Authentic leadership approach for enhancing innovation capability: a theoretical investigation

Pratibha Verma* and M.K. Rao

Department of Management Studies,
Indian Institute of Technology,
Roorkee, Haridwar, Uttarakhand, India
Email: pratibha.iitr2015@gmail.com
Email: mkraofdm@iitr.ernet.in
*Corresponding author

Abstract: This paper aims to explore how authentic leadership potentially leads to superior innovation capability by fostering creativity components namely: intrinsic motivation, creativity-relevant skills and domain-relevant skills. The insights drawn from this study make known three patterns of relationships among authentic leadership, creativity and innovation capability and, establish the impact of authentic leadership on innovation capability through components of creativity. Based on these insights, some of the significant implications of the study are that, practitioners can get the knowledge on how to foster creativity components to a great extent through authentic leadership and how to motivate employees towards creative and innovative practices which further boost firm's capability to innovate and, compete in the market. Further implications and future prospects are discussed in detail.

Keywords: authentic leadership; intrinsic motivation; creativity-relevant skills; domain-relevant skills; innovation capability.

Biographical notes: Pratibha Verma is a PhD Scholar in the Department of Management Studies, Indian Institute of Technology, Roorkee, India. She has written on leadership, organisational learning culture, creativity, innovation, dynamic capabilities and management in India. She is planning to address her interest areas in emerging economies. She received her BSc in Science from the Lucknow University and MBA in Human Resource Management and Information Technology from the Gautam Buddh Technical University, Lucknow, India. She has contributed a book chapter published in Springer Publications in 2014.

M.K. Rao is an Assistant Professor in the Department of Management Studies, Indian Institute of Technology, Roorkee, Roorkee, India. He received his PhD in Human Resource from the Tata Institute of Social Sciences (TISS) Mumbai, India. He has 14 years of experience in academics. His research and teaching interests include areas, training and development, competency management, HR analytics, impact of developmental initiatives on employee learning and organisational learning and change management. His work has been published in journals of national and international repute publication. He has contributed a book chapter published in Springer Publications, 2014. He is keen to conduct collaborative research with international agencies in his area.

1 Introduction

In the present business world where competition is at its peak, every organisation needs to attain competitive advantage for its survival and growth. Scholars and practitioners have argued that innovation capability is a prerequisite to fulfil this strategic requirement (Calantone et al., 2002; Wallin et al., 2011). Innovation capability can be increased by building on employees' innate creative potential that is the building block of innovation (Amabile, 1988; Zhou and George, 2003). Innovation and creativity both are effected by various contextual factors, leadership being foremost among them (Carmeli et al., 2013; Rego et al., 2014). However, the mechanism through which leadership boosts and stimulates the innovation process is still not clear (Crossan and Apaydin, 2010). Prior studies suggest investigating this linkage with forms of positive and authentic leadership (Avolio and Luthans, 2006; Lorenzi, 2004).

Moreover, in this competitive era, it is necessary to encourage employees' positive attitude and inspire them to exhibit positive work behaviour in order to regulate fairness and transparency in organisations. Here too, authentic leadership should be taken into consideration. In this line, Paulus (2008) and Rego et al. (2012) suggested further investigation on how authentic leadership effects creativity and innovation. Similarly, Cerne et al. (2013) also recommended further inquiry on the mechanism through which authentic leadership effects innovation and called for more understanding on this notion. Researchers have posited creativity as a composite of three components, namely: intrinsic motivation (inner motivation to perform any task), domain-relevant skills (knowledge and expertise in a particular domain) and creativity-relevant skills (creative and divergent thinking skills). This work, in an integrated way (Amabile, 1996) strengthens firm's innovation capability which is an instrument to drive their success (Blackwell, 2006; McMullen and Shepherd, 2006). However, there is a lack of studies on the linkages among creativity components and innovation. In this concern, Baer (2012) called for further inquiry to examine innovation and creativity and advance the current understanding on this linkage. Thus, the motivation behind the present study is to address these calls for research and develop a mechanism to reinforce the innovativeness of organisations (Kumar and Uzkurt, 2010) through creativity and authentic leadership (Avolio et al., 2009).

The current research integrates extant literature on leadership, creativity and innovation capability. We propose a conceptual framework that explains the effect of authentic leadership on each of the creativity components, and their impact on organisational innovation capability. The major purpose is to develop an understanding of the mechanism through which authentic leadership potentially leads to superior organisational innovation capability.

This study first portrays the methodology of the research, followed by a conceptual framework and a review of the relevant literature. Subsequently, the discussion part enumerates proposed linkages with theoretical and practical implications of the study. Future prospects and gist of work further conclude the current study.

2   Methodology

Drawing upon a systematic review of major theoretical studies that are affirmed through empirical research, this paper begins by proposing a conceptual framework that identifies the linkages between authentic leadership, creativity components, and organisational innovation capability. The framework has got its shape as per a review of the relevant literature in the domain of authentic leadership, creativity and innovation. To identify publications and accomplish the searching procedure, various electronic databases were used like *Ebscohost*, *Proquest*, and *Google Scholar* at the initial stage of review, 'authentic' and 'innovation' were used as keywords paired with 'leader' or 'leadership'. Later, the review became more specific to innovation capability. During the review, it became known that creativity needs attention to increase innovation capability as it holds the strength to impact innovation capability significantly. Creativity also emerged as a link between authentic leadership and innovation capability. This research employed the snowball approach to access the relevant literature by probing references of appropriate publications. The resulting framework will assist organisations in determining how the presence of authentic leadership affects innovation capability via three components of creativity; all these linkages are elaborated later in this study.

3   Conceptual framework

With rapid development of the knowledge economy, organisations warrant updating their strategic thinking with regards to competitiveness via developing their capabilities (Singh and Rao, 2016a, 2016b). Specifically, organisations need innovation capabilities for creating innovative outcomes (Verma and Rao, 2016; Wallin et al., 2011). Creativity becomes a prerequisite for boosting innovation capability (Mone et al., 1998; Cooper, 2000) and the role played by leadership becomes prominent.

In an attempt to address these lacunas of literature, the present study proposes a conceptual framework that explores the relationship between authentic leadership, creativity components and innovation capability.

The proposed framework is shown in Figure 1. It argues that authentic leadership fuels each component of creativity (intrinsic motivation, creativity-relevant skills, domain-relevant skills); these in turn enhances a firm's capability to innovate by motivating employees to create, acquire and transform their knowledge into new one in order to produce new products and services (Cohen and Levinthal, 1990; Lawson and Samson, 2001). This paper proposes that authentic leadership as a social context affects each component of creativity, where the interface of these reveals a higher degree of creativity (Amabile, 1997) and further boosts the level of innovation capability.

Figure 1   Conceptual framework
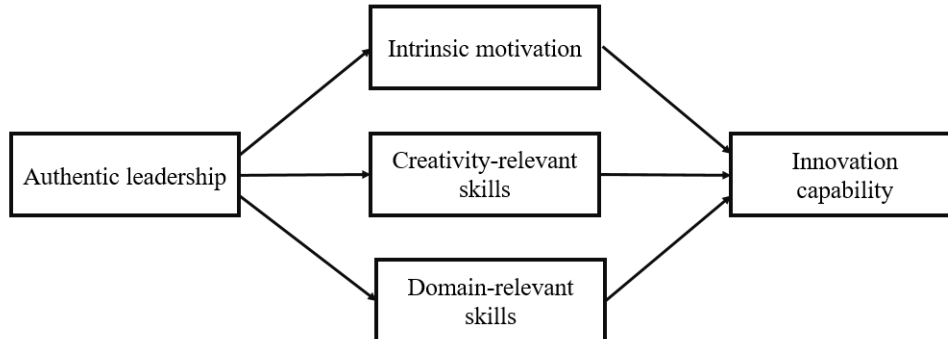
4   Theoretical foundation for the framework

4.1   Authentic leadership

Authentic leadership was first introduced by Bass and Steidlmeier (1999) in the context of transformational leadership. It comprises of four characteristics – stimulating motivation, idealised impact, individualised attention and intellectual stimulation. Based on these features, transformational leadership has been categorised into two dimensions namely, *authentic* transformational leadership and the *pseudo*-transformational leadership. *Authentic* leadership emphasises high levels of morality and ethical values whereas *pseudo* leadership holds a deficiency of moral values and is driven by selfishness. According to the Bass and Steidlmeier (1999) categorisation, authenticity is the part of transformational leadership that is authentic transformational leadership. In this style, leaders have a high level of morality and an ethical value which has positive influence on creativity (Bierly et al., 2009; Valentine and Prater, 2011). Luthans and Avolio (2003) outlined authentic leadership in terms of positive traits of individuals including hope, optimism, resiliency and confidence, which are the outcomes of a leader's self-regulated behaviours and self-awareness. Avolio and Gardner (2005) characterised authentic leaders as those who are aware of their own thinking and behaviour. The extant literature on leadership defines authentic leadership as comprised of relational transparency, self-awareness, internalised moral perspective and balanced processing. Relational transparency refers to the extent of openness of leaders with others in terms of relationships, information sharing and expression of thoughts that provides opportunities to the followers. Self-awareness refers to the awareness about one's own strengths, weaknesses as well as others perceptions towards oneself (Kernis, 2003; Walumbwa et al., 2008). Internalised moral perspective represents benchmarking of high standards for ethical and moral values, and taking decisions as per the internalised moral values and not due to the societal pressure (Avolio and Gardner, 2005; Gardner et al., 2005; Walumbwa et al., 2008). Balanced processing refers the extent of leader's capability to analyse the data and take decisions based on all the positive and negative views related to the issue (Gardner et al., 2005; Walumbwa et al., 2008).

Various researchers' demarcated authentic leadership as the combination of all positive psychological abilities (Shamir and Eilam, 2005; Cooper et al., 2005; Sparrowe,

2005). George (2010) described authentic leaders as real people who believe in maintaining positive relationships with others and motivating them to perform well by generating trust; they are more concerned about others than on their own success. Walumbwa et al. (2008) described authentic leadership as a configuration of various positive behaviours which fosters moral values, self-awareness and relational transparency in relationships with followers for the self-development.

4.2   *Creativity*

Creativity has been outlined as a result, aiming at the creation of original and valuable ideas regarding products, services, and procedures (Ford, 1995; Amabile, 1996; Oldham and Cummings, 1996; Zhou, 1998). It denotes the creation of novel as well as valuable ideas by an individual (Amabile, 1996). Creativity is also demarcated as an individual's ability to think differently and produce something novel and valuable (Nayak, 2008). The componental model of creativity, proposed by Amabile (1983, 1988), and outlined creativity as comprising of three dimensions namely: intrinsic motivation, domain-relevant skills, and creativity-relevant skills. This model emphasises the significance of these three and maintains that the presence of creativity components leads to the presence of creativity. Intrinsic motivation, domain-relevant skills and creativity-relevant skills function in a synergistic way and elicit creativity. It implies that individuals, who have a high level of domain and creativity-relevant skills and are also intrinsically motivated, are the most creative in organisations. However, not enough studies have been conducted that define creativity in terms of creativity components and examine its predictors and outcomes. In an attempt to address this gap left by prior literature, the present study defines creativity in terms of creativity components.

- *Intrinsic motivation*: Individual's attitude concerning any work has been referred to as intrinsic motivation (Zhou and Shalley, 2008). Utman (1997) mentioned that an individual's inner motivation and also the self-directed behaviour to perform a task constitute intrinsic motivation. Amabile (1996) cited that the quality of tasks ignites intrinsic motivation of individuals and generates their positive reaction in the form of interest, satisfaction, challenge and curiosity. It involves interest in the focal task grounded on feelings of competence and self-determination as the cognitive evaluation theory mentioned (Deci and Ryan, 1985). According to Osterloh et al. (2002), the feeling of satisfaction and fulfilment regarding a work is essential for stimulating the level of an individual's intrinsic motivation.

- *Creativity-relevant skills*: Creativity-relevant skills represent the cognitive ability of individuals to think creatively, find out problems, explore new viewpoints, combine information, generate substitutes, participate in divergent thinking and evaluate new ideas and thoughts (Amabile, 1988; Shalley and Gilson, 2004). Creativity-relevant skills have been defined as the capability of an individual to think creatively or divergently to make substitutes to achieve outcomes (Shalley and Gilson, 2004). It includes various skills like idea evaluation, problem definition, its structure, amalgamation and solution which are significant for creativity (Mumford et al., 1997; Vincent et al., 2002) and plays a vital role in enhancing creativity and elucidating creative performance (Amabile, 1988). It shows flexibility and ease of individuals in discovering the cognitive pathways in order to formulate new ways of doing things via recombining previously unrelated material (Amabile, 1996).

Although creativity-relevant skills have great implications in the idea creation process (Birdi, 2007), yet, in the componential creativity model, creativity-relevant skills are most neglected (Amabile and Pillemer, 2012). Creativity-relevant skills are comprised of knowledge regarding the strategies for producing creative ideas, suitable cognitive and work styles.

- *Domain-relevant skills*: Domain-relevant skills is one among the components of creativity that count upon knowledge and experience of an individual in the specific area (Gardner, 1993), both of which create familiarity with work and generate creative ways to perform work (Weisberg, 1999). These skills are considered as the ability of an individual to successfully perform a task in that domain and solve domain-related problems on the basis of knowledge and past experience (Amabile, 1983). These skills can be enriched by training, education (formal and informal), cognitive and motor abilities of individuals (Amabile and Mueller, 2002). Domain-relevant skills refer to individuals' on-the-job skills as well as abilities which can be assessed through job self-efficacy which represents their mastery and confidence in their job (Bandura, 1977). These skills denote the technical skills and knowledge of employees about the task they are performing (Amabile, 1988, 1996). Similar way of thinking is followed in the research of Runco (2014) which mentioned domain-relevant skills to be the knowhow of performing a task. Tierney and Farmer (2002) advocated that strong job self-efficacy enables individuals to be engaged in more creative areas.

4.3 Organisational innovation capability

Organisational innovation capability means having a company-wide potential to innovate or to generate new output (Neely et al., 2001). According to Rangone (1999), organisational innovation capability is the ability or a way to generate novel products and processes in order to achieve superior performance in both technological as well as managerial aspects. Innovation capability helps organisations to respond against the environmental changes and make use of opportunities by producing and implementing new ideas (Buganza and Verganti, 2006). Adler and Shenbar (1990) defined innovation capability as a firm's capacity to produce new technological processes and products in order to satisfy the future needs of market as well as grab the unexpected opportunities generated by competitors. In the same line, Lawson and Samson (2001) and Nassimbeni (2001) delineated innovation capability as the ability of firms to continuous transformation of ideas and knowledge into new products and processes to benefit the organisation. It helps organisations to deal with competition in a fast-growing market (Elmquist and Le Masson, 2009). According to Calantone et al. (2002), the extent of firm innovativeness, including the creation of novel ideas, new processes, new products and creativity in methods, is termed organisational innovation capability. Wonglimpiyarat (2010) also describes innovation capability as the ability to receive new things and bring new knowledge to develop new products and services and do improvements in the existing ones. Zhao et al. (2005) mentioned innovation capability as the capacity to generate new ideas and implementation of creative ideas in the organisation to achieve market value.

5   Links between the concepts

The links between these authentic leadership, creativity, and innovation capacity, are already revealed by the theorists themselves. For example, Avolio et al. (2009) mentioned that authentic leadership facilitates an ethical and transparent environment (Peterson et al., 2012) which generates in employees the tendency to feel free and try new things (Fraley and Shaver, 2008). Additionally, authentic leadership motivates and encourages employee to increase their emotional safety and divergent thinking and further stimulates their creativity (Avolio et al., 2004). Rego et al. (2012) stated that it encourages the perception of psychological safety and increases their intrinsic motivation which leads to creativity. Researchers mentioned that authentic leadership possess the capability to empower, encourage and engage the workforce (Gardner et al., 2005; George, 2010; Ilies et al., 2005) towards achievement of strategic goals. It promotes positive psychological dimensions and an ethical environment, to nurture better self-awareness among the employees (Walumbwa et al., 2008) and makes them motivated intrinsically; this further leads to creativity (Zhou and Ren, 2012). Despite of this much literature, knowledge on the linkages of authentic leadership and creativity has been inconclusive, because the componential aspect of creativity has not received attention. Taking this into consideration is a key contribution of the current study.

5.1   Authentic leadership leads to increased creativity

- *Authentic leadership and intrinsic motivation*: Authentic leaders possess the capability to empower, encourage and engage their workforce (Ilies et al., 2005; Gardner et al., 2005; George et al., 2007) towards achieving strategic goals. Authentic leadership promotes positive psychological dimensions and an ethical environment, to nurture better self-awareness among the employees (Walumbwa et al., 2008) and makes them motivated intrinsically. It facilitate employee empowerment activities within organisations which makes individuals intrinsically motivated, capable of positively transforming their own performance and producing more creative work (Amabile, 1996). Numerous researchers maintain that cornerstone of authentic leadership is imparting intrinsic motivation (Deci et al., 1989) which motivates employees to perform any task (Walumbwa et al., 2011) and leads to the implementation of novel ideas or exercising creativity (Amabile, 1996; Tierney and Farmer, 2011). The cognitive evaluation theory indicates that intrinsic motivation is cultivated via the causal sequence: "autonomy supports changes in perceived competence, [and] changes in intrinsic motivation". Therefore, external elements can enable intrinsic motivation directly via augmenting the perceptions of capability or indirectly by giving autonomy (Deci and Ryan, 1985).

- *Authentic leadership and creativity-relevant skills*: Authentic leadership stimulates employee motivation and encourages employees to perform any task. It transpires positive environment free from any kind of anonymity and builds trust among employees (Gardner et al., 2005). This trust breeds positive emotions among them and enhances their ability not only to face challenges but also to think creatively which leads to higher job performance (Frederickson, 1998). Researchers like Gilson and Shalley (2004) cited that authentic leaders reinforce employee empowerment and communicate the worth of tasks performed by them; this enhances their interest

to innovate. Zhang and Bartol (2010) also mentioned that leaders with authentic quality stimulate the engagement of employees in creative work or thinking and subsequently generate creativity-relevant skills to perform specific tasks (Gilson and Shalley, 2004).

- *Authentic leadership and domain-relevant skills*: Authentic leaders encourage relational transparency within an organisation and create a positive environment for stimulating information sharing among employees that support knowledge and expertise acquisition in specific task (Avolio et al., 2009). In this concern, Walumbwa et al. (2008) cited that leaders with authentic characteristics stimulate ethical climate and harness employees' skills positively in order to boost self-development. In the same line, Ilies et al. (2005) mentioned that authentic leaders emphasise on the creation and development of self-determinant employees who are competent enough to fulfil the basic needs of the organisation (Ryan and Deci, 2001) and are capable of reconnoitring new ways, taking risks and facing challenges (Ryan and Deci, 2000).

According to prior literature, authentic leadership enhances employees' motivation level and encourages them to create new things by focusing on their strengths. It gives instrumental revitalisation to their employees and enriches their expertise and task-related knowledge. It also maintains positivity in the workplace climate and generates positive emotions in employees, hence, makes them capable enough to generate new ideas and take risks.

5.2 Creativity components and innovation capability

Innovation capability represents the extent of innovativeness attained by firms (Calantone et al., 2002). It is also outlined as the ability of an organisation to produce innovative outcomes continuously (Wallin et al., 2011), through the effective implementation of creative and new ideas (Amabile, 1996; Anderson et al., 2014). Researchers described the generation of creative and novel ideas essential to develop new products (Amabile, 1983; Shalley, 1995), for creativity is an essential element to enhance innovativeness and boost the capacity of an organisation to innovate (Cohen and Levinthal, 1990). Hence, the literature advocates the positive linkages between creativity and innovation capability and contemplates that creativity impacts innovation capability. The impact of creativity on innovation capability can be enumerated by looking at the linkages between the three creativity components and innovation capability.

- *Intrinsic motivation and innovation capability*: Researchers stressed that the extent of motivation is related with the creation of novel ideas as well as innovative products (Freel, 2005; Kroll and Schiller, 2010). Highly motivated employees, having high level of risk-taking ability (Zhou and Shalley, 2003) produce novel ideas and knowledge thereby develop innovation capability (Wasko and Faraj, 2005). Intrinsically, motivated individuals always search for unconventional ways to solve problems (Jung et al., 2003) and undertake activities that support innovation (Birdi et al., 2014). Consequently, intrinsic task motivation should be directly significant for all facets of employees' innovative performance, from the initial inclination to identify prospects for innovation to the attempt to generate numerous ideas to the diligence required to apply them (Birdi et al., 2014). In these ways,

motivation plays an important role in innovation capability (McMullen and Shepherd, 2006; Hassan et al., 2013). Intrinsic motivation encompasses risk taking capability and the creation of novel thoughts that enables innovativeness to enhance organisational performance (Calantone et al., 2002).

- *Creativity-relevant skills and innovation capability*: Creativity-relevant skills signify the individuals' talent to create, acquire, collect (Amabile, 1996; McCrae and Costa, 1997) and assimilate information from diverse places and transform it into some valued form of knowledge (Neely et al., 2001). It refers to the capability of an employee to contribute to the process of improvement of existing knowledge so as to generate valuable ideas and facilitate innovative outcomes through divergent thinking (Nassimbeni, 2001), that further enhances innovation capability (McMullen and Shepherd, 2006; Neely et al., 2001). Birdi (2007) mentioned that creativity-relevant skills are very much important for idea generation. Hence, creativity-relevant skills are required for new ways and methods to perform tasks.

- *Domain-relevant skills and innovation capability*: Domain-relevant skills incorporate knowledge and expertise of individuals in specific area (Amabile, 1988), which create and progress technologies (Romijn and Albaladejo, 2002; Wonglimpiyarat, 2010), support cultivation of new processes, practices and attainment of patents (Chen and Yang, 2009). All these are the measures of innovation capability (Romijn and Albaladejo, 2002; Puranam et al., 2009). Therefore, it is maintained that knowledgeable employees and their skills and proficiency in definite areas develop innovation capability which organisations exploit to attain market value (Zhao et al., 2005; Assink, 2006).

6   Discussion

In the present business world characterised with complex and dynamic environment, innovation has been considered as a fundamental activity in organisations to face the complexity and dynamism of the rapidly changing environment so as to sustain competitiveness (Kline, 1985; Nelson and Winter, 2009; Yam et al., 2011). Innovation can be stimulated from creativity (Woodman et al., 1993; Zhou and George, 2003), thus, it is important to know how creativity and innovation can be augmented. A great deal of literature highlights leadership as a critical factor that is responsible for employees' creativity (Amabile et al., 2004; Gong et al., 2009; Joo, 2007; Joo et al., 2012; Kim et al., 2010; Rego et al., 2012; Shalley and Gilson, 2004; Zhang and Bartol, 2010; Zhang et al., 2011). Likewise, leadership is important to a firm's innovativeness (Cummings and O'Connell, 1978; West and Farr, 1989). Among all leadership styles, authentic leadership has been acknowledged as vital factor for boosting creativity and innovation (Müceldili et al., 2013).

The prime objective of this research is to develop an understanding of the mechanism through which authentic leadership potentially leads to superior organisational innovation capability via creativity. Researchers mentioned that the basic strength of authentic leadership lies in galvanising employee's motivation and encouraging them to perform any task, through a positive environment free from anonymity, which builds trust among employees (Gardner et al., 2005). This trust breeds positive emotions among the employees and enhances their ability to face challenges and think divergently, which

leads to higher job performance (Frederickson, 1998). Many studies have established the effects of positive leadership styles such as participative and collaborative leadership styles on innovation where the relationship between a leader and followers matters for employees' creative and innovative attempts (Jung et al., 2003; Yuan and Woodman, 2010) and further for firm's innovation capability. Müceldili et al. (2013) cited that authentic leadership relationship with followers has an effective impact on enhancing innovation. Hence, creativity could be the medium of authentic leadership for reaching to the innovativeness of the organisations. On the basis of theoretical analysis, this study establishes the impact of authentic leadership on organisational innovation capability, through the three components of creativity. Our analysis reveals three patterns of relationships that are important to note.

- *Intrinsic motivation*: Authentic leadership empowers and encourages employees, boosts their motivation level and makes them able to focus on their strengths, generate novel ideas related to their job, create new things, take risks, and innovate. It thereby facilitates innovativeness of the organisation and develops superior organisational innovation capability (Zhou and Shalley, 2003). Therefore, intrinsic motivation boosts employees' capability for innovativeness and enhances a firm's innovation capability.

- *Creativity-relevant skills*: Authentic leadership injects positivity in the workplace climate, generates positive emotions in employees and creates transparency and truth to increase the level of knowledge sharing, gathering and transforming, as creativity-relevant skills consist of divergent or creative thinking, which affect innovation capability positively (Nassimbeni, 2001).

- *Domain-relevant skills*: Authentic leadership enhances expertise and task-related knowledge and makes employees capable of implementing these skills and knowledge which act as the knowledge foundation of employees to improve the existing technology and create novel ones; this further enhances innovation capability (Ilies et al., 2005). Domain-relevant skills create a knowledge base for the development of new products. An individual's knowledge and expertise in a specific area elevates firm's innovation capability. Therefore, employee creativity components generate novel ideas, create a knowledge base and make employees capable enough to apply their specific expertise. This makes employees more innovative and more skilful for developing innovation capability.

In sum, this study reveals that authentic leadership acts as a booster for each component of creativity. It empowers, encourages and maintains a positive environment wherein employees feel that everything is fair and transparent, they are getting chance to harness their capability and contribute towards the organisation's goals. Further, creativity lays the seed for innovation capability (Amabile, 1996) as knowledge base created by the creative workforce of an organisation favours the rapid dissemination of new technologies and introduction of new products and services, that enhances innovation capability and helps the organisation to face a complex and dynamic environment.

6.1 Practical/theoretical implications and future directions

This study makes a valued contribution to the literature of authentic leadership, creativity and innovation by magnifying the role of authentic leadership in enhancement of organisational innovation capability through the components of creativity. The present study also sheds light on the role of authentic leadership in enhancement of each creativity component, thus adding to knowledge on how authentic leadership effects creativity (Paulus, 2008; Rego et al., 2012).

This study is of help to companies which believe in the development of skills and capabilities of employees to obtain positive outcomes (Gardner et al., 2005) such as trust, knowledge sharing (Avolio and Luthans, 2008) and creativity. The present study suggested that authentic leadership should be taken into consideration. The rationale behind this is that in this competitive era where individuals are ready to use unfair means for achieving success, organisations require some controlling power or governing body to check all these activities, transpire the positive attitude in employees and inspire them to exhibit positive work behaviour so as to regulate fairness and transparency in the organisation. Authentic leadership can help effect that shift.

The proposed conceptual framework serves a way through which managers can enhance innovation capability of the organisation by focusing on authentic leadership, which holds the power to accelerate the innovation process through the creativity components. Further, this study assists managers to understand and value the positive linkages between creativity components and innovation capability, spend huge amount to foster each of the creativity components while formulating strategies and programs. This study also maintains that each creativity component matters as the intersection point of these three components emits higher degree of creativity which is a basic requisite of innovation capability that enhances organisational performance. By giving all these preconditions, managers can build a strong foundation enriched with creativity and so lead to the generation of innovation capability.

Future study is needed to empirically validate the linkages between authentic leadership, creativity components and innovation capability. Future researches should consider the proposed conceptual framework for empirical work and doing so, make a valuable contribution to the literature on related areas.

7   Conclusions

To conclude, this study posits the impact of authentic leadership on organisational innovation capability through the components of creativity. The present study assists the managers to understand how to develop creativity components to the best extent through authentic leadership, empower and motivate the employees towards creative and innovative practices and further enhance innovation capability of the organisation.

References

Adler, P.S. and Shenbar, A. (1990) 'Adapting your technological base: the organizational challenge', *Sloan Management Review*, Vol. 25, No. 1, pp.25–37.

Amabile, T.M. (1983) 'The social psychology of creativity: a componential conceptualization', *Journal of Personality and Social Psychology*, Vol. 45, No. 2, pp.357–377.

Amabile, T.M. (1988) 'A model of creativity and innovation in organizations', *Research in Organizational Behaviour*, Vol. 10, No. 1, pp.123–167.

Amabile, T.M. (1996) *Creativity in Context: Update to the Social Psychology of Creativity*, Westview Press, Boulder, CO.

Amabile, T.M. (1997) 'Motivating creativity in organizations', *California Management Review*, Vol. 40, No. 1, pp.39–58.

Amabile, T.M. and Mueller, J. (2002) 'Assessing creativity and its antecedents: an exploration of the componential theory of creativity', *Handbook of Organizational Creativity*, Lawrence Erlbaum Associates, London.

Amabile, T.M. and Pillemer, J. (2012) 'Perspectives on the social psychology of creativity', *The Journal of Creative Behavior*, Vol. 46, No. 1, pp.3–15.

Amabile, T.M., Schatzel, E.A., Moneta, G.B. and Kramer, S.J. (2004) 'Leader behaviors and the work environment for creativity: perceived leader support', *The Leadership Quarterly*, Vol. 15, No. 1, pp.5–32.

Anderson, N., Potočnik, K. and Zhou, J. (2014) 'Innovation and creativity in organizations a state-of-the-science review, prospective commentary, and guiding framework', *Journal of Management*, Vol. 40, No. 5, pp.1297–1333.

Assink, M. (2006) 'The inhibitors of disruptive innovation capability: a conceptual model', *European Journal of Innovation Management*, Vol. 9, No. 2, pp.215–233.

Avolio, B. and Luthans, F. (2008) *The High Impact Leader*, McGraw Hill Professional, USA.

Avolio, B.J. and Gardner, W.L. (2005) 'Authentic leadership development: getting to the root of positive forms of leadership', *The Leadership Quarterly*, Vol. 16, No. 3, pp.315–338.

Avolio, B.J. and Luthans, F. (2006) *The High Impact Leader: Authentic Resilient Leadership that gets Results and Sustains Growth*, McGraw-Hill, New York.

Avolio, B.J., Gardner, W.L., Walumbwa, F.O., Luthans, F. and May, D.R. (2004) 'Unlocking the mask: a look at the process by which authentic leaders impact follower attitudes and behaviors', *The Leadership Quarterly*, Vol. 15, No. 6, pp.801–823.

Avolio, B.J., Walumbwa, F.O. and Weber, T.J. (2009) 'Leadership: current theories, research, and future directions', *Annual Review of Psychology*, Vol. 60, pp.421–449.

Baer, M. (2012) 'Putting creativity to work: the implementation of creative ideas in organizations', *Academy of Management Journal*, Vol. 55, No. 5, pp.1102–1119.

Bandura, A. (1977) 'Self-efficacy: toward a unifying theory of behavioral change', *Psychological Review*, Vol. 84, No. 2, p.191.

Bass, B.M. and Steidlmeier, P. (1999) 'Ethics, character, and authentic transformational leadership behavior', *The Leadership Quarterly*, Vol. 10, No. 2, pp.181–217.

Bierly III, P.E., Kolodinsky, R.W. and Charette, B.J. (2009) 'Understanding the complex relationship between creativity and ethical ideologies', *Journal of Business Ethics*, Vol. 86, No. 1, pp.101–112.

Birdi, K. (2007) 'A lighthouse in the desert? Evaluating the effects of creativity training on employee innovation', *The Journal of Creative Behavior*, Vol. 41, No. 4, pp.249–270.

Birdi, K., Leach, D. and Magadley, W. (2014) 'The relationship of individual capabilities and environmental support with different facets of designers' innovative behavior', *Journal of Product Innovation Management*, Vol. 33, No. 1, pp.19–35.

Blackwell, S.S. (2006) 'The influence of perception of organizational structure and culture on leadership role requirements: the moderating impact of locus of control and self-monitoring', *Journal of Leadership & Organizational Studies*, Vol. 12, No. 4, pp.27–49.

Buganza, T. and Verganti, R. (2006) 'Life-cycle flexibility: how to measure and improve the innovative capability in turbulent environments', *Journal of Product Innovation Management*, Vol. 23, No. 5, pp.393–407.

Calantone, R.J., Cavusgil, S.T. and Zhao, Y. (2002) 'Learning orientation, firm innovation capability, and firm performance', *Industrial Marketing Management*, Vol. 31, No. 6, pp.515–524.

Carmeli, A., Gelbard, R. and Plamon, R.R. (2013) 'Leadership creative problem-solving capacity and creative performance: the importance of knowledge sharing', *Human Resource Management*, Vol. 52, No. 1, pp.95–121.

Cerne, M., Jaklic, M. and Skerlavaj, M. (2013) 'Authentic leadership, creativity, and innovation: a multilevel perspective', *Leadership*, Vol. 9, No. 1, pp.63–85.

Chen, M.H. and Yang, Y.J. (2009) 'Typology and performance of new ventures in Taiwan: a model based on opportunity recognition and entrepreneurial creativity', *International Journal of Entrepreneurial Behavior & Research*, Vol. 15, No. 5, pp.398–414.

Cohen, W.M. and Levinthal, D.A. (1990) 'Absorptive capacity: a new perspective on learning and innovation', *Administrative Science Quarterly*, Vol. 35, No. 1, pp.128–152.

Cooper, C.D., Scandura, T.A. and Schriesheim, C.A. (2005) 'Looking forward but learning from our past: Potential challenges to developing authentic leadership theory and authentic leaders', *The Leadership Quarterly*, Vol. 16, No. 3, pp.475–493.

Cooper, R.G. (2000) 'New product performance: what distinguishes the star products', *Aust. J. Manage.*, Vol. 25, No. 1, pp.17–45.

Crossan, M.M. and Apaydin, M. (2010) 'A multi-dimensional framework of organizational innovation: a systematic review of the literature', *Journal of Management Studies*, Vol. 47, No. 6, pp.1154–1191.

Cummings, L.L. and O'Connell, M.J. (1978) 'Organizational innovation: a model and needed research', *Journal of Business Research*, Vol. 6, No. 1, pp.33–50.

Deci, E.L. and Ryan, R.M. (1985) *Intrinsic Motivation and Self-determination in Human Behaviour*, Springer Science & Business Media, USA.

Deci, E.L., Connell, J.P. and Ryan, R.M. (1989) 'Self-determination in a work organization', *Journal of Applied Psychology*, Vol. 74, No. 4, pp.580–590.

Elmquist, M. and Le Masson, P. (2009) 'The value of a 'failed' R&D project: an emerging evaluation framework for building innovative capabilities', *R&D Management*, Vol. 39, No. 2, pp.136–152.

Ford, C.M. (1995) 'Creativity is a mystery: clues from the investigators' notebooks', in Ford, C.M. and Gioia, D.A. (Eds.): *Creative Action in Organizations: Ivory Tower Visions and Real World Voices*, pp.12–49, Sage Publications, Thousand Oaks, CA.

Fraley, R.C. and Shaver, P.R. (2008) 'Attachment theory and its place in contemporary personality theory and research', *Handbook of Personality: Theory and Research*, Vol. 3, pp.518–541.

Frederickson, B.L. (1998) 'What good are positive emotions?', *Review of General Psychology*, Vol. 2, No. 3, pp.300–319.

Freel, M.S. (2005) 'Patterns of innovation and skills in small firms', *Technovation*, Vol. 25, No. 2, pp.123–134.

Gardner, H. (1993) 'Seven creators of the modern era', in Brockman, J. (Ed.): *Creativity*, New York.

Gardner, W.L., Avolio, B.J. and Walumbwa, F.O. (Eds.) (2005) *Authentic Leadership Theory and Practice: Origins, Effects and Development*, p.3, Elsevier.

George, B. (2010) *True North: Discover your Authentic Leadership*, Vol. 143, John Wiley & Sons, USA.

George, W., Sims, P., McLean, A.N. and Mayer, D. (2007) 'Discovering your authentic leadership', *Harvard Business Review*, Vol. 85, No. 2, pp.129–138.

Gilson, L.L. and Shalley, C.E. (2004) 'A little creativity goes a long way: an examination of teams' engagement in creative processes', *Journal of Management*, Vol. 30, No. 4, pp.453–470.

Gong, Y., Huang, J.C. and Farh, J.L. (2009) 'Employee learning orientation, transformational leadership, and employee creativity: the mediating role of employee creative self-efficacy', *Academy of Management Journal*, Vol. 52, No. 4, pp.765–778.

Hassan, M.U., Malik, A.A., Hasnain, A., Faiz, M.F. and Abbas, J. (2013) 'Measuring employee creativity and its impact on organization innovation capability and performance in the banking sector of Pakistan', *World Applied Sciences Journal*, Vol. 24, No. 7, pp.949–959.

Ilies, R., Morgeson, F.P. and Nahrgang, J.D. (2005) 'Authentic leadership and eudaemonic well-being: understanding leader-follower outcomes', *The Leadership Quarterly*, Vol. 16, No. 3, pp.373–394.

Joo, B.K.B. (2007) 'The impact of contextual and personal characteristics on employee creativity in Korean firms', *Culture*, Vol. 1, p.H2.

Joo, B.K.B., Song, J.H., Lim, D.H. and Yoon, S.W. (2012) 'Team creativity: the effects of perceived learning culture, developmental feedback and team cohesion', *International Journal of Training and Development*, Vol. 16, No. 2, pp.77–91.

Jung, D.I., Chow, C. and Wu, A. (2003) 'The role of transformational leadership in enhancing organizational innovation: hypotheses and some preliminary findings', *The Leadership Quarterly*, Vol. 14, No. 4, pp.525–544.

Kernis, M.H. (2003) 'Toward a conceptualization of optimal self-esteem', *Psychological Inquiry*, Vol. 14, No. 1, pp.1–26.

Kim, T.Y., Hon, A.H. and Lee, D.R. (2010) 'Proactive personality and employee creativity: the effects of job creativity requirement and supervisor support for creativity', *Creativity Research Journal*, Vol. 22, No. 1, pp.37–45.

Kline, S.J. (1985) 'The purposes of uncertainty analysis', *Journal of Fluids Engineering*, Vol. 107, No. 2, pp.153–160.

Kroll, H. and Schiller, D. (2010) 'Establishing an interface between public sector applied research and the Chinese enterprise sector: preparing for 2020', *Technovation*, Vol. 30, No. 2, pp.117–129.

Kumar, R. and Uzkurt, C. (2010) 'Investigating the effects of self-efficacy on innovativeness and the moderating impact of cultural dimensions', *Journal of International Business and Cultural Studies*, Vol. 4, No. 1, pp.1–15.

Lawson, B. and Samson, D. (2001) 'Developing innovation capability in organisations: a dynamic capabilities approach', *International Journal of Innovation Management*, Vol. 5, No. 3, pp.377–400.

Lorenzi, P. (2004) 'Managing for the common good: prosocial leadership', *Organizational Dynamics*, Vol. 33, No. 3, pp.282–291.

Luthans, F. and Avolio, B.J. (2003) 'Authentic leadership development', in Cameron, K.S., Dutton, J.E. and Quinn, R.E. (Eds.): *Positive Organizational Scholarship: Foundations of a New Discipline*, pp.241–261, Barrett-Koehler, San Francisco.

McCrae, R.R. and Costa Jr., P.T. (1997) 'Personality trait structure as a human universal', *American Psychologist*, Vol. 52, No. 5, pp.509–516.

McMullen, J.S. and Shepherd, A. (2006) 'Entrepreneurial action and the role of uncertainty in the theory of the entrepreneur', *Academy of Management Review*, Vol. 31, No. 1, pp.131–152.

Mone, M.A., McKinley, W. and Barker, V.L. (1998) 'Organizational decline and innovation: a contingency framework', *Academy of Management Review*, Vol. 23, No. 1, pp.115–132.

Müceldili, B., Turan, H. and Erdil, O. (2013) 'The influence of authentic leadership on creativity and innovativeness', *Procedia-Social and Behavioral Sciences*, Vol. 99, pp.673–681.

Mumford, M.D., Baughman, W.A., Maher, M.A., Costanza, D.P. and Supinski, E.P. (1997) 'Process-based measures of creative problem-solving skills: IV. Category combination', *Creativity Research Journal*, Vol. 10, No. 1, pp.59–71.

Nassimbeni, G. (2001) 'Technology, innovation capacity, and the export attitude of small manufacturing firms: a logit/tobit model', *Research Policy*, Vol. 30, No. 2, pp.245–262.

Nayak, A. (2008) 'Experiencing creativity in organisations: a practice approach', *Long Range Planning*, Vol. 41, No. 4, pp.420–439.

Neely, A., Filippini, R., Forza, C., Vinelli, A. and Hii, J. (2001) 'A framework for analysing business performance firm innovation and related contextual factors: perceptions of managers and policy makers in two European regions', *Integrated Manufacturing Systems*, Vol. 12, No. 2, pp.114–124.

Nelson, R.R. and Winter, S.G. (2009) *An Evolutionary Theory of Economic Change*, pp.929–964, Harvard University Press, London England.

Oldham, G.R. and Cummings, A. (1996) 'Employee creativity: personal and contextual factors at work', *Academy of Management Journal*, Vol. 39, No. 3, pp.607–634.

Osterloh, M., Frost, J. and Frey, B.S. (2002) 'The dynamics of motivation in new organizational forms', *International Journal of the Economics of Business*, Vol. 9, No. 1, pp.61–77.

Paulus, P.B. (2008) 'Fostering creativity in groups and teams', in Zhou, J. and Shalley, C.E. (Eds.): *Handbook of Organizational Creativity*, pp.165–188, Lawrence Erlbaum Associates, New York, NY.

Peterson, S.J., Galvin, B.M. and Lange, D. (2012) 'CEO servant leadership: exploring executive characteristics and firm performance', *Personnel Psychology*, Vol. 65, No. 3, pp.565–596.

Puranam, P., Singh, H. and Chaudhuri, S. (2009) 'Integrating acquired capabilities: when structural integration is (un)necessary', *Organization Science*, Vol. 20, No. 2, pp.313–328.

Rangone, A. (1999) 'A resource-based approach to strategy analysis in small-medium sized enterprises', *Small Business Economics*, Vol. 12, No. 3, pp.233–248.

Rego, A., Sousa, F., Marques, C. and Cunha, M.P. (2012) 'Authentic leadership promoting employees' psychological capital and creativity', *Journal of Business Research*, Vol. 65, No. 3, pp.429–437.

Rego, A., Sousa, F., Marques, C. and Cunha, M.P.E. (2014) 'Hope and positive affect mediating the authentic leadership and creativity relationship', *Journal of Business Research*, Vol. 67, No. 2, pp.200–210.

Romijn, H. and Albaladejo, M. (2002) 'Determinants of innovation capability in small electronics and software firms in southeast England', *Research Policy*, Vol. 31, No. 7, pp.1053–1067.

Runco, M.A. (2014) *Creativity: Theories and Themes: Research, Development, and Practice*, Elsevier, USA.

Ryan, R.M. and Deci, E.L. (2000) 'Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being', *American Psychologist*, Vol. 55, No. 1, pp.68–78.

Ryan, R.M. and Deci, E.L. (2001) 'On happiness and human potentials: a review of research on hedonic and eudaimonic well-being', *Annual Review of Psychology*, Vol. 52, No. 1, pp.141–166.

Shalley, C.E. (1995) 'Effects of coaction, expected evaluation, and goal setting on creativity and productivity', *Academy of Management Journal*, Vol. 38, No. 2, pp.483–503.

Shalley, C.E. and 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*, Vol. 15, No. 1, pp.33–53.

Shamir, B. and Eilam, G. (2005) ''What's your story?' A life-stories approach to authentic leadership development', *The Leadership Quarterly*, Vol. 16, No. 3, pp.395–417.

Singh, B. and Rao, M.K. (2016a) 'Effect of intellectual capital on dynamic capabilities', *Journal of Organizational Change Management*, Vol. 29, No. 2, pp.129–149.

Singh, B. and Rao, M.K. (2016b) 'Examining the effects of intellectual capital on dynamic capabilities in emerging economy context: knowledge management processes as a mediator', *Emerging Economy Studies*, Vol. 2, No. 1, pp.110–128.

Sparrowe, R.T. (2005) 'Authentic leadership and the narrative self', *The Leadership Quarterly*, Vol. 16, No. 3, pp.419–439.

Tierney, P. and Farmer S.M. (2002) 'Creative self-efficacy: its potential antecedents and relationship to creative performance', *Academy of Management Journal*, Vol. 45, No. 6, pp.1137–1148.

Tierney, P. and Farmer, S.M. (2011) 'Creative self-efficacy development and creative performance over time', *Journal of Applied Psychology*, Vol. 96, No. 2, pp.277–293.

Utman, C.H. (1997) 'Performance effects of motivational state: a meta-analysis', *Personality and Social Psychology Review*, Vol. 1, No. 2, pp.170–182.

Valentine, J.W. and Prater, M. (2011) 'Instructional, transformational, and managerial leadership and student achievement: high school principals make a difference', *NASSP Bulletin*.

Verma, P. and Rao, M.K. (2016) 'Organizational performance as a function of creativity components and innovation capability: an Indian perspective', *International Journal of Business Performance and Management*, Vol. 17, No. 1, pp.1–26.

Vincent, A.S., Decker, B.P. and Mumford, M.D. (2002) 'Divergent thinking, intelligence, and expertise: a test of alternative models', *Creativity Research Journal*, Vol. 14, No. 2, pp.163–178.

Wallin, J., Larsson, A., Isaksson, O. and Larsson, T. (2011) 'Measuring innovation capability assessing collaborative performance in product-service system innovation', *3rd CIRP International Conference on Industrial Product Service Systems*, Braunschweig.

Walumbwa, F.O., Avolio, B.J., Gardner, W.L., Wernsing, T.S. and Peterson, S.J. (2008) 'Authentic leadership: development and validation of a theory-based measure', *Journal of Management*, Vol. 34, No. 1, pp.89–126.

Walumbwa, F.O., Mayer, D.M., Wang, P., Wang, H., Workman, K. and Christensen, A.L. (2011) 'Linking ethical leadership to employee performance: the roles of leader-member exchange, self-efficacy, and organizational identification', *Organizational Behavior and Human Decision Processes*, Vol. 115, No. 2, pp.204–213.

Wasko, M.M. and Faraj, S. (2005) 'Why should I share? Examining social capital and knowledge contribution in electronic networks of practice', *MIS Quarterly*, Vol. 29, No. 1, pp.35–57.

Weisberg, R.W. (1999) 'Creativity and knowledge: a challenge to theories', in Sternberg, R.J. (Ed.): *Handbook of Creativity*, pp.226–250, Cambridge University Press, Cambridge, UK.

West, M.A. and Farr, J.L. (1989) 'Innovation at work: psychological perspectives', *Social Behaviour*, Vol. 4, No. 1.

Wonglimpiyarat, J. (2010) 'Innovation index and the innovative capacity of nations', *Futures*, Vol. 42, No. 3, pp.247–253.

Woodman, R.W., Sawyer, J.E. and Griffin, R.W. (1993) 'Toward a theory of organizational creativity', *Academy of Management Review*, Vol. 18, No. 2, pp.293–321.

Yam, R.C., Lo, W., Tang, E.P. and Lau, A.K. (2011) 'Analysis of sources of innovation, technological innovation capabilities, and performance: an empirical study of Hong Kong manufacturing industries', *Research Policy*, Vol. 40, No. 3, pp.391–402.

Yuan, F. and Woodman, R.W. (2010) 'Innovative behavior in the workplace: the role of performance and image outcome expectations', *Academy of Management Journal*, Vol. 53, No. 2, pp.323–342.

Zhang, A.Y., Tsui, A.S. and Wang, D.X. (2011) 'Leadership behaviors and group creativity in Chinese organizations: the role of group processes', *The Leadership Quarterly*, Vol. 22, No. 5, pp.851–862.

Zhang, X. and Bartol, K.M. (2010) 'Linking empowering leadership and employee creativity: the influence of psychological empowerment, intrinsic motivation, and creative process engagement', *Academy of Management Journal*, Vol. 53, No. 1, pp.107–128.

Zhao, H., Tong, X., Wong, P.K. and Zhu, J. (2005) 'Types of technology sourcing and innovative capability: an exploratory study of Singapore manufacturing firms', *The Journal of High Technology Management Research*, Vol. 16, No. 2, pp.209–224.

Zhou, J. (1998) 'Feedback valence, feedback style, task autonomy, and achievement orientation: interactive effects on creative performance', *Journal of Applied Psychology*, Vol. 83, No. 2, pp.261–276.

Zhou, J. and George, J.M. (2003) 'Awakening employee creativity: the role of leader emotional intelligence', *The Leadership Quarterly*, Vol. 14, No. 4, pp.545–568.

Zhou, J. and Ren, R. (2012) 'Striving for creativity: building positive contexts in the workplace', *The Oxford Handbook of Positive Organizational Scholarship*, pp.97–109.

Zhou, J. and Shalley, C.E. (2003) 'Research on employee creativity: a critical review and directions for future research', *Research in Personnel and Human Resources Management*, Vol. 22, pp.165–218.

Zhou, J. and Shalley, C.E. (2008) *Handbook of Organizational Creativity*, Lawrence Erlbaum Associates Taylor & Francis Group, USA.