

The Relationship Between Learning Orientation and Business Performance: Do Smaller Firms Gain More from Learning Orientation?

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The purpose of this study is to measure the relationship between learning orientation of firms and their business performance. It also explores the moderating effect of firm size on relationship between learning orientation of firms and their business performance. The study was conducted on manufacturing and service sector firms from the State of Punjab, India. Self-developed non-disguised questionnaire has been used for the study. A purposive sample of 278 key informants (senior level managers who have insight about learning orientation and performance status of the firm) was used. Exploratory and confirmatory factor analyses were used to validate the learning orientation and business performance scales. The hypotheses were tested using multi-group moderation and structural equation modeling. The study shows that learning orientation has significant positive effect on business performance. The results have indicated that firm size (based on investment) significantly moderates the relationship between learning orientation and business performance. The findings of the study are relevant for practitioners as well as researchers. Practicing managers can gain insights from the suggested learning orientation and performance relationship, especially when they are engaged in small cap firms struggling to compete with relatively established businesses. Future researchers can use the scales developed in this study. The study contributes to the knowledge management literature by providing empirical evidence for relationship between learning orientation and business performance.

Introduction

Organizations are perpetually searching for strategies to gain and sustain competitive advantage. Turbulent business environment renders the conventional strategies obsolete. In such a scenario, firms need to update their skills and capabilities to survive and grow. Effective strategy for sustaining and improving firm's competitive edge and performance is having high organizational learning orientation (Senge, 1990; Sinkula et al., 1997; and Salim and Sulaiman, 2011). Learning is acquisition of knowledge or skills through study and experience. It is a critical operational resource because it enables the firm to maintain competitive advantage by continuously improving its capacity to process market knowledge at a faster rate than its rivals (Dickson, 1996).

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It is suggested that knowledge management and organizational learning play an important role in creating organizational capability which leads to superior performance (Theriou and Chatzoglou, 2007; and Simonin and Ozsomer, 2009).

Learning orientation stands for the tendency of the organization to create and apply knowledge in organization. Learning orientation is an important antecedent of knowledge management orientation (Vij and Sharma, 2004). It is a set of values exhibited by the organization that demonstrate that organization is likely to develop a learning culture (Sinkula *et al.*, 1997). One of the most important characteristics of learning-oriented firms is that they foresee environmental and market changes and make adjustments (Senge, 1990).

Learning orientation is the way firms view their environment both internally as well as externally and act in their own interests (Martinette and Leeson, 2009). It is the extent to which an organization acquires information, skills and knowledge necessary for creating value in an organization. It is the process of obtaining and disseminating the knowledge about customers, competitors and market changes to create new services that are superior as compared to competitors (Chaveerug and Ussahawanitchakit, 2008). It is a mechanism that directly affects a firm's ability to challenge old assumptions about the market and how a firm should be organized to address it (Baker and Sinkula, 1999a).

Business performance is defined as the degree to which the organization is able to meet the needs of its stakeholders and its own needs for survival. It is influenced by different factors that are combined in different ways to both increase and detract performance (Griffin, 2003). The measure of performance may be objective (available in financial statements) or perceived/subjective. The use of subjective measure is a common practice in strategy-related research when financial statement data are unavailable or they do not allow for accurate comparisons amongst firms. Moreover, literature shows that there is a high correlation between subjective and objective measures of performance (Dess and Robinson, 1984).

The present study endeavors to test the relationship of learning orientation of firms with their business performance. It also attempts to study the moderating effect of firm size on this relationship.

Literature Review and Formulation of Hypotheses

Organization learning is considered as an important way to gain competitive advantage. Business unit's ability to learn is the key to competitive advantage (Sinkula *et al.*, 1997). Learning orientation involves individuals across the organization creating and using knowledge for a competitive advantage (Calantone *et al.*, 2002; and Laverie *et al.*, 2008). An organization should not only focus on becoming learning organization but also facilitate learning throughout the whole supply chain to maintain its competitive edge (Maqsood *et al.*, 2007). Learning orientation and new product development are important for successful performance. The results have indicated that commitment to learning, shared vision, open-mindedness, intra-organizational knowledge and new product development have positive influence on performance. Enterprises must fully understand the market conditions to develop new products (Li and Li, 2006; Prieto and Revilla, 2006; Brachos *et al.*, 2007; Promket, 2007;

Chaveerug and Ussahawanitchakit, 2008; Harrim, 2008; Lin *et al.*, 2008; Martinette and Leeson, 2009; Pett and Wolff, 2010; and Eshlaghy and Maatofi, 2011).

Understanding the nature of learning organizations may provide an understanding of high performing firms (Wang and Wei, 2005; Lin *et al.*, 2008; and Pett and Wolff, 2010). Organizations with good learning orientation have specific mechanisms for sharing lessons learned in organizational activities across the departments (Keskin, 2006). These organizations use the knowledge management system or mechanisms to create an opportunity for individuals and organizations to learn and ensure linking organization learning with strategy to improve the performance (Lien *et al.*, 2007; and Ajmal *et al.*, 2009). Employees across all levels and divisions have shared vision in organizations with high learning orientation (Keskin, 2006). Learning organizations are guided by a shared vision that focuses the energies of organizational members on creating superior value for customers (Slater and Narver, 1995). Here, managers consult employees frequently to discuss new developments (Zhou and Uhlaner, 2009) and they realize the importance of accepting diverse viewpoints (Li and Li, 2006). Employee learning is seen as an investment not an expense (Phromket, 2007; and Wang, 2008). Managers continually judge the quality of the activities and decisions taken over time (Galar and Heijden, 1992). The organization actively encourages employees and customers to give feedback and give suggestions for improvements (Laverie *et al.*, 2008). Colleagues are always ready for new learning and the organization provides enough opportunities for learning (Vij and Sharma, 2004). Learning in an organization is seen as a key commodity necessary to guarantee organizational survival (Wang, 2008).

Literature suggests that learning orientation is associated with business performance. Over the years, a number of studies have focused on the relationship between learning orientation and business performance (e.g., Wang and Wei, 2005; Li and Li, 2006; Prieto and Revilla, 2006; Brachos *et al.*, 2007; Lien *et al.*, 2007; Phomket, 2007; Chaveerug and Ussahawanitchakit, 2008; Harrim, 2008; Lin *et al.*, 2008; Ajmal *et al.*, 2009; Pett and Wolff, 2010; and Eshlaghy and Maatofi, 2011).

Many studies show that learning orientation positively and significantly affects business performance (Sinkula *et al.*, 1997; Baker and Sinkula, 1999a; 1999b; 2002; and Martinette and Obenchain-Leeson, 2012). Some studies show the indirect effects of learning orientation on business performance. Calantone *et al.* (2002) assert that learning orientation increases organizational performance directly and indirectly through its influence on competitive advantage. Innovativeness mediates the relationship between learning orientation and financial performance (Nybakk, 2012). Wang (2008) suggests that learning orientation does not affect the business performance directly; it mediates the relationship between entrepreneurial orientation and performance. In this context, we propose the following hypothesis:

H₁: Learning orientation is significantly, directly and positively related to business performance.

In recent years, firm size as a moderator has gained the attention of many strategic management researchers. Firm size moderated the relationships in many studies, e.g., between

manufacturing technology use and performance (Swamidass and Kotha, 1998), between knowledge strategies and technological strength (Gopalakrishnan and Bierly, 2006), between IT competency and developmental performance (Gibb and Haar, 2007), between organizational learning and business performance (Real, 2008), between market-based capabilities and business performance (Ramaswami *et al.*, 2009), between business strategy and performance (Kannadhasan and Nandagopal, 2011), between profitability and leverage (Chen and Chen, 2011), between tangible resource barriers and export performance (Junaidu *et al.*, 2012), between institutional quality and export performance (LiPuma *et al.*, 2013), between innovation and financial/operational performance (García-Zamora *et al.*, 2013), between innovation and sales growth (Uhlener *et al.*, 2013), between organization learning and organizational performance (Hui *et al.*, 2013), between Internet usage and traditional distribution channels (Al-abdallah *et al.*, 2014), and between knowledge-sharing orientation and business performance (Vij and Farooq, 2014).

However, firm size did not moderate the relationship between information technology competency and market performance (Gibb and Haar, 2007). Similarly, firm size did not moderate the relationship between competitive advantage and performance (Ismail *et al.*, 2010).

Small firms and large firms differ in competitive behavior (Chen and Hambrick, 1995). Smaller firms have advantages built upon speed, flexibility, and niche-filling capabilities, while large firms have advantages based on 'deep pocket' to exert bargaining power over suppliers and customers, and to compete on broad-based strategies and reputation (Dean *et al.*, 1998).

There are a variety of criteria for defining the firm size, e.g., total assets, total investment, net worth of the firm, number of employees, etc. An ideal definition of business size depends on the purpose of the study, and it could vary in different countries and in different types of industries (Askarany and Smith, 2008).

The size of the firm (based on the number of employees/based on investment) may moderate the relationship between learning orientation—business performance as well. Hence, we propose:

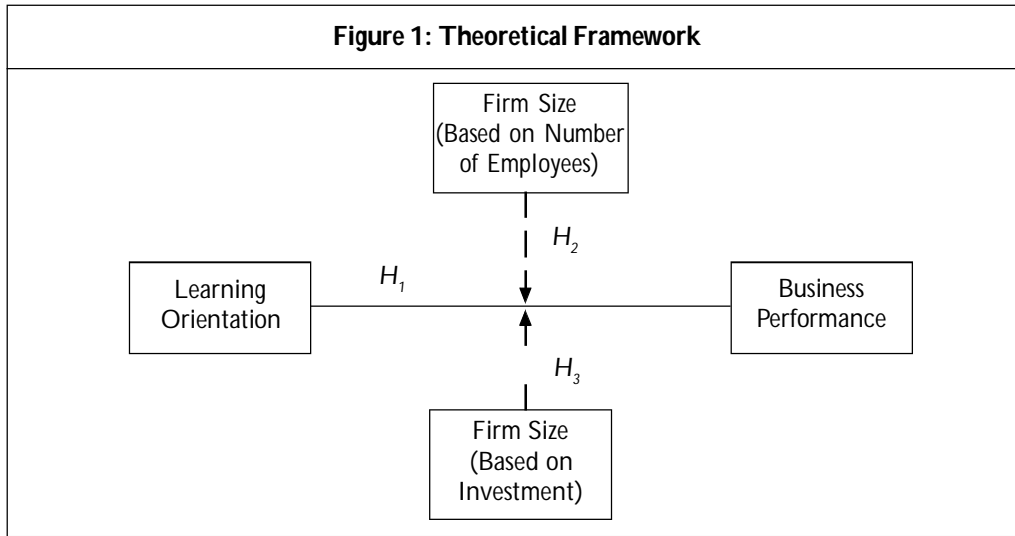
H₂: Learning orientation has a relationship with business performance, which is invariant across firms differing by size (based on number of employees).

H₃: Learning orientation has a relationship with business performance, which is invariant across firms differing by size (based on investment).

The theoretical framework shown in Figure 1 represents the research issues proposed to be studied.

Methodology

The study was conducted on manufacturing and service sector firms from the State of Punjab, India. A purposive sample of 300 key informants (senior level managers who have insights into learning orientation and performance status of the firm) was taken. A questionnaire was administered on the sample (Appendix 1). The questionnaire included two scales for



measuring ‘learning orientation’ and ‘business performance’. The learning orientation scale included ten items and the business performance scale included eight items. Various statements of learning orientation and business performance have been identified based on the review of literature (Appendix 2). Business performance has been measured using subjective performance of the firm relative to industry average for the past three years. The selected items were got vetted by experts for content validity. The suggestions of the experts were incorporated and the instrument was pilot tested. No issues were reported by the respondents. The relative performance has been measured on different dimensions related to all functional areas as suggested by balanced scorecard approach (Kaplan and Norton, 1992). Scales used for measuring the constructs were validated before further use for analysis as per the procedure suggested by Churchill (1979).

Out of the 290 filled questionnaires returned, 278 responses were found fit for analysis and were used for testing the hypotheses. Table 1 shows the profile of the sample.

Table 1: Sample Profile			
Criteria	Category	Number of Respondents (N = 278)	%
Firm Size (Based on Investment)	≤ ₹100 mn	158	56.8
	> ₹100 mn	120	43.2
Firm Size (Based on Number of Employees)	≤ 250	96	34.5
	Above 250	182	65.5

Results and Discussion

Structural Equation Modeling (SEM) was used to check the relationship of learning orientation with business performance. Before testing the structural relations, Confirmatory

Factor Analysis (CFA) utilizing Maximum Likelihood (ML) estimation method was applied to validate the learning orientation and the business performance scales. The psychometric properties of the scales were assessed using χ^2/df , Goodness-of-Fit Index (GFI), Comparative-Fit Index (CFI), Root Mean Square Error of Approximation (RMSEA), Adjusted Goodness-of-Fit Index (AGFI) and Root Mean Residual (RMR).

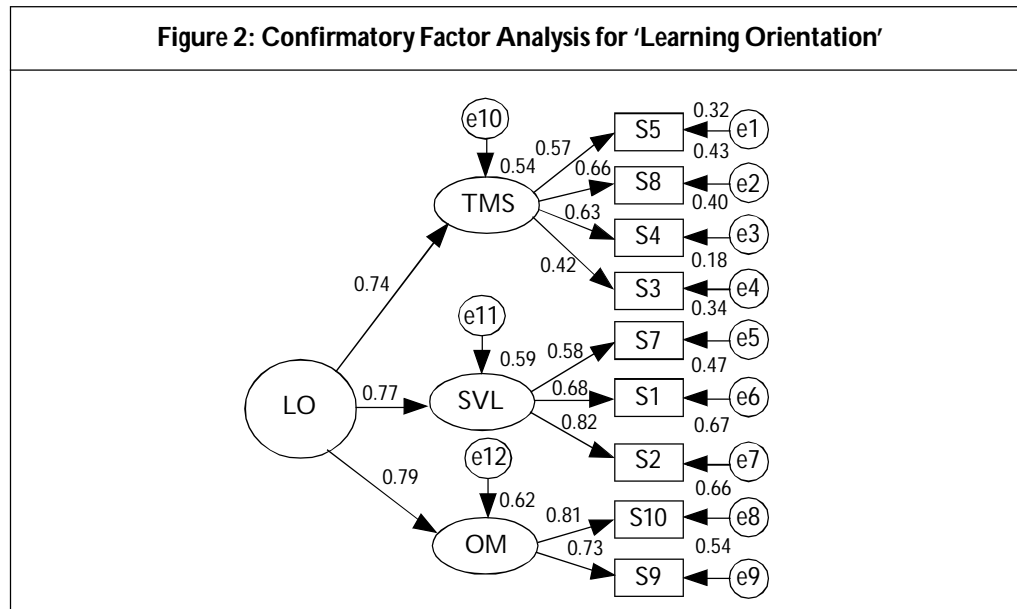
Validation of Learning Orientation (LO) Scale

Learning orientation has been measured using 10-item 5-point scale. On application of CFA, the psychometric properties of the model indicated a poor fit (RMR = 0.051, GFI = 0.856, AGFI = 0.779, RMSEA = 0.134, CFI = 0.732, $\chi^2 = 215.213$, $df = 36$, $\chi^2/df = 5.978$). Therefore, it was decided to reduce the observed variables to a smaller number of correlated factors using Exploratory Factor Analysis (EFA). The Measure of Sampling Adequacy (MSA) was found to be 0.795. Bartlett's test of sphericity showed a statistically significant number of correlations among the variables (Approx. $\chi^2 = 703.796$, $df = 45$, significance = 0.000). We have assumed learning orientation to be unidimensional construct, with factor representing the dimensions. These dimensions (factors) need to be correlated for learning orientation to be unidimensional. The only flexibility in EFA analysis is the rotation and extraction method. In cases where a correlation exists between the factors, the assumption of a higher order factor cannot be made (Rubio *et al.*, 2001). Therefore, Principal Component Analysis (PCA) using oblique rotation with promax was run to generate meaningful but correlated factors (Hair *et al.*, 2010).

Three factors were extracted, which accounted for 60.266% of the total variance. One of the items (S6) did not load on any of the factors. The three extracted factors have been given appropriate names [Shared Vision and Learning (SVL), Top Management Support (TMS), Open Mindedness (OM)] on the basis of variables represented in each case. Table 2 summarizes the results of EFA.

Table 2: Results of Exploratory Factor Analysis for Learning Orientation Scale		
Factor Name	Name of Dimensions (% of Variance)	Statement (Factor Loading)
Factor 1 (SVL)	Shared Vision and Learning (35.743)	S7 (0.825)
		S1 (0.699)
		S2 (0.616)
Factor 2 (TMS)	Top Management Support (13.759)	S5 (0.838)*
		S8 (0.670)*
		S4 (0.594)
		S3 (0.521)*
Factor 3 (OM)	Open Mindedness (10.764)	S9 (0.886)
		S10 (0.791)
Note: * these statements are negative and have been reverse coded.		

CFA was run again with three extracted factors as the dimensions of learning orientation (as shown in Figure 2). The psychometric properties of the model indicated a good model fit (RMR = 0.030, GFI = 0.950, AGFI = 0.905, RMSEA = 0.079, CFI = 0.932, $\chi^2 = 65.802$, $df = 24$, $\chi^2/df = 2.742$).



The dimensionality of the learning orientation construct was tested using Average Variance Extracted (AVE) and Construct Reliability (CR), as suggested by Fornell and Larcker (1981). AVE of the construct was 0.586, which is above the threshold level (0.50), ensuring the convergent validity of the learning orientation scale. Similarly, learning orientation construct was found to be reliable with CR = 0.809, much above the threshold level (0.50).

Validation of Business Performance (BP) Scale

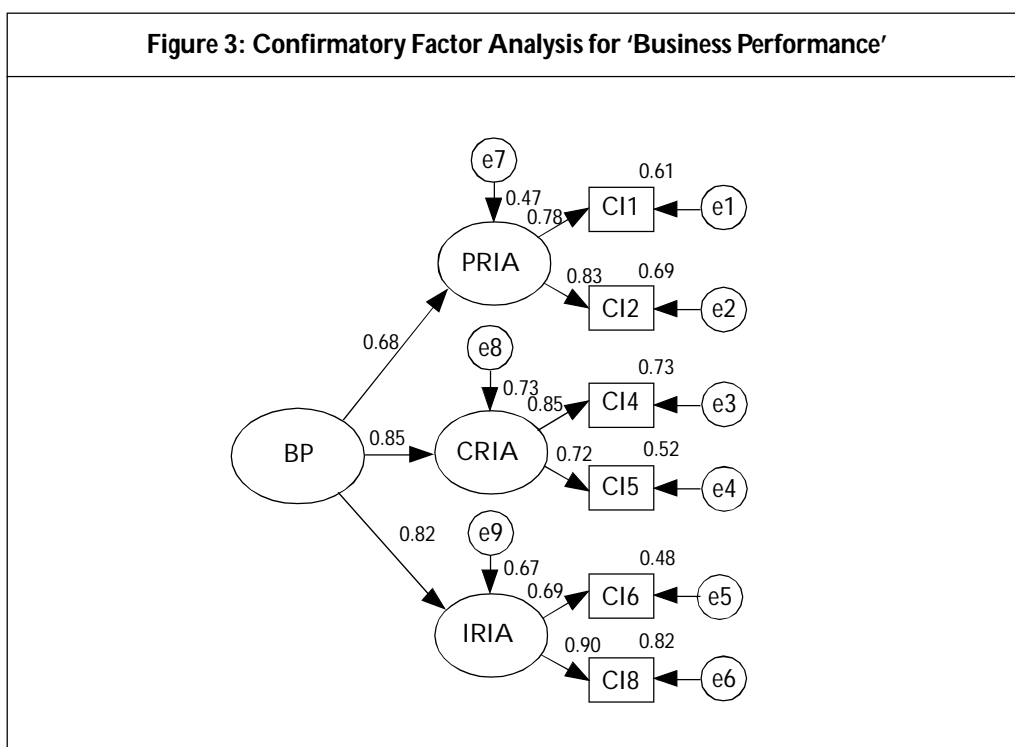
Business performance has been validated using 8-item scale. The results of CFA revealed a poor model fit. As there were a lot of modification indices, it was decided to reduce the observed variables to a smaller number of correlated factors using EFA.

Overall MSA was found to be 0.779, and Bartlett's test of sphericity showed a statistically significant number of correlations among the variables (approx. $\chi^2 = 1059.343$, $df = 28$, significance = 0.000). For extraction of factors, PCA and oblique rotation (Promax) were used. We have assumed subjective measure of business performance to be a unidimensional construct, with factors representing the dimensions. Three factors were extracted, which accounted for 75.924% of the total variance. The three extracted factors have been given appropriate names [Profitability Relative to Industry Average (PRIA), Customer Satisfaction Relative to Industry Average (CRIA), Innovativeness Relative to Industry Average (IRIA)] on the basis of the variables represented in each case. Table 3 summarizes the results of EFA.

CFA was applied to validate the 'business performance relative to industry average' (BP) construct. The psychometric properties showed a poor model fit (RMR = 0.021, GFI =

Table 3: Results of Exploratory Factor Analysis for Business Performance Scale		
Factor Name	Name of Dimensions (% of Variance)	Statement (Factor Loading)
Factor 1 (PRIA)	Profitability Relative to Industry Average (51.623)	CI1 (0.916)
		CI2 (0.796)
		CI3 (0.510)
Factor 2 (CRIA)	Customer Satisfaction Relative to Industry Average (12.737)	CI4 (0.735)
		CI5 (0.932)
Factor 3 (IRIA)	Innovativeness Relative to Industry Average (11.564)	CI6 (0.947)
		CI7 (0.863)
		CI8 (0.693)

0.899, AGFI = 0.787, RMSEA = 0.136, CFI = 0.881, $\chi^2 = 141.778$, df = 17, $\chi^2/\text{df} = 4.070$). So, it was decided to go in for item purification and the items CI3 and CI7 were dropped because of high modification indices. The incremental model fit (RMR = 0.013, GFI = 0.979, AGFI = 0.925, RMSEA = 0.088, CFI = 0.979, $\chi^2 = 18.847$, df = 6, $\chi^2/\text{df} = 3.141$) indicates a good fit (Figure 3).



The construct validity was tested using AVE and CR. Satisfactory values for these indicators [(AVE = 0.632), (CR = 0.911)] established the validity of the business performance scale.

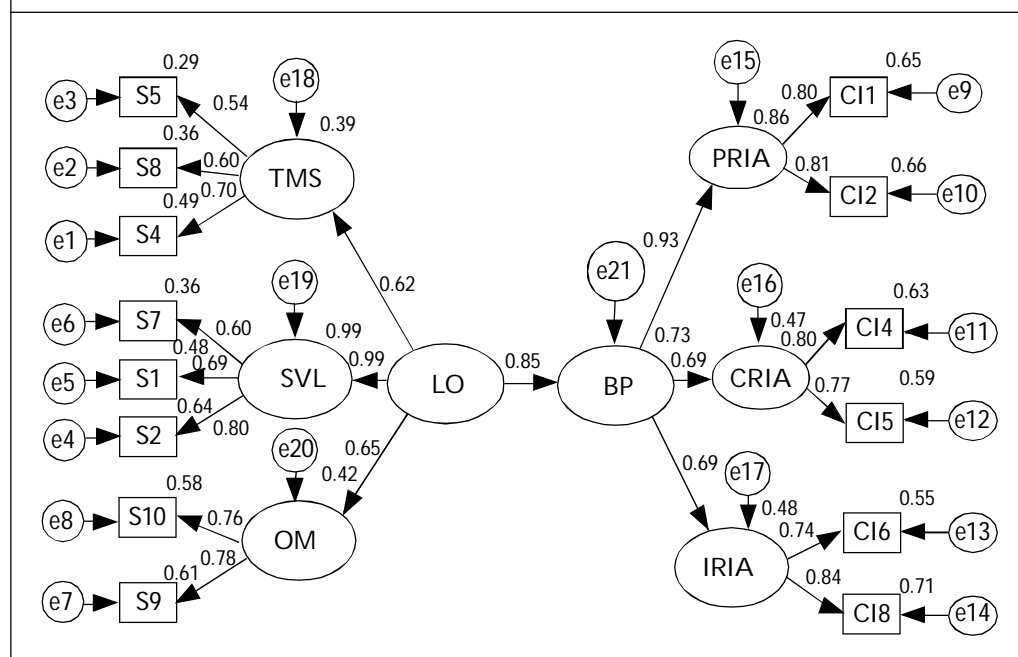
Structural Equation Modeling

To test the first hypothesis, a multistage approach has been adopted, whereby a measurement model is fitted before testing a structural model, for probable relationships between the constructs. A measurement model typically represents all constructs with non-causal relationships among them. The structural model applies the structural theory by specifying which constructs are related to each other and the nature of each relationship (Hair *et al.*, 2010).

On application of CFA, one of the items S3 had to be deleted because of very low standardized regression weight. After deleting this item, the psychometric properties of the fitted measurement model (RMR = 0.026, GFI = 0.909, AGFI = 0.864, RMSEA = 0.078, CFI = 0.915, $\chi^2 = 188.305$ significant at $p < 0.05$, $df = 70$, $\chi^2/df = 2.690$) indicated a good model fit.

In the second stage, structural model was fitted by replacing the covariance arrow with directional arrow between the constructs (Figure 4). The model fit indices for SEM (RMR = 0.026, GFI = 0.909, AGFI = 0.864, RMSEA = 0.078, CFI = 0.915, $\chi^2 = 188.305$, $df = 70$, $\chi^2/df = 2.690$) suggested a good model fit. There was no change in model fit indices while moving from measurement model to structural model, which indicates that structural model did not reduce the model fit due to its specific relationship.

Figure 4: SEM for Relationship Between Learning Orientation and Business Performance



The standardized estimates for path LO→BP was 0.85, significant at 1% level. Thus, the first hypothesis that 'Learning orientation has a significant, direct and positive relationship with business performance' is supported.

Multi-Group Moderation Analysis

To test the second hypothesis that relationship of learning orientation with business performance is invariant across firms differing by firm size, multi-group moderation analysis has been used. A moderation effect occurs when a third variable or construct changes the relationship between two related variables/constructs.

Moderation typically involves the testing of structural model estimates. The process involves multi-group analysis for testing measurement invariance. The first group model is estimated with path estimates calculated separately for each group. Then a second group model is estimated where the path estimate of interest is constrained to be equal between the groups. A comparison of differences between models with a chi-square difference test indicates if the model fit decreased significantly when the estimates were constrained to be equal. A statistically significant difference between models indicates that the path estimates were different and the moderation does exist (Hair *et al.*, 2010).

Firm Size as a Moderator

To test for the moderating effect of 'firm size based on number of employees' (groups: 'employees ≤ 250 ' and 'employees above 250'), a two-group structural model was set up. First, the Totally Free (TF) structural model estimated an identical structural model in both groups simultaneously. Then, a second group model was estimated, with the path estimates constrained to be equal in both groups. The model fit statistics and path estimates for the LO→BP relationship are shown in Table 4. The results show that firm size (based on number of employees) does not moderate the relationship between learning orientation and business performance relative to industry average. Therefore, the second hypothesis that learning orientation has a relationship with business performance, which is invariant across firms differing by size (based on number of employees) is supported. It can be concluded that firm size (based on number of employees) does not moderate the relationship between learning orientation and business performance.

Table 4: Testing of Firm Size (Based on Number of Employees) as Moderator in the Model			
Model Characteristics	Unconstrained Model (TF for Each Group)	Constrained Model (LO→BP Equal Across Groups)	Model Differences ($\Delta\chi^2$)
Model Fit			
χ^2	290.56	304.515	13.955**
df	143	153	13
CFI	0.891	0.891	–
RMSEA	0.062	0.060	–
Note: ** not significant.			
Standardized Regression Weight	≤ 250	> 250	
	0.962	0.760	

In case of firm size based on investment (groups: investment \leq ₹100 mn and investment greater than ₹100 mn), the path LO→BP is significant only for smaller firms (investment \leq ₹100 mn) with a completely standardized estimate of 0.858 (significant at 5%), as compared to an insignificant standardized estimate of 0.595 for larger firms (Table 5). Thus, the third hypothesis that learning orientation has a relationship with business performance, which is invariant across firms differing by size (based on investment) is not supported. It can be concluded that firm size (based on investment) moderates the relationship between learning orientation and business performance.

Table 5: Testing of Firm Size (Based on Investment) as Moderator in the Model			
Model Characteristics	Unconstrained Model (TF for Each Group)	Constrained Model (LO→BP Equal Across Groups)	Model Differences ($\Delta\chi^2$)
Model fit			
χ^2	279.254	351.538	72.284*
df	140	153	13
CFI	0.901	0.860	–
RMSEA	0.060	0.069	–
Note: * significant at 0.05 level.			
Standardized Regression Weight	\leq ₹100 mn	$>$ ₹100 mn	
	0.858*	0.595	

Conclusion

The study shows that learning orientation has significant positive effect on business performance. The finding lends support to the results of the studies showing a positive relationship between learning orientation and performance (e.g., Sinkula *et al.*, 1997; Hurley and Hult, 1998; Calantone *et al.*, 2002; and Eshlaghy and Maatofi, 2011). The study also shows that the effect of learning orientation on business performance is more pronounced in small cap firms. Probably larger firms having huge financial resources can depend upon hiring highly skilled, trained and mature employees (who may not gain much because of learning orientation in the firm). On the contrary, smaller firms with meager financial resources have to depend upon their semi-skilled and immature employees who are likely to gain and develop more from better learning orientation of the firm, whereby everyone is open-minded and shares the vision of the highly supportive top management. This kind of culture, with high learning orientation amongst the employees, in small cap firms has huge potential of generating creative, innovative and new business ideas which may lead to superior business performance. The results of the current study provide empirical evidence to support these arguments.

Organizations committed to learning, having shared vision and specific mechanisms for sharing their experiences are more innovative and high performing. It is incumbent upon firms to create a high level of awareness about the benefits of learning orientation, sharing

knowledge and using information technology efficiently to enhance organizational learning capability. Organizations should not hesitate in spending on learning initiatives of employees because in the long run it will be investment, not an expense. Learning-oriented firms should focus on exploiting and leveraging their existing competitive advantage to provide better value and capture market for superior overall business performance.

The findings of the study are relevant for practitioners as well as researchers. Practicing managers can gain insights from the suggested learning orientation and performance relationship, especially when they are engaged in small cap firms struggling to compete with relatively established businesses having enormous financial resources. Harrim (2008) also suggests that management should exert consistent efforts to maintain and nourish continuous learning orientation to attain steadily higher performance levels. Organizational learning capability can be increased by creating conditions whereby managers are willing to apply, share and exchange knowledge with other employees in an organization (Rampersad, 2002). It is suggested that open-mindedness and shared vision should drive the execution of strategy. Firms should treat spending on employee learning as an investment, accept diverse viewpoints, adopt consultative approach and provide specific mechanisms for sharing tacit knowledge. High learning orientation can thus provide sustainable competitive advantage for organizational survival and growth.

The study also contributes by developing and validating scales for 'learning orientation' and 'business performance' constructs. Future researchers may benefit from the use of these scales.

Limitations and Suggestions for Future Research: The findings of the study may not be generalized as these are based on survey of firms from the State of Punjab (India) only. It uses cross-sectional data and the subjective perception of key informants representing each firm. Nevertheless, the study throws light on important issues concerning learning orientation and business performance.

The findings of the study may further be validated by future researchers using different research designs and cross-checking the perception of key informants from some of the firms by taking objective secondary data available for the concerned firms. Future researchers may also explore the mediating effect of some variables like entrepreneurial orientation, market orientation, etc., while studying the relationship between learning orientation and business performance. They may also explore the moderating effect of other possible variables like firm age, organizational structure, industry type, etc. ■

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Appendix 1

Questionnaire

Dear Sir/Madam,

Please spare some time from your busy schedule to answer the following questions. The information provided by you will be kept confidential and will be used for academic purpose only.

Instruction

Following are some of the questions about the relative performance of your organization.

As compared to the industry average, in the past three years, how has your business performed on the following parameters?

(Please tick the appropriate rating: 1 = Much Worse, 2 = Worse, 3 = Almost Same, 4 = Better, 5 = Much Better)

Code	Parameter	1	2	3	4	5
CI1	Sales growth					
CI2	Profitability					
CI3	Market growth rate					
CI4	Service quality					
CI5	Customer satisfaction					
CI6	Product innovation					
CI7	Process innovation					
CI8	Product quality					

Please indicate your agreement or disagreement with the following statements (5 = Strongly Agree, 4 = Agree, 3 = Neither Agree Nor Disagree, 2 = Disagree, 1 = Strongly Disagree):

Statement No.	Statement	1	2	3	4	5
S1	We have specific mechanisms for sharing lessons learned in organization activities from department to department.					
S2	There is total agreement on our organizational vision across all levels, functions and divisions.					
S3	Managers do not consult employees frequently to discuss new developments.					
S4	In our organization, employee learning is an investment not an expense.					

Appendix 1 (Cont.)

Statement No.	Statement	1	2	3	4	5
S5	Managers do not agree that it is important to accept diverse viewpoints.					
S6	Our business unit's ability to learn is the key to our competitive advantage.					
S7	My colleagues are always ready for new learning and our organization provides enough opportunities for learning.					
S8	Learning in my organization is not seen as a key commodity necessary to guarantee organizational survival.					
S9	We continually judge the quality of our activities and decisions taken over time.					
S10	We actively encourage employees and customers to let us know if we are going wrong in the way we do things and to let us know how we can improve.					

Please answer the following questions about your organization:

1. Name of the organization: _____
2. What is your role?
 - a. Executive Leadership/CEO ☐
 - b. Senior Management/Vice-President ☐
 - c. Middle Management ☐
 - d. Administrative Staff/Non-Management ☐
3. Number of employees in the organization:

a. Less than 10 <input type="checkbox"/>	b. 11-50 <input type="checkbox"/>
c. 51-250 <input type="checkbox"/>	d. Above 250 <input type="checkbox"/>
4. The organization is in:

a. Manufacturing Sector <input type="checkbox"/>	b. Service Sector <input type="checkbox"/>
--	--
5. Number of years of existence of the organization:

a. 5 years <input type="checkbox"/>	b. 6-10 years <input type="checkbox"/>
c. 11-15 years <input type="checkbox"/>	d. 16 years <input type="checkbox"/>

Appendix 1 (Cont.)

6. The approximate total investment in our firm (in plant and machinery, equipment, etc.) is in the range of

- | | | | |
|---------------------|--------------------------|------------------|--------------------------|
| a. ₹10-25 lakh | <input type="checkbox"/> | b. ₹25 lakh-2 cr | <input type="checkbox"/> |
| c. ₹2-5 cr | <input type="checkbox"/> | d. ₹5-10 cr | <input type="checkbox"/> |
| e. More than ₹10 cr | <input type="checkbox"/> | | |

Your Name: _____

Contact Number: _____

E-mail ID: _____

Appendix 2

A. Items Selected for Learning Orientation Scale	
Statement No.	Source/s
S1	Slater and Narver (1995), Calontone <i>et al.</i> (2002), Wang and Wei (2005), Keskin (2006)
S2	Slater and Narver (1995), Sinkula <i>et al.</i> (1997), Calontone <i>et al.</i> (2002), Wang and Wei (2005) and Keskin (2006)
S3	Zhou and Uhlaner (2009)
S4	Slater and Narver (1995), Sinkula <i>et al.</i> (1997), Calontone <i>et al.</i> (2002), Wang and Wei (2005), Keskin (2006)
S5*	Zhou and Uhlaner (2009)
S6	Slater and Narver (1995), Sinkula <i>et al.</i> (1997), Calontone <i>et al.</i> (2002), Wang and Wei (2005), Keskin (2006)
S7	Vij and Sharma (2004)
S8*	Slater and Narver (1995), Sinkula <i>et al.</i> (1997), Calontone <i>et al.</i> (2002), Wang and Wei (2005), Keskin (2006)
S9	Slater and Narver (1995), Sinkula <i>et al.</i> (1997), Calontone <i>et al.</i> (2002), Wang and Wei (2005), Keskin (2006)
S10	Laverie <i>et al.</i> (2008)
Note: * these statements are negative and require reverse coding.	
B. Items Selected to Measure Business Performance	
Items selected to measure business performance are adapted from Berthon and Hulbert (2004); Darroach (2005); Wang and Wei (2005); Lin <i>et al.</i> (2008); Martinette and Leeson (2009); Mahmoodsalehi and Jahanyan (2009); Daud <i>et al.</i> (2010); Hou and Ying (2010); Pett and Wolff (2010); Said <i>et al.</i> (2010); Eshlaghy and Maatofi (2011); and Santos and Brito (2012).	

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