Realizing the Influence of Diverse Workforce on Leader Resilience: The Modering Effect of Diversity Climate

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ARTICLE DETAILS

ABSTRACT

It is generally thought that job-related diversity positively affects performance, whereas, bio-demographic diversity negatively affects performance. But various studies show controversial results, therefore, due to this inconsistency, we need to see the relationship between work-related diversity and its impact on various other variables like leader resilience and also test different moderators like diversity climate, etc. to see if the relationship strengthens or weakens. This study analyzed the impact of bio-demographic (gender and age) and job-related (functional) diversity on leader resilience, and whether diversity climate moderators this relationship or not. Using data from different organizational settings of Pakistan, this study found that gender, age, and functional diversity have a positive relationship with leader resilience, on the other hand, diversity climate does not affect leader resilience.

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1. Introduction

Presently, there is an increasing trend of a heterogeneous workforce in different organizations (Ng & Sears, 2018). As the diverse environment is continuously rising, thus, researchers are interested in finding the workforce composition and how they affect the performance of an organization. (Choi & Rainey, 2014). The most important is how workforce diversity affects organizational performance which can be attained if a leader is resilient and managing diverse workforce effectively and efficiently. Since organizational diversity is increasing these days, it is very important to see how diverse workforce affects the resilience of the leader.

Diversity and resilience are well-known and well-researched concepts, however, previous studies lacked in measuring the impact of organizational resources on leader resilience. The main focus of those studies was based on crises (Comfort et al., 2011; Williams et al., 2017) and outcome of resilience but not on the antecedents of resilience. Similarly, studies were done to see the effect of diversity on organizational resilience (Duchek et al., 2020), on performance (Kelemen et al., 2020; Richard et al., 2020), productivity (Saxena, 2014), or turnover intentions (Kim et al., 2020), or how to
manage a culturally diverse workforce (Podsiadlo\-wski et al., 2013) but no work has been done to see the relationship between workplace diversity and leader resilience. Due to this deficiency and pressing need, present study explores the relation between bio-demographic / job-related diversity on leader resilience and what role does diversity climate play as a potential moderator? In this way, this study will help us in understanding the effect of diversity on leader resilience, which has not been studied so far.

The aim and objective of this study is to critically analyze the relationship between the workplace diversity and leader resilience. The relevant literature is also reviewed regarding the influence of workforce diversity on leader resilience, as well as finding how diversity climate affects this relationship.

2. Literature Review

Resilience theory is collective contribution by many scholars and researchers including Norman Garmezy and Masten Tellegen (1974). It explains how some individuals can bounce back after experiencing any kind of setbacks in life. There are three different types of factors, which play a part in adaptation of resilience, namely; individual, family, and community factors. Although individual factors like gender, age, intelligence, temperament etc. are important for resilience, there are also many outside factors, which also do play a part in this regard e.g., community factors / organizational factors (i.e., workplace diversity).

2.1 Workplace Diversity and Leader Resilience with a Moderating Effect of Diversity Climate

There are two forms of diversities, bio-demographic and job-related diversity. Examples of former are age, gender, and race, whereas, for latter are nature of job, skills, and tenure status (Horwitz & Horwitz, 2007). According to SCT (social categorization theory), workforce diversity adversely affects performance because of conflicts between employees due to the differences among them (D. W. Pitts & Wise, 2010) but increases resilience as when a person interacts with the diverse environment he / she becomes more flexible and adaptive to the environment which makes him / her more resilient. (Sabharwal et al., 2016) found that many studies were present on bio-demographic diversity ignoring job related diversity, which this study will address. The focus of previous studies has been primarily on how diversity affects organizational performance. According to visible and invisible factors, two different viewpoints—SCT (Social categorization theory) and IDT (information / decision making theory)—showed different opinions on how diversity affects the performance of an organization (Daan Van Knippenberg et al., 2004). Our study highlights how diversity affects leadership resilience. According to SCT people tend to classify themselves into similar or dissimilar members according to demographic commonalities and differences (D. W. S. T. Pitts, 2015). Due to this categorization, a number of scholars believe that bio-demographic diversity adversely affects organizational performance due to making groups of similar traits like age, gender, culture, religion etc. and disliking dissimilar groups, which increase conflict among employees.

Due to this inconsistency, this study examined how bio-demographic (gender and age) diversity influences leader’s resilience. Accordingly, following hypothesis is proposed:

**Hypothesis 1:** Bio-demographic diversity (including gender and age), is positively associated with leader resilience.

According to IDT, the performance of heterogeneous work groups perform better than their homogeneous counterparts because they pool a great number of resources including skills, knowledge, and unique ideas (King et al., 2009). Therefore, when the job-related diversity is reduced, it will
negatively affect the performance of an organization due to the limited knowledge, expertise, skills and experience. On the other hand, job-related diversity positively affects organizational performance because the organization has members with versatile characteristics (Daan Van Knippenberg et al., 2004). Based on information decision-making theory, present study proposes the below mentioned hypothesis:

**Hypothesis 2**: Job-related diversity has a significant positive effect on leader resilience.

Diversity climate is about workers perception regarding their role in an organization and whether they are treated fairly and given due importance in making vital decisions despite their individual differences (Choi, 2013; Jiang et al., 2022). This means that the organization should be fair and unbiased and the leader should treat everyone equally (Choi, 2013; Opstrup & Villadsen, 2015). No doubt, diversity oriented leaders encourage employees to mutually share their novel ideas which will enhance the organizational performance (Moldogaziev et al., 2014). This will make the employees more responsible by their active participation (Choi, 2013; Oberfield, 2016). What role is played by diversity climate in moderating relation between workplace diversity and leader resilience? As per the ODT (optimal distinctiveness theory), every person has two significant needs, one is of commonality and other is of uniqueness. Hence, everyone tries to maintain a balance between both needs (Brewer, 1991; Hornsey & Jetten, 2004). To summarize, the main focus of IDT is on differences and SCT is on similarities, whereas, ODT maintains balance between the two for optimum outcome (Shore et al., 2011). A diversity climate encourages all workers to fully involve in decision making in the organization without sacrificing their unique identities (Gonzalez et al., 2018; Sabharwal, 2014; Shore et al., 2011). On the contrary, the organizations which are less diverse, non-inclusive and unfair with their employees will adversely affect their performance (Shore et al., 2011). However, despite an increasing trend in diversity management, very few studies have been done to see how diversity climate as a moderator affects the relationship between workplace diversity and leader resilience. Based on ODT, following hypotheses are propounded:

**Hypothesis 3**: A diversity climate moderates the positive relationship between bio-demographic diversity and leader resilience.

**Hypothesis 4**: The relationship between job-related diversity and leader resilience is positively moderated by diversity climate.

### 3. Theoretical Framework

**Figure 1**
4. Methodology

4.1 Sample and Procedure

For testing the above-mentioned hypotheses, the present study used a convenience sampling technique as those organizations were selected which had a diverse workforce. The data included 185 dyads (1 leader and 1 of his/her follower) so it made a total sample of 370. The analysis was conducted in a multilevel format using Mplus (Muthén, 2009). When the data has hierarchical nature, multilevel models are often used. The multilevel analysis is conducted using Mplus (Muthén, 2009).

Data was collected from three metropolitan cities of Pakistan. Using personal and professional contacts, workers were recruited who were willing to take part in data collection. Before conducting the survey, it was confirmed that each leader and his or her followers were interacting regularly.

The respondents were informed that they would receive surveys after completing their baseline eligibility-related survey and the consent form. Participation was voluntary and they could leave the survey at any time during the survey.

Overall, 320 dyads were approached, of which, 260 dyads met the eligibility criteria, of these 260 qualified teams, 220 teams gave their consent to participate in our survey. Participants belonged to a variety of industries and occupations, including banking, government department, human resources, hotel industry, health care, education, and information technology.

After submitting the consent form, each team leader and his/her subordinates were given unique identification keys for matching the responses. For example, if team 1 had one leader and 1 member, the leader had 1L key, while his subordinate was given 1S keyword. In each survey, the participants had to first write their unique identification key in the online survey form. With intensive follow up, 185 dyads responses were received, yielding 84% response rate.

4.2 Measures

The diversity-related questionnaires were filled by the subordinates, whereas, the leader filled resilience questionnaire. The responses were taken on a 5-point Likert-type scale ranging from 1 (totally agree) to 5 (totally disagree).

4.2.1 Workplace Diversity

Data was collected through the demographic part of the questionnaire (Muchiri & Ayoko, 2013). Employee gender diversity is based on female or male. For age diversity, the present study used five age groups: till 29 years, 30-39 years, 40-49 years, 50-59 years, and above 60 years old. However, four types of nature of employment (professional, administrative, technical, and clerical) were used to measure job-related diversity.

4.2.2 Diversity Climate

Mor Barak et al. developed the ten-item diversity climate scale (Barak et al., 1998) which contains 4 items of organizational inclusiveness subscale and 6 items of organizational fairness subscale. A five-point Likert scale was used (1 = strongly agree and 5 = strongly disagree).

4.2.3 Daily supervisory resilience (leader rated)

For measuring self-rated daily supervisory state resilience, a 3-item scale from Wagnild & Heather Young was used (Luthans et al., 2007; Wagnild & Heather M. Young, 1993). A sample item included “today during work, I felt I could handle many things at a time.”
5. Results and Discussion

To test this model CFA was performed in MPlus. The theoretical framework of the current study is presented in Figure 1. The current study is multilevel as it examines the effects of workforce diversity on leader's resilience. This study used multilevel modeling technique in MPlus 7.0.

Firstly, single factor confirmatory factor analysis (CFA) was conducted, where all the factors were loaded onto a single common latent factor. Single factor CFA model produced a poor fit with data (see table 1). After that three-factor confirmatory factor analysis was conducted. These results showed that the three-factor model provided a good fit with data ($\chi^2 = 1.75$, Comparative Fit Index [CFI] = 0.97, Tucker–Lewis index [TLI] = 0.96, Standardized Root Mean Square Residual [SRMR] = 0.06, Root Mean Square Error of Approximation [RMSEA] = .06).

The factor loading of all the variables were in the range of .65-.90 that showed all the observed items had higher loadings on their respective factors. To further establish the convergent validity, this study examined the average variance extracted (AVE) value of all the variables by using the method proposed by (Fornell & Larcker, 2018). The results indicated that AVE values of all the variables were greater than the recommended value of 0.50 (Kline, 2011). To establish the discriminant validity, this research compared the square root of AVE values with their corresponding correlations, which showed the square roots of AVE values were sufficiently greater than the correlations among the constructs (see Table 1). Moreover, the composite reliability scores for all the constructs was also calculated by using the method proposed by (Fornell & Larcker, 2018). These findings showed that all the constructs had good reliability statistics.

### Confirmatory Factor Analysis

| Table 1: Convergent Validity, Discriminant Validity, and composite Reliability |
|---------------------------------|----|----|---|---|---|
| Variable                        | CR. | AVE. | 1  | 2  | 3  |
| Leader Resilience               | 0.928 | 0.720 | **0.849** |   |   |
| Diversity Climate of Fairness   | 0.923 | 0.667 | -0.035 | **0.816** |   |
| Diversity Climate of Inclusiveness | 0.851 | 0.592 | 0.148 | **0.574** | **0.770** |
| Model Fit Indices               | X2/CF | CFI  | TLI | RMSEA | SRMR |
| Three Factor Model              | 1.75 | 0.97 | 0.96 | .06  | .06  |

5.1 Multi-Collinearity and Normality

For checking degree of multi-collinearity between independent variables, variance inflation factor (VIF) and tolerance value was calculated. As per results, the tolerance value of all independent variables were present in the range of 0.69–0.94, which is above the suggested threshold value of 0.10 (Ahmed et al., 2018; Cohen, 2013). Whereas, the variance inflation factor of all independent variables were also less than 3 (Ahmed et al., 2018; Pan & Jackson, 2008) see Table 2.

Normality of data was tested using the method suggested by Finney and Distefano skewness and kurtosis values were calculated. Skewness value of all variables were found to be in the range of -2 to +2 (Finney, S.J. and DiStefano, 2006). Kurtosis value of all variables were also found to be in the range of -3 to +3 (Chou & Bentler, 1995; Finney, S.J. and DiStefano, 2006), see table 3. The above-mentioned results showed that multi-collinearity and normality do not have any influence on our maximum likelihood- based results.
Table 2: Multicollinearity Analysis

<table>
<thead>
<tr>
<th>Variable</th>
<th>Tolerance</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender Diversity</td>
<td>0.934</td>
<td>1.071</td>
</tr>
<tr>
<td>Age Diversity</td>
<td>0.975</td>
<td>1.025</td>
</tr>
<tr>
<td>Functional Diversity</td>
<td>0.933</td>
<td>1.072</td>
</tr>
<tr>
<td>Diversity Climate of Fairness</td>
<td>0.756</td>
<td>1.322</td>
</tr>
<tr>
<td>Diversity Climate of Inclusiveness</td>
<td>0.742</td>
<td>1.348</td>
</tr>
</tbody>
</table>

Table 3: Normality Test

<table>
<thead>
<tr>
<th>Variable</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Statistic</td>
<td>Std. Error</td>
</tr>
<tr>
<td>Gender Diversity</td>
<td>-0.306</td>
<td>0.179</td>
</tr>
<tr>
<td>Age Diversity</td>
<td>0.566</td>
<td>0.179</td>
</tr>
<tr>
<td>Functional Diversity</td>
<td>0.016</td>
<td>0.179</td>
</tr>
<tr>
<td>Leader Resilience</td>
<td>-2.00</td>
<td>0.179</td>
</tr>
<tr>
<td>Diversity Climate of Fairness</td>
<td>-0.961</td>
<td>0.179</td>
</tr>
<tr>
<td>Diversity Climate of Inclusiveness</td>
<td>-0.759</td>
<td>0.179</td>
</tr>
</tbody>
</table>

5.2 Hypothesized Model Testing

Present study used structured equation modeling for testing the model in MPlus, multilevel modeling approach was used for model testing in MPlus 7.0. The hypothesized model showed better fit with data ($\chi^2 = 330.03$, $df = 213$, $\chi^2/df = 1.55$, CFI = 0.94, TLI = 0.93, SRMR = 0.08, RMSEA = 0.06).

Hypothesis 1 proposed that bio-demographic diversity, including gender and age diversity is positively associated with leader resilience. Results suggested that gender diversity has significant effect on leader resilience, gender diversity ($\lambda = .27$, $p < .001$) and age diversity ($\lambda = .22$, $p < .01$). In other words, if there is gender and age diversity in an organization, the leader becomes more resilient. Therefore, hypothesis 1 was supported.

Further, hypothesis 2 proposed that job-related diversity, including functional diversity is positively associated with leader resilience. The results showed that job related diversity had significant effect on leader resilience ($\lambda = .19$, $p < .01$). This means that an organization that is functionally diverse will have more resilient leader. Therefore, hypothesis 2 was supported.

Hypothesis 3 proposed that a diversity climate moderates the positive relationship between bio-demographic diversity and leader resilience, which means that the greater the diversity climate the more the relationship between the two variables strengthens. The results suggested that diversity climate of fairness ($\lambda = .08$, $p > .05$) ($\lambda = .01$, $p > .05$) and inclusiveness ($\lambda = .17$, $p > .05$) ($\lambda = .11$, $p > .05$) doesn’t moderate the relationship between gender diversity, age diversity and leader resilience. Therefore, the hypothesis 3 was rejected.
Lastly, hypothesis 4 proposed that diversity climate moderates the positive relationship between job-related diversity and leader resilience, which means a higher diversity climate strengthens this relationship. Results suggested that diversity climate of fairness ($\lambda = .06, p > .05$) and inclusiveness ($\lambda = .07, p > .05$) does not moderate the relation between functional diversity and leader resilience. Therefore, the hypothesis 4 was not supported. See table 4 for results.

Model Testing

Table 4: Direct Effects and Interaction Effects / Moderation Effects

<table>
<thead>
<tr>
<th>Variable</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender Diversity</td>
<td>.27***</td>
</tr>
<tr>
<td>Age Diversity</td>
<td>.22**</td>
</tr>
<tr>
<td>Functional Diversity</td>
<td>.19**</td>
</tr>
<tr>
<td>Diversity Climate of Fairness</td>
<td>-.15</td>
</tr>
<tr>
<td>Diversity Climate of Inclusiveness</td>
<td>.26*</td>
</tr>
<tr>
<td>Gender Diversity x Diversity Climate of Fairness</td>
<td>.08</td>
</tr>
<tr>
<td>Gender Diversity x Diversity Climate of Inclusiveness</td>
<td>.17</td>
</tr>
<tr>
<td>Age Diversity x Diversity Climate of Fairness</td>
<td>.01</td>
</tr>
<tr>
<td>Age Diversity x Diversity Climate of Inclusiveness</td>
<td>.11</td>
</tr>
<tr>
<td>Functional Diversity x Diversity Climate of Fairness</td>
<td>.06</td>
</tr>
<tr>
<td>Functional Diversity x Diversity Climate of Inclusiveness</td>
<td>.07</td>
</tr>
</tbody>
</table>

Model Fit Indices

<table>
<thead>
<tr>
<th>X2</th>
<th>Df</th>
<th>X2/Df</th>
<th>CFI</th>
<th>TLI</th>
<th>SRMR</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>330.03</td>
<td>213</td>
<td>1.55</td>
<td>.94</td>
<td>.93</td>
<td>.08</td>
<td>.06</td>
</tr>
</tbody>
</table>

* $p < .05$; ** $p < .01$; *** $p < .001$; + $p < .10$ (+ only approves in indirect effect)

6. Conclusion, Limitations and Recommendations

This study has used multilevel format and analysis was done using Mplus. Convenience sampling technique was used by taking 185 dyads (1 leader with one of his / her subordinate) to check if workplace diversity has an impact on leader resilience and what role diversity climate play as a potential moderator.

As per results, this study suggests that when the workplace diversity is high in any organization i.e., having employees of diverse age group, gender and functionality, the leader become more resilient, whereas diversity climate has no significant moderating effect between the two variables.

Despite contributions of this study, there are a few limitations. First, this study has collected data from various organizational settings which can be restricted to few industries or comparison can be made of public vs private organizations, comparison between industries of various countries can also be done. Another limitation is that this research has considered only two dimensions of diversity i.e., bio-demographic and job-related diversity, whereas, future studies can include more dimensions like cultural diversity, religious diversity etc. One more limitation is that the moderator used in this study has no significant effect on workplace diversity and leader resilience; therefore, future studies can add other moderators. Lastly, no mediators were added in our study, which the future researches can add.

References:


Ng, E. S., & Sears, G. J. (2018). Walking the Talk on Diversity: CEO Beliefs, Moral Values, and the Implementation of Workplace Diversity Practices. Journal of Business Ethics, 0(0), 0. https://doi.org/10.1007/s10551-018-4051-7


