

From Learning Organization to Workforce Resilience: Unpacking the Psychological Empowerment Pathway

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Abstract

This study examines how learning organizations enable their employees to be more resilient at work. When times get tough, many companies struggle to maintain their employees' motivation and stability, and few researchers have examined exactly what within the company helps this occur. Data were gathered from 313 respondents from pharmaceutical companies in Pakistan and tested our research idea using structural equation modelling using SmartPLS. We also discovered that if organizations follow practices of a learning organization, such as continuous learning opportunities, inquiry and dialogue, collaboration and team learning, empowerment towards a collective vision, a system to capture and share learning, connecting the organization to its environment, and strategic leadership, it makes employees feel more empowered in their jobs, and this empowerment then translates to improved resilience. We also discovered that this empowerment is a partial reason for workers' resilience in learning organizations. The study employs two theories: Conservation of Resource Theory and the Broaden-and-Build Theory to explain why this happens. The findings provide managers with the message that they need to invest in developing an ideal learning organization, not just focus on stress-management training for individuals.

Keywords: Learning Organization, Employee Resilience, Psychological Empowerment, COR Theory, Broaden-and-build Theory, PLS-SEM, Pakistan, Pharmaceutical Industry.

Introduction

Businesses today are constantly faced with an ever-changing landscape. The world of technology changes industries overnight, unforeseen health crises such as the COVID-19 pandemic rock economies, and the competition just keeps getting tougher. One thing that is very important in all this is whether employees can handle pressure without breaking down or leaving. This employee resilience is the ability to recover from a setback in the workplace and continue to perform one's job well (Luthans, 2002).

When researchers studied resilience for a long time, they focused on personality because some researchers did, but this is the wrong approach. People don't develop resilience in empty space. Their type of workplace is a big factor. A company that invests in people, provides space for learning, development, and growth, and treats them as capable adults will have more resilient

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employees than one that doesn't. This is something that Kuntz et al. (2017) clearly noted and urged researchers to pay more attention to the organizational-level factors.

In this context, one category of organization that appeared to be of interest was one the scholars refer to as a "learning organization. This is a company that "deliberately establishes practices and structures to facilitate ongoing learning and change," said Watkins and Marsick (1993). They identified seven important characteristics, and a questionnaire, called the DLOQ (Yang et al., 2004), was developed to measure them. There is evidence that learning organizations are beneficial to employee engagement, innovation, and performance (Malik & Garg, 2017; Park et al., 2014). However, the journey from learning organization to resilience has not been studied extensively, and this is one area that this paper aims to bridge.

We also propose that the connection between a learning organization and resilience is indirect rather than direct. People begin to feel psychologically empowered when they are working in a learning environment. They believe their work is important, that they are competent in their work, they have control over how they do their work, and that what they do really matters. Spreitzer (1995) referred to these four emotions as meaningfulness, competence, self-determination, and impact. We believe it is this sense of empowerment that actually helps develop children's resilience, not the learning practices themselves.

The pharmaceutical industry in Pakistan was selected as the industry context, as it is highly challenging: employees are subject to regulatory pressure, market competition, and demanding targets. Also, it is a context where the link between organizational practices and employee wellbeing has not been explored to any great extent. We have discussed the theoretical rationale of our ideas using two theories: COR Theory (Hobfoll, 1989) and Broaden-and-Build Theory (Fredrickson, 1998). The remainder of the paper reviews the literature, explains the method, presents the results, and discusses them.

Literature Review and Hypothesis Development

What is a Learning Organization?

The concept of a learning organization got popularized primarily through the book by Senge (1990) on organizational learning and later through the more practical book by Watkins and Marsick (1993). These researchers wanted to go beyond the philosophical approach to learning and offer something tangible that organizations could do.

They made a clear distinction between organizational learning, which is informational and often accidental, and a learning organization, which companies create on purpose. Watkins and Marsick (2003) established seven practices that characterize a learning organization: (1) creating opportunities for ongoing learning, which is not limited to classroom training but is part of daily work; (2) fostering a culture where it is normal and encouraged to question the status quo; (3) enabling group-based learning where sharing of knowledge occurs across boundaries; (4) empowering employees by linking individual learning to larger organizational goals; (5) building systems to capture and share knowledge to prevent loss when employees leave; (6) integrating the company to its environment so that it can respond to changes in the outside world; and (7) having leaders who model learning and encourage others to learn.

These practices were implemented in the DLOQ and have been tested in various countries and industries (Watkins & Dirani, 2013). Learning organizations have been found to yield positive outcomes, including improved performance (Pokharel & Choi, 2015), increased innovation (Park et al., 2014), increased work engagement (Malik & Garg, 2017), and innovative behaviors (Lau et

al., 2020). However, the link between learning organizations and employee resilience has not been sufficiently explored. This is what inspired us to our first hypothesis.

H1: Employee resilience is positively associated with practices of learning organizations.

Employee Resilience - What We Know

Previously, resilience was believed to be either an innate quality or not. Garmezy (1974) and others who studied children in difficult circumstances saw it this way. However, more recent researchers, particularly those in organizations, have suggested that resilience is a construct that can be learned and that the environment significantly impacts its development (Luthans, 2002; Masten, 2001; Näswall et al., 2019; Blaique et al., 2022).

According to Hodliffe (2014) employee resilience is defined as the capacity to adjust and draw upon resources to manage change and adversity in the workplace. This is significant as it links resilience with resources, and COR Theory is about resources. Individuals with good psychological, social, or organizational resources are better equipped to withstand shocks without breaking down.

Research has demonstrated that resilient workers produce higher-quality performance, experience greater job satisfaction, demonstrate greater creativity, and are more likely to remain with their organizations (Youssef & Luthans, 2007; Huang & Luthans, 2015). The antecedents include supportive leadership, positive relations with colleagues, and a positive organizational atmosphere (Cooke et al., 2019; Caniëls & Baaten, 2019). In this study, we treat learning organization practices as a broader antecedent, which paves the way for all of these.

Psychological Empowerment as the Middle Step

Spreitzer (1995) expanded the concept of psychological empowerment into four subdimensions of the motivational state. Meaningfulness is related to the extent to which a person feels that what he/she does is meaningful and has to do with his/her values. Competence is confidence that they can do it. Self-determination is a feeling of having genuine power over how they work. Impact is the sense of making a difference in the world with what they do. When all four of these are combined, individuals feel truly empowered at work.

This is not empowerment as some managers define it, as in giving people more tasks or decision-making power. Psychological empowerment is about how the person inwardly experiences their work situation (Thomas & Velthouse, 1990). A meta-analysis by Seibert et al. (2011) demonstrated that psychological empowerment positively affects performance, commitment, and satisfaction. In more recent research, it has been used as a mediating variable between organizational conditions and outcomes (Muduli, 2017).

There is a logical relationship between learning organizations and psychological empowerment. As Skrinou and Gkorezis (2020) found, there is a positive relationship between organizational learning and psychological empowerment in the healthcare system. Competence is developed through continuous learning. Meaningfulness is achieved by inquiry and dialogue. Self-determination is supported by participatory leadership and shared vision (Avolio, Zhu, Koh, & Bhatia, 2004). Knowledge systems and links to the environment that capture knowledge magnify the sense of impact. Amor et al. (2020) found that empowering organizational conditions explained the link between leadership and psychological empowerment. The study by Muduli (2017) revealed that organizational development practices predicted empowerment. This results in our second hypothesis.

H2: Learning organization practices are positively related to psychological empowerment.

And from empowerment to resilience - the link is clear. If you feel that your work matters, that you're competent, that you have control, and that your actions make a difference, you'll be in a much better position psychologically to deal with difficulty. In their article, Groselj et al. (2021) demonstrated that empowered employees are more effective in overcoming obstacles. Thomas and Velthouse (1990) stated in their original paper that empowerment can increase resilience by providing individuals with a sense of agency. Empowerment is a positive psychological state that unfolds and creates enduring internal resources over time, from a Broaden-and-Build perspective (Fredrickson, 1998).

H3: Psychological empowerment is positively related to employee resilience.

Theoretical Framework and Mediating Mechanism

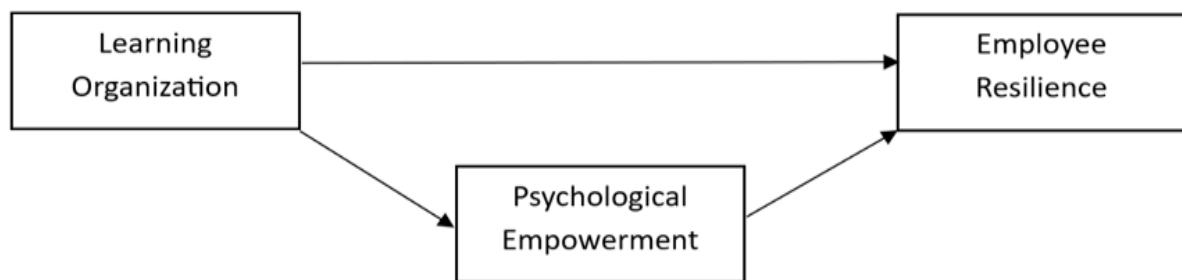
There are two theories for explaining these relationships. The first is Hobfoll's (1989) Conservation of Resources Theory. This theory assumes that people are constantly striving to acquire, secure, and accumulate resources - material, social, or psychological resources - that are important to them (Halbesleben et al., 2014). Two key concepts of the theory are relevant to the present context. First, when you lose something, it hurts more than if you gain that same amount - people tend to work hard to preserve what they already have. Second, resources tend to cluster - environments rich in one type of resource will be easier to accumulate other resources. A learning organization is basically one that has resources. When people work in one, they are in a better position to build psychological empowerment and, through that, resilience.

The second theory is Fredrickson's (1998, 2004) Broaden-and-Build Theory. This theory suggests that positive emotions and states (such as enthusiasm, curiosity, and feelings of competence) have a different effect than negative emotions. Positive states expand the awareness, rather than contracting it, as fear and anxiety do, and they stimulate broader thinking, more creative problem-solving, and more behavioral options. This widening creates internal resources that grow. Psychological empowerment creates just these sorts of positive internal states. Hence, learning organizations set the stage for empowerment; empowerment expands and strengthens psychological resources, and resilience is one of those resources.

These two theories are compatible. COR is the explanation of the resource side - why a learning organization is a good place to build empowerment and resilience. How empowerment builds the internal conditions for resilience to grow is the psychological mechanism described in Broaden-and-Build. Let's move on to the last hypothesis.

H4: Psychological empowerment acts as a mediator between the positive relationship between learning organization practices and employee resilience.

Figure 1: Conceptual Research Framework



Source: The authors.

Research Methodology

Research Design and Sample

For the survey, we used a quantitative cross sectional design. When testing a theoretical model on a large sample size for the purpose of using structural equation modelling (SEM) it is the standard approach in organizational behavior research (Saunders et al., 2023; Sekaran & Bougie, 2016). We recognize that cross sectional data is not causal, but can tell us a lot about relationships and patterns.

Pharmaceutical industry was chosen as a research site in Pakistan. This sector plays a crucial role in the economy of Pakistan. (Pakistan Bureau of Statistics, 2022). Number of people employed in this sector ranges from 100,000 to 150,000 and approximately 600-700 registered companies (Drug Regulatory Authority of Pakistan, 2023). People in this field have high performance demands, regulatory requirements from DRAP and market pressure. It is a very stressful place and resilience isn't something you can just choose to do; it's something you have to do every day.

Convenience sampling was used because there is no public list of the employees of pharmaceutical companies in Pakistan from which a random sample could be taken. Professional networks, contacts from the industry and pharmaceutical associations were used to send questionnaires through Google Forms. 550 questionnaires were sent out and 350 were received, which is a 63.6% response rate. Following a process of incompleteness and outlier detection with a Mahalanobis Distance analysis in IBM SPSS, the final usable sample consisted of 313 people.

When it comes to demographics, 51.8% of those surveyed were in the 25 to 35 age range. The gender-wise distribution of the sample showed that males accounted for 69.6% of the sample, which is similar to the gender distribution of this industry in Pakistan (Awan et al., 2021). In terms of education, 41.5% had bachelor's degrees and 46.0% had master's degrees. The work experience distribution was as follows: 5.8% had 1-5 years, 44.7% had 6-10 years, 27.2% had 11-15 years, and 22.4% had more than 15 years of experience. The major pharmaceutical centres of Pakistan, namely Sindh (51.8%) and Punjab (33.2%) have the maximum number of respondents.

Based on the demographic data, 51.8% of the respondents were between 25 and 35 years old. The sample consisted of 69.6% males, which is a gender composition that is similar to this industry in Pakistan (Awan et al., 2021). Regarding education, 41.5% of them had a bachelor's degree and 46.0% of them had a master's degree. Work experience was under 1 year (5.8 per cent), 6 to 10 years (44.7 per cent), 11 to 15 years (27.2 per cent) and over 15 years (22.4 per cent). The majority

of the respondents were from Sindh (51.8%) and Punjab (33.2%) where most pharmaceutical activities are concentrated in Pakistan.

Measurement

All three main variables were assessed by the well-known and previously validated scales. The items were rated on a 5-point Likert scale from 1 (Strongly Disagree) to 5 (Strongly Agree). All scales were adapted in a few minor ways for the pharmaceutical context but not in such a way as to alter their meaning.

The 21 items of the DLOQ (Yang et al., 2004) were used to measure the Learning Organization. There are 7 learning organization dimensions, and 3 items for each dimension. One of the sample items is: My organization acknowledges individuals who take initiatives. There are good psychometric properties of the DLOQ for comparative and cross-cultural research (Kim et al., 2016; Watkins & Dirani, 2013).

Psychological Empowerment was assessed using 12 items from Spreitzer (1995) with 3 items representing each of the four dimensions. One example of a meaningfulness item is: "The work that I do is meaningful to me. This scale has been well validated in a variety of organizational contexts (Seibert et al., 2011).

Eight items of the Employee Resilience Scale (EmpRes) by Näswall et al. (2019) were used to measure Employee Resilience. This scale was created specifically for the organizational setting and measures adaptability, learning under pressure, problem-solving and emotional management. The sample item is: "When things change at work, I am able to adjust effectively."

Pilot Test and Analysis Approach

Prior to the main data collection, four academics with experience in HRM and organizational behavior reviewed all the items to ensure that they are relevant, clear, and appropriate for the pharmaceutical industry. We made some wording changes based on their input. We then conducted a pilot, involving 50 individuals separately from the main sample, in the target sector. The reliability and validity of the constructs were assessed using the preliminary results of SmartPLS, with all the constructs meeting the thresholds of reliability and validity, as indicated by their composite reliability (CR) values ranging between 0.835 and 0.953 and the values of AVE were also higher than 0.50 (Hair et al., 2022). The Fornell-Larcker criterion also validated the discriminant validity.

We employed PLS-SEM with the software SmartPLS version 4.1.1.7 for the main analysis. Since the model includes mediation, multiple latent variables, and a prediction focus (which is more appropriate for PLS approach), we selected this method over covariance-based SEM (Hair et al., 2022). The standard two-step procedure was adopted: measurement model followed by the test of the structural model. For the mediation test, we used bootstrapping with 5,000 resamples and bias-corrected confidence intervals. To eliminate common method bias, we employed the full collinearity VIF approach of Kock (2015) and all VIF values were low enough that this was not a concern. The data collection process was conducted in an ethical manner in Sukkur IBA University. It was a voluntary participation, anonymous responses, and the participants were notified explicitly that there would be no repercussions for their participation.

Results

Measurement Model

Table 1 illustrates the relevant reliability and validity statistics. The Cronbach's alpha was between 0.738 and 0.948, and composite reliability had an upper bound of 0.835 and lower bound of 0.953. These are higher than the threshold value of 0.70, the requirement set by researchers (Hair et al., 2022). Convergent validity was tested using AVE, and its values fell between 0.501 and 0.586, all greater than 0.50. The item loadings were higher than 0.70, and their value ranged from 0.640 to 0.829. Some items were under 0.708; however, they were retained since deleting them would have impacted content validity while not improving reliability.

Discriminant validity can be measured using several techniques. In the first approach, all HTMT ratios between pairs of constructs were lower than 0.85, with a maximum ratio of 0.444. In the second approach, the Fornell-Larcker criterion was met when the square root of AVE for each construct was higher than the correlation of the same construct with any other construct. The results show that all three constructs, learning organization, psychological empowerment, and employee resilience, are distinctive and separate from each other.

Table 1: Reliability and Validity of the Measurement Model

Learning Organization	21	0.948	0.953	0.505
Psychological Empowerment	12	0.914	0.926	0.501
Employee Resilience	8	0.870	0.897	0.522

Note: α = Cronbach's Alpha; CR = Composite Reliability; AVE = Average Variance Extracted; n = 313.

Descriptive Statistics

Table 2 presents the descriptive statistics of the three constructs used. All three constructs had means in the low-to-medium spectrum on the scale of five. The learning organization variable had a mean of 2.14 (SD = 0.641), psychological empowerment was 2.14 (SD = 0.624), while employee resilience had a mean of 2.13 (SD = 0.646). The low-to-medium values obtained are quite reasonable based on previous research findings by Khilji (2013) on organizations in Pakistan, whereby management is centralized and employees generally have little decision-making power. The standard deviation values were moderate and sufficiently varied to allow for a valid analysis of the structural model.

Table 2: Descriptive Statistics for Study Constructs

Learning Organization	21	2.139	0.641	1-5
Psychological Empowerment	12	2.143	0.624	1-5
Employee Resilience	8	2.127	0.646	1-5

Hypothesis Testing

Table 3 shows the results of bootstrapped analysis showing the estimates of direct effects in the structural equation model (5,000 samples were used). The relationship between the learning organization and psychological empowerment turned out to be the strongest among all relationships ($\beta = 0.389$, $t = 8.202$, $p < 0.001$), thereby validating H2. In other words, the use of practices of organizational learning leads to significantly higher psychological empowerment levels among employees of companies practicing these measures. Learning organization also showed a direct positive impact on employee resilience ($\beta = 0.262$, $t = 4.577$, $p < 0.001$),

confirming H1. In addition, psychological empowerment positively affected employee resilience ($\beta = 0.238$, $t = 3.776$, $p < 0.001$), confirming H3.

As for H4, the indirect effect of learning organization on employee resilience via psychological empowerment was calculated. The obtained indirect effect is statistically significant ($\beta = 0.093$, $t = 3.436$, $p = 0.001$), and the 95% bias-corrected bootstrap confidence interval did not contain zero values. Thus, psychological empowerment mediates the relation between learning organization and employee resilience; H4 is confirmed. However, it should be noted that the significant direct effect of learning organization on employee resilience remained statistically significant in parallel to this indirect effect, indicating partial mediation in the process under consideration.

Variance explained by learning organization amounted to 15.1% of the variance in psychological empowerment ($R^2 = 0.151$). Meanwhile, the combined impact of learning organization and psychological empowerment accounted for 17.5% of variance in employee resilience ($R^2 = 0.175$). Such figures are relatively modest, but this is quite usual for behavioral research conducted cross-sectionally, when a lot of different variables influence the outcome while just a few are included in one study. Global model fitness indicators were also acceptable, including SRMR = 0.062 (threshold < 0.08).

Table 3: Direct Path Coefficients - Bootstrapped (5,000 Subsamples)

LO → PE (H2)	0.389	0.396	0.047	8.202	< 0.001
LO → ER (H1)	0.262	0.266	0.057	4.577	< 0.001
PE → ER (H3)	0.238	0.241	0.063	3.776	< 0.001

Note: LO = Learning Organization; PE = Psychological Empowerment; ER = Employee Resilience; β = standardized path coefficient; STDV = bootstrap standard deviation.

Table 4: Mediation Analysis - Indirect Effect of LO on ER via PE

LO → PE → ER (H4)	0.093	0.095	0.027	3.436	0.001
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Note: Bootstrapping based on 5,000 resamples. Bias-corrected 95% CI excludes zero, confirming mediation.

Table 5: Summary of Hypothesis Testing Results

H1	LO → ER (positive)	Supported ✓	$\beta = 0.262^{***}$
H2	LO → PE (positive)	Supported ✓	$\beta = 0.389^{***}$
H3	PE → ER (positive)	Supported ✓	$\beta = 0.238^{***}$
H4	LO → PE → ER (partial mediation)	Supported ✓	$\beta = 0.093^{**}$

Note: $***p < 0.001$; $**p < 0.01$.

Discussion

Learning Organization and Employee Resilience (H1)

Given this evidence of the positive relationship between learning organizations and employee resilience, one may agree with the above results in light of the COR Theory. In a case where an enterprise continues to invest in its personnel by providing constant training, engaging in conversation, fostering teamwork and leadership, an individual's personal resource reservoir will be sufficiently filled to enable the person to use his or her reserves when confronted by challenging

situations. Therefore, instead of being helpless due to lack of resources in such times, he or she will be resilient enough to overcome those challenges. This result correlates well with the findings of Caniëls and Baaten (2019), in regard to the proactive and resilient nature of individuals working in learning organizational climates. Similarly, this research is consistent with Malik and Garg (2017) in relation to resilience among IT employees in India.

In contrast to previous studies, the current study investigates the connection between learning organization dimensions and employee resilience within the context of the pharmaceutical industry in Pakistan. In this regard, the current investigation offers additional proof concerning the existence of such a positive relationship despite differences in industries and cultural backgrounds. Moreover, while the full mediation indicated by hypothesis H5 is consistent with earlier investigations, partial mediation indicated by hypothesis H4 implies that there are other factors within learning organizations that contribute to employee resilience. Such factors may include development of coping skills, acceptance of error, and interpersonal bonding due to joint learning.

Learning Organization and Psychological Empowerment (H2)

The most significant relationship between any two variables in the entire research model was that between learning organization and psychological empowerment ($\beta = 0.389$), which comes as no surprise considering the nature of these two constructs. In particular, each of the seven dimensions of the learning organization is related to one or several dimensions of psychological empowerment. Continuous learning and dialogue foster competence and meaningfulness, while team learning enhances the feeling of impact. Shared vision and participative leadership contribute to self-determination, while knowledge capture and linkage of the organization to its surroundings promote consequence awareness.

From the practical perspective, the above finding may be important to consider in relation to the specific organizational context within which the study was conducted. In other words, the pharmaceutical industry in Pakistan is typically characterized by centralized management, as well as by low levels of employee participation in decision-making processes (Khilji, 2013). Thus, moving the balance in favor of learning would likely translate into noticeable psychological empowerment.

Psychological Empowerment and Resilience (H3)

The discovery that psychological empowerment significantly affects resilience ($\beta = 0.238$) confirms the predictions of Thomas and Velthouse (1990) made at a theoretical level and the findings obtained by Groselj et al. (2021) once an employee feels that his/her work makes a difference, he/she has confidence in his/her skills, control over actions and their results, and the person becomes much better positioned to face hardships.

The Broaden-and-Build Theory describes the process quite well. Psychological empowerment creates positive inner states - not mere happiness, but rather a feeling of significance and one's ability to influence things around. Such states broaden one's mindset and behavior and build important resources over time, including resilience. Thus, the findings confirm that resilience should not be considered as a personal quality, but rather a resource accumulated as a result of positive organizational experience.

There are important conclusions concerning organizational resilience building programs that should be mentioned. Nowadays many companies organize such events as stress management training and mindfulness workshops for employees. Such initiatives can prove efficient indeed, yet they seem insufficient if the organizational environment leads to feelings of hopelessness,

irrelevance, and powerlessness of the workers. The findings indicate that empowering employees structurally might become a more efficient method.

Partial Mediation and What It Means (H4)

It is important to note that the role of psychological empowerment as a mediator is limited to partial mediation in the case of the relationship under investigation. The term "partial" is essential here since complete mediation would imply that there was no other path connecting learning organizations and employee resilience other than empowerment. Since it remained significant, there is evidence of the existence of other pathways that should be explored in future research, such as learning organizations building employee resilience by providing employees with particular skills, establishing robust social relationships among employees, and accepting failure as a form of learning.

From the point of view of theoretical development, the results of partial mediation are quite significant since they demonstrate that psychological empowerment is indeed a mechanism through which learning organizations influence the level of resilience of employees. Thus, it provides an answer to one of the questions raised by Kuntz et al. (2017).

Practical Implications, Limitations, and Future Research

Implications for Managers and HR Practitioners

Based on the practical findings of the research, one could say that resilience should be treated not only as a characteristic that an individual possesses or lacks but as a result of the organizational environment. Therefore, in case managers wish to increase the levels of resilience of their staff members, the most efficient approach would consist in providing such conditions at the organizational level that would allow for developing empowerment. It implies creating conditions for continuous learning, allowing employees to freely express themselves and ask questions, empowering them in making certain decisions.

From the point of view of practical applications of the research in question, its implications seem to be especially strong within the context of Pakistan's pharmaceutical industry. Indeed, the research demonstrates that, historically, human resource management practices implemented in Pakistani organizations have been rather focused on compliance than personal development (Khilji, 2013). The pharmaceutical sector experiences pressure from different sides: there are numerous performance requirements, regulations, as well as competition, which require a workforce that is resilient enough. However, today's model of organization seems to be an obstacle to the creation of such workforces.

Finally, the implications that could be made for HR practitioners are as follows. First of all, empowerment should become an element of evaluating HR management systems. While it is crucial to ensure the improvement of skills of workers in accordance with the needs of the job they perform, HR managers need to make sure whether their employees feel important, capable, and empowered to perform the required actions.

Conclusion

This paper investigated the impact learning organization practices on employee resilience, with psychological empowerment as the explanatory mechanism between the learning organization and employee resilience. The study employed PLS-SEM to analyze data from 313 pharmaceutical sector employees in Pakistan. We tested four hypotheses and all four were supported. Learning organization practices predicted both psychological empowerment and employee resilience.

Psychological empowerment had significant positive impact on resilience. And psychological empowerment partially mediated the relationship between learning organization and resilience. The findings of this study are of greater significance for the organizations in general and pharmaceutical sector in particular. When organizations invest in learning - not as a program but as a genuine cultural and structural commitment - employees feel more empowered. And when employees feel empowered, they build the internal resources that let them handle adversity without falling apart. Resilience, in other words, is not simply a personal characteristic that some workers are lucky enough to have. It is partly an organizational output, shaped by the kind of workplace in which employees spend most of their working lives.

For organizations navigating the uncertainty of modern business - and especially for those in demanding sectors like pharmaceuticals - this points toward a clear strategic priority: build learning organizations with characteristics such as: continuous learning opportunities, inquiry and dialogue, collaboration and team learning, empowerment towards collective vision, system to capture and share learning, connecting organization to its environment, and strategic leadership. This would ultimately lead to resilient employees.

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