
Employees' risk taking capabilities and learning organisation: moderating role of organisational size

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Abstract: The study aims to assess the moderating role of organisational size in the relationship between employees' risk taking capabilities and learning inside an organisation. A conceptual model has been framed based upon the 'grounded theory' methodology (Strauss and Corbin, 1990). Structural equation modelling (SEM) has been used to assess the model using AMOS (version 20) on 444 valid responses from entry and middle level IT employees. The findings of the study indicate that size of the organisation plays a significant role in leveraging the risk taking capabilities of employees and fostering continuous learning. Further, medium size organisations are doing better in leveraging risk taking capabilities of employees as compared to small and large organisations. The findings of the study shall help IT companies to develop some interventions in order to strengthen the risk taking capabilities of employees and strengthen overall organisational learning. No such effort has been made to assess the role organisational size in the relationship between employee's risk taking capabilities and learning organisation in Indian context. The study shall contribute in the existing literature and help HR practitioners in building successful learning organisation.

Keywords: learning organization; risk taking capabilities; continuous learning; information technology; India; organizational size.

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1 Introduction

Organisations these days expect their workforce to take bold decisions, remain lively and creative in order to bring innovative solutions on desk. Creativity and innovation are considered as the cornerstone of organisational change, development, and a key to organisational success and intelligence. From an individual's perspective also, risk taking capability is also associated to their individual performance as higher risk may take them surpass the critical performance targets.

Breaking the status quo and investing the resources in uncertain projects and activities is an essential part of every manager's job. Thousands of IT start-ups (companies) have been registered in India in the last few years and the success of these start-ups heavily depends upon employees' risk taking capability and to ensure that these risks help them becoming financially secure and sustainable. It is evident from the existing literature that more and more IT firms in India are emphasising upon fostering a learning culture (Bhatnagar, 2006) and such organisations are also coming up with improved financial results.

Risk taking capability may be defined as the propensity of employees in engaging themselves in activities that have significant possibilities of failure in terms of resources and commitments (Lumpkin and Dess, 1996). Certain conservative organisation may not appreciate the risk taking trait of the employees (Shepherd and Zahra, 2003), but it has been understood that majority of the well-organised organisations are nurturing the capabilities of employees in several ways, including effective dialogue and conversation,

promoting inquisitiveness and by involving employees in decision making (Aldrich and Cliff, 2003; Rogoff and Heck, 2003).

The growth of IT industry in India has been exponential and rapid in areas like automation, artificial intelligence, software development and IT-enabled services (ITeS). Indian organisations have witnessed significant changes in the marketplace forcing organisations to revisit their existing conventional strategies into learning practices by emphasising creativity and higher risk taking. It has been well recognised that risk taking fosters creativity and innovative behaviours of the employees. Creativity literature suggests that employees' creativity is an individual process driven by a delicate combination of personal characteristics, personal context, and organisational climate for creativity, whereas risk taking capability is an integral part of employees' creativity (Pareek, 1988; Zhou and George, 2001). For the current study, our view of employees' risk taking capability is considered as one of the important ingredient of employee's creativity.

The term 'learning organisation' was formally initiated in 1990's to explain organisations that experiment with unique ways of carry out businesses in order to endure in chaotic and extremely aggressive market forces as learning is the main mechanism through which individuals and organisations cope with novel challenges. Learning organisation has been formally defined as a living creature that generates an environment to enable individuals and systems to learn, grow and endure (Marsick and Watkins, 2001). Senge et al. (2005) reiterated that learning organisations are the organisations where individuals repeatedly increase their ability to generate the outcomes they truly wish, where innovative models of thinking are cultivated, where teams' aspirations are set free, and where individuals are repeatedly learning to witness the complete collectivism. The above has been considered as the operational definition for the study. Jamali and Sidani (2008) have suggested that the constant experimentation, employee development and participation are the most important ingredients of learning organisation.

2 Theoretical background and hypothesis

In this era of globalisation and competition, experimentation on novel ideas is considered to be one of the key success strategies for organisational survival and business excellence. In their voyage of becoming learning organisation, the organisations cultivate risk taking capabilities of their employees through its climate and culture. There exist numerous organisations which provide a reasonable support to the employees in the form of supportive leadership in order to develop risk-taking capabilities.

Researchers in the past have confirmed that organisational learning starts from individual doubts and ambiguity (Srikantia and Pasmore, 1996) which steers an individual to take risk and translate that risk-taken into collective conviction. Several evidences including start-ups in India and many e-commerce companies are available in the corporate world which ascertains that success is an outcome of taking risk and creating disruption where higher ambiguity is perceived by employees. The entrepreneurial orientation literature, it is well proven that risk-taking capabilities is one of the dimensions integrating the learning and success of organisations (Covin and Slevin, 1986). Some work has been done to find a connection between the creative organisation and learning organisation (Eskildsen et. al., 1999) wherein they have

considered organisational processes including communication procedures, organisational support in nurturing and managing innovation as the dimension of creative organisation.

It is also established that interpersonal risk taking capabilities affects the individual learning and knowledge management in organisations and individuals with having risk aversion act as a barrier to the learning and knowledge translation for innovation (St Amour, 2004). It has also been suggested in the past that organisations attempt to cultivate risk within its culture when it wants to experiment any new idea, product or action (Whitley, 2003) or they want to infuse the corporate entrepreneurship (Elia et al., 2017). It is also important for the organisations to mitigate the risk in order to defy the proposals which are too risky. A large number of researchers have established that the individual risk taking capability is an integral component to enhance creativity and innovation inside the organisation (Elia et al., 2017).

The relationship of individual creativity and learning culture has been conceptually discussed and proven in the existing literature (see White, 1994). Studies in existing literature on individual creativity primarily talks about aspects of individual creativity, its antecedents and its impact on organisational overall performance (Garvin, 1993) and do not capitalise on the relationship between risk taking capability as the components of individual creativity and its direct relationship with learning capabilities of organisation. In some studies, employee empowerment has been considered to be an important determinant of a learning organisation by the existing literature (Mishra and Bhaskar, 2010) and relationship of employee empowerment with self-efficacy and risk taking capabilities is established.

In the context of Indian IT industry, the proposition seems to have more consideration because of the global presence and high uncertainty in their businesses. IT and ITeS industry has been rated highest on the dimensions of learning organisation across India in several recent studies (example, Chawla and Joshi, 2011). Companies such as Tata Consulting Services, Infosys in India, Wipro, Tech Mahindra are among the early pioneers in building a learning culture. It is also evident from the research in Indian context (Awasthy and Gupta, 2011) that have studied the perception of employees regarding organisational learning capability contributes to firm's overall performance and knowledge management practices across manufacturing and service companies. More recent studies on IT industry suggest that HRM practices being a key driver of employee creativity significantly contribute in building knowledge management capacity and development of the employees (Gope et al., 2018; Manafi and Subramaniam, 2015).

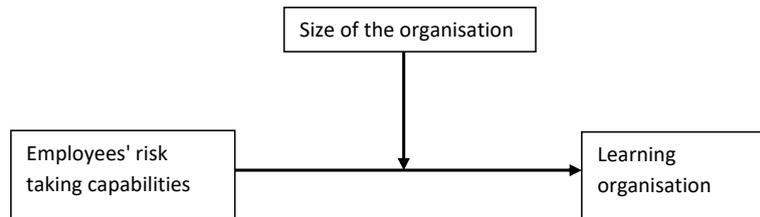
In the first decade of 21st century, many organisations took several initiatives and committed to be termed as learning driven organisations and the number of such organisations increased dramatically. Another study in India by Sachdev et al. (2007) suggested that mutual trust, pride on organisation and companionship are the primary factors responsible for building learning organisations. In Indian context, Ramnarayan (1998), emphasised that the organisational processes are ignored by organisations (he termed them as enabling environment or dimensions of learning organisation), which ultimately is responsible for strengthening or blocking the dissemination of these thoughts to all functions of the organisation.

Creation of a favourable work environment is an effective alternate suggested to foster the growth and learning of individuals in organisations. Some of the antecedents of learning organisation identified by researchers in Indian context include personal desire among individuals to grow, opportunities for interaction, assimilation of experience and

capability to assess one's potentialities (Chawla and Joshi, 2011). The work environment may include organisational structure, policies, culture and size. For example, Hurley and Hult (1998) have explained that group norms and group size make a considerable impact on the learning and innovativeness capabilities of an organisation. Openness in culture and promotion of creative ideas are the major ingredient of the group norms. Some literature is also available on the impact of organisational size, types of management practices and organisational culture on learning culture of an organisation (Goh and Ryan, 2002). It has been apparently reported in the study that size of the organisation possesses negative relationship with organisational learning capabilities.

McLean (2005) acclaims that organisational structure and culture facilitates and encourages the employees to take greater risk in order to have greater innovation. Not much literature in Indian was found which reveals the impact of organisational size on either employee's risk taking capability or level of learning or both. A conceptual model is drawn based upon the review of literature and considering the need of the study.

Figure 1 Conceptual model



Hypothesis consideration – employees' risk taking capability significantly contribute in fostering continuous learning in organisations and the size of the organisation does not moderate the relationship between employees' risk taking capability and continuous learning.

3 Research method

The sample of the study consists of six Indian global IT organisations chosen from the Business Today 500 (Year 2015) list through stratified sampling. All the companies listed in list have been categorised into three categories in terms of their market capitalisation. Organisations with market capitalisation of INR less than 10 billion, between 10 billion and 50 billion and between 50 billion and 1 trillion have been considered as relative small, medium and large organisations. Regional offices of these six companies have been considered and a first-hand information regarding their learning interventions are studied to formulate the ground rules. It was also recorded in the discussion with managers that there exist a difference in the learning intervention and risk taking capability of managers with respect to the size of the organisation. After obtaining a comprehensive feedback from twelve senior managers across six organisations regarding their learning methods, it was decided to undertake the study. The questionnaire was initially sent to one hundred employees (at two different levels) in each of the companies and a total of 445 questionnaires were collected and were found complete in terms of responses.

For qualitative examination, the research approach adopted in this study is based on the 'grounded theory' methodology (Corbin and Strauss, 1990). This methodology allows researchers to develop a theoretical interpretation of an organisational process. A set of managers were interviewed on the organisational processes that lead to building and sustaining a learning driven organisation. To a surprise, managers rated organisational age, size and workforce diversity among variables to persuade learning in their respective organisations.

3.1 Measures

The risk taking capability has been measured by a set of four statements taken from the Creativity Assessment Inventory designed by Pareek (2003). The instrument originally contains 24 statements; four for each of the six components namely challenge, freedom, liveliness, openness, conflict and risk taking. Continuous learning dimension of the learning organisation questionnaire (DLOQ) developed by Marsick and Watkins (2001) has been adopted for measuring the level of continuous learning in the organisations. The instrument has been accepted globally and more than 200 organisations have accepted the model across various countries (Marsick and Watkins, 2001). They have explained seven dimensions of learning organisation in their model namely creating continuous learning opportunities; promoting inquiry and dialogue; encouraging collaboration and team learning; establishing systems to capture and share learning; empowering people towards a collective vision; connecting the organisation to its environment; and leaders who model and support learning. The instrument to measure risk taking capability is designed and validated in Indian context (Pareek, 2003), whereas the instrument to measure the learning organisation is also validated in Indian context (Awasthy and Gupta, 2011). Five point scale (strongly disagree to strongly agree) has been used for both the instruments in order to maintain the parity on the analysis. The reliability of instruments was assessed by computing the coefficient alpha (Cronbach, 1951), that measures the internal consistency of the items. The alpha values for both the instruments (including subscales) were found to be satisfactory.

In order to ensure the content validity of the instruments, reviews from IT professionals and academicians was taken and as a result the language of certain statements has been modified. For the current study the first dimension of DLOQ (continuous learning) has been referred after considering the recommendation of industry experts and academicians and a collective score has been calculated. To validate the developed constructs, the research model is estimated with the confirmatory factor analysis (CFA) in which all measurement items are loaded on their expected constructs, and the constructs were correlated in the analysis (Anderson and Gerbing, 1988) to test the 1st order model validity. The 1st order construct validity (convergent and discriminant validity) of measurement model depends upon average variance extracted (AVE), MSV (square of maximum shared variance) and on ASV (square of average variance). The convergent validity and discriminant validity are tested using the estimate suggested by Anderson and Gerbing (1988). The indicated values for the model fit are given (Table 1).

Table 1 Construct reliability and validity analysis

	<i>Composite reliability score (CR)</i>	<i>Average variance extracted (AVE)</i>	<i>Mean square of variance (MSV)</i>	<i>Average square of variance (ASV)</i>
Learning organisation	0.862	0.609	0.003	0.002
Risk-taking capability	0.863	0.611	0.024	0.011

All the conditions of reliability and construct validity are found to be satisfactory (Table 1).

- composite reliability score (CR) > 0.7
- average variance extracted (AVE) > 0.5
- composite reliability score (CR) > average variance extracted (AVE)
- mean square of variance (MSV) < Average square of variance (AVE)
- average standardised variance (ASV) < average square of variance (AVE).

4 Data analysis and results

Descriptive analysis was undertaken in order to capture the level of risk taking capabilities and learning organisation for all set of organisations.

Table 2 depicts the descriptive statistics including mean, standard deviation and correlation are reported in Table 2. Mean score of 3.29 for learning organisation indicates that the participants strongly believe that their organisation is a continuously learning. Further the mean score for learning organisation is highest for the relative smaller organisations as compared to medium and large organisations (3.44, 3.12 and 3.31 respectively for smaller, medium and larger organisations). The mean score for risk-taking is 2.12 (out of 5) indicating lower risk taking capabilities of the employees across all sized organisations. The results of correlation analysis suggest a significant correlation between the risk taking capabilities of employees and learning organisation.

Table 2 Descriptive statistics

	<i>Constructs</i>	<i>Mean score</i> ¹	<i>Standard deviation</i>		<i>Correlation</i>	
			<i>Learning organisation</i>	<i>Risk-taking</i>	<i>Learning organisation</i>	<i>Risk-taking</i>
Learning organisation	3.29	0.50	1			
Risk-taking	2.12	0.92	0.614**		1	

Notes: **Correlation is significant at the 0.01 level (2-tailed). ¹Five point scale has been used (5 – strongly agree, 4 – agree, 3 – no opinion, 2 – disagree, 1 – strongly disagree) for all the set of questionnaires.

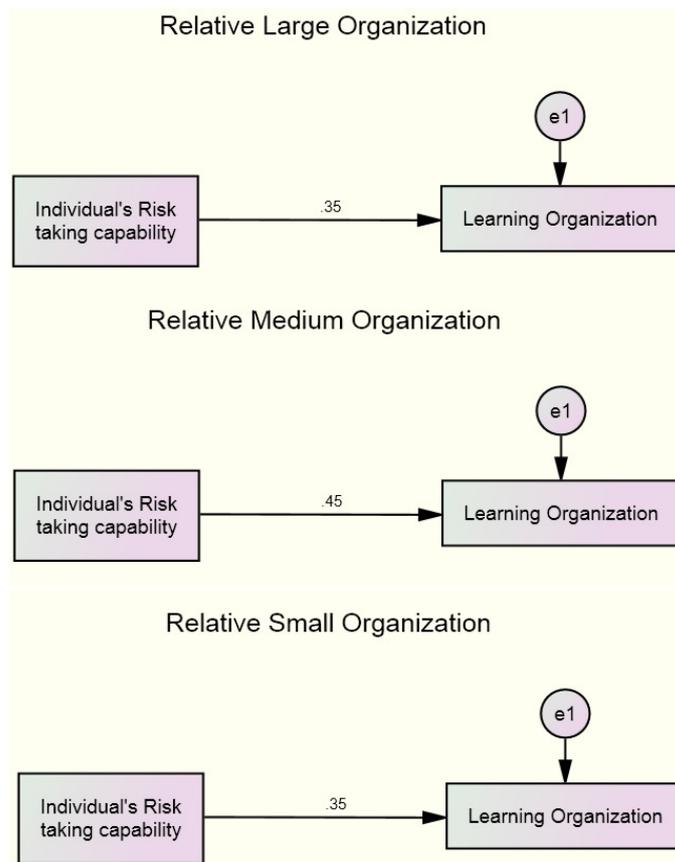
4.1 Moderating analysis

The data was collected and analysed using SPSS and AMOS (version 20) to test the conceptual model of the study. Regression analysis has been performed and the value of coefficient of determination and standardised beta values are reported (Table 3) and the relative change is R^2 and standardised beta values with respect to the size of the organisation has also been recorded. All the beta values are found to be statistically significant at 99% level of significance.

Table 3 Coefficient of determination (R^2) and standardised regression weights

	All organisation	Relative small organisation	Relative medium organisation	Relative large organisation
Coefficient of determination (R^2)	.38	.35	.45	.35
Standardised beta value (risk taking capability)	.24	.19	.26	.18
P value (significance)	0.003	0.007	0.000	0.009

Figure 2 Path diagram representing moderating effect of size of organisation (see online version for colours)



In the conceptual model, size of organisation has been taken as a moderating variable. Considering it is a categorical variable with three categories including large, medium and small organisations, multiple-group analysis has been used to compare two groups one time using AMOS. Path diagrams are created using AMOS (version 20) while considering the size of the organisation as moderating variable and coefficient of determination values are shown on the top of the arrow (Figure 2).

Three pairs (large and medium, large and small and small and medium respectively) are formulated. Z scores are calculated and a final table is drawn for each pair (Table 4). Table 4 includes the values of standardised coefficients, their respective p value and the Z score for the purpose of comparison.

Table 4 Composite table representing moderating role of size of organisation

<i>Relative large organisation</i>			<i>Relative medium organisation</i>			<i>Moderating role of size of organisation</i>	
<i>Beta value</i>	<i>P value</i>	<i>R²</i>	<i>Beta value</i>	<i>P value</i>	<i>R²</i>	<i>Z score</i>	<i>Significant</i>
0.18	0.009	.35	0.26	0.000	.45	2.231	Yes (Z value greater than 1.96)
<i>Relative large organisation</i>			<i>Relative small organisation</i>			<i>Moderating role of size of organisation</i>	
<i>Beta value</i>	<i>P value</i>	<i>R²</i>	<i>Beta value</i>	<i>P value</i>	<i>R²</i>	<i>Z score</i>	<i>Significant</i>
0.18	0.009	.35	0.19	0.007	.35	1.121	No (Z value less than 1.96)
<i>Relative small organisation</i>			<i>Relative medium organisation</i>			<i>Moderating role of size of organisation</i>	
<i>Beta value</i>	<i>P value</i>	<i>R²</i>	<i>Beta value</i>	<i>P value</i>	<i>R²</i>	<i>Z score</i>	<i>Significant</i>
0.19	0.007	.35	0.26	0.000	.45	2.435	Yes (Z value greater than 1.96)

In Table 4, the Z scores are calculated to check whether there exist any significant difference between the two groups and the Z score less than 1.96 (95% confidence level) suggests that there exist no significant difference in the relationship between risk taking capability and learning organisation. In the current study, it has been seen that the Z score is more than 1.96 in two cases out of three which means that the size of the organisation significantly moderates the relationship between employees' risk taking capabilities and learning organisation and for the medium size organisations are leveraging the risk taking capability the most in order to build learning organisation.

5 Major findings and discussion

The emphasis of the study is on establishing empirical evidence on the role of risk taking capability of managers on learning capabilities of employees inside the organisation. The findings confirm that the hypothesis based upon the review of literature and the grounded theory that managers' 'risk taking capability' significantly contribute in terms of building and sustaining learning organisation. This highlights the fact that for the Indian IT

companies, risk taking capability of managers is one of the most important individual traits in order to foster learning in respective organisations. Creativity and risk taking capability influence individual to learn new ideas find solutions of the problems (Elia et al., 2017). Our findings also suggest the organisations to create a framework of actions based upon greater risk and encourage the employees to participate in the actions.

Learning in past has also been referred to as new way of thinking and a new way of seeing the world and the external environment. The study argues that the risk taking capabilities of the employees fosters that thinking capability to see the world as the contemporary battleground and hence organisations must cultivate the risk taking capabilities. Existing literature (Khandekar and Sharma, 2006) also suggest that successful learning organisations in India are those which have institutionalise the processes of generating innovative ideas. Organisations in order to utilise and manoeuvre the risk taking capability of managers should empower the employees in decision making and in building innovative products. Some previous studies including study of Argyris and Schön (1996) and Garvin (1993) have already described that empowerment and learning organisations are connected to a certain extent. Similarly, Elia et al. (2017) found an obvious and significant relationship between risk taking and knowledge capabilities of organisations. For the current study, the risk taking capability of managers has been considered as a major ingredient of individual creativity which is in synchronisation with the systems approach which focuses upon nurturing the new and expansive patterns of thinking (Senge, 1992).

The study moreover reports that the size of the organisation significantly moderates the relationship between managers' risk taking capability and continuous learning inside the organisation. It has been apparently reported that medium size organisations are leveraging the managers' risk taking capability more in comparison to small and large size organisations. The existing literature (Hurley and Hult, 1998) only suggests that the organisational climate makes a considerable impact on learning culture of the organisation. Organisational structure and decision making power significantly affects the level of learning and it has been observed that organisations with higher centralisation and mechanistic structure will have higher tendency to adhere similar processes and lesser risk taking capabilities (Duncan, 1974). Organisational life cycle may have another role to play in creating an environment of learning and medium sized organisations may be at the peak continuous learning and cultivating risk taking behaviour.

Certain psychological theories suggest that conflict is an essential condition for continuous learning, so it would be important to understand that nature and intensity of conflict essential for taking calculated risks (Lee et al., 2015). This finding shall help the exploring the traits of the medium sized organisations in which may act as a benchmark for the relative smaller and large size organisations in institutionalising the organisational process relating to nurturing managers' risk taking capabilities.

6 Limitations and future research dimensions

The study is confined to assessing the impact of individuals' risk taking capability on the learning capabilities of the organisation and risk taking capability has been considered as a key ingredient of individual creativity. Apart from risk taking capability and individual creativity, there exist other components of organisations including the cultural

differences, type of company, overall performance and leadership style that have a greater moderating role to play in the relationship stated relationship (Jain and Moreno, 2015; Chawla and Joshi, 2011; Singh, 2008). Further, the size of the organisation, which has moderating effect on the relationship between risk taking and learning, is relative to each other and not absolute small, medium or large.

Responses were collected using self-reporting method (questionnaire) and there may be a thread of common method biases. It would also be interesting to identify the type of learning cultivated by risk taking capabilities of employees on whether the learning is strategic or tactical. A similar study may be conducted on other industries and moderating role of organisational size may be assessed in the stated relationship. Longitudinal study may also be conducted in organisations to see the incremental effect of size of the organisation on the risk taking and learning capabilities.

7 Concluding remarks

The study is administered by using two standardised scales on continuous learning and individuals' risk taking capabilities across six IT companies located at different locations of India. The results of the study suggest that the risk taking capability of managers significantly influences the continuous learning capabilities of the organisation. The findings strongly suggest that the organisations must invest in examining and promoting the risk taking capabilities of managers to augment the learning culture. The organisations should seek active involvement of employees and promote young leaders to take courageous decisions for the betterment of the organisation. Additional investment must be made in on job enrichment, developmental programs and additional responsibilities may be given to employees as well. Results also reveal that the relationship is significantly stronger for the relative medium size organisations as compared to the small and large organisations which indicate that smaller organisations are risk averse and since systems are well established for the larger organisations, employees risk taking and learning may stagnate. The findings assert that for relative medium size organisations, employees are learning via taking risks and being creative.

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Appendix

Instrument used for the study

Rate the following statements for on a scale of one to five (1 – strongly disagree and 5 – strongly agree).

Part A

- 1 I am open in taking initiative.
- 2 I take responsibility readily.
- 3 I hesitate giving or acting on new ideas.*
- 4 People think that I am impractical.*

*Stands for reverse statement

Part B

- 1 In my organisation, people openly discuss mistakes in order to learn from them.
- 2 In my organisation, people identify skills they need for future work tasks.
- 3 In my organisation, people help each other learn.
- 4 In my organisation, people get money and other resources to support their learning.
- 5 In my organisation, people are given time to support learning.
- 6 In my organisation, people view problems in their work as an opportunity to learn.
- 7 In my organisation, people are rewarded for learning.