the significance was more than 0.05. In addition, the standardized coefficient beta of each of the predictor variables had no meaningful or weak relationship with the criterion variable. Therefore, each dimension variable independently did not predict the turnover intentions criterion variable within this data set.

**TABLE 9  
COEFFICIENTS**

Variable	B	SE B	B	T	P	95% CI for B		f <sup>2</sup>
						LL	UL	
Constant	23.972	1,730.000		13.858	<.001	20.545	27.399	
Continuous learning	0.298	0.766	.064	0.389	.698	-1.219	1.815	0.002
Inquiry and dialogue	-1.134	0.909	-.253	-1.247	.215	-2.936	0.668	0.018
Team learning	-0.115	0.889	-.027	-0.129	.897	-1.877	1.647	0.000
Empowerment	0.012	0.910	.003	0.013	.898	-1.790	1.814	0.023
Embedded systems	1.301	0.883	.295	1.473	.144	-0.449	3.051	0.000
Systems connection	-0.777	0.926	-.194	-0.839	.403	-2.611	1.057	0.008
Strategic leadership	-1.297	0.861	-.314	-1.506	.135	-3.004	0.409	0.024

Note. CI = confidence interval; LL = lower limit; UL = upper limit.

### STUDY IMPLICATIONS

The average attrition rate in call centers is 35%-40%. It increases hiring and training costs and affects customer experience and brand perception. In addition, the post-pandemic trend in customer relationships indicates that live agent interaction is growing. Therefore, it makes agent retention critical for organization leadership in call centers (Cresta, 2022).

The seven dimensions in Marsick and Watkins's (2003) learning organization theory guided this investigation. Among different definitions of organizational learning found in the literature, Marsick and Watkins's theory is considered one of the most integrated perspectives (Lee & Welliver, 2018). Watkins and O'Neil (2013) stated that the seven dimensions of the learning organization are interrelated items that integrate diverse perspectives of an organizational learning culture. This theory is an integrative learning organization model which comprises people and structure as the two fundamental elements of an organization.

The outcome of the analysis revealed that the seven dimensions of the learning organization collectively predicted turnover intentions. Furthermore, the multiple regression analysis was statistically significant between the seven dimensions of the learning organization and turnover intentions within this data set. Therefore, the findings indicated that Marsick and Watkins's (2003) learning organization theory predicted turnover intentions regarding telecommuting call center agents. However, the outcome from the coefficient table indicated that each of the seven dimensions of the learning organization independently did not predict turnover intentions in telecommuting call center agents within this data set.

### Business Implications

The business implication of this study relates to understanding that from the organizational learning perspective, all the seven dimensions of the learning organization should be seen as one construct that collectively predicts turnover intentions in telecommuting call center agents within this data set. Still, the researchers would not recommend that call center organization leadership implement organizational learning practices exclusively to lower turnover intentions of telecommuting call center agents until multiple studies are conducted. In addition, there is a need to pay attention to how the implementation of organizational learning practices can help reduce turnover intentions in telecommuting call center agents. The key is to attain and support organizational learning in the telecommuting call center work environment. Therefore, when the Organizational Executive Leadership team promotes lifelong learning, call center agents should feel sociologically and culturally connected with the organizational learning culture. The following are the specific suggestion that emerged from this investigation.

- Organizational Executive Leaders is to support their direct call center support leaders and for the call center organization leadership to work at the individual level by empowering and

promoting individual and learning. Continued learning at the individual level ensures that telecommuters do not rely on other individuals to learn.

- Call Center Organization Leadership is to provide adequate tangible and intangible sources of learning so telecommuters can learn and succeed.
- Call Center Organization Leadership is to create conditions for group learning, meaning that interconnection between individual learning and group learning occurs. Promoting formal and informal learning habits and building relationships in which individuals ask questions, share ideas, and get feedback from colleagues and superiors can positively impact job satisfaction and increase work commitment and retention.
- Call Center Organization Leadership is to promote learning at the organizational level by allowing telecommuters to access sources of information necessary to do their job. The embedded system includes accessibility to technology, allowing individuals to acquire, store, and share knowledge.

### **Recommendations for Future Research**

Based on the study's results showing that the seven dimensions of the learning organization collectively can have a significant effect on turnover intentions of telecommuting call center agents within this data set, the researchers identified and filled the need in the research discussed in the literature review. Still, the analysis of the results obtained from the coefficient table used to examine the individual contribution of the seven dimensions of the learning organization variables to predict turnover intentions indicated that each dimension independently does not have a significant effect on turnover intentions of telecommuting call center agents within this data set. Therefore, after a thorough review of the outcome obtained from the multiple regression analysis, the researchers suggest the following recommendations for future research.

- A quantitative approach with a structural equation model measuring the mediator factors between OLC and turnover intentions should include job satisfaction, job engagement, affective commitment, and organizational support, among others;
- A qualitative approach should include participants' feedback assessment, which would provide operational practices and outcomes of the DLOQ framework. Such efforts can contribute to knowing how and why implementing organizational learning practices can help lower turnover intentions of telecommuting call center agents;
- An increase in the sample's size should help to see if each of the seven dimensions of the learning organization has a significant effect on turnover intentions of telecommuting call center agents that was not shown in this study;
- The use of different products or specific products, such as telecommuting call center agents working for organizations that offer different products or services, including but not limited to information technology, banking, financial services, consulting services, and hospitality;
- The use of a comparison of specific socio-economic cultures that may influence individual and group learning in call center organizations and how those different socio-economic cultures may influence turnover intentions of telecommuting call center agents, i.e., ethnicity, education attainment, pay scales, and beliefs;
- The use of a comparison of multiple type of telecommuting call center agents according to their status and location, i.e., in house vs. out sourced and the United States vs. off shore location.

### **CONCLUSION**

This quantitative correlational study measured the relationship between OLC and turnover intention in the telecommuting call center work environment that had not been previously studied. Marsick and Watkins's (2003) learning organization theory and turnover intentions were used to drive this research design and create the research question and its respective hypotheses. The DOLQ and the TIS-6 were the instruments used to determine if and to what extent the relationship existed between the seven dimensions

of the learning organization and turnover intentions of telecommuting call center agents within this data set.

The study results indicated that the seven dimensions of the learning organization collectively predicted turnover intentions. On the other hand, the analysis of the Coefficients table (see Table 9) suggested that each measurement independently did not predict turnover intentions of telecommuting call center agents. However, the advantage of using a regression model lies in the values of the predictor variables that can be entered into the equation to determine the mean values of the criterion variable.

The  $R^2$  value showed that the regression model counted for approximately 19.6% of the variation in the turnover intentions score. Therefore, the primary recommendation from this investigation is for the Call Centers Organization Leadership to work on implementing organizational practices to promote learning at the individual, group, and organizational levels. It will help lower attrition rates in telecommuting call center agents.

Since the convenience sampling approach limited the generalizability of the research finding because testing the entire population was nearly impossible, it provided valuable results. Still, future investigations including increasing sample size, conducting a quantitative approach with the use of SEM to measure the effect of mediators between OLC and turnover intentions, the use of different products or specific products, a comparison between socio-economic cultures or the use of a qualitative approach to obtain participants' feedback assessment are recommended.

Turnover in call centers is one of the most critical challenges that call centers face today. The Call Center Organization Leadership seeks ways to lower call center turnover rates. OLC is a factor that helps decrease turnover intentions (Islam et al., 2016). In addition, in the current post-COVID-19 era, telecommuting has become a permanent option for many employees working in call centers (Cresta, 2022). This study contributes meaningfully to knowledge management in the call center work environment by measuring the extent to which OLC predicts turnover intentions of telecommuting call center agents within this dataset.

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