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Impact of inclusive leadership on innovative work behavior: The role of psychological safety

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Abstract

The purpose of this study is to examine inclusive leadership as a predictor of innovative work behavior with the mediating role of psychological safety. Data were collected from supervisors–subordinates dyads working in textile industry in Pakistan. Our findings suggest that inclusive leadership is a positively related with innovative work behavior, and psychological safety mediates the effect of inclusive leadership on innovative work behavior. The leader–member exchange theory was used to build our theoretical model. We have also discussed theoretical and practical implications of our findings.

Keywords: creativity, innovation and R& D, leadership, organizational change, safety climate

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INTRODUCTION

Today's dynamic and turbulent business environment has made it challenging for organizations to survive and flourish (Lauser, 2010; Battistelli, Montani, Odoardi, Vadenbeghe, & Picci, 2014; Chowhan, Pries, & Mann, 2016). In such an environment, in order to be successful, it has become more essential for organizations to focus on innovation. Innovation is an important factor for aligning technological changes and business models in challenging environments (Božic & Ozretic-Došen, 2015; Wan, Williamson, & Yin, 2015; Sanchez-Famoso, Maseda, & Iturralde, in press). Innovation comes about when an employee develops, promotes, and implements new ideas which are key components of employees' innovative work behavior (IWB) (Janssen, 2000). Research has shown that the IWB is of significant importance in work settings (De Jong, Parker, Wennekers, & Wu, 2011). IWB can be considered as employees' extra role behavior and is exhibited in a dynamic work environment. It can therefore help an organization to meet new challenges in a complex environment (Scott & Bruce, 1998).

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For decades, researchers have studied antecedents of IWB at organization, work group, and individual levels (Scott & Bruce, 1994; Anderson & West, 1998; Janssen, 2000; Baer & Frese, 2003; Anderson, Dreu, & Nijstad, 2004; Hammond, Neff, Farr, Schwall, & Zhao, 2011; Zlatanović & Mulej, 2015; Franco & Haase, 2016). These researchers asserted that leadership, work group, work climate, individual differences, job characteristics and job demand, personality and values, are significantly associated with the IWB. Among all these predictors of IWB, leadership plays a prominent role on employees' IWB. For instance, Gerybadze, Hommel, Reiners, and Thomaschewski (2010) stated that leaders' role as supportive behavior is much more important than most explanatory factors for employees' IWB.

Researchers have therefore investigated the issue of why leadership support plays such a critical role for IWB and have further identified that such support is important due to the complex nature of IWB. The high risks involved with IWB indicate that it is some sort of nonroutine behavior where employees avoid traditional thinking and are able to speak about new ideas (Kanter, 1988; Kessel, Hannemann-Weber, & Kratzer, 2012). This shows that employees challenge the *status quo* in disagreeing with superiors; therefore employees need a high degree of autonomy to promote IWB (Janssen, 2005). Autonomy and freedom to express ideas arise when employees are supported by leadership (Foss, Woll, & Moilanen, 2013). Numerous studies support that leadership plays a noteworthy role to enhance employees' IWB (Raub & Robert, 2010; Martens, 2011; Aryee, Walumbwa, Zhou, & Hartnell, 2012; Resick, Hargis, Shao, & Dust, 2013; Tu & Lu, 2013; Javed, Bashir, Rawwas, & Arjoon, 2016: 16).

One of the unique ways by which leaders support employees' IWB is the quality relation with employees. In strong and quality-based relation, leaders provide support to employees with challenging tasks. In uncertain and risky situations, recognize employees' efforts, and provide the necessary task-related resources which significantly result in employees' IWB (De Jong & Den Hartog, 2007). To contribute to the existing body of knowledge, the current study investigates how relational leadership (Fletcher, 2004, 2007; Uhl-Bien, 2006; Carmeli, Ben-Hador, Waldman, & Rupp, 2009) effectively promotes IWB. More specifically, we emphasize on a unique mode of relational leadership which is known as inclusive leadership (IL), since there has been very limited attention on the relationship between IL and IWB.

Nembhard and Edmondson defined IL as 'words and deeds by a leader or leaders that indicate an invitation and appreciation for others' contributions' (2006: 947). Inclusive leaders permit employees to make sure the employees' access in decision-making and in every step of activities demonstrates their availability to employees (Carmeli, Reiter-Palmon, & Ziv, 2010), therefore they support employees to generate new and novel ideas (Sharifirad & Ataei, 2012). Generating new ideas is the first stage of IWB (Basadur, 2004). Inclusive leaders ensure that employees have entrance to important organizational resources, both tangible as well as intangible (Hollander, 2009), that facilitates employees to further promote and implement new ideas (Scott & Bruce, 1994; Basu & Green, 1997; Afsar, Badir, & Saeed, 2014). Therefore, it appears that IL enhances employees' IWB.

Since IWB is a nonroutine behavior which typically avoids traditional methods in approaching work, explores, and implements new work means, therefore employees need psychological safety (PS) to advance the innovation processes (Edmondson & Lei, 2014). PS describes the perception that 'people are comfortable being themselves' (Edmondson, 1999: 354), and 'feel able to show and employ one's self without fear of negative consequences to self-image, status or career' (Kahn, 1990: 708). IL promotes employees' views and opinions through self-respect and self-significance (Shamir & Howell, 2000; Carmeli, Reiter-Palmon, & Ziv, 2010). Detert and Burris (2007) stated that when leaders consider the employees by their self-value, then they perceive high levels of PS. Moreover, research has shown that PS increases employees' IWB (Baer & Frese, 2003; Kessel, Kratzer, & Schultz, 2012; Sharifirad, 2013). Therefore, we propose that PS mediates the relationship between IL and employees' IWB (Figure 1).

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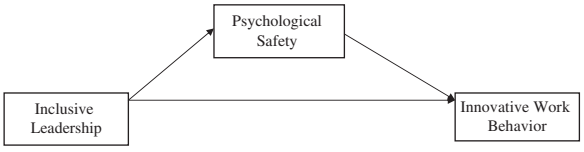

FIGURE 1. THE HYPOTHESIZED MODEL

We rely on leader–member exchange theory to explain the effect of IL on IWB. We based our predictions on the tenet that high quality of leader–follower relationship generates more positive outcomes (Basu & Green, 1997; Costigan, Insinga, Jason Berman, Ilter, Kranas, & Kureshov, 2006). Moreover, in a high-quality relationship with leaders, employees experience high PS for generating, promoting, and implementing novel ideas (Ilies, Nahrgang, & Morgeson, 2007; Carmeli, Reiter-Palmon, & Ziv, 2010; Volmer, Spurk, & Niessen, 2012). We therefore investigate the direct effect of IL on IWB, and how PS might play a role in this relationship. Conducting this study in a non-Western country context is also a unique approach since previous studies on IWB are mostly set in Western countries.

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

IL and IWB

IL refers to 'leaders who exhibit visibility, accessibility, and availability in their interactions with followers' (Carmeli, Reiter-Palmon, & Ziv, 2010: 250). Leader inclusiveness captures attempts by leaders to include others in discussions and decisions in which their voices and perspectives might otherwise be absent (Edmondson, Kramer, & Cook, 2004; Nembhard & Edmondson, 2006). Thus, employees having access in the decision-making process and discussions, openly speak, promote, and implement new ideas (e.g., IWB) (Dorenbosch, Engen, & Verhagen, 2005). Therefore, we assert that IL increases employees' IWB. De Jong defined IWB as 'individuals' behaviors directed toward the initiation and intentional introduction of new and useful ideas, processes, products, or procedure within a work role, group or organization' (2006: 19). These new ideas are different from traditional ideas that prevail at work setting. Therefore, in the context of innovation, employees need the support of organizational work environment (De Jong & Den Hartog, 2010).

Leadership is considered as the key agent of change in organizations and is a strong component of the organizational work environment. Therefore, when leaders show supportive behavior for new ideas, then employees see it as organizational support to enhance their IWB (Amabile, 1996; Scott & Bruce, 1998; Amabile, Schatzel, Moneta, & Kramer, 2004; De Jong & Den Hartog, 2008). Leaders who demonstrate the characteristics of IL, promote fairness of input and output to all employees (Hollander, 2012). Therefore, in a quality-based relationship with the leader (e.g., IL), employees experience a fair reward system which encourages them to meet job demand like IWB (Basu & Green, 1997; Janssen, 2000; Janssen & Van Yperen, 2004; Reuvers, Engen, Vinkenburg, & Wilson-Evered, 2008; Sanders, Moorkamp, Torka, Groeneveld, & Groeneveld, 2010). Inclusive leaders work with people, never to people, and therefore at every step of activities show their availability to employees (Ryan, 2006; Janakiraman, 2011) which encourages them to develop, promote, and implement new and useful ideas (Basu & Green, 1997; Carmeli, Reiter-Palmon, & Ziv, 2010; Sanders et al., 2010; Altunoğlu & Gürel, 2015).

IL generally emphasized on inclusive process where leaders attempt to ensure employees' participation being attentive to their inputs to improve the work process (Quinn, Haggard, & Ford, 2006).

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Leaders who demonstrate this behavior, learn, help, and lead the employees (Vaill, 1996), and motivate them to show IWB (Crant, 2000; Hollander, 2009; Bindl & Parker, 2010; Shore, Randel, Chung, Dean, Ehrhart, & Singh, 2011). In the quality relationship with inclusive leaders, employees experience the accessibility attribute of IL. Inclusive leaders with this attribute, give employees access to decide their work activities on their own. Therefore, they experience high empowerment with IL (Nishii & Mayer, 2009) that motivate and help them to successfully create useful ideas, promote them to gain acceptance, and implement them for practical benefits (De Spiegelaere, Gyes, & Hootegem, 2012; De Spiegelaere, Gyes, Vandekerckhove, & Hootegem, 2012; De Spiegelaere, Gyes, Witte, Niesen, & Hootegem, 2014).

Inclusive leaders exhibit concerns about the interests, expectations, and feelings of their employees, and are therefore willing to provide assistance (Carmeli, Reiter-Palmon, & Ziv, 2010; Choi, Tran, & Park, 2015). Specifically, inclusive leaders share their vision of the organizations with employees and incorporate their ideas. Employees therefore feel energized and more committed to leaders, and they are more likely to reciprocate by displaying extra-role behavior (e.g., IWB) (Pless & Maak, 2004; Piccolo, Greebaum, Hartog, & Folger, 2010; Walumbwa, Cropanzano, & Goldman, 2011; Bilimoria, 2012). Inclusive leaders provide employees with emotional support, increase trustworthiness, and by their behavior, show that they are principled individuals who make unbiased judgments (Nemhard & Edmondson, 2006; Ryan, 2006; Hollander, 2012). Such behavior encourages employees to show IWB (Gumusluoglu & Ilsev, 2009; Mayer, Kuenzi, Greenbaum, Bardes, & Salvador, 2009; Tu & Lu, 2013; Choi, Tran, & Park, 2015). One of the unique ways through which inclusive leaders support employees is that such leaders take responsibility for ultimate results (Hollander, 2012) and in the process of innovation, even if new ideas result in failure, they protect employees by assuming responsibility for this failure. Therefore, employees feel comfortable in taking risks associated with IWB in the presence of IL.

Based on leader member exchange theory, researchers have found many reasons for a positive relationship between relational leadership (e.g., IL) and IWB. First, inclusive leaders respect and encourage employees to take difficult and challenging goals, recognize and appreciate their efforts and contribution to achieve those particular goals, and show responsive behavior where leaders respond positively and timely to employees' problems (Hollander, 2012) which further encourage them to show IWB (Liden, Sparrowe, & Wayne, 1997; Tierney, Farmer, & Graen, 1999; Tierney, 2008; Gumusluoglu & Ilsev, 2009; Hollander, 2009; Yukl & Mahsud, 2010; Aryee et al., 2012; Yeh-Yun Lin & Liu, 2012).

Second, in a quality relationship with IL, employees experience leadership support in term of beneficial resources like time, space and materials and political support for legitimacy and innovation-related information which lead them to develop, promote, and implement new ideas (Ilies, Nahrgang, & Morgeson, 2007; Hollander, 2009; Shore et al., 2011; Liu, Liao, & Loi, 2012; Choi, Tran, & Park, 2015; Wang, Fang, Qureshi, & Janssen, 2015; Piansoongnern, 2016). Finally, inclusive leaders enhance the employees positive feelings and emotions (Hollander, 2009) which motivate them to indulge themselves in their innovative tasks (Carmeli, Reiter-Palmon, & Ziv, 2010; Yeh-Yun Lin & Liu, 2012). Based on aformentioned arguments, we hypothesized as under:

Hypothesis 1: IL is positively related to IWB.

Mediating role of PS between IL and IWB

PS is a state where employees feel that there is safety in taking risks at work setting (Edmondson, Kramer, & Cook, 2004) where they face many constraints to speak up openly. For instance, employees need PS in speaking about new work means while disregarding traditional methods of doing the job

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(Kessel, Hannemann-Weber, & Kratzer, 2012). In the context of innovation, employees may take risks by proposing new ideas, many of which could lead to organizational failure if implemented. Developing and implementing new ideas can be high risk (Ellen Mathisen, Einarsen, & Mykletun, 2012). Gong, Cheung, Wang, and Huang (2012) noted that generating new ideas does not guarantee the attainment of desired goals since most ideas fail. They also point out that novel ideas may be rejected as being perceived as deviant behavior in the workplace. Employees therefore need a psychologically safe environment for their risk-taking actions inherent to creative endeavors (Kanfer & Ackerman, 1989; Edmondson, 1999) and if they perceive safety, then they are more comfortable to voice their opinion (Morrison, 2011).

Employees at the workplace, whenever they speak up, the others (e.g., leaders) labeled them as trouble-makers (Miceli, Near, & Dworkin, 2009). This can result in lower support and punishment (e.g., demotion and termination) (Ashford, Sutcliffe, & Christianson, 2009). However, intellectual and emotional support from inclusive leaders can help shape and maintain work contexts where employees experience greater PS (Hirak, Peng, Carmeli, & Schaubroeck, 2012). This motivates them to develop, promote, and implement new ideas (Baer & Frese, 2003; Carmeli, Sheaffer, Binyamin, Reiter-Palmon, & Shimoni, 2014). Therefore, we assume that PS mediates the relationship between IL and IWB. Since, IWB is associated with risky behavior (Janssen, 2002), and if employees do not feel PS, then they protect themselves defensively and refrain to show IWB (Rank, Pace, & Frese, 2004; Burke, Sims, Lazzara, & Salas, 2007; Hunter, Bedell, & Mumford, 2007; West & Ricther, 2008). However, this is not the case when they experience supportive leadership (Roussin, 2008; Kaufman, 2009; Rasulzada & Dackert, 2009).

Inclusive leaders who value the inclusion of employees in a particular work process, therefore, give employees a chance to raise their voice for generating, promoting, and implementing useful ideas (Hirak, Peng, Carmeli, & Schaubroek, 2012; Boekhorst, 2015). Such inclusive leaders contribute to a culture where employees' ideas and opinions are highly valued and respected. Inclusive leaders show concern for employees' feelings as well as expectations. Therefore, in the context of change, employees feel more PS in exhibiting IWB when supervised by supportive, IL (Carmeli, Reiter-Palmon, & Ziv, 2010; Detert & Edmondson, 2011). Inclusive leaders exhibit openness attributes in which they communicate the importance of taking innovative actions and giving employees the guarantee that in case of negative consequences they will not be punished so that they experience a greater PS (Walumbwa & Schaubroeck, 2009; Carmeli, Reiter-Palmon, & Ziv, 2010; Zhang, Tsui, & Wang, 2011).

Having direct access through accessibility attributes of IL, employees experience nondefensive behavior, and feel high levels of self-worth and self-identity (Shamir, House, & Arthur, 1993; Edmondson, Kramer, & Cook, 2004). Moreover, when inclusive leaders show their availability to discuss new work means and new opportunities, then employees feel that it is safe to speak more openly about new ideas (Carmeli, Reiter-Palmon, & Ziv, 2010). Inclusive leaders work with employees directly and invite them to contribute their ideas which help them to develop a sense of PS (Nembhard & Edmondson, 2006). IL is concerned with open communication and building a strong interpersonal relation with employees so that they feel that it is safe to take the innovative risks (Carmeli, Brueller, & Dutton, 2009; Shore et al., 2011). Research studies have empirically found the positive relationship between IL and PS (Nembhard & Edmondson, 2006; Carmeli, Reiter-Palmon, & Ziv, 2010; Hirak, Peng, Carmeli, & Schaubroek, 2015; Yin, 2013).

In addition, PS within the concept of IL, motivates employees not only to generate new ideas, but also to promote and implement new ideas in the organization. When employees experience PS, then they openly express themselves without any fear of negative consequences (Edmondson, 1999, 2004) which enhances their IWB (Rank, Pace, & Frese, 2004). However, employees who do not experience PS, focus more on defensive orientation and therefore experience lower IWB with corresponding lower

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PS (Nicholson & West, 1988; West & Richter, 2008). Studies have also found positive effects of PS for not only idea generation, but also promotion and implementation of newly generated ideas (Kark & Carmeli, 2009; Klijn & Tomic, 2010; Gong et al., 2012; Kessel, Kratzer, & Schultz, 2012; Sharifirad, 2013). The above arguments show IL indirectly increases IWB through PS. We therefore hypothesize as under:

Hypothesis 2: PS mediates the relationship between IL and IWB.

METHODOLOGY

Sample and procedure

The data were collected under a research program that aimed to look into the effect of IL on IWB with the mediating role of PS in employees in the Textile Industry in Pakistan. The reason for the selection of this population of interest is that, at the current time, the changing and complex business environment is pressurizing the companies in this industry to innovatively respond the market (McAdam & McClelland, 2002; Montani, Battistelli, & Odoardi, 2015). These changes are due to the number of factors including globalization, technological growth, and hypercompetitive markets (Xerri, Bruneto, & Shacklock, 2009). These factors have made it a challenge for employees to adapt to new changes which are realistically possible through IWB (Menzel, Aaltio, & Ulijn, 2007; Oukes, 2010; Imran & Anis-Ul-Haque, 2011). IWB therefore helps organizations to achieve a competitive advantage (Carmeli, Meitar, & Weisberg, 2006).

Employees of small and medium enterprises (SMEs) of Textile Industry were selected since SMEs has had a high focus on capitalizing employees' capability to create and implement new ideas to improve product quality (Ghobadian & Gallear, 1997; Cagliano, Blackmon, & Voss, 2001; McAdam & McClelland, 2002; Enkel & Gassmann, 2010; Hotho & Champion, 2011; Brunswicker & Vanhaverbeke, 2015; Love & Roper, 2015). Moreover, while showing IWB, employees go beyond the defined concrete paths; therefore IWB is highly complex and ambiguous in nature (Kriegesmann, Kley, & Schwering, 2007). Employees show IWB only when they are supported and rewarded (Clegg, Unsworth, Epitropaki, & Parker, 2002; Janssen, 2005). In the context of SMEs of the Textile Industry, McAdam and McClelland (2002) stated that innovation enhancing values help employees of SMEs to innovatively meet the changing needs of customers. Therefore, in order to successfully meet the new changes through employees' IWB, leaders of SMEs, instead of nepotism and autocratic control, emphasize innovative supportive values including empowering employees with effective interpersonal communication in order to innovate new ideas (Ghobadian & Gallear, 1997; Mosey, Clare, & Woodcock, 2002; McAdam, McConvery, & Armstrong, 2004; Zhou, Yim, & Tse, 2005; Bailey, Bellandi, Caloffi, & Propris, 2010; Taştan & Güçel, 2014).

In order to recruit participants, and to control for social desirability bias (i.e., the tendency of survey respondents to answer questions in a manner that will be viewed favorably by others), the following procedure was pursued. The lead author contacted the human resource development directors of 20 textile organizations and explained to them the purpose of the research and related data collection. They were also informed that the data will be collected from both employees and their supervisors. During these face-to-face meetings, the lead author offered them a cover letter indicating that participation is voluntary and responses are confidential. The cover letter indicated that the lead author did not know any of the subjects and to ensure that they read the instructions and statement of confidentiality accompanied with the questionnaire stating that 'Please take several minutes to complete the enclosed questionnaire. There are no rights or wrong answers to these questions, so your candor is strongly encouraged. All responses are strictly anonymous and will be only reported in aggregate. Moreover, the researcher has no means whatsoever to identify any of the respondents.

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Please also remember that participation in filling up this questionnaire is voluntary.' After understanding the purpose of research, the directors carefully read the cover letter and gave approval for data collection in their particular firms. A list of potential respondents and their direct supervisors, belonging to different departments, was obtained from Human Resource directors.

Accordingly, the lead author approached a randomized sample of employees of the participating organizations and asked them to complete a questionnaire containing items relating to their perceptions of IL and PS. We also collected data on certain subordinate demographics which were placed in the last part of the survey form. We made sure to randomly select one subordinate for each supervisor. The lead author supplied all respondents with unmarked envelopes and instructed them to place their completed questionnaires in the envelope and deposit them in a sealed box that was also supplied by the author. The box was left in the main lobby or employees' cafeteria. Data were collected from only those employees who were directly involved in the idea generation, promotion, and implementation stages in their respective innovative jobs which included departments of engineering, designing, marketing, processing, and manufacturing. Researchers have found that employees' IWB is more relevant in these departments (Morhart, Herzog, & Tomczak, 2009; Mukherjee & Ray, 2009; Oukes, 2010; Imran & Anis-ul-Haque, 2011; Volmer, Spurk, & Niessen, 2012; Montani, Battistelli, & Odoardi, 2015; Birdi, Leach, & Magadley, 2016). Therefore, employees who worked in these SMEs departments are more likely to have innovation via IWB and therefore a higher level of education.

After 2 weeks, the lead author visited the various locations and collected the boxes without any interaction with the workers. After this initial period (time one) when data were collected from employees, after about a month (time two), the questionnaires were distributed to direct supervisors of the participating employees. The supervisor's survey contained items on employees' IWB. Data collection over the two periods was conducted in order to reduce the effects of common method bias due to data collection at one time only (Lindell & Whitney, 2001; Podsakoff, MacKenzie, Lee, & Podsakoff, 2003).

Both the line manager and subordinate surveys were appropriately coded so that they could be matched and line manager–subordinate dyads formed. Both survey instruments were complemented with a cover letter which highlighted the academic research objectives of the study and assured the confidentiality and anonymity of participants. After discarding the incomplete dyads, our final sample contained a total of 180 subordinate responses out of 250 surveys (a 72% response rate) and corresponding 180 line manager responses. Such a high response rate is common in hand-delivered studies conducted in Asian contexts (Raja, Johns, & Ntalianis, 2004; Abbas, Raja, Darr, & Bouckenooghe, 2014; Khan, Moss, Quratulain, & Hameed, in press). The sample characteristics are shown in Table 1.

Measures

Survey questionnaires were administered in English. All items measured in the survey were anchored to a 5-point Likert-type scale, ranging from 1 = 'strongly disagree,' to 5 = 'strongly agree,' except for IWB which, while also anchored on a 5-point scale, used different labels (e.g., from 1 = 'never,' to 5 = 'always').

IL

We used 9 items from Carmeli, Reiter-Palmon, and Ziv (2010) study to assess the three dimensions of inclusive leaders: openness, availability, and accessibility. The employees were asked to rate these items for their direct supervisors. Sample items include 'The manager is open to hearing new ideas' (openness), 'The manager encourages me to access him/her on emerging issues'

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TABLE 1. DEMOGRAPHIC PROFILE OF RESPONDENTS

Characteristics	*Percentage*
Gender	
Male	73.3
Female	26.7
Age (years)	
18–25	21.7
26–33	51.1
34–41	22.2
42–49	2.2
≥50	2.8
Qualification	
Bachelors	69.4
Masters	26.6
MPhil	4
Experience (years)	
<1	14.4
1–5	62.2
6–11	19.4
12–17	1.7
≥18	2.3
Time spent with leader (years)	
<1	25.6
1–5	65.6
6–11	6.7
12–17	1.7
≥18	0.4
Tenure (years)	
<1	25
1–5	68.3
6–11	4.5
12–17	2.2

(accessibility), and 'The manager is ready to listen to my requests' (availability). α reliability of this scale was 0.82.

PS

We used 5-items instrument from Carmeli, Reiter-Palmon, and Ziv (2010) study to measure PS. The items included: 'I am able to bring up problems and tough issues,' 'People in this organization sometimes reject others for being different,' 'I am able to bring up problems and tough issues,' 'It is safe to take a risk in this organization,' 'It is easy for me to ask other members of this organization for help,' and 'No one in this organization would deliberately act in a way that undermines my efforts' α reliability of this scale was 0.73.

IWB

We used a 9-item scale from the study of Janssen (2000) based on Scott and Bruce's (1994) for individual innovative behavior in the workplace. Sample items included: 'Creating new ideas for difficult issues' (idea generation), 'Acquiring approval for innovative ideas' (idea promotion), and

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'Transforming innovative ideas into useful applications' (idea realization). α reliability of this scale was 0.83.

Control variables

Following the precedent of previous studies, we controlled for several factors that have been shown to be related to our study variables (Scott & Bruce, 1994; Janssen, 2000; Jung, Chow, & Wu, 2003; Pieterse, Van Knippenberg, Schippers, & Stam, 2010; Tu & Lu, 2013; Afsar, Badir, & Bin Saeed, 2014; Wang et al., 2015). We used education ($F = 2.82$, $p < .05$) and tenure ($F = 2.84$, $p < .05$) as control variables due to their significant differences in IWB across different categories. Moreover, we collected data from 20 organizations, therefore we used one-way analysis of variance to test whether IWB differ across organizational level. Results of one-way analysis of variance ($F = 0.06$, $p > .05$) revealed that organizational level is not a control variable.

DATA ANALYSIS AND RESULTS

Measurement model

Correlations among the study variables are shown in Table 2. Structural equation modeling using LISREL 8.80 (Jöreskog & Sörbom, 2006) was used to run the confirmatory factor analysis. The measurement model (Anderson & Gerbing, 1988) consisted of three latent variables: IL, PS, and IWB. We used a combination of different fit indices to assess the model fit. Specifically, we looked at model χ^2, normed fit index, nonnormed fit index, root mean square error of approximation, and comparative fit index. Insignificant χ^2 value shows a good model fit, for comparative fit index, normed fit index, nonnormed fit index, with values 0.95 and above being considered as a good fit (Hu & Bentler, 1999; Kline, 2005), while the value of root mean square error of approximation was below 0.05 indicating a good model fit (Kline, 2005). The measurement model provided an excellent fit to the data: χ^2 (62) = 60.70, $p > .05$; normed fit index = 0.91; nonnormed fit index = 0.94; comparative fit index = 0.95; root mean square error of approximation = 0.05 (Table 3). These confirmatory factor analyses results showed that three-factor model had satisfactory discriminant validity. Moreover, all the items loaded significantly on their respective latent factors, with factor loadings ranging from 0.62 to 0.95.

Composite reliability and average variance extracted (AVE)

Composite reliability and AVE were used to indicate convergent and discriminant validities (Fornell, & Larcker, 1981). According to Bagozzi and Yi (1988), if the value of composite reliability is >0.6 and the value of AVE is >0.5, then convergent validity is established. Results presented in Table 4 showed that the composite reliabilities of the three latent variables (IL, PS, and IWB) ranged from 0.70 to 0.90, while the AVE by these constructs ranged from 0.52 to 0.80. This evidence indicates that our focal constructs possessed adequate convergent validity. Furthermore, Fornell and Larcker (1981) suggest that discriminant validity is considered sufficient if the square root of the AVE from the construct is greater than the correlation shared between the construct and other constructs in the model. Table 4 shows that the square root of the AVE of each construct is greater than the levels of correlations involving that construct, therefore confirming discriminant validity.

Tests of hypotheses

With acceptable convergent and discriminant validities established, the hypothesized model was then tested. We used two control variables (education and tenure) in the analyses while testing for

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Table 2. Means, standard deviations, coefficient α reliabilities, and intercorrelations

Variables	*Mean*	*SD*	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*
1. Gender	1.26	0.44	–								
2. Age	2.14	0.88	0.02	–							
3. Qualification	1.94	1.56	−0.08	−0.06	–						
4. Experience	2.16	0.76	−0.04	0.64**	0.20**	–					
5. Time spent with leader	1.88	0.66	0.02	0.60**	0.26**	0.52**	–				
6. Research development Tenure	1.84	0.58	−0.04	0.44**	0.32**	0.54**	0.66**		–		
7. Inclusive leadership	3.78	0.66	−0.06	−0.10	0.08	−0.06	−0.12	0.02	(0.82)		
8. Psychological safety	3.46	0.72	−0.04	0.02**	0.16*	0.02	−0.02	0.08	0.30**	(0.73)	
9. Innovative work behavior	3.40	0.54	−0.06	−0.04	0.18*	−0.08	−0.12	−0.04	0.20**	0.18*	(0.83)

Note. $N = 180$; *$p < .05$ and **$p < .01$. Correlation is significant at 0.01 levels (two-tailed); correlation is significant at 0.05 levels (two-tailed); α reliabilities are given in parentheses.

Table 3. Measurement model

Model	χ^2	*df*	*RMSEA*	*NFI*	*NNFI*	*CFI*
	60.70	62	0.05	0.91	0.94	0.95

CFI = comparative fit index; NFI = normed fit index; NNFI = nonnormed fit index; RMSEA = root mean square error of approximation.

Table 4. Correlations among latent variables, composite reliability (CR) and average variance extracted (AVE)

Variables	*1*	*2*	*3*
1. Inclusive leadership	0.89		
2. Psychological safety	0.34	0.92	
3. Innovative work behavior	0.40	0.36	0.71
CR	0.92	0.95	0.80
AVE	0.80	0.85	0.51

Note. Diagonal elements (in bold) are the square root of the AVE.
Off-diagonal elements are the squared correlations among latent variables.

Hypotheses 1 and 2. The results are displayed in Table 5 and Table 6. Hypothesis1 stated that IL is positively related to IWB. Results supported this relationship as indicated by the regression coefficient and associated significance level ($\beta = 0.30$, $p < .001$). Hypothesis 2 stated that PS mediates the relationship between IL and IWB. Three conditions need to be fulfilled, in order to support the Hypothesis 2. First, IL should be positively related with IWB; second, IL should be positively related with PS; third, when we regress IWB on both IL and PS, the PS should be positively related with IWB and previously significant relationship between IL and IWB should turn insignificant. Our results demonstrated that IL was positively related with IWB ($\beta = 0.30$, $p < .001$), IL was positively related

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Table 5. Path coefficients in the baseline model

Structural path	*Path coefficients*
Inclusive leadership → innovative work behavior	0.30***
Inclusive leadership → psychological safety	0.40***
Psychological safety → innovative work behavior	0.26***

Note. *$p < .05$, **$p < .01$, ***$p < .001$.

Table 6. Results on the mediating roles of psychological safety with inclusive leadership and innovative work behavior

	Indirect effects	*BC (95% CI)*
Bootstrapping		
Inclusive leadership → psychological safety → innovative work behavior	0.22***	(0.10, 0.26)

Note. BC = bias corrected, 1,000-bootstrap samples; CI = confidence interval.

with PS ($\beta = 0.40$, $p < .001$). When IWB was regressed on both IL and PS, the previous regression coefficient between IL and IWB reduced in size ($\beta = 0.22$, $p < .001$). This showed that PS partially mediates the relationship between IL and IWB (CI values between 0.10 and 0.26). Hence Hypothesis 2 was partially supported.

DISCUSSION

We draw on leader–member exchange theory to develop and test a model which explicates that how IL is related to IWB. Our study hypothesized and tested the direct relationship between IL and IWB, and the indirect relationship these two constructs via PS. Specifically, we argued that employees divulge themselves in the innovative activities when they experience a quality relationship with leaders (Graen & Scandura, 1987). We also argued that quality relationship between leader and employees motivate employees to independently take risks through, not only generating new ideas, but also promoting and implementing new ideas (Basu & Green, 1997; Janssen & Van Yperen, 2004). This risk-taking motivation on the part of employees come when they perceive PS, that is, their environment is safe for interpersonal risk-taking.

We found full support for the direct relationship hypothesis. However, we found partial support for the indirect effect hypothesis. The partial mediation suggests the possibility of other factors/variables between IL and IWB (Zhao, Lynch, & Chen, 2010). There are few possible explanations for this partial effect which we outline below. First, conceptually and intuitively we based our explanation on the fact that PS shapes the employees' inner positive feelings, and they show interest in their work activities and therefore they indulge their selves in the trial and error process of innovation (Wooderman, Sawyer, & Griffin, 1993; Fuller, Marler, & Hester, 2006). However, we did not measure this process feature of IWB, extant research suggests that PS motivates employees toward creative process engagement – extent to which employees engage in the problem-identification, information-searching, and ideas generation activities (Zhang & Bartol, 2010). Zhou and Pan (2015) demonstrated that creative process engagement mediates the relationship between PS and creativity.

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Second, from social-exchange perspective IL provides certain socioeconomic outcomes to employees in the form of openness, accessibility, and availability. Employees tend to reciprocate in the form of work engagement – a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption (Schaufeli, Salanova, González-Romá, & Bakker, 2002). And more engaged employees are shown to be high on organizational commitment and creative performance (Choi, Tran, & Park, 2015). Third, recent meta-analytic findings (Seibert, Wang, & Courtright, 2011) suggest empowerment is an important antecedent for workplace innovation as it enhances 'the ability of employees to implement their ideas and suggestions for change, resulting in greater innovation at work' (Seibert, Wang, & Courtright, 2011: 986). As IL gives more autonomy to employees, hence it is logical to assume that empowerment might act another potential mediator between IL and IWB. Below we highlight the theoretical implications of our findings.

Theoretical implications

Our investigation contributes to the IWB literature in several important ways. While the direct effect of IL on creativity has been studied, however, the direct relationship between IL and IWB is a new contribution to the literature. This supports the notion that situational factors are important in fostering IWB (Tett & Gutterman, 2000). Our findings suggest that IL is a favorable situational element which nurtures IWB. These findings are in congruence with existing findings on other leadership styles like transformational leadership and IWB (Afsar, Badir, & Bin Saeed, 2014; March, Herman, & Ashkanasy, 2015). We can infer that IL also promotes IWB by focusing on both the characteristics of a leader and leader–followers relationship (exchange) (Hollander, 2009; Yin, 2013).

In addition, while the indirect effect of IL on creativity through PS has also been confirmed, albeit partially. The indirect effect of IL on the IWB through PS is a further contribution to the literature on IWB. By illuminating the role of IL as a form of relational leadership, this study adds to our understanding of the nature of leadership processes that contribute to employees' IWB. These results support the process view of leadership by showing that IL behaviors can shape the individual employee's perceptions about the organizational context in a way which is conducive to IWB. Our approach is inline with some existing studies which advance the notion that in the process view, leadership influence IWB through individual level factors like intrinsic motivation and psychological empowerment (Tu & Lu, 2013; Afsar, Badir, & Bin Saeed, 2014). Our findings elucidate another individual level path between IL and IWB by demonstrating the mediating role of PS, albeit partial.

Specifically, our study indicates that inclusiveness is key in providing leadership support for IWB, because it cultivates high-quality relationships that further augment a sense of PS. The latter is a vital social psychological mechanism which creates conditions where individuals feel safe to bring up ideas, voice opinions, and to question (Baer & Frese, 2003; Edmondson, Kramer, & Cook, 2004; Nembhard & Edmondson, 2006). In particular, the process view of leadership in which IL attributes facilitates employees' behavior positively shapes their perceptions about the organizational context in a way which is conducive to IWB. Our investigation also suggests that researchers should evaluate other mediation mechanisms in order to better explain and understand the relationship between IL and employees' IWB. Finally, our findings also support the social exchange view (Blau, 1964). We demonstrate that when employees are valued in the organization through IL attributes such as openness and participation in decision-making, positive social exchange occurs and employees tend to reciprocate this by exhibiting IWB.

Managerial implications

Our findings have several implications for managers. First, IL was demonstrated to facilitate employees' IWB. It is important for managers to understand how to foster IWB in employees. We recommend

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that managers cultivate an IL style by emphasizing openness, availability, and accessibility in order to create conditions for employees to speak about new ideas and voice their opinions. Therefore, it is practically important for leaders to socialize and initiate training programs to cultivate a close relationship with employees. Environmental complexity with new changes has made creativity and innovation important sources to compete in the market (Pan, Sun, & Chow, 2012; Brettel, Chomik, & Flatten, 2015; Carmeli, Dutton, & Hardin, 2015). In this perspective, some employees are socially interwoven and some are socially distant. Socially interwoven employees accept new changes; however, socially distant employees prefer the *status quo* and abhor new changes. By creating a greater sense of PS, IL can increase employees' IWB.

Limitations and future directions

This study has some methodological strength that increases the confidence in the results. First, we collected data from separate sources: data related to predictor and mediator variables were collected from employees and the data regarding the criterion variable were collected from the supervisors. Second, the time lag between the responses of supervisor and employees was one month. These strengths reduce the potential effects of common methods and single source bias.

Some limitations should also be highlighted. First, the small sample size creates barriers to generalizing the findings of this study. It is advised to conduct further studies with relatively larger samples along other cities and sectors. Second, we explored how IL may affect IWB via the mediating role of PS. The future studies may explore the additional mediating paths between IL and IWB. One possibility is to examine the role of individual level motivations and attitudes like intrinsic motivation, psychological empowerment, and creative self-efficacy (Shin & Zhou, 2003; Zhang & Bartol, 2010). Another possibility is to examine the role of contextual factors like climate for innovation and leader–member exchange (Aarons & Sommerfeld, 2012; Jaiswal & Dhar, 2015; Wang et al., 2015). Finally, the external validity of the results of this study may be limited because we selected a sample in Pakistan. Therefore, to increase the generalizability of this research, researchers can replicate this study in a different culture or context.

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