IIMB Management Review (2019) 31, 116-126

available at www.sciencedirect.com

ScienceDirect

journal homepage: www.elsevier.com/locate/iimb

Spirituality and innovative behaviour in teams: Examining the mediating role of team learning

Ashish Pandey[a,*], **Vishal Gupta**[b], **Rajen K. Gupta**[c]

[a] *Shailesh J. Mehta School of Management, Indian Institute of Technology Bombay, Powai, Mumbai, Maharashtra, India*
[b] *Indian Institute of Management, Ahmedabad, Gujarat, India*
[c] *Management Development Institute, Gurgaon, Haryana, India*

Received 26 August 2016; revised form 11 April 2017; accepted 27 March 2019; Available online 2 April 2019

KEYWORDS
Spiritual climate;
Innovative work behaviour;
Team learning

Abstract Employees' creative and innovative contributions greatly influence an organisation's success. Drawing on positive affect, adult learning theory, work engagement, and the componential theory of creativity, this study examines relationships among team spiritual climate, team learning, and team innovative work behaviours. Data were collected from 336 employees of 66 teams across 12 business organisations in India. An analysis of relationships was performed with team-level aggregated scores of individual responses using structural equation modelling. Results suggest that spiritual climate has a positive association with learning in teams, and team learning mediates the relationship between spiritual climate and team-level innovative behaviours.

Innovation has become essential for organisations to survive and succeed in today's rapidly changing business environment, characterised by greater globalisation and technological advancements (IBM CEO Survey, 2013; Liu, Liao, & Loi, 2012). Employees' creative and innovative contributions greatly influence an organisation's success. Innovation requires a variety of individual behaviours (Scott & Bruce 1994), and individuals who are innovative need to indulge in not just idea generation that is central to creativity (Zhang & Bartol, 2010), but also idea promotion and implementation (Janssen, 2000; West, 2002). To be more innovative, contemporary organisations often rely on teams, since creating innovative products has become increasingly complex and often exceeds the capacity of a single individual (Hoegl, Weinkauf, & Gemuenden, 2004). Innovation requires collective contributions from all members of a team who are working on a common project. An innovative team comprises members who have complementary skills, who share information and resources, help each other, and work proximately for long periods (e.g., R&D teams developing a new product). Adopting teams as the level of analysis, in this study we examine the process through which team-level innovative behaviours can be promoted.

Beyond knowledge and skills, innovation requires an inner force that pushes employees to persevere with challenges that are inherent during creative work (Shalley & Gilson 2004). Spirituality is a form of human potential (Luthans & Avolio 2009; Seligman & Csikzentmihalyi 2000). Spirituality at work contributes to the development of trust, and enhancement of creativity and respect among team

* Corresponding author: Tel.: 022-25767792.
E-mail address: ashish.pandey@iitb.ac.in (A. Pandey).

https://doi.org/10.1016/j.iimb.2019.03.013

members (Daniel, 2010). Hence, it is likely to have significant implications for enhancing organisational innovations. Workplace spirituality is the search for meaning or higher purpose, social connectedness, inner life, and transcendence or a higher-level calling at work (Benefiel, Fry, & Geigle, 2014; Miller & Ewest, 2013; Pavlovich & Corner, 2009; Vandenberghe, 2011). Extending the individual level definition of spirituality to team and organisational contexts, Pandey, Gupta, & Arora (2009, pp. 318) conceptualised spiritual climate as "the collective perception of the employee about the workplace that facilitates harmony with 'self' through meaningful work, transcendence from the limited 'self' and operates in harmony with social and natural environment having sense of interconnectedness within it". Although workplace spirituality relates positively to commitment (Vandenberghe, 2011), work engagement (Bickerton, Maureen, Miner, Dowson, & Griffin, 2015), customer service (Chawla & Guda, 2013, Pandey et al., 2009), few studies (a notable exception is Buckler & Zien, 1996) have empirically examined the relationship between spirituality and innovative behaviours at the team level.

Learning in teams has recently attracted considerable interest from researchers and practitioners as organisations transition from individual to team-based work structures (Bell & Kozlowski, 2008; Bunderson & Reagon, 2011). Learning within teams is defined as "a process in which a team takes action, obtains and reflects upon feedback, and makes changes to adapt or improve" (Edmondson, 2002, p. 129). Team learning is vital to promoting innovation (Barker & Neailey, 1999) and preparing organisations to respond to challenges posed by technological advancements, globalisation, and the need for sustainable development (Ashauer & Macan, 2013). Team members develop and share the meaningfulness of their tasks collectively (Kirkman & Rosen, 1999), a characteristic of group-level organisational learning (Marsick & Watkins, 2003). Spirituality at work involves a process of learning since it focusses on realising meaning and one's self through work (Whyte, 2001). Work provides a context for the expression and transformation of "the learning self" (Tennant, 2012). Despite its apparent link to learning (e.g., Tisdell, 1999; English, Fenwick, & Parsons, 2003), the role of spirituality in promoting group-level workplace learning has received negligible attention in both theoretical and empirical literature.

The present study contributes to theory and practice in multiple ways. First, it examines the direct relationship between spiritual climate and innovative behaviours at the team level. Second, it tests the mediating role of team learning in the relationship between spiritual climate and team-level innovative behaviours. Third, it offers a refined understanding of spiritual climate in organisations by highlighting its positive influence on team learning and team-level innovative behaviours.

Literature review and hypotheses development

Spiritual climate and team learning

Spiritual climate comprises four variables: meaningful and meditative work, a sense of community, authenticity, and self-transcendence (Pandey et al., 2009). Meaningfulness refers to engaging in work for life, not for livelihood alone (Ashmos & Duchon, 2000). Meditative work is an experiential aspect of spirituality that is deeper than cognition and involves the affective, behavioural part of the self (McCormick, 1994). It is defined as the experience of being absorbed in work, losing one's sense of self and becoming one with the activity. Sense of community refers to interconnectedness and interdependence among employees (Jurkiewicz & Giacalone, 2004), signified by and operationally defined as collaborative problem-solving. Authenticity is a socially situated phenomenon, characterised by genuineness and openness among employees. It is integral to inner life, which is nourished through self-reflection and meditation (Gardner, Avolio, Luthans, May, & Walumba, 2005). This aspect is operationally defined as an alignment of people's actions and behaviours with their cores, and internalised values and beliefs. Self-transcendence refers to connections with something greater than oneself such as other people, nature or a belief in a higher power (Ashforth & Pratt 2003; Dehler & Welsh 1994; Sheep 2004). As a constituent variable of spiritual climate, it is operationalised as working with concern for larger social and natural environments.

The meditative and meaningful quality of work and self-transcendence can be traced to several wisdom traditions across civilizations. Meaningfulness of work and self-transcendence, or other-oriented values and goals, are present in the idea of "vocation" (see Dik & Duffy, 2009). Historically, the idea that the full range of occupations can be viewed as vocation was propounded by Protestant reformers such as Martin Luther and John Calvin. Islamic work ethics consider that meaning in life is realised through work, and is a means to fostering personal growth and social relations. According to Islamic ethics, the ideal of work links organisational prosperity and continuity to societal welfare (Ali & Al-Owaihan, 2008). In Indian philosophy, *Svadharma* is the closest term that illustrates meaningful and meditative work and *loksaMgraha* as self-transcendence. The word *Svadharma* is a combination of two terms: *sva* and *dharma* (*sva* means self and *dharma* derives from the root $\sqrt{dhr}$, which means to bear, support and uphold). *Svadharma* is action in accordance with one's nature, and that for which one is responsible (*karma*). *LoksaMgraha* in Indian philosophy depicts the self-transcendence aspect in a work climate. One of the most reputed interpreters of Indian philosophy, Radhakrishnan (2009, pp. 141), defines this term as "working for world maintenance".

Buddhism, Christianity, Hinduism, and Islam, whose followers represent 71% of the world's population, show positive relationships with intrinsic work values such as broadening one's horizons, contributing to society, and having meaningful work (Parboteeah, Paik, & Cullen, 2009). Spirituality at work directs attention to both the inner world of the self and the outer world of work and service to others (Lips-Wiersma & Morris 2009). Meaningful and purposeful work is a reflection of the inner world of the self. Working toward a larger good or self-transcendence is the outer expression of meaningful work. Spiritual climate can be conceptualised at both the group and organisational levels of analysis. Sense of community and authenticity are enabling factors in maintaining a spiritual climate at the group level. As Benefiel et al. (2014) suggest in their review of spirituality and religion at work, dimensions of spiritual climate relate closely to the three core dimensions of spirituality in the

workplace - a sense of transcendence, having a calling through work, and a need for social connection or membership.

Learning is a process of inquiry and reflection (Dewey, 1938). The role of meaningfulness is a recurring theme in learning (e.g., Caine & Caine, 1998). Learning and spirituality get to the heart of being human. In the managerial context, a spiritual worldview makes us more responsible and inspires us to ask questions such as "we are efficient and effective to what end" and "what is our purpose and priorities" (Howard, 2002, pp. 237). The search for, or an acknowledgment of the spiritual in the lives of adult learners is connected to the search for meaning that gives our lives coherence. For all adults, spirituality is connected to how we create meaning in our relationships with others (Tisdell, 2008). Meaningfulness increases perceptions of fairness, decision control, task commitment, and task-related performance responses during learning (Hunton & Price 1997). Absorption and merging of awareness with action (i.e., the state of flow), which is the essence of meditative work, are inherently linked to learning, engaging learners, and creating an optimum learning environment (Shernoff, Csikszentmihalyi, Schneider, & Shernoff, 2003). When people find their work meaningful, experience joy, and are immersed in their work, they are likely to overcome the mental stress experienced at work. The joy of work broadens habitual modes of thinking or acting (Fredickson, 2001). The psychological benefit resulting from meaningful and meditative work generates a positive affect and enhances the emotional availability of team members for one another.

Collaboration and cooperation are positive team processes that trigger greater emotional wellbeing (West, Patera, & Carsten, 2009). The broaden-and-build theory (Fredrickson, 2001) posits that experiences of positive emotions broaden people's momentary thought-action repertoires that, in turn, build enduring personal resources, ranging from physical and intellectual to social and psychological resources. According to the emotional contagion perspective, positive emotions promote positive attitudes among team members resulting in cooperation, an understanding of each other's needs, and mutual recognition of competencies (Hatfield, Cacioppo, & Rapson, 1994; Walter & Bruch 2008).

Learning includes a social dimension as well (Bandura, 1986). Learning in groups changes a group's collective beliefs, social norms, and values (Yang, 2004). Basing arguments on the broaden-and-build theory and the contagion perspective, we propose that a sense of community, signified by collaborative problem-solving in teams, contributes to positive ambience and personal resources, ensuring that team members are approachable and available to each other, which in turn, makes them recognise each other's competencies and limitations, and respect each other's diverse views when engaged in learning, both consciously or subconsciously. Research has demonstrated that collaborative problem solving enhances learning in groups (e.g., Hmelo-Silver, 2004; Hmelo-Silver, Duncan, & Chinn, 2007).

Spirituality is about the enhancement of one's frame of reference, identity and ego-self (Maslow, 1971, 1996). Expansion of one's frame of reference gives rise to new thoughts and ideas that change beliefs or values, which is the essence of double loop learning (Argyris & Schön, 1997). The holistic learning theory (Yang, 2004) explicates the role of values and emotional affection in learning. Opportunity and willingness to contribute to something larger than the self and positive accomplishment at work generate positive energy and motivation to learn. Other-oriented values are antecedents of prosocial motivation (Grant & Berry, 2011). The desire to expand effort based on interest in and enjoyment of work itself is the essence of meaningful and meditative work, and a reflection of employees' intrinsic motivation (Deci & Ryan, 2000). Grant (2008) suggests that in the presence of high intrinsic motivation, prosocial motivation associates with persistence, performance, and productivity. Prosocial motivation enhances openness to varying perspectives which then cultivates a desire to explore and learn (Grant & Berry, 2011). Authenticity is also a dimension of spiritual climate. Authenticity is a group-level phenomenon (Barab, Squire, & Dueber, 2000, p.38), occurring "not in the learner, the task, or the environment, but in the dynamic interactions among these various components". Authenticity enables learners to make choices and reflect on their learning, both individually and socially (e.g., Young, 2002; Myers, 1993). Based on these arguments, we hypothesise:

H1. Team-level spiritual climate will be positively related to team learning.

Spiritual climate and team level innovative behaviour

Like learning, innovation is a response to changes in the environment, and serves as a basis to enhance an organisation's competitiveness (Holt, 1999). Innovative work is non-linear and uncertain, and involves challenging time-tested courses of actions (Elkins & Keller, 2003; Huhtala & Parzefall, 2007). An important driver of innovation is task motivation (Amabile, 1983). According to Kahn (1990), for an individual to feel motivated and engaged at work, three conditions are requisite: meaningfulness, availability (i.e., bringing the necessary physical, emotional and cognitive resources to work) and safety (i.e., the extent to which individuals trust others around them and feel they are trusted by others). Organisations with a spiritual climate characterised by self-transcendence and a sense of community motivate employees to engage in work that helps them identify with larger social and natural environments. Employees who work in such organisations find greater meaning in their work and are likely to be more creative (Gupta & Singh, 2013). They share a sense of pride and optimism since they understand the importance of the work they perform (Aycan et al., 2000; Cappelli, Singh, Singh, & Useem, 2010; Katz, 2004).

Engaged employees are more than just motivated at work (Schaufeli, Leiter, & Maslach, 2009); they are more likely to engage in activities that convert ideas into innovative output (Bakker & Xanthopoulou, 2013). Such individuals are more likely to be physically, cognitively, and emotionally connected with their work roles (Kahn, 1990), and often experience positive emotions (e.g., joy, calmness and enthusiasm) that broaden their thought-action repertoire and motivate them to work constantly on their ideas to convert them into products (Fredrickson, 2001). Employees who are more engaged with their work take less time off, stay with the organisation longer, and are happier, more proactive, and assume greater responsibilities (Dvir, Eden, Avolio, & Shamir, 2002; Harter, Schmidt, & Hayes, 2002; Salanova & Schaufeli, 2008).

Sense of community and authenticity (e.g., being open, frank, and genuine in respect of behaviours and interactions with others) lead to increased frequency of productive interactions among team members (Gupta & Singh, 2013; Mumford, Scott, Gaddis, & Strange, 2002). Individuals with greater authenticity are more likely to be true to themselves and their work. They are also self-confident, an essential personal quality for undertaking risky and challenging activities such as creative task engagement (Gupta & Singh, 2014; Rego, Sousa, Marques, & Cunha, 2012; Sweetman, Luthans, Avey, & Luthans, 2011). Based on these findings, we hypothesise:

H2. Team-level spiritual climate will be positively related to team-level innovative behaviours.

Mediating role of team learning

Team learning is likely to be a key driver for organisational learning and innovation (Crossan, Lane, & White, 1999). Learning links to innovation since it injects new ideas into teams, increases the capacity to understand new ideas, and strengthens creativity and the ability to spot new opportunities (Damanpour, 1991). The search for meaning and purpose, and ways of making positive contributions to social and natural environments results in a willingness to question long-held assumptions about the role of an organisation, its customers, or its capabilities, and introduces changes to its practices and values (Senge, 1990). This type of learning, known as generative learning, is vital to drive new ideas and innovations in products, systems, policies, and processes adopted by a team or organisation (Senge, 1994).

According to a group-level study by Hülsheger, Anderson, and Salgado (2009), innovation is largely conducted by segmenting variables in an input-process-output structure. Group processes, which include team learning, mediate relationships between inputs and outputs, along with other variables such as motivation, participation, and leadership (Drach-Zahavy & Somech, 2001; Janssen, Van De Vliert, & West, 2004). Most models concerning the promotion of innovation identify interpersonal interaction as an antecedent (Van der Vegt & Janssen, 2003). Team learning involves interactions that facilitate the transfer of knowledge and skills among team members, enabling teams to develop a shared understanding of complex problems and the ability to identify solutions, thus promoting innovation (Van den Bossche, Gijselaers, Segers, & Kirschner, 2006). Teamwork cohesion and organisational learning influence technical and administrative innovation (Montes, Moreno, & Morales, 2005). Engagement in team learning such as team members observing each other and preparing lesson plans together has a positive influence on educational innovation (Runhaar, ten Brinke, Kuijpers, Wesselink, & Mulder, 2014). Team learning promotes interpersonal sharing (Barker & Neailey, 1999) and plays a role in innovations associated with organisational strategy, structure, culture, and systems (Ayas, 1996). Based on the above arguments, we hypothesise:

H3. Team learning will be positively related to team-level innovative work behaviours.

H4. Team learning will mediate the relationship between team-level spiritual climate and team-level innovative behaviours.

Method

Data Collection

Data were collected in 2014 from 336 employees from 66 teams across 12 business organisations operating in the manufacturing, banking, telecommunications and information technology domains, representing an almost equal distribution of the groups in manufacturing and service sectors. Most organisations and teams were referred by students of an open, in-house management development programme offered by the first author. Only teams that satisfied the following criteria were selected:

1. Each team had at least four members; all participants were permanent members of their organisations.
2. The team had been operational for a minimum of six months at the time of data collection.
3. A minimum of four-fifths of the team members had to participate in the survey.

More than 100 teams were approached for participation in the survey. Sampled teams belonged to operations, production, and finance or customer service functions.

We administered three questionnaires – innovative behaviours, learning climate, and spiritual climate – to participants at two points of time with a gap of two weeks. In line with procedures that Duchon and Plowman (2005) followed, only those teams in which more than 80% of members answered the surveys were included in the study. We collected data on spiritual climate from the teams. Teams with an acceptable response rate on spiritual climate were then administered the learning and innovative behaviours questionnaires. Eleven percent of the respondents had the lowest education level of a diploma (typically three years of education beyond high school or matriculation), 71% held a bachelor's degree, and 18% held a master's degree or higher. Of the 92% of respondents who revealed gender information, 78% were male.

Measures

We used the spiritual climate inventory developed by Pandey et al. (2009). Meaningful and meditative work was operationalised using the direct-consensus, composition model, in line with the technique used by Chan (1998). This model uses the within-group consensus of individual responses, conceptualised as functionally isomorphic to group-level scores. Self-transcendence was conceptualised using the referent-shift consensus model. Operational definitions of these constructs were derived from individual-level data and then contextualised to the group level. By definition, the sub-constructs of authenticity and sense of community are group-level traits, and were operationalised using a composition model. Respondents indicated their opinions on inventory items using a five-point, Likert-type scale.

Items related to learning in teams were developed using the referent-shift composition model. The team-learning behaviour scale was based on Edmondson (1999) and Ramnarayan (1996), and items drawn from these sources were subject to a content validity test with five experts – three full-time professors working in learning and organisation development, one

full-time senior manager in a learning and development field, and an advanced-stage PhD student working in the learning and organisation area. According to Hinkin's (1995) recommendation, a modified inventory was administered to 119 executives in India. Exploratory analysis of the inventory yielded a two-factor structure of learning behaviour in teams. Factor 1 was labelled *mutuality* and factor 2 as *collective reflection & experimentation*. Mutuality in the team-learning context refers to members having functional and personal concern for each other. Collective reflection and experimentation refers to team members participating/engaging in open conversations among themselves about failures, successes, possibilities, etc. while functioning as a team.

Acknowledging that team-level innovative behaviours have a compositional form of emergence in which the group-level manifestation of the construct shares an isomorphic relationship with its manifestation at the individual level (Kozlowski & Klein, 2000), we believe that team-level innovative behaviours are influenced and determined by individual-level innovative behaviours. This position is similar to multi-level models of creativity that extant studies use (e.g., Pirola-Merlo & Mann, 2004; Hirst, Van Knippenberg, & Zhou, 2009; Shin, Kim, Lee, & Bian, 2012). The team-level innovative behaviour scale was adapted from Scott and Bruce (1994). We used the intra-class correlation (ICC) value as evidence of within-group consensus of individual-level responses (Chan, 1998; Bliese, 2000). The reliability coefficient (i.e., Cronbach's alpha) of the scale was .93.

To keep the ratio of manifest indicators to latent constructs manageable, reduce the number of free parameters in the model, decrease sample size requirements, and increase the chances of adequate model fit, we used partially disaggregated parcelling for the construct of innovative behaviour at work. A partially disaggregated model uses the average of subsets of items from a measure to form indicators for a latent variable, with the indicators called parcels (Hall, Snell, & Foust, 1999; Williams & O'Boyle, 2008). Innovative behaviours had two sub-dimensions that were measured by their respective items. All items representing a sub-dimension were combined (i.e., averaged) to form the parcels and to maximise their internal consistency (Williams & O'Boyle, 2008). Combined, the parcels reflect all facets (or dimensions) of innovative work behaviours.

Items from the scales are presented in the Appendix.

Data aggregation, common method bias, and reliability

We used intra-class correlations (ICCs) (Bliese, 2000), which are used commonly to justify aggregation and test within-group similarity. The ICC(2) values estimated the reliability of the group means, typically estimated using mean squares from one-way, random-effects ANOVAs (Kozlowski & Klein, 2000), which ranged from .54 to .89 in this study. The mean values of ICC(1) ranged from .14 to .26, which complied with the inclusion criteria of .12 reported in extant research (Bliese, 2000).

Discriminant validity was examined using factor analysis since the antecedent and outcome constructs yielded distinct factors, with the number of eigenvalues greater than one. To reduce shared method variance, we followed Podsakoff, MacKenzie, Podsakoff and Lee (2003) recommendations of separating antecedents from outcomes in the survey, ensuring the anonymity and confidentiality of responses, and receiving surveys in sealed envelopes sent directly to the researchers. We used two methods to assess shared-method variance. First, we estimated the Confirmatory Factor Analysis (CFA) model, including an additional, orthogonal, latent-method factor related to all variables (Podsakoff et al., 2003). The model produced a poor fit ($\chi^2[15] = 49.66$, $p < .001$; CFI = .93; TLI = .86; RMSEA = .19). Second, we assessed multi-collinearity between the antecedent and consequent constructs, and between formative indicators of those constructs, using variance inflation factor (VIF). The value was less than 3.5. A VIF of less than 10 indicates the absence of multi-collinearity (Hair, Anderson, & Tatham, 2003; Diamantopoulos, Riefler, & Roth, 2008).

To test the reliability of the constructs, composite reliability and average variance extracted were estimated. Values for these indicators were above the suggested thresholds of .70 and .50 (Hair et al., 2003; Fornell & Larcker, 1981), suggesting adequate discriminant validity. The squares of correlations between any two constructs (above the diagonal in Table 1) were not greater than the average variance extracted of the individual constructs, suggesting that the factors had internal (extracted) variance greater than the variance shared between them, and adequate discriminant validity (Fornell & Larcker, 1981). The means, standard deviations, inter-correlations, Cronbach's

Table 1 Descriptive statistics and correlations.

S.No.	Construct	Mean	S.D.	α	CR	Correlations						
						1	2	3	4	5	6	7
1.	Meaningful and meditative work	3.89	.57	.92	.94	(.76)						
2.	Sense of community	3.87	.48	.80	.91	.34**	(.83)					
3.	Authenticity	3.44	.65	.89	.92	.49**	.37**	(.75)				
4.	Self-transcendence	3.65	.71	.94	.96	.57**	.61**	.65**	(.88)			
5.	Mutuality	3.83	.54	.93	.95	.68**	.37**	.68**	.68**	(.71)		
6.	Collective reflection and experimentation in team	3.68	.60	.96	.97	.60**	.38**	.65**	.66**	.87**	(.75)	
7.	Team level innovative behaviour	3.51	.48	.94	.93	.60**	.41**	.68**	.58**	.79**	.75**	(.73)

Note. α = Cronbach alpha reliability; CR = composite reliability of the measurement model. $N = 66$. Average variance extracted (AVE) for each construct is provided in parenthesis along the diagonal. Values below the diagonal are inter-construct correlations.
** $p < .01$ (two-tailed).*$p < .05$ (two-tailed).

alpha coefficients, composite reliabilities and average variances extracted are shown in Table 1 and indicate high reliability and validity for both the constructs and the individual items. Results of the CFAs and Table 1 suggested adequate convergent and discriminant validity for the constructs, and that common method bias was not a concern.

Results

The reliability coefficient (Cronbach's alpha) of the spiritual climate scale was .91. The four-factor model of spiritual climate fitted the data well ($\chi^2[2] = 2.38$, $p = .30$; CFI = .95; TLI = .99; RMSEA = .05). The two-factor model of learning in teams also fitted the data well ($\chi^2[2] = 3.91$; CFI = .97; TLI = .96; RMSEA = .06). The reliability coefficient (Cronbach's alpha) for the scale was .94. The partially disaggregated model for team-level, innovative work behaviours also fitted the data well ($\chi^2[2] = 3.75$, $p = .08$; CFI = .94; TLI = .92; RMSEA = .07).

Structural equation modelling (SEM) was used to analyse relationships since it allows the researcher to consider multiple independent and dependent variables simultaneously. Model 1 tested the hypothesised model with spiritual climate and learning in teams. This model fitted the data well ($\chi^2[16] = 23.19$; CFI = .98; TLI = .97; RMSEA = .08). Figure 1 shows the overall model with standardised path coefficients.

The results suggested that spiritual climate had a positive relationship with learning in teams ($\beta = .93$, $p < .001$), thereby supporting hypothesis 1. Spiritual climate was also positively related to team-level innovative behaviours ($\beta = .40$, $p < .01$). Thus, hypothesis 2 was supported. Learning in teams was positively related to team-level innovative behaviours ($\beta = .60$, $p < 0.01$). Thus, hypothesis 3 was also supported. The indirect effect of spiritual climate on team-level innovative work behaviour via team learning was .55. The Sobel t-value for the indirect effect was 2.02 ($p < .05$) suggesting significance of the indirect effect. The direct relationship between spiritual climate and team-level innovative work behaviour was non-significant ($\beta = .33$, $p = .12$) in the presence of team learning. The results combined together provided support for mediation of the spiritual climate-team level innovative work behaviour relationship by team-level learning. Hypothesis 4 was, therefore, supported.

Discussion

Implications for theory

Spirituality at work draws attention to both the inner world of the self and the outer world of work and service to others (Lips-Wiersma & Morris, 2009). The expression of the inner world at work implies that the self is engaged in continuous learning, growth and innovation (Tennant, 2012). Meaning, spirituality and development are expressions of human agency, and nurturing human agency at work in its wholeness is a prerequisite of organisational learning and innovation (Kuchinke, 2013). The present study advances these notions by undertaking a theoretical and empirical examination of associations among spirituality, learning and innovative behaviours at the group level. The study reexamines the validity of the construct of spiritual climate and presents a nuanced explanation. The study also extends and contextualises the team learning scale proposed by Edmondson (1999) and Ramnarayan (1996). Learning in teams and the scale used in the current study feature items related to both process (based on Edmondson, 1999) and relationships found

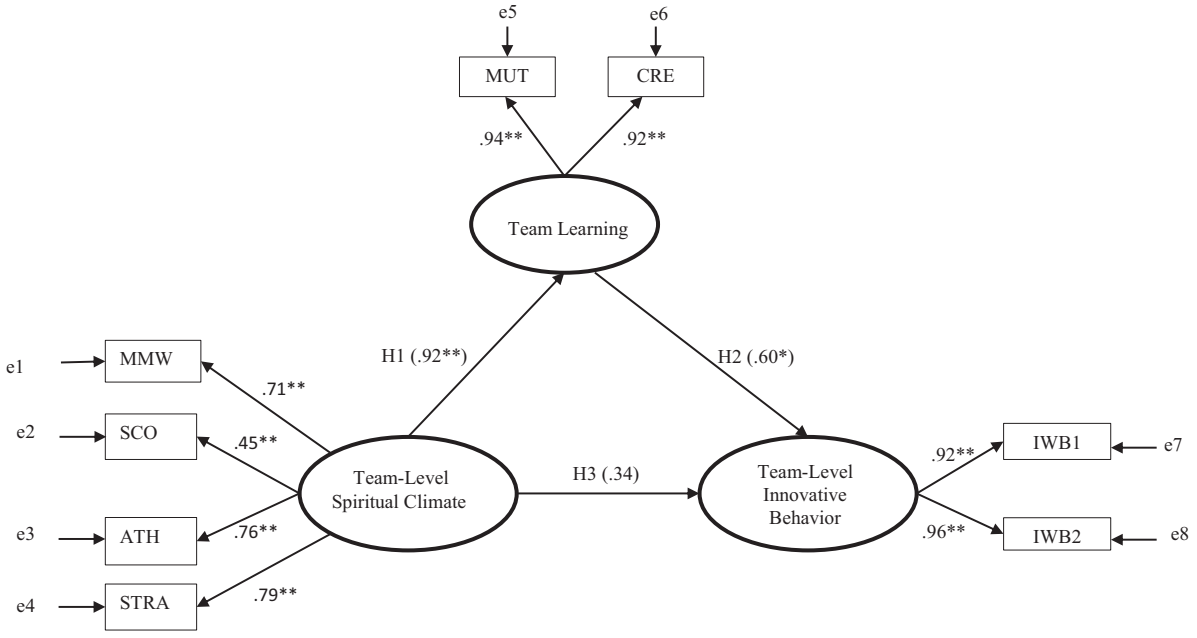

Figure 1 Structural equation model with standardised path coefficients.

Note: MMW = Meaningful and meditative work, SCO = Sense of community, ATH = Authenticity, STRA = Self transcendence, MUT = Mutuality, CRE = Collective reflection and Experimentation in team, IWB1 = Innovative work behaviour in team parcel 1, IWB2 = Innovative behaviour in team parcel 2.

N = 66; **p < .01, *p < .05

in Ramnarayan (1996). The innovative work behaviour inventory (Scott & Bruce, 1994) was examined and adapted for a team-level study and it demonstrated good fit with the data.

This study suggests that employees working in business organisations seek satisfaction of their spiritual needs (i.e., meaning and purpose in their work and the opportunity to contribute to larger social and natural environments) beyond monetary gains. Groups with higher spirituality demonstrate a higher propensity to learn and innovate. The study substantiates findings from extant research (Colby, Sippola, & Phelps, 2001; Ruiz-Quintanilla & England, 1996) that suggest that employees derive the purpose of their work in terms of influencing the beneficiaries of their efforts positively.

Teams are better equipped than individuals to manage complex problems and deal with customers' ever-changing demands and preferences. Team-based structures help organisations become reflexive and flexible entities (Decuyper, Dochy, & Van de Bossche, 2010; Wilson, Goodman, & Cronin, 2007). The knowledge-based view of the firm led to the consensus that firms should become learning organisations to maximise their knowledge bases (Senge, 1990). Although studies identify factors that enable learning at the team level such as psychological safety (Edmondson, 1999) and absorptive capacity (Cohen & Levinthal, 1990), the factors that prompt learning at the team level remain elusive. The current study suggests that spiritual climate in teams promotes team learning and results in team-level innovative behaviours.

Kanter (1988) describes innovation at work using three overlapping stages – problem recognition and idea generation, generating support from others, and prototyping. These are intensive processes that require considerable mental resources, beyond those required to perform routine tasks. Meaningful and meditative work results in joy and immersion in work, which in turn helps overcome mental stress, broadens habitual modes of thinking and facilitates innovative behaviours. People with concern for others are more aware of and attentive to others, listen and observe more keenly, and obtain cues about how to provide help effectively (De Dreu & Nauta, 2009). A sense of community provides the comfort people need to share ideas and seek support to build on preliminary ideas, which is the inherent mechanism of team-level learning and innovative behaviours. From an analysis of the spirituality of innovation, Buckler and Zien (1996) conclude that senior people in innovative companies foster a sense of community and common purpose that results in an environment that encourages employees to explore new ideas and if necessary, break old rules. Findings from the present study show that a team with a higher spiritual climate leads to greater team-level innovative behaviours through higher team learning. A team that is high on learning is also likely to be more participative and open to sharing ideas and knowledge. Thus, the chances of products moving from ideation to implementation are higher in teams with spiritual climate.

Implications for practice

Implications of the findings revolve around team approaches to defining tasks that either facilitate or inhibit spiritual climate at work. This is naturally tied to organisational approaches to business, of which a team is a constituent. However, our findings suggest that teams have their own spiritual climates, which influence team learning and team-level innovative behaviours. The link between work-related learning experiences and what teams view as deeply meaningful and purposeful work captures the relevance of spirituality to human resources development (Dirkx, 2013). Findings suggest that learning is enhanced in teams and organisations if objectives and processes transcend the goal of profit maximisation and benefit larger social and natural environments. Leaders are the drivers of team climate, and when leaders lead their organisations by drawing on both their rationality and spirituality, the members of the organisation find deeper meaning in their work, and personal and professional satisfaction (Pruzan 2008). Leaders may play an important role in creating a spiritual climate at the workplace that may influence team learning and translate into team-level innovative behaviours.

This study also has implications for corporate social responsibility (CSR), environmental leadership, and compassionate capitalism research. These practices and approaches entail a sense of responsibility towards larger social and natural environments while conducting business. Such employees find their work more meaningful which, in turn, strengthens the spiritual climate at work producing a positive influence on job satisfaction and helping behaviours, and a negative influence on emotional exhaustion (Raub & Blunschi, 2014).

Limitations

Although this study reveals a connection between spiritual climate and learning through quantitative methods, the understanding of the generative mechanism of the interaction between the antecedent and consequent variables can be advanced through a qualitative research design operating under an interpretative paradigm. Learning involves not only reflection and knowledge creation processes but also knowledge retention and transfer processes (Argote & Miron-Spektor, 2011). However, the current study is focussed on reflection and knowledge creation processes and its scope does not extend to retention and transfer processes. Since the sample included teams from disparate industries and organisations, the results do not elucidate the nuances of relationships in specific economic sectors or levels of an organisation. This study also employed a conventional definition and setting for teams wherein a team's membership was bound and stable for some period and did not consider changing the ecologies or definitions of teams.

Directions for future research

This limitations of the study point to several areas of future research. The antecedents of spiritual climate are not examined in the present study and that remains an important question in the field of spiritual climate. Marques (2006) wrote about how a workplace can be transformed to be more spiritual, and proposed that leaders can play a more important role in this transformation. This insight can be applied to examine leadership as an antecedent of spiritual climate.

The inherent mechanism of the relationship between spiritual climate and team learning and innovation requires further elaboration. For example, this association might be mediated by psychological safety in teams and other team level factors. Team learning and team-level innovative behaviours might involve multiple stages and levels, and warrant further inquiry into the context of spiritual climate.

Future studies can also focus on the impact of spirituality at work on knowledge retention and transfer processes within teams. Learning and innovation patterns in groups may be managed by a group leader or facilitator (Edmondson et al., 2001). Thus, one area of inquiry can be the influence of a leader's spiritual orientation to work on team learning. Reflective practices influence learning positively (Matsuo, 2012). The impact of team-based reflection (e.g., active listening, questioning, discussing, and brainstorming) on the shared understanding of a team's mission and goals and its effect on team learning could also be explored in future studies. Employee awareness of an organisation's responsible practices yields a positive influence on job satisfaction and helping behaviours, and a negative influence on emotional exhaustion (Raub & Blunschi, 2014). Employee engagement in CSR is an expression of self-transcendence, motivated by a need to participate in world maintenance. One area of future inquiry could be the involvement of teams in CSR, its impact on team learning, and its plausible spillover on the job.

Appendix: Study measures

Learning in teams — Questionnaire
(Developed for the study based on the prior works of Edmondson, 1999, Marsick & Watkins 2003 and Ramnarayan, 1996)

Mutuality (1=strongly disagree to 5=strongly agree)

1. My team works with a clear focus on objectives.
2. My team targets and timelines of delivering results are mutually decided.
3. My team members recognise the importance of each other's work.
4. My team members rely and bank upon each other's competencies and expertise.
5. Plans are made taking into account constraints and problems at operating levels.
6. My team members feel committed to the team plans.
7. In my team, people are sensitive to each other's needs.
8. In my team, people are aware and respect each other's talent.

Collective reflection and experimentation in team (1=strongly disagree to 5=strongly agree)

1. In my team, people learn from each other freely.
2. My team prepares long-term plans and works on realising these.
3. My team members participate extensively in periodic reviews of strengths, weaknesses, opportunities, and threats.
4. Dialogue and discussion are used extensively to develop understanding of new plans and programmes for my team.
5. In my team, people get support for experimentation.
6. In my team, people show openness for new ideas.
7. In my team, creative ideas are discussed and applied to work.
8. We are aware of the latest developments in the work being done by similar teams in our organisation and outside.
9. My team members adapt themselves according to new ways of working.
10. Members in my team keep developing new capabilities.
11. Knowledge outsiders are invited to share their ideas with my team members.

Sample items of spiritual climate inventory (Pandey et al., 2009)

1. My job helps me to understand my life's purpose. (Meaningfulness)
2. Work itself is enjoyable for me. (Meditative work)
3. When stuck with a problem, people here feel free to ask for (choose a number for each option/alternative): (Collaborative problem solving)

   a) ..... advice from colleagues
   b) ..... advice from a superior
   c) ..... help from their colleagues
   d) ..... help from a superior

4. Peoples' actions here are aligned with their words. (Authenticity)
5. People here are concerned about the natural environment while working here. (Self -transcendence)

Sample items of innovative work behaviour scale (Scott & Bruce, 1994)

1. People here take initiatives.
2. People here work with continuous improvement mentality.
3. As a team we dedicate resources for innovation at work.

References

Ali, A.J., & Al-Owaihan, A. (2008). Islamic work ethic: a critical review. *Cross Cultural Management: An International Journal* 15 (1), 5–19.

Amabile, T.M. (1983). The social psychology of creativity: A componential conceptualization. *Journal of Personality and Social Psychology* 45 (2), 357–376.

Argote, L., & Miron-Spektor, E. (2011). Organizational learning: From experience to knowledge. *Organization Science* 22 (5), 1123–1137.

Argyris, C.H., & Schön, D.A. (1997). Organizational learning: A theory of action perspective. *Revista Española de Investigaciones Sociológicas* 77/78 (97), 345.

Ashauer, S.A., & Macan, T. (2013). How can leaders foster team learning? Effects of leader-assigned mastery and performance goals and psychological safety. *The Journal of Interdisciplinary and Applied Psychology* 147 (6), 541–561.

Ashforth, B.E., & Pratt, M.G. (2003). Institutionalized spirituality. An oxymoron? In: Giacalone, R.A., Jurkiewicz, C.L. (Eds.),

Handbook of Workplace Spirituality and Organizational Performance. M.E. Sharpe, New York, NY, pp. 93–107.
Ashmos, D.P., & Duchon, D. (2000). Spirituality at Work: A Conceptualization and Measure. *Journal of Management Inquiry* 9 (2), 134–146.
Aycan, Z., Kanungo, R., Mendonca, M., Yu, K., Deller, J., Stahl, G., & Kurshid, A. (2000). Impact of culture on human resource management practices: A 10—country comparison. *Applied Psychology* 49 (1), 192–221.
Ayas, K. (1996). Design for Learning and Innovation. *Long Range Planning* 29 (6), 898–901.
Bakker, A.B., & Xanthopoulou, D. (2013). Creativity and charisma among female leaders: the role of resources and work engagement. *The International Journal of Human Resource Management* 24 (14), 2760–2779.
Bandura, A. (1986). Social Foundations of Thought and Action: A Social Cognitive Theory. Prentice-Hall, Englewood Cliffs, NJ.
Barab, S.A., Squire, K.D., & Dueber, W. (2000). A co-evolutionary model for supporting the emergence of authenticity. *Educational Technology Research and Development* 48 (2), 37–62.
Barker, M., & Neailey, K. (1999). From individual learning to project team learning and innovation: a structured approach. *Journal of Workplace Learning* 11 (2), 60–67.
Bell, B.S., & Kozlowski, S.W.J. (2008). Active learning: Effects of core training design elements on self-regulatory processes, learning, and adaptability. *Journal of Applied Psychology* 93 (2), 296–316.
Benefiel, M., Fry, L., & Geigle, D. (2014). Spirituality and Religion in the Workplace: History, Theory, and Research. *Psychology of Religion and Spirituality* 6 (3), 175–187.
Bliese, P.D. (2000). Within-group agreement, non-interdependence, and reliability: Implications for data aggregation and analysis. In: Klein, K.J., Kozlowski, S.W.J. (Eds.), Multilevel theory, research, and methods in organizations: Foundations, extensions, and new directions. Jossey-Bass, San Francisco, CA, pp. 349–381.
Buckler, S.A., & Zien, K.A. (1996). The spirituality of innovation: learning from stories. *Journal of Product Innovation Management* 13 (5), 391–405.
Bunderson, J.S., & Reagans, R.E. (2011). Power, Status, and Learning in Organizations. *Organization Science* 22 (5), 1182–1194.
Caine, R.N., & Caine, G. (1998). Education on the edge of possibility: Association for Supervision and Curriculum Development. *NASSP Bulletin* 82 (598), 119–120.
Cappelli, P., Singh, H., Singh, J.V., & Useem, M. (2010). Leadership lessons from India. How the best Indian companies drive performance by investing in people. *Harvard Business Review* 88 (3), 90–97.
Chan, D. (1998). Functional Relations among Constructs in the Same Content Domain at Different Levels of Analysis: A Typology of Composition Models. *Journal of Applied Psychology* 83 (2), 234–246.
Chawla, V., & Guda, S. (2013). Workplace spirituality as a precursor to relationship-oriented selling characteristics. *Journal of business ethics* 115 (1), 63–73.
Colby, A., Sippola, L., & Phelps, E. (2001). Social responsibility and paid work in contemporary American life. In: Rossi, A. (Ed.), Caring and doing for others: Social responsibility in the domains of family, work, and community. University of Chicago Press, Chicago, IL.
Cohen, W.M., & Levinthal, D.A.. (1990). Absorptive Capacity: A New Perspective on Learning and Innovation. *Administrative Science Quarterly* 35 (1), 128–152.
Crossan, M.M., Lane, H.W., & White, R.E. (1999). An Organizational Learning Framework: From Intuition to Institution. *The Academy of Management Review* 24 (3), 522–537.
Damanpour, F. (1991). Organizational innovation: A meta-analysis of effects of determinants and moderators. *Academy of Management Journal* 34 (3), 555–590.
De Dreu, C.K.W., & Nauta, A. (2009). Self-interest and other-orientation in organizational behavior: implications for job performance, prosocial behavior, and personal initiative. *Journal of Applied Psychology* 94 (4), 913–926.
Deci, E.L., & Ryan, M. (2000). The "What" and "Why" of Goal Pursuits: Human Needs and the Self-Determination of Behavior. *Psychological Inquiry* 11 (4), 227–268.
Decuyper, S., Dochy, F., & Van den Bossche, P. (2010). Grasping the dynamic complexity of team learning: An integrative model for effective team learning in organisations. *Educational Research Review* 5 (2), 111–133.
Dehler, G.E., & Welsh, M.A. (1994). Spirituality and Organizational Transformation: Implications for the New Management Paradigm. *Journal of Managerial Psychology* 9 (6), 17–24.
Dewey, J. (1938). Logic: The Theory of Inquiry. Holt Rinehart and Winston, New Work.
Daniel, J.L. (2010). The effect of workplace spirituality on team effectiveness. *Journal of Management Development* 29 (5), 442–456.
Diamantopoulos, A., Riefler, P., & Roth, K.P. (2008). Advancing formative measurement models. *Journal of Business Research* 61 (12), 1203–1218.
Dik, B.J., & Duffy, R.D. (2009). Calling and Vocation at Work. *The Counseling Psychologist* 37 (3), 424–450.
Dirkx, J.M. (2013). Leaning in and Leaning Back at the Same Time: Toward a Spirituality of Work-Related Learning. *Advances in Developing Human Resources* 15 (4), 356–369.
Drach-Zahavy, A., & Somech, A. (2001). Understanding team innovation: The role of team processes and structures. *Group Dynamics: Theory, Research, and Practice* 5 (2), 111–123.
Duchon, D., & Plowman, D.A. (2005). Nurturing the spirit at work: Impact on work unit performance. *The Leadership Quarterly* 16 (5), 807–833.
Dvir, T., Eden, D., Avolio, B.J., & Shamir, B. (2002). Impact of transformational leadership on follower development and performance: A field experiment. *Academy of management journal* 45 (4), 735–744.
Edmondson, A. (1999). Psychological safety and learning behavior in work teams. *Administrative Science Quarterly* 44 (2), 350–383.
Edmondson, A.C. (2002). The local and variegated nature of learning in organizations: A group-level perspective. *Organization Science* 13 (2), 128–146.
Edmondson, A.C., Bohmer, R.M., & Pisano, G.P. (2001). Disrupted routines: Team learning and new technology implementation in hospitals. *Administrative Science Quarterly* 46 (4), 685–716.
Elkins, T., & Keller, R.T. (2003). Leadership in research and development organizations: A literature review and conceptual framework. *The Leadership Quarterly* 14 (4), 587–606.
English, L.M., Fenwick, T.J., & Parsons, J. (2003). Spirituality of Adult Education and Training. Professional Practices in Adult Education and Human Resource Development Series. Krieger Publishing, Melbourne, FL.
Fornell, C., & Larcker, D.F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research* 18 (1), 39–50.
Fredickson, B.L. (2001). The role of positive emotions in positive psychology: The Broaden-and-Build Theory of Positive Emotions. *American Psychologist* 56 (3), 218–226.
Gardner, W.L., Avolio, B.J., Luthans, F., May, D.R., & Walumba, F.O. (2005). Can you see the real me? A self-based model of authentic leader and follower development. *The Leadership Quarterly* 16 (3), 343–372.
Grant, A.M. (2008). Does intrinsic motivation fuel the prosocial fire? Motivational synergy in predicting persistence, performance, and productivity. *Journal of Applied Psychology* 93 (1), 48–58.
Grant, A.M., & Berry, J. (2011). The necessity of others is the mother of invention: Intrinsic and prosocial motivations, perspective taking, and creativity. *Academy of Management Journal* 54 (10), 73–96.

Gupta, V., & Singh, S. (2013). How leaders impact employee creativity: a study of Indian R&D laboratories. *Management Research Review* 36 (1), 66–88.
Gupta, V., & Singh, S. (2014). Psychological capital as a mediator of the relationship between leadership and creative performance behaviors: empirical evidence from the Indian R&D sector. *The International Journal of Human Resource Management* 25 (10), 1373–1394.
Hair, J.F., Anderson, R.E., & Tatham, R.L. (2003). Multivariate data analysis. Pearson Education, New Delhi.
Hall, R.J., Snell, A.F., & Foust, M.S. (1999). Item parceling strategies in SEM: Investigating the subtle effects of unmodeled secondary constructs. *Organizational Research Methods* 2 (3), 233–256.
Harter, J.K., Schmidt, F.L., & Hayes, T.L. (2002). Business-unit-level relationship between employee satisfaction, employee engagement, and business outcomes: a meta-analysis. *Journal of Applied Psychology* 87 (2), 268–279.
Hatfield, E., Cacioppo, J., & Rapson, R.L. (1994). Emotional contagion. Cambridge University Press, New York.
Hinkin, T.R. (1995). A Review of Scale Development Practices in the Study of Organization. *Journal of Management* 21 (5), 967–988.
Hirst, G., Van Knippenberg, D., & Zhou, J. (2009). A cross-level perspective on employee creativity: Goal orientation, team learning behaviour, and individual creativity. *Academy of Management Journal* 52 (2), 280–293.
Hmelo-Silver, C.E. (2004). Problem-based learning: What and how do students learn? *Educational Psychology Review* 16 (3), 235–266.
Hmelo-Silver, C.E., Duncan, R.G., & Chinn, C.A. (2007). Scaffolding and achievement in problem-based and inquiry learning: A response to Kirschner, Sweller, and Clark (2006). *Educational Psychologist* 42 (2), 99–107.
Hoegl, M., Weinkauf, K., & Gemuenden, H.G. (2004). Inter team coordination, project commitment, and teamwork in multi team R&D projects: A longitudinal study. *Organization Science* 15 (1), 38–55. S.
Holt, K. (1999). Management and organization through 100 years. *Technovation* 19 (3), 135–140.
Howard, S. (2002). A spiritual perspective on learning in the workplace. *Journal of managerial psychology* 17 (3), 230–242.
Huhtala, H., & Parzefall, M.R. (2007). A Review of Employee Well—Being and Innovativeness: An Opportunity for a Mutual Benefit. *Creativity and Innovation Management* 16 (3), 299–306.
Hülsheger, U.R., Anderson, N., & Salgado, J.F. (2009). Team-level predictors of innovation at work: a comprehensive meta-analysis spanning three decades of research. *Journal of Applied Psychology* 94 (5), 1128–1145.
Hunton, J.E., & Price, K.H. (1997). Effects of the user participation process and task meaningfulness on key information system outcomes. *Management Science* 43 (6), 797–812.
IBM, (2013). Global CEO Study, Retrieved from https://www-935.ibm.com/services/us/en/c-suite/csuitestudy2013/
Janssen, O. (2000). Job demands, perceptions of effort-reward fairness, and innovative work behavior. *Journal of Occupational and organizational psychology* 73 (3), 287–302.
Janssen, O., Vliert, E.van de, & West, M. (2004). The bright and dark sides of individual and group innovation: a Special Issue introduction. *Journal of Organizational Behavior* 25 (2), 129–145.
Jurkiewicz, C.L., & Giacalone, R.A. (2004). A value framework for measuring the impact of workplace spirituality on organizational performance. *Journal of Business Ethics* 49 (2), 129–142.
Kahn, W.A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal* 33 (4), 692–724.
Kanter, R.M. (1988). Three Tiers for Innovation Research. *Communication Research* 15 (5), 509–523.
Katz, R. (2004). Motivating professionals in organizations. In: Katz, R. (Ed.), The Human Side of Managing Technological Innovation. Oxford University Press, New York, NY, pp. 3–20.
Kirkman, B.L., & Rosen, B (1999). Beyond self-management: Antecedents and consequences of team empowerment. *Academy of Management Journal* 42 (1), 58–74.
Kozlowski, S.W.J., & Klein, K.J (2000). A multilevel approach to theory and research in organizations: Contextual, temporal, and emergent processes. In: Klein, K.J., Kozlowski, S.W.J. (Eds.), *Multilevel theory, research, and methods in organizations: Foundations, extensions and new directions*. Jossey-Bass, San Francisco, CA, pp. 3–90.
Kuchinke, K.P. (2013). Human Agency and HRD: Returning Meaning, Spirituality, and Purpose to HRD Theory and Practice. *Advances in Developing Human Resources* 15 (4), 370–381.
Lips-Wiersma, M., & Morris, L. (2009). Discriminating Between 'Meaningful Work' and the 'Management of Meaning. *Journal of Business Ethics* 88 (3), 491–511.
Liu, D., Liao, H., & Loi, R. (2012). The Dark Side of Leadership: A Three-Level Investigation of the Cascading Effect of Abusive Supervision on Employee Creativity. *Academy of Management Journal* 55 (5), 1187–1212.
Luthans, F., & Avolio, B.J. (2009). The 'point' of Positive Organizational Behavior. *Journal of Organizational Behavior* 30 (2), 291–307.
Marsick, V.J., & Watkins, K.E. (2003). Demonstrating the value of an organization's learning culture: the dimensions of the learning organization questionnaire. *Advances in Developing Human Resources* 5 (2), 132–151.
Marques, J.F. (2006). The spiritual worker: An examination of the ripple effect that enhances quality of life in-and outside the work environment. *Journal of Management Development* 25 (9), 884–895.
Maslow, A.H. (1971). *Farther reaches of Human Nature*. Viking, New York, NY.
Maslow, A.H. (1996). Higher motivation and the new psychology. In: Hoffman, E. (Ed.), Future visions: The unpublished papers of Abraham Maslow. Sage, Thousands Oaks, CA, p. 89.
Matsuo, M. (2012). Leadership of learning and reflective practice: An exploratory study of nursing managers. *Management Learning* 43 (5), 609–623.
McCormick, D.W. (1994). Spirituality and Management. *Journal of Management Psychology* 9 (6), 5–8.
Miller, D.W., & Ewest, T. (2013). The Present State of Workplace Spirituality: A literature review considering context, theory, and measurement/assessment. *Journal of Religious & Theological Information* 12 (1-2), 29–54.
Montes, F.J.L., Moreno, A.R., & Morales, V.G. (2005). Influence of support leadership and teamwork cohesion on organizational learning, innovation and performance: an empirical examination. *Technovation* 25 (10), 1159–1172.
Mumford, M.D., Scott, G.M., Gaddis, B., & Strange, J.M. (2002). Leading creative people: Orchestrating expertise and relationships. *The Leadership Quarterly* 13 (6), 705–750.
Myers, S. (1993). A Trial for Dmitri Karamazov. *Educational Leadership* 50 (7), 71–72.
Pandey, A., Gupta, R.K., & Arora, A.P. (2009). Spiritual climate of business organizations and its impact on customers' experience. *Journal of Business Ethics* 88 (2), 313–332.
Parboteeah, K.P., Paik, Y., & Cullen, J.B. (2009). Religious groups and work values: A focus on Buddhism, Christianity, Hinduism, and Islam. *International Journal of Cross Cultural Management* 9 (51), 51–67.
Pavlovich, K., & Corner, P.D. (2009). Spiritual organizations and connectedness: the Living Nature experience. *Journal of Management, Spirituality & Religion* 6 (3), 209–229.
Pirola-Merlo, A., & Mann, L. (2004). The relationship between individual creativity and team creativity: aggregating across people and time. *Journal of Organizational Behavior* 25 (2), 235–257.
Podsakoff, P.M., MacKenzie, S.B., Podsakoff, N.P., & Lee, J.Y. (2003). Common method biases in behavioral research: A critical review of

the literature and recommended remedies. *Journal of Applied Psychology* 88 (5), 879–903.
Pruzan, P. (2008). Spiritual-based leadership in business. *Journal of Human Values* 14 (2), 101–114.
Radhakrishnan, S. (2009). *The Bhagwadgita* (27th Impression). HarperCollins, New Delhi, India.
Ramnarayan, S. (1996). Organizational learning capability. *Measuring Organizational Climate*: Academy of HRD, Ahmedabad. 253-257 in Bhatnagar, J. (2006), Measuring organizational learning capability in Indian managers and establishing firm performance linkage: An empirical analysis. *The Learning Organization* 13 (5), 416–433.
Raub, S., & Blunschi, S. (2014). The Power of Meaningful Work: How Awareness of CSR Initiatives Fosters Task Significance and Positive Work Outcomes in Service Employees. *Cornell Hospitality Quarterly* 55 (1), 10–18.
Rego, A., Sousa, F., Marques, C., & Cunha, M.P.E. (2012). Authentic leadership promoting employees' psychological capital and creativity. Journal of Business Research 65 (3), 429–437.
Ruiz-Quintanilla, S.A., & England, G.W. (1996). How working is defined: Structure and stability. *Journal of Organizational Behavior* 17, 515–540.
Runhaar, P., ten Brinke, D., Kuijpers, M., Wesselink, R., & Mulder, M. (2014). Exploring the links between interdependence, team learning and a shared understanding among team members: The case of teachers facing an educational innovation. *Human Resource Development International* 17 (1), 67–87.
Salanova, M., & Schaufeli, W.B. (2008). A cross-national study of work engagement as a mediator between job resources and proactive behaviour. *The International Journal of Human Resource Management* 19 (1), 116–131.
Schaufeli, W.B., Leiter, M.P., & Maslach, C. (2009). Burnout: 35 years of research and practice. *Career Development International* 14 (3), 204–220.
Scott, S.G., & Bruce, R.A. (1994). Determinants of innovative behavior: A path model of individual innovation in the workplace. *Academy of Management Journal* 37 (3), 580–607.
Seligman, M.E.P., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist* 55 (1), 5–14.
Senge, P.M. (1990). The Fifth Discipline: The Art and Practice of the Learning Organization. Currency Doubleday, New York, NY.
Senge, P.M. (1994). The Fifth Discipline Fieldbook: Strategies and Tools for Building a Learning Organization. Doubleday, New York.
Shalley, C.E., & Gilson, L.L. (2004). What leaders need to know: A review of social and contextual factors that can foster or hinder creativity? *The Leadership Quarterly* 15 (1), 33–53.
Sheep, M.L. (2004). Nailing Down Gossamer: A Valid Measure of The Person-Organization Fit of Workplace Spirituality. *Academy of Management Proceedings* 2004 (1), B1–B6.
Shernoff, D.J., Csikszentmihalyi, M., Schneider, B., & Shernoff, E.S. (2003). Student engagement in high school classrooms from the perspective of flow theory. *School Psychology Quarterly* 18 (2), 158–176.
Shin, S.J., Kim, T.Y., Lee, J.Y., & Bian, L. (2012). Cognitive team diversity and individual team member creativity: A cross-level interaction. *Academy of Management Journal* 55 (1), 197–212.
Sweetman, D., Luthans, F., Avey, J.B., & Luthans, B.C. (2011). Relationship between positive psychological capital and creative performance. *Canadian Journal of Administrative Sciences/Revue Canadienne des Sciences de l'Administration* 28 (1), 4–13.
Tennant, M. (2012). The Learning Self: Understanding the Potential for Transformation. Jossey-Bass, San Francisco, CA.
Tisdell, E.J. (2008). Spirituality and Adult Learning. *New Directions for Adult and Continuing Education* 119, 27–36.
Van den Bossche, P., Gijselaers, W.H., Segers, M., & Kirschner, P.A. (2006). Social and cognitive factors driving teamwork in collaborative learning environments: team learning beliefs and behaviors. *Small group research* 37 (5), 490–521.
Van der Vegt, G.S., & Janssen, O. (2003). Joint impact of interdependence and group diversity on innovation. *Journal of Management* 29 (5), 729–751.
Vandenberghe, C. (2011). Workplace spirituality and organizational commitment: an integrative model. *Journal of Management, Spirituality & Religion* 8 (3), 211–232.
Walter, F., & Bruch, H. (2008). The positive group affect spiral: a dynamic model of the emergence of positive affective similarity in work groups. *Journal of Organizational Behavior* 29 (2), 239–261.
West, M.A. (2002). Sparkling fountains or stagnant ponds: An integrative model of creativity and innovation implementation in work groups. *Applied Psychology: An International Review* 51 (3), 355–387.
West, B.J., Patera, J.L., & Carsten, M.K. (2009). Team level positivity: Investigating positive psychological capacities and team level outcomes. *Journal of Organizational Behavior* 30 (2), 249–267.
Whyte, D. (2001). Crossing the unknown sea: Work as a pilgrimage of identity. Riverhead Books, New York, NY.
Williams, L.J., & O'Boyle, Jr., E.H. (2008). Measurement models for linking latent variables and indicators: A review of human resource management research using parcels. *Human Resource Management Review* 18 (4), 233–242.
Wilson, J.M., Goodman, P.S., & Cronin, M.A. (2007). Group learning. *Academy of Management Review* 32 (4), 1041–1059.
Yang, B. (2004). Holistic learning theory and implications for human resource development. *Advances in Developing Human Resources* 6 (2), 241–262.
Young, J.E. (2002). A spectrum of consciousness for CEOs: A business application of Ken Wilber's spectrum of consciousness. *The International Journal of Organizational Analysis* 10 (1), 30–54.
Zhang, X., & Bartol, K.M. (2010). The influence of creative process engagement on employee creative performance and overall job performance: A curvilinear assessment. *Journal of Applied Psychology* 95 (5), 862–873.