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# UNDERSTANDING HOW TRAINING AND DEVELOPMENT INFLUENCE EMPLOYEE RETENTION: THE MEDIATING ROLES OF ORGANIZATIONAL CULTURE AND SATISFACTION

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**Abstract**
The purpose of this study is to analyze the serial mediation effects of organizational environment, culture, and employee satisfaction on the relationship between training and development and employee retention. Based on organizational equilibrium theory and psychological contract theory, a sequential mediation model is proposed where the effect of training and development through the work environment, organizational culture, and employee satisfaction on employee retention will be studied. 117 samples were used from different service industries in Bangladesh. Process Macro, developed by Hayes in SPSS, is used to conduct the analysis. Training and development significantly influence employee retention through the serial mediation of work environment, organizational culture, and employee satisfaction as well as through the serial mediation of organizational culture and employee satisfaction. Work environment and organizational culture along with employee satisfaction were insignificant as serial mediators. In the case of individual mediation, employee satisfaction worked as a significant mediator in the relationship between training and retention, instead of work environment and culture. This study will add valuable knowledge to develop strategies for improving the retention scenarios in organizations by integrating multifaceted factors altogether to examine the multifaceted impacts on employee retention.
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## 1. INTRODUCTION

Training and development programs have a significant impact on employee retention. Training programs have been recognized since ancient times as a means of achieving a competitive advantage (Beardwell et al., 2004). Training is essential for companies to thrive in the global market in this era of development. The introduction of a new course or task-related learning shows higher organizational commitment as compared to other HR functions (Glance et al., 1997). Training works as a bridge between commitment and retention and it also develops feelings of belonging among the employees (Sahinidis & Bouris, 2008). Moreover, through the training and development programs, employees can improve their knowledge, skills, and abilities (KSA). Only training can improve employees' self-efficacy to carry out responsibilities (Wright & Bonett, 2007).

Training programs always send a message to employees that employers are interested in them and want to develop their careers (Hassan et al., 2013). Costs of training are considered an investment for the organization. Reciprocal relationships exist between training and employee retention. Training is a long-term investment to develop employees' skills, and it is not a tool to furnish the current skills of employees, but also a significant part of succession planning (Dysvik & Kuvaas, 2008).

Employee retention improves when employees believe they are talented to carry out the duties and responsibilities. Employee turnover is a major human capital risk for an organization. Leaving talented employees means losing organizational gems. Training is considered to provide employees with practical support and contribute to valuable output. This encourages the growth of employees' commitment and which ultimately affects retention (Meyer & Herscovitch, 2001). Training programs result in proliferating intangible results, such as developing employees' self-esteem, morale, commitment, satisfaction, citizenship behavior, and reducing deviant workplace behaviors (Hytter, 2007).

Manzoor et al., (2021) revealed that a weak employee retention system can be attributed to poorly designed training and development activities by organizations. Organizational support is also associated positively with employee intention to stay with the organization for longer. It is crucial to find the link between training and development with employee retention. The employee's perception of not getting the desired result out of training will result in an intention to look for other opportunities in competitive organizations. Perceived training and development have a significant impact on employees' work attitude and intention to stay with a particular organization. It was also found that work attitudes positively mediate the relationship between perceived training and development and employee retention by 51%, where there is a direct relation measured between work attitude and intention to stay. Moreover, it was also suggested that an organization needs to develop other systems for retaining employees besides providing training.



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Al-sharafi et al., (2018) studied the effect of monetary part on job satisfaction and employee retention, and urged the importance of investigating the effects of non-monetary practices such as training and career development on employee retention. The result showed that training has a positive impact on employees' satisfaction or retention, but no relationship exists with career development. George, (2015) investigated that training and development are strongly related to employee retention. Organizations with more training and learning orientation reported having a higher level of productivity, satisfaction, and retention (Harel & Tzafrir, 1999).

Most of the studies on employee retention focused on the impact of human resource practices on the retention of employees. Further investigations are required to specifically measure the impact of organizational practices such as training and development, organizational culture, work environment, and job satisfaction on employee retention. A few studies have been done to explore the serial mediation effect among the components of employee retention. This study is unique in terms of selecting the diverse variables and intermediation of job satisfaction in most cases.

The goal of the study is to assist organizations in developing an integrated approach to employee retention. Based on the above discussion, this study focuses on the serial mediation effect of Work Environment, organizational culture, and employee satisfaction on the relationship between training and development with employee retention.

## 2. LITERATURE REVIEW

Employee retention is a priority for organizations, mostly due to the gap between demand and supply for skilled employees (Fegley, 2006; Guchait & Cho, 2010). Employee turnover in an organization depends on the physical and psychological support provided by the firm. In its support, Organizational equilibrium theory proposed that the benefits provided by a firm and employees' potential contribution to that firm create the equilibrium for employees' decision to remain in the firm (March & Simon, 1958). Training and development initiatives provided by the employer not only benefit a firm by enhancing the capability of human capital it holds, but also ensure individual employees' career progress by improving their skills. Thus, it can be a contributor to employee loyalty toward the firm. In addition, the environmental and cultural forces of the organization may have an influence on employee satisfaction, which, subsequently, determines employee retention. For this concept, the psychological contract theory can be used as the basis, which states that an implicit contract between employees and the organization establishes certain conditions to ensure the exchange of particular levels of benefits and performance (Rousseau, 1995).

### 2.1 Direct effects of training, environment, culture, and satisfaction

Job satisfaction, work environment, and organizational culture are essential conditions for retaining talented employees (Regina & Rosalia, 2015). Training, as part of organizational culture, is often misperceived as a cost rather than an investment, though evidence shows that effective training programs yield meaningful returns and reflect strong cultural commitment (Stone & Liyanearachchi, 2007; Cope, 1998; O'Reilly III et al., 1991). Empirical findings confirm that training and development positively affect employee retention and satisfaction (Elsafty & Oraby, 2022; Schmidt, 2007, 2010; Jones et al., 2009), while factors such as leadership, performance management, and career development further reinforce retention (Lusewa, 2015).

A supportive work environment enhances human capital and engagement, improving employee performance and organizational commitment (Agyeman & Ponniah, 2014; Hanai, 2021; Nazia & Begum, 2013). Key elements—learning opportunities, recognition, relationships, and work-life balance—strongly predict retention (Kundu & Lata, 2017; Suifan et al., 2017).

Similarly, job satisfaction reflects employees' emotional evaluation of their work and correlates positively with loyalty, performance, and retention (Locke, 1970; Lu et al., 2016; Kim, 2009). Studies further establish that workplace environment and organizational culture significantly influence satisfaction (Budie et al., 2019; Agbozo et al., 2017; Wright & Davis, 2003; Pawirosumarto et al., 2017).

Organizational culture, shaped by shared values and beliefs (Schein, 1985), fosters employee stability and attraction (Roodt et al., 2002; Ushakov & Shatila, 2021). Research consistently links positive, flexible cultures to higher satisfaction and retention (Al-Sada et al., 2017; Aydin & Ceylan, 2009; Nugroho et al., 2021; Paais & Pattiruhu, 2020; Wanjiru, 2007).

Successively, the discussions above lead to the following hypotheses:

H1: Training and Development (H1a), Work Environment (H1b), Organizational Culture (H1c), and Employee Satisfaction (H1d) are significant in improving Employee Retention.

H2: Training and Development (H2a), Work Environment (H2b), and Organizational Culture (H2c) are significant in improving Employee Satisfaction.

### 2.2 Mediating effects of work environment, organizational culture, and employee satisfaction

Organizational culture plays a crucial mediating role in employee retention. Training fosters employee engagement, and engaged employees are less likely to leave their jobs. Iqbal et al. (2017) found that job satisfaction and organizational culture significantly enhance employee retention by fostering loyalty and commitment, with job satisfaction mediating the culture–retention relationship. Similarly, Girma (2019)

demonstrated that a supportive culture reduces turnover intentions, while bureaucratic structures have weaker effects.

Working conditions also indirectly influence retention through employee satisfaction and supportive HR practices (Chatzoudes & Chatzoglou, 2022; Bangwal & Tiwari, 2018). Studies highlight that creating a positive work environment and strong HR systems enhances employees' sense of belonging and reduces turnover.

Training and competency development strengthen employability, affective commitment, and retention (Moreira et al., 2020; Kalleberg & Rognes, 2000). Investments in employee development build stronger employee–employer ties and reduce turnover intentions. Moreover, job satisfaction mediates the relationship between training, work environment, and retention (Koteswari et al., 2020; Bibi et al., 2018).

Additional studies confirm that employee satisfaction, engagement, and emotional compatibility act as mediators linking training, organizational culture, and HR practices to retention (Bharadwaj et al., 2021; Rai & Nandy, 2021; Alzyoud et al., 2019; Jha, 2019; Kalyanamitra et al., 2020; Fletcher et al., 2018). These findings collectively suggest that training's impact on retention is largely indirect, operating through a supportive environment, positive culture, and satisfied employees.

On the grounds of these previous studies, the following hypotheses are formed:

H3: Work Environment (H3a), Organizational Culture (H3b), and Employee Satisfaction (H3c) mediate the relation between Training & Development and Employee Retention.

H4: Work Environment and Organizational Culture (H4a), Work Environment and Employee Satisfaction (H4b), Organizational Culture and Employee Satisfaction (H4c), and Work Environment, Organizational Culture and Employee Satisfaction (H4d) serially mediate the relationship between Training & Development and Employee Retention.

## 3. RESEARCH DESIGN

### 3.1 Research model and measurement

In this research, three mediators- Work Environment (WE), Organizational Culture (OC), and Employee Satisfaction (ES) were used to detect the impact of successive mediators between Training and Development (TD) and Employee Retention (ER), which is depicted in Figure 1. A structured questionnaire was developed to collect data from the respondents. The survey form was separated into six broad data-capturing sections apart from the demographic profile. Major four variables have been chosen to know the factors affecting employee retention, these are namely employee satisfaction, training and development, work environment, and the final variable was organizational culture. All of the items of the latent variable

were measured based on a 5-point Likert scale, with 5=strongly agree and 1=strongly disagree. To measure employee retention (ER) 3 items were used, which were adopted from the studies of Wanjiru (2007) and Yousuf & Siddqui (2018). Employee Satisfaction is measured with 3 items adopted from the study of Bhaker (2021). Four items from the studies of Anwar & Shukur (2015), Chaudhary & Bhaskar (2016), and Sharma & Taneja (2018) were adopted to measure the training and development (TD) variable. Five items were used to measure the work environment based on earlier studies (Iddagoda & Dissanayake, 2022; Raziq & Maulabakhsh, 2015). Finally, three items were used to measure organizational culture (OC), which were developed from Angoluan & Caballero (2019), Chahlal & Poonam (2017), and Mohsen et al. (2020).

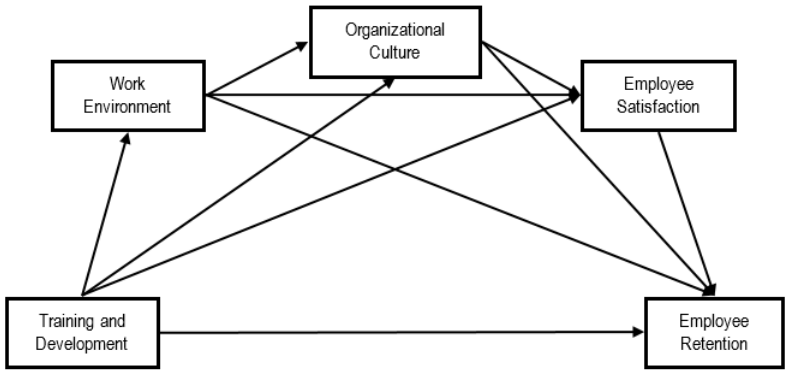


**FIGURE 1. MODEL OF INVESTIGATION**
Source: Developed by authors

### 3.2 Control variables

Based on previous studies, this study considered the age, gender, and managerial levels of the respondents as control variables (Kashyap & Rangnekar, 2014; Kundu & Lata, 2017; Qadri et al., 2021). These variables were measured as Gender (1=Male, 2=Female), Age (1= 24- 35 Years, 2=36 -45 years, 3= More than 45 years), Managerial Levels (1= Operational Level, 2= Middle Level, 3= Top Level).

**TABLE 1. SAMPLE DISTRIBUTION AND DEMOGRAPHIC CHARACTERISTICS**

| Categories | Frequencies | % | Categories | Frequencies | % |
|---|---|---|---|---|---|
| Gender | | | Industry | | |
| Female | 39 | 33.3 | Bank and NBFI | 35 | 29.91 |
| Male | 78 | 66.7 | Research & Consultancy firm | 3 | 2.56 |
| Age | | | Professional Service Provider | 5 | 4.27 |
| 24 - 35 years | 95 | 81.2 | Education | 33 | 28.21 |
| 36 - 45 years | 18 | 15.4 | Government Service Firm | 2 | 1.71 |
| More than 45 years | 4 | 3.4 | Hotel and Tourism | 4 | 3.42 |
| Managerial Level | | | IT | 18 | 15.38 |
| Middle Level | 73 | 62.4 | Insurance | 4 | 3.42 |
| Operational Level | 31 | 26.5 | Marketing & Sales | 4 | 3.42 |
| Top Level | 13 | 11.1 | NGO | 9 | 7.69 |

Source: Authors' research

### 3.3 Data collection and sampling

The research used an online cross-sectional assessment using Google Forms. Additionally, the purposive sampling method was used due to funding constraints and convenience (Etikan et al., 2016). For this study, 10 service industries (see Table 1) were selected in Bangladesh, and 580 employees from these industries were communicated through different online platforms to participate in the survey. Among them, 125 employees responded, estimating the rate of response at 21.55%, and from which 117 were selected, after removing the incomplete responses. The sample size can be acceptable as this study has covered five variables; subsequently, based on 10 samples per variable, the acceptable sample size is 50 (Hair et al., 2010). The demographic characteristics of the sample are shown in Table 1. Most of the respondents were male (66.7%), aged below 36 years (81.2%), and belonged to mid-level management (62.4%). In the case of industry, banks and non-bank financial institutions cover 29.91% of the respondents, followed by education with 28.21% and IT with 15.38%.

### 3.4 Statistical tools

SPSS version 22 is used to analyze the data with mean, standard deviation, confirmatory factor analysis, and regression. To assess the reliability and validity, confirmatory factor analysis was conducted on AMOS 22 and measurement of correlation, Cronbach's Alpha, factor loading (λ), average variance extracted (AVE), composite reliability (CR), square root values of the AVE, Root mean square error of Approximation (RMSEA), and Chi-square/Degrees of freedom ($\chi 2/df$) were used. Concerning the test of the hypotheses, Process Macro Model 6 is used with 5000 bootstrap samples at 95% confidence intervals (Hayes, 2017).

## 4. DATA ANALYSIS AND FINDING

### 4.1 Reliability and validity

The mean and standard deviation (SD) of the variables are given in Table 2. The control variables, namely gender, age, and managerial level, have an insignificant influence on the latent variables of this study, as evident from the correlation values in Table 2. Among the latent variables, the correlation is significant with values ranging from .350 to .631. Additionally, to conform to the internal reliability of the items, Cronbach's Alpha values from Table 3 can be verified, which ranged from .60 to .80 for the variables of consideration, and are satisfactory based on earlier research (Hair et al., 2010; Lance et al., 2006; Taber, 2018).

**TABLE 2. DESCRIPTIVE STATISTICS**

| | Mean | SD | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1. Gender | 1.33 | 0.47 | - | | | | | | | |
| 2. Age | 1.22 | 0.49 | -.062 | - | | | | | | |
| 3. Managerial Level | 1.85 | 0.60 | .000 | -.029 | - | | | | | |
| 4. ER | 12.71 | 1.84 | -.125 | .005 | -.033 | *.640* | | | | |
| 5. ES | 13.61 | 1.47 | .004 | -.069 | -.030 | .480** | *.660* | | | |
| 6. TD | 16.67 | 2.44 | -.037 | -.010 | .018 | .350** | .569** | *.708* | | |
| 7. WE | 20.43 | 2.90 | -.048 | -.013 | -.026 | .373** | .515** | .572** | *.659* | |
| 8. OC | 12.76 | 1.63 | .048 | -.041 | .184 | .390** | .624** | .598** | .631** | *.683* |

*Note. *p < 0.05, **p < 0.001; Square root of the AVE is given in the diagonal values in italic and bold font*
Source: Authors' research

Regression weights or factor loading (λ) values in Table 3 range between .60 to .78, which is greater than .6 and approves unidimensionality (Awang, 2015; Truong & McColl, 2011). To confirm the discriminant validity, correlation values (Table 2) among the independent variables are less than .85 (Awang, 2015). Furthermore, in accordance with the study of Fornell & Larcker (1981), the square root amounts of the AVE (Table 2) are greater than the parallel correlation of the latent variables. The AVE values are greater than .41, which is an issue. However, as the CR values are greater than .67, the convergent validity is adequate for the study (Fornell & Larcker, 1981; Lam, 2012).

**TABLE 3. VALIDITY AND RELIABILITY**

| Variables | Items | λ | α | AVE | CR |
|---|---|---|---|---|---|
| ER | ER1 | 0.64 | .67 | 0.41 | 0.67 |
| | ER2 | 0.60 | | | |
| | ER3 | 0.69 | | | |
| ES | ES1 | 0.64 | .69 | 0.44 | 0.70 |
| | ES2 | 0.75 | | | |
| | ES3 | 0.58 | | | |
| TD | TD1 | 0.67 | .80 | 0.50 | 0.80 |
| | TD2 | 0.65 | | | |
| | TD3 | 0.74 | | | |
| | TD4 | 0.78 | | | |
| WE | WE1 | 0.65 | .80 | 0.43 | 0.79 |
| | WE2 | 0.60 | | | |
| | WE3 | 0.62 | | | |
| | WE4 | 0.71 | | | |
| | WE5 | 0.72 | | | |
| OC | OC1 | 0.67 | .60 | 0.47 | 0.72 |
| | OC2 | 0.68 | | | |
| | OC3 | 0.70 | | | |

*Note. CR= Composite reliability; AVE= Average variance extracted; λ= Factor Loading; α= Cronbach's Alpha*
Source: Authors' research

To verify the model fit of a study, three types of fitness are required, namely, absolute, incremental, and parsimonious fit (Awang, 2015). Root mean square error of Approximation (RMSEA) value is .068 (≤0.08) and confirms the absolute fitness of the model (Browne & Cudeck, 1992; Jöreskog & Sörbom, 1993). In



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case of incremental fit, RMSEA assessment of the null model is .144, which is below .158, and in such a case, incremental fit is not appropriate (Kenny, 2015). Afterward, the Chi-square/Degrees of freedom (χ2/df) value is 1.53, which is below the recommended value of 3.0, and assures a parsimonious fit of the model (Gefen et al., 2000; Marsh & Hocevar, 1985).

### 4.2 Test of hypotheses

This study used several previous works to justify the considered hypotheses (Hamilton et al., 2015; Krieger & Sarge, 2013; Qadri et al., 2021). The R2 values suggest that 33% (R2=.33 F(1; 116) = 55.906; p <.001) of the variance of WE, 48% (R2=.48 F(1; 116) = 52.923; p < .001) of the variance of OC, 46% (R2=.46 F(1; 116) = 31.628; p < .001) of the variance of ES, 26% (R2=.26 F(1; 116) = 9.610; p < .001) of the variance of ER is explained.

**TABLE 4. SUMMARY OF MEDIATION RESULTS**

| Path | IV | M | DV | Coeff. | SE | P value | 95% CI | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | LLCI | ULCI |
| Direct effect | | | | | | | | |
| TD → WE | TD | | WE | .572 | .091 | .000 | .500 | .860 |
| WE→ OC | WE | | OC | .430 | .046 | .000 | .149 | .331 |
| TD→ OC | TD | | OC | .352 | .055 | .000 | .126 | .343 |
| WE→ ES | WE | | ES | .114 | .048 | .230 | -.037 | .152 |
| OC→ ES | OC | | ES | .391 | .087 | .000 | .180 | .525 |
| TD→ ES | TD | | ES | .270 | .055 | .004 | .054 | .271 |
| WE→ ER | WE | | ER | .128 | .071 | .252 | -.059 | .221 |
| OC→ ER | OC | | ER | .070 | .137 | .567 | -.193 | .351 |
| ES→ ER | ES | | ER | .350 | .139 | .002 | .164 | .715 |
| TD→ ER | TD | | ER | .036 | .084 | .750 | -.140 | .193 |
| Indirect effect | | | | | | | | |
| TD→WE→ER | TD | WE | ER | .055 | .073 | | -.051 | .231 |
| TD→OC→ER | TD | OC | ER | .019 | .034 | | -.043 | .095 |
| TD→ES→ER | TD | ES | ER | .072 | .036 | | .014 | .154 |
| TD→WE→OC→ER | TD | WE and OC | ER | .013 | .024 | | -.034 | .061 |
| TD→WE→ES→ER | TD | WE and ES | ER | .017 | .018 | | -.014 | .058 |
| TD→OC→ES→ER | TD | OC and ES | ER | .036 | .021 | | .006 | .085 |
| TD→WE→OC→ES→ER | TD | WE, OC and ES | ER | .025 | .015 | | .005 | .062 |
| Total effect | | | | | | | | |
| TD→ ER | TD | | ER | .350 | .066 | .000 | .133 | .395 |

Notes: IV= Independent Variable; M= Mediators; DV= Dependent Variable; Coeff.=Standardized Coefficient; SE= Standard Errors; CI= Confidence Interval; LLCI= Lower Level CI; ULCI= Upper Level CI

Source: Authors' research

Concerning direct effects, as the table 4 suggests, TD has significant positive impact on WE (β = .572, SE = .091; 95% CI= [0.500, 0.860]), OC (β = .352, SE = .055; 95% CI= [0.126, 0.343]), ES (β = .270, SE = .055; 95% CI= [0.054, 0.271]). Likewise, WE has a significant positive impact on OC (β = .430, SE = .046; 95% CI= [0.149, 0.331]). Correspondingly, OC has a significant positive impact on ES (β = .391, SE = .087; 95% CI= [0.180, 0.525]), and ES has a significant positive impact on ER (β = .350, SE = .139; 95%

CI= [0.164, 0.715]). Consequently, H1d, H2a, and H2c hypotheses are accepted. On the contrary, the impact of WE on ES (β = .114, SE = .048; 95% CI= [-0.037, 0.152]), and on ER (β = .128, SE = .071; 95% CI= [-0.059, 0.221]) is insignificant. Similarly, the impact of OC (β = .070, SE = .137; 95% CI= [-0.193, 0.351]) and TD (β = .036, SE = .084; 95% CI= [-0.140, 0.193]) on ER is insignificant. Even though in the absence of the mediators, the impact of TD on ER is significant TD (β = .350, SE = .066; 95% CI= [0.133, 0.395]). Subsequently, H1a is also accepted, and H1b, H1c, and H2b hypotheses are rejected.

In case of indirect effect, ES (β = .072, SE = .036; 95% CI= [0.014, 0.254]), has a significant impact and; WE (β = .055, SE = .073; 95% CI= [-0.051, 0.231]), and OC (β = .019, SE = .034; 95% CI= [-0.043, 0.095]), have insignificant impact on the relationship between TD and ER. As a result, hypothesis H3c is accepted, except for hypothesis H3a and H3b.

The serial mediation effect of WE, OC, and ES on the relation between TD and ER (β = .025, SE = .015; 95% CI= [0.005, 0.062]) is significant, which confirms the serial mediation model of this study. Likewise, the mediation effect of OC and ES (β = .036, SE = .021; 95% CI= [0.006, 0.085]) on the indirect effect of TD on ER is significant. Conversely, the mediation effect of WE and OC (β = .013, SE = .024; 95% CI= [-0.034, 0.061]), WE and ES (β = .017, SE = .018; 95% CI= [-0.014, 0.058]) on the indirect effect of TD on ER are insignificant.

## 5. DISCUSSION

This research contributed to the internal organizational environmental research by reviewing the role of WE, OC, and ES as the sequential mediators in the relationship between TD and ER. In this study, ER is apparently influenced by TD and ES, except OC, in a statistically significant manner, which is supported by several earlier studies (Al-sharafi et al., 2018; Elsafty & Oraby, 2022; George, 2015; Harel & Tzafrir, 1999; Kalleberg & Rognes, 2000; Koteswari et al., 2020; Lu et al., 2016; Moreira et al., 2020). However, Ushakov & Shatila (2021) established earlier that OC is significant for ER, which is not aligned with the findings of this study. Moreover, Iqbal et al. (2017), Bangwal & Tiwari (2018), and Girma (2019) in their studies found that ES and OC are both significant determinants for ER; conversely, in this study, ES is supported as a significant requirement for ER instead of OC. In addition, the empirical findings conclude that ES is influenced significantly by TD and OC, rather than WE. However, it contradicts the studies of Agbozo et al. (2017), B. E. Wright & Davis (2003), and Pawirosumarto et al. (2017), who found the influence of WE on ES significant. The relation between TD and ER is mediated through ES, rather than through WE and OC. Likewise, the findings of Koteswari et al. (2020) reflect the outcomes of this study. However, it contradicts the findings of Locke (1970), which established OC, and Chatzoudes & Chatzoglou (2022), which



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established WE as mediators of the relation between TD and ER. This relation between TD and ER is also serially mediated by OC and ES, and WE, OC and ES. On the contrary, WE and OC, and WE and ES were insignificant in mediating the relationship between TD and ER.

The results reveal that organizations should develop appropriate retention strategies to survive in the age of intense competition. This study offers valuable insights for organizations to reduce employee turnover intentions by offering updated training and development content. Moreover, suggestions made by this study can be used as a basis for improving organizational culture and work environment, which influence the interrelationships between training and development with employee retention. This study sheds light on how organizations can retain talented and valuable employees by understanding and evaluating appropriate strategies for employee motivation, satisfaction, and, in turn, retention. The results of this research have practical implications for organizational policymakers to improve decision-making by diagnosing and comprehending various aspects of the work environment, organizational culture, and employee satisfaction. Therefore, organizations should analyze the importance of training and development, along with work environment, organizational culture, and employee satisfaction, as part of a much broader focus to retain employees. This study helps HR managers to develop updated training and development strategies to retain their employees by ensuring a healthy work environment, supportive organizational culture, and employee satisfaction.

## 6. CONCLUSION

Employee retention is a critical indication of a progressing organization; however, the antecedents of this factor belong to a complex system of environmental psychology in an organization. In such a system, training and development, employee satisfaction, organizational environment, and culture perform significant roles. The direct influence of training and development on employee retention is insignificant; nevertheless, the factor's indirect effect through organizational environment and culture, and employee satisfaction as a serial mediator is significant.

Several opportunities are available to improve the study for future research. First, to provide a more generalized overview, the size of the samples could be increased. Additionally, the respondents could be drawn from more diversified firms and cultures. Finally, the mediation role of other factors like organizational commitment, reward and recognition, person-job fit, perceived supervisory and organizational support, etc. could be included in the model.

**DECLARATION OF COMPETING INTEREST**

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

**DECLARATION OF GENERATIVE AI AND AI-ASSISTED TECHNOLOGIES IN THE WRITING PROCESS**

During the preparation of this work the authors used ChatGPT in order to idea generation for the title and literature summarization. After using this tool/service, the authors reviewed and edited the content as needed and take full responsibility for the content of the published article.

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