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**Exploring the Antecedents of Organizational Learning Capability in Small and Medium Enterprises.**

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**Abstract:**

*Small and Medium Enterprises (SME) sector hold a great importance and contribution towards the economic growth and affluence of a country. Organizational learning is increasingly being mentioned in the literature as a system for assisting small firm survival. In today's era of cut- throat competition the biggest challenge faced by SME's is to assess the ability of their organization to face dynamic forces of business. Hence, the concept of organizational learning capability (OLC) had emerged that emphasis on the importance of the facilitating factors for organizational learning or the organizational propensity to learn and support organizational managers to solve problems related with rapid changes in business environment and innovation needs. This is an empirical research and relies mainly on primary data collected through a structured questionnaire (Chiva et al .2007) to measure OLC. The purpose of this study is to identify OLC components in SME's. In our study, a survey of small and medium sports manufacturing firms was undertaken to ascertain the extent that the concept of OLC is prevalent in small scale enterprises and the relationship of organizational learning capability dimensions (experimentation, risk taking, interaction with the external environment, dialogue and participative decision-making) in their firms. The findings of our study identified the presence of OLC components in the small sports manufacturing firms. All the dimensions of OLC had a positive and significant relationship with each other. The most significant relationship was seen between the OLC dimensions of experimentation and interaction with external environment. Moreover, few individual demographic variables (gender, education level, age) and organizational variables were also found to have significant relationship with some dimensions of OLC.*

*Keywords: Organizational Learning, Organizational Learning Capability, Small and Medium Enterprises, Sports Enterprises.*

**Introduction**

The challenges of globalization and market forces have made the survival of all business units much tough and unstable in the economy. Among various business forms, Small and medium enterprises are more prone to these threats and challenges .Small-sized and medium sized business enterprises operate in very uncertain and highly competitive business surroundings. These business concerns face high degree of competition, less innovation skills, technological advancements, changes in workforce competency, high resistance to change, limited capital, high customer expectations and many other limitations in course of their operations .The organizations need to overcome and handle these changes for their survival (Marquardt, 1996).They are expected to be flexible and adaptive to overcome the threat to their

existence. To overcome such issues they strive to develop some capacity for themselves that support their existence and lead high performance (Barney, 1991). Such businesses need to use learning as a key strategy so in order to be successful in achieving their organizational goals. Learning brings any change in the organization's models that maintains or improves their performance (Cyert & March, 1963; Dibella et al., 1996; and Hedberg, 1981). Since learning is the survival factor of any organization, and organizational learning is the process by which organizations learn thus, the organizations attempt for enhancing their organizational learning capabilities that enables them to respond in a swift way to the dynamics of business for attaining competitive advantage and business sustainability (Baker & Sinkula, 1999a; Ismail, 2005, and Thomas & Alien, 2006). Hence to promote and guide organizational learning, certain conditions and characteristics are needed in place. OLC considers such issues which analyses the contextual variables that facilitate learning (Go'mez et al., 2005; Hult & Ferrell, 1997; and Nevis et al., 1995). Organizational learning can be increased by improving current capability or developing new capability. Organizational learning capability, that provides facilitating and stimulating support for organizational learning, enhancing ones readiness for change and analysing the conditions and mechanism of support for learning is critical in every form of businesses, either large scale or small and medium size enterprises.

### **Small and Medium Enterprises- SMEs are Important Contributors to all Economies**

With the increase of entrepreneurial ventures on a high pace in the market, the demand of establishing SMEs is also increasing in the global economy. Though only a small portion of SMEs are successful in achieving exceptional performance and improved productivity, quality, sales and profits with sustainable success and growth, Small and Medium sized Enterprises (SMEs) are the backbone of most nations. Worldwide, SMEs represent over 95 per cent of all enterprises, account for 80 per cent of global economic activity, and are found in all sectors of the economy. (e.g., hospitality, health care, manufacturing, tourism, construction, technology, and transportation etc). In India, the Small and Medium Enterprises (SME) sector now includes the micro enterprises and is referred to as Micro, Small and Medium Enterprises (MSME). This sector which constitutes nearly two-third of businesses across the globe is widely accepted as an important driver of economic growth. In India Micro, Small and Medium Enterprises (MSME) contribute almost 8 percent of the country's GDP, 45 percent of the manufacturing output and 40 percent of the exports. They offer the largest share of employment after agriculture. They are the platform for rising growth of entrepreneurship and innovation. They are widely distributed across the country and produce a varied range of products and services to cater the needs of the local and global markets along with the national and international value chains. The SME's are dominant players in some of India's major export sectors namely Textiles and Garments, Leather products, Sports goods, Gems and jewellery, Handicrafts among others. They also contribute substantially in industrial goods segments in sectors such as electrical, engineering, rubber and plastics.

In India still sports is not recognised as an industry. According to CII-KPMG report 2014, sports sector is expected to show a significant socio-economic impact on worldwide arena by contributing in 1 to 5% of national GDP. This can be achieved by building a sporting culture in the country. Global sports industry is estimated to be worth around US\$ 600 billion and growing at a rate higher than national gross domestic product rates around the world. Such incremental growth would involve several segments from sporting equipment manufacturing, sports apparel, sports medicine to sports tourism and sport retail and

marketing.etc. Thus, India's sports sector offers tremendous growth potential for SMEs and comprises special place in this study.

### Definition of Micro, Small and Medium Enterprises in India

Micro, small and medium enterprises as per MSMED (Micro, Small and Medium Enterprises Development) Act, 2006 are defined based on their investment in plant and machinery (for manufacturing enterprise) and on equipment for enterprises providing or rendering services. The present ceilings on investment for enterprises to be classified as micro, small and medium enterprises are as follows:

Table1. Classification of Micro, small and medium enterprises

Classification	Manufacturing Enterprises*	Service Enterprises**
Micro	Rs. 2.5 million / Rs. 25 lakh (US\$ 50,000)	Rs. 1 million / Rs. 10 lakh (US\$ 20000)
Small	Rs.50 million / Rs. 5 crore (US\$ 1 million)	Rs. 20 million / Rs 2 crore (US\$ 0.4 million)
Medium	Rs 100 million / Rs 10 crore (US\$ 2 million)	Rs. 50 million / Rs 5 crore (US\$ 1 million)

\* Investment limit in Plant & Machinery \*\* Investment limit in equipment

\*\*\* Rs 50 = 1 US\$

(Source: Ministry of MSME -Annual Report 2014-15)

Pandey & Shivesh (2007) have characterised SMEs in India as organisations that have:

(i) Started out of individual initiatives and skill;(ii) Greater operational flexibility;(iii) Low cost of production;(iv) High propensity to adapt technology;(v) High capacity to innovate and export;(vi) High employment orientation;(vii) Utilize locally available human and material resources and(viii) Helps in reduction regional imbalances.

### Concept of Organizational Learning (OL) and Learning Organization (LO),

The concept of Organizational learning (OL) and Learning organization (LO) differ in their approaches and context in the organizations.

*Organizational Learning* (OL) is defined as the capability of an organization to process knowledge. In other words, it is an act to create, acquire, transfer and integrate knowledge—and to modify its behavior to reflect new cognitive situations with a view to improving its performance (Gómez et al, 2005). “Organizational learning is the set of actions (knowledge acquisition, information distribution, information interpretation, and organizational memory) within the organization that intentionally and unintentionally influence positive organizational change”.(Templeton, Lewis, & Snyder, 2002, p. 189). It is also defined as “The learning processes of and within organizations, largely from an academic point of view” (Tsang, 1997, as cited by Easterby-Smith & Lyles, 2003, p. 2).

However, A *Learning Organization* (LO) is "...an entity, an ideal type of organization, that has the capacity to learn effectively and hence to prosper". (Easterby-Smith & Lyles, 2003). Learning Organization (LO) is considered as the form or structure of organization apt to meet upcoming changes (Garavan, 1997). Learning Organization implies the kind of organization that involves active support, preparation and implementation of learning activities. Learning organization is also concerned about as how to bring change in the behavior of different members of organization and bring it to more closely with desired state of learning in the organization (Tsang, 1997). LO is an organization that tries to induce learning in holistic manner at all levels of the organization through its members individually as well as collectively, thus it helps to create competitive advantages by effectively handling any dynamics either internal or external with less resistance to adapt and manage change (Pedlar et al., 1997). LO make possible to achieve competitive advantages in better ways (Popper & Lipshitz, 1998). The learning organization (LO) is thus considered as an organization, where members of the organization constantly put their efforts to enhance their capacity and capability to generate desired outcomes and wherein new patterns of thinking are also fostered, members go together and constantly learn to see the whole together (Senge, 2004). The two categories of learning organizations are mentioned wherein under first category- learning organization is treated as a variable that can be intended to an organization and that has a critical impact on outcome of the organization. And, in second type of category- learning organization is explained as metaphor to explain an organization (Garavan, 1997). It relates to the kind of organization with their certain characteristics of learning processes.

Thus in brief, Organizational Learning (OL) is said to refer to a process of acquiring, disseminating and using knowledge while a Learning Organization (LO) is stated to be a form of organization structure which existed because of learning, so that a learning organization status would be an ideal condition to attain and sustain for an organization performance, growth and meeting competition advantages. A learning organization (LO) is the outcome of (OL).

Table 2: Comparison of Organizational Learning (OL) and Learning Organization (LO)

<b>Attribute</b>	<b>Organizational learning (OL)</b>	<b>Learning organization (LO)</b>
Orientation	Descriptive	Prescriptive
Nature	Process	Organization form
Perspective	Exists naturally	Needs deliberate activity
Action	Neutral	Preferable
Target audience	Academics	Consultants, practitioners
Objective	Theory building	Improving organization performances
Methodology	Rigorous research methods	Rough case studies and action Research
Outcome of learning	Potential behaviour change	Actual behaviour change
Key question	How do organizations learn?	How should organizations learn?
Sources of information	Systemic data collection	Consulting experience

*Source: "Organizational Learning and Learning Organization: A Dichotomy Between Descriptive and Prescriptive Research" by Eric W. K. Tsang, 1997, Human Relations, Vol. 50, No.1, p. 85. Copyright 1997 by Eric W.K. Tsang.*

**Organizational learning capability**

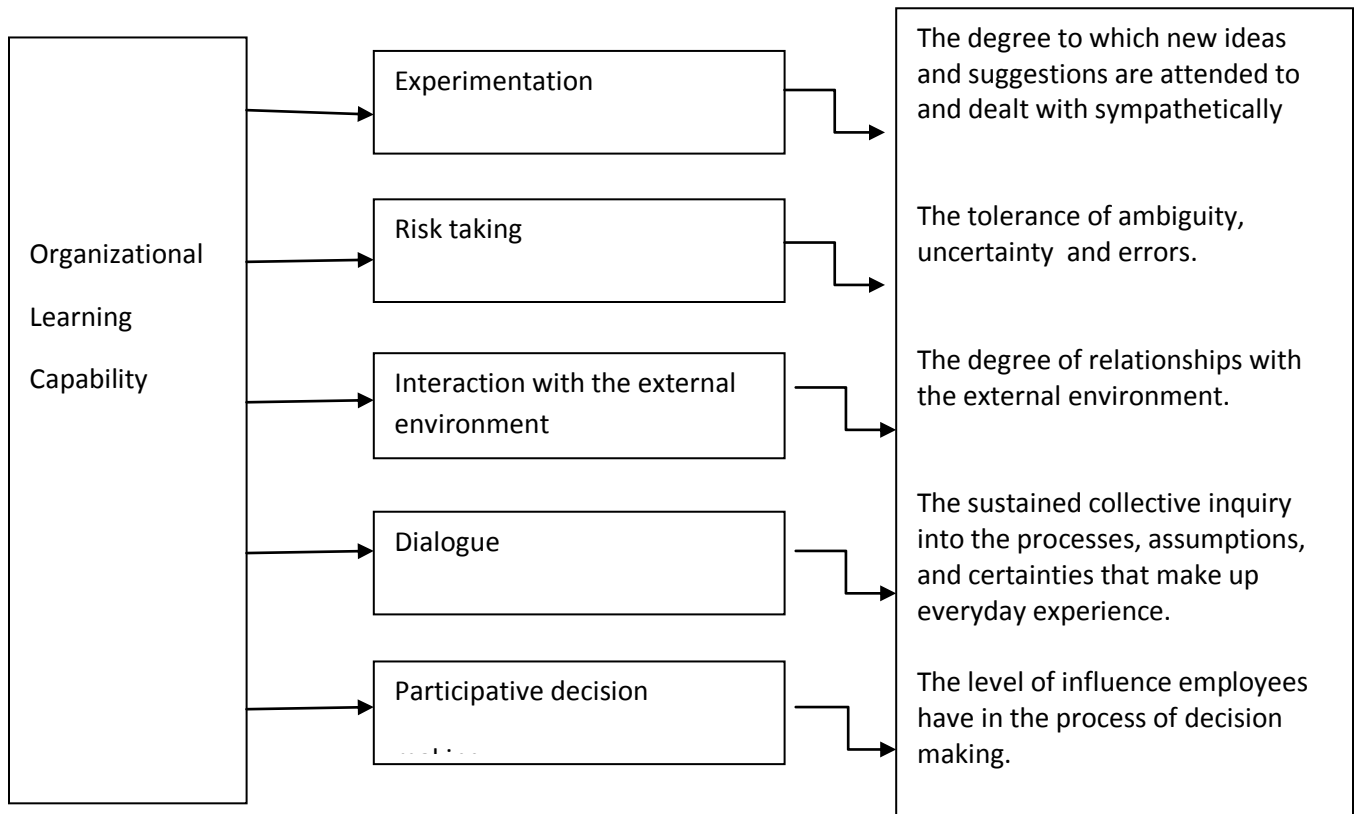
Many researchers, authors and professionals have introduced and explained the concept of organizational learning capability in their own ways having a great relevance towards organizational learning process. According to (Goh and Richards 1997; and Tomas, Hult, & Ferrell 1997) OLC is defined as the organizational and managerial characteristics or factors that facilitate the organizational learning process or allow an organization to learn. However, Templeton et al. (2002) stated organizational learning as a collection of organizational functions such as learning knowledge, distribution, and interpretation of information and memory consciously and/or non consciously with positive effects on organizational changes.

Organizational learning capability is defined as the organizational and managerial characteristics or factors that facilitate the organizational learning process or allow an organization to learn (Gomez et al, 2005).

Thus, Organizational learning capabilities (OLC) as a collection of organization based resources and/or tangible and intangible skills needed to use and manage the competitive advantages as well. Ulrich et al. (1993) and Alegre and Chiva (2008) has also considered organizational learning capabilities as a capacity of managers in an organization to promote production and allow combination of important and effective ideas. Rashid et al. (2010) in their study considered OLC as an indication of organizational creation capacity as well the act of combination of ideas in an effective means along with various organizational borders that is supported with special methods to manage and innovate in the organizations. Thus, the concept of organizational learning capability (OLC) emphasized the importance and relevance of the facilitating factors for organizational learning or the organizational propensity to learn.

Few studies in the past are conducted for measuring organizational learning capabilities by researchers like G´omez et al (2004) and Bhatnagar. J (2006). Most of the OLC measurement proposals and the analyses of their dimensions mainly concentrated upon the learning organization research as well as the organizational learning literature. Chiva et al. (2007) developed an OLC measurement tool that proposed OLC as a multidimensional concept, the dimensions of which are experimentation, risk taking, interaction with the external environment, dialogue and participative decision making. Using this literature, we consider these dimensions of organizational learning capability for our study. Figure 1 presents the conceptual model of organizational learning capability and five dimensions along with their meanings.

FIGURE 1: The conceptual model of dimensions of Organizational Learning Capability



[Source: Ricardo Chiva, Joaquin Alegre and Rafael Lapiedra (2007) *Measuring organizational learning capability among the workforce*, *International Journal of Manpower*, Vol. 28 No. (3/4), p. 224- 242.]

### Dimensions of Organizational Learning Capability

Chiva et al., (2007) recognized five essential facilitating factors of organizational learning specified as experimentation, risk taking, interaction with the external environment, dialogue and participative decision making. These five facilitating factors or organizational learning capabilities are evaluated as essential for being a learning organization. The higher scores on these dimension means the more capability to learn by the organization (Chiva and Alegre, 2009).

**Experimentation:** It can be defined as the degree to which new ideas and suggestions are attended to and dealt with sympathetically. Nevis et al. (1995) consider that experimentation involves trying out new ideas, being enquiring about how things work, or carrying out changes in work processes. It also includes the search for innovative solutions to problems, based on the possible use of distinctive methods and procedures.

**Risk taking:** It can be understood as the tolerance of ambiguity, uncertainty, and errors. Sitkin (1996) emphasized that failure is an essential requirement for effective organizational learning, and thus, examines the advantages and disadvantages of success and errors. Hedberg (1981) proposes a range of activities to facilitate organizational learning, amongst which underline the design of environment responsible for risk taking and incurring mistakes. Accepting or taking risks involves the possibility of mistakes and failures occurrence. If the organization aims to promote short-term stability and performance, then success is recommended, since it tends to encourage maintenance of the status quo. According to Sitkin,(1996) the benefits brought about by error occurrence are risk tolerance, prompting of attention to problems and the search for solutions, ease of problem recognition and interpretation, and variety in organizational responses. Along with this, many authors have also highlighted the importance of risk taking and accepting mistakes in order for organizations to learn (Chiva, Alegre and Lapiedra, 2007).

**Interaction with external environment:** It is defined as the scope of relationships with the external environment. The external environment of an organization is defined as factors that are beyond the organization's direct control of influence among others (Bapuji and Crossan, 2004).It consists of industrial agents such as competitors and the economic, social, monetary, and political/legal systems. Environmental characteristics play an important role in learning, and their influence on organizational learning has been studied by a number of researchers in the past (Bapuji and Crossan, 2004). Relations and connections with the environment are very important, since the organization attempts to evolve simultaneously with its changing environment. Hedberg (1981) considers the environment as the prime mover behind organizational learning. More turbulent environments generate organizations with greater needs and desires to learn (Popper and Lipshitz, 2000).

**Dialogue:** is defined as a sustained collective inquiry into the processes, assumptions, and certainties that make up everyday experience (Isaacs, 1993). (Dixon, 1997) recognize dialogue to be vitally important to organizational learning. In particular, authors from the social perspective (Brown and Duguid, 1991) highlight the importance of dialogue and communication for the purpose of effective organizational learning. Dialogue is defined as a sustained collective inquiry into the processes, assumptions, and certainties that make up everyday experience (Isaacs, 1993). Schein (1993) considers dialogue as a basic process for building common understanding, in that it allows one to see the hidden meanings of words, first by revealing these hidden meanings in our own communication. The vision of organizational learning as a social construction implies the development of a common understanding, starting from a social base and relationships between individuals (Brown and Duguid, 1991). In fact, learning is a function of the spontaneous daily interactions between individuals. The chance to meet people from other areas and groups increases learning. By working in a team, knowledge can be shared and developed amongst its members (Chiva, Alegre and Lapiedra, 2007). Goh and Richards (1997) advocate teamwork and problem solving in groups, with particular emphasis on multifunctional teams.

Easterby-Smith et al. (2000) hold that the recent literature is moving away from a vision of an integrating dialogue in which consensus is sought towards one that seeks pluralism and even conflict. Oswick et al. (2000) claim that authentic dialogue fosters organizational learning because it creates, rather than

suppresses, plural perceptions, individuals or groups with different visions who meet to solve a problem or work together create a dialogic community.

**Participative decision making:** It refers to the level of influence employees have in the decision-making process (Cotton et al., 1988). Organizations implement participative decision making to benefit from the motivational effects of increased employee involvement, job satisfaction and organizational commitment (Scott-Ladd and Chan, 2004). Scott-Ladd and Chan (2004) provide evidence to suggest that participative decision making gives better access to information and improves the quality and ownership of decision outcomes.

Parnell and Crandall (2001) also maintain that divulging information is a requirement for participative decision making. Subordinates are assumed to be informed in order to participate efficiently. Few literature (Bapuji & Crossan, 2004; Goh & Richards, 1997; Pedler et al., 1997; Scott-Ladd & Chan, 2004) considers participative decision making as one of the aspects that can facilitate learning.

### **Importance of Organizational learning capability in business organizations.**

Many authors in their past studies (Baker & Sinkula, 1999a; Ismail, 2005; Thomas & Alien, 2006) has considered organizational learning as a critical process for being responsive to market dynamism. The importance and relationship of organizational learning capability is explored in many means in the past academic and business researches. The relevance of OLC is much seen in the business parameters of achieving firm performance, innovation and knowledge performance.

Previous studies of authors (Goh and Richards, 1997; Jacobs, 1995; Kaiser and Holton, 1998) identified the association between organizational learning and performance improvement of firms. In Indian context Bhatnagar. (2006) measured organizational learning capability based on market indicators of firm performance, i.e. firm's financial turnover and firm's profit as predictors of OLC in Indian organizations, concluding that financial turnover was predicting organizational learning capability. Recent researches has also shown a positive link between organizational learning capability and organizational performance, (Camps and Luna-Arocas, 2012) .specific organizational performance aspects of innovation performance (Ar and Baki, 2011; Robinson and Stubberud, 2011) and export performance (Alegre et al., 2011).

Moreover, the close linkage of organizational learning to innovation is also seen in the past researches (Argyris and Schön, 1978; Nonaka and Takeuchi, 1995; Watkins and Marsick, 1993). Among many others (Hurley and Hult, 1998; Ismail, 2005; Weerd-Nederhof et al., 2002) identified the linkages between organizational learning and innovation among nonprofits organizations as well. The importance of organizational learning and innovation is significantly seen in profit based organizations for the successful launch of new products or services into the market to meet consumer requirements and attain enhanced performance and sustainable competitive advantage. (Baker and Sinkula, 1999b; 2002)

Organizational learning capability is also found to be associated with knowledge performance in few of the studies in the past. (Shoid and Kassim, 2013; Marsick and Watkins, 1999) They recommended that learning organization that keep due concern to knowledge capital of organization is always growing and developing for success.



## Review of literature

In the past Chiva, Alegre & Lapiedra (2007) examined organizational learning capability and suggested five fundamental dimensions namely: experimentation, risk taking, interaction with the external environment, dialogue, and participative decision making as the most emphasized facilitating factors. Later, Mat and Che Razak (2011) revealed a significant relationship between three of these five underlying dimensions namely, participative decision making, interaction with external environment, and risk taking along with their relation and impact on the success of technological innovation implementation. Recently, Mete et al (2013) in their study to measure and assess organizational learning capacity in public hospitals in Turkey reported that all the five dimensions have positive and significant relationship with each other. The results explained that the most dominant relationship was between experimentations and participative decision making.

## Research Gap

On the basis of past studies scant literature are available on organizational learning capability and their dimensions relationship (experimentation, risk taking, interaction with the external environment, dialogue and participative decision making)( Chiva, Alegre & Lapiedra, 2007; Mat & Che Razak, 2011; Mete et al, 2013).The existence of organizational learning capability concept holds its vital significance in many areas of business performance , innovation and knowledge performance and varied businesses from profit making to non-profit organization and from manufacturing sector to hospitality enterprises. However, the presence and assessment of organizational learning capability dimension was less visible in small and medium sized enterprises in India. Thus, to identify the capability of small and medium sized enterprises based on selected dimension relationship will support the study to assess enterprises readiness to grow and innovate.

## Aim and Objective of the study

The research questions identified for this study were:

- 1) What were the important dimensions for assessing organizational learning capability (OLC) that facilitate organizational learning?
- 2) What type of relationship exists between the identified dimensions of organizational learning capability (OLC) in small and medium sized enterprises?
- 3) Which dimension of organizational learning capability (OLC) was prominent in facilitating organizational learning process in small and medium sized enterprises?
- 4) Which individual demographic variables were related with organizational learning capability (OLC) in small and medium sized enterprises?

The basic aim of this research paper was to explore those areas of organizational learning capability (OLC) in small and medium enterprise that made an organization a competitive entity, and efficiently strengthened those conditions or circumstances that lead towards organizational learning (OL).

Therefore, the basic objective of this study was to explore such contextual factors that could be considered primarily for organizational learning. The study also tried to provide a basic theoretical foundation and understanding toward learning organization (LO), organizational learning (OL) and organizational learning capability (OLC) in previous section. The study identifies the dimensions of (OLC) in small in medium business unit. Thus, assessing these dimensions: (experimentation, risk taking, interaction with the external environment, dialogue, and participative decision making) and their relationships will help the organizations to recognize and analyse the level of their organization's learning capability and acknowledge certain vital dimension for gaining business success in small and medium sized enterprises domain .

Hypotheses:

H<sub>0</sub>1: There is significant positive relationship between dimensions of organizational learning capability.

H<sub>0</sub>2: There is significant positive relationship between demographic variables and organizational learning capability.

## **Research Methodology**

### **Research design**

This study made use of an exploratory and correlative research design. This design is suitable for the study as it sought to examine inter-correlation between the dimensions of organizational learning capability (OLC) in small and medium sports manufacturing firms.

### **The Method**

The research was carried out in 4 small and medium enterprises of sports manufacturing units in Meerut city listed as medium scale enterprise under report of Ministry of MSME. These firms are considered to be SMEs, as they do not exceed an average of 250 workers. The studied statistical population in this research consists of 700 employees in 4 small and medium enterprises. The statistical sample is equal to 250 according to Krejcie and Morgan Table (1970). The questionnaires were personally administered to the respondents employed in these enterprises. We received a total of 179 questionnaires. 21 questionnaires were excluded because of incompleteness. 158 questionnaires were included for analyses. The valid response rate was 63 percent.

We used the OLC measurement instrument developed by Chiva et al. (2007). According to the conceptualization of this scale, OLC consists of the skills and characteristics that enable an organization to learn. The past studies of various researchers (Isaksen et al. (1999), Amabile et al. (1996), Goh and Richards (1997), Hult and Ferrell (1997), Pedler et al.(1997), Templeton et al. (2002) are notable sources for the development of OLC measurement tool by Chiva et al. (2007).As seen in Table 4. these five dimensions constitute the essential factors that characterize the OLC latent concept .These dimensions are experimentation, risk taking, interaction with the external environment, dialogue and participative decision making. The questionnaire consists of two parts. In the first part of the questionnaire, there were 14 questions about organizational learning capability. For consistency, all responses were measured using

a Likert-type scale, with 1="strongly disagree," 3="neutral," and 5="strongly agree". The second part involves 7 questions about demographic characteristics of participants. The scale was first subjected to reliability analysis. Cronbach's alpha was used to test the reliability. The Cronbach's alpha value (0.91) was satisfactory. The data were processed using SPSS 20.

Table 3: Cronbach's Alpha for questionnaire's Reliability

	Organizational Learning Capability
Cronbach's Alpha	0.91

Table 4: Dimensions and Items composing the OLC scale.[ Chiva et al. (2007).]

Dimensions	Items	Literature source support
Experimentation	V1. People here receive support and encouragement when presenting new ideas. V2. Initiative often receives a favourable response here, so people feel encouraged to generate new ideas.	Isaksen et al. (1999) Isaksen et al. (1999)
Risk taking	V3. People are encouraged to take risks in this organization. V4. People here often venture into unknown territory.	Amabile et al. (1996) Isaksen et al. (1999)
Interaction with the external environment	V5. It is part of the work of all staff to collect, bring back, and report information about what is going on outside the company. V6. There are systems and procedures for receiving, collating and sharing information from outside the company. V7. People are encouraged to interact with the environment: competitors, customers, technological institutes, universities, suppliers, etc.	Pedler et al. (1997) Pedler et al. (1997) Pedler et al. (1997)
Dialogue	V8. Employees are encouraged to communicate. V9. There is a free and open communication within my work group. V10. Managers facilitate communication. V11. Cross-functional teamwork is a common practice here.	Templeton et al. (2002) Amabile et al. (1996) Pedler et al. (1997) Hult and Ferrell (1997)
Participative decision making	V12. Managers in this organization frequently involve employees in important decisions. V13. Policies are significantly influenced by the employees' views. V14. People feel involved in main company decisions.	Goh and Richards (1997) Pedler et al. (1997) Pedler et al. (1997)

[Source: Ricardo Chiva, Joaquin Alegre and Rafael Lapiedra (2007) Measuring organizational learning capability among the workforce, International Journal of Manpower, Vol. 28 No. (3/4), p. 224- 242.]

### The Findings and Analysis

The findings and analysis of our study was done with the statistical tools including correlation analyses, t test and ANOVA. Table 5 presents brief individual profile of the respondents.

Table 5: Summary Respondents' Profile

Variable	Category	Number of Respondents	Percentage of Sample (%)
Gender	Male	128	81.1
	Female	30	18.9
	Total	158	100
Age	<35	46	29.1
	36-45	72	45.6
	46-55	34	21.5
	>56	6	3.8
	Total	158	100
Marital Status	Married	126	79.8
	Unmarried	32	20.2
	Total	158	100
Education level	Bachelor degree	105	66.4
	Post Graduate	53	33.6
	Total	158	100
Position	Senior management	18	11.4
	Middle management	52	33.0
	Lower management	88	55.6
	Total	158	100
Years of Service	<5 Years	40	25.3
	6-10 Years	63	39.9
	>11 Years	55	34.8
	Total	158	100
Work department	Administration	12	7.6
	Production	37	23.4
	Sales	42	26.6
	Non Managerial Professional	18	11.3
	Automation and IT	22	14.0
	Customer Service	12	7.6
	Training and Support	10	6.3
	Others	5	3.2
	Total	158	100

### Demographic Characteristics of Participants

In our sample majority of the respondents (approx.81%) are male and females are less in number (approx.19%). Similarly a large number of them (79.8%) are married and (20.2%) are unmarried. In terms of age distribution, most of the respondents (45.6%) were between the age group of 36 to 45 years followed by (29.1%) respondents below 35 years of age and 21.5 of respondents between the age group of 46 to 55 years and a marginal number (3.8%) of respondents were above the age of 56 years. From the data on educational level, two third (66.4%) of the respondents were bachelor's degree holders, and one-third (33.6%) were masters' degree holders. For job category or position of the respondents, 55.6 % are lower level managers, 33% middle level managers and 11.4 % top level managers. In term of work experience, around one –fourth( 25.3 %) of the respondents had less than 5 years work experience, 39.9% had 06 to 10 years work experience, and 34.8% had 11 years or more work experience.

When segregating according to their respective departments, 7.6% of the respondents worked in the Administration, 23.4% in Production, 26.6% in Sales, 11.3% were Non Managerial Professionals, 14% in Automation and IT, 7.6% from Customer Service,6.3% from Training and support and a minor 3.2% from unspecified other category.

### Relationship analysis

#### Correlation analysis among five factors of organizational learning capability

The five factors or dimensions that affect organizational learning capability are analyzed statistically and results are given in the Table 6.

Table 6: Inter- correlation between the dimensions of organizational learning capability

Variable	Experimentation	Risk taking	Interaction with the external environment	Dialogue	Participative decision making
Experimentation	1	0.655**	0.802**	0.668**	0.617**
Risk taking	0.655**	1	0.698**	0.690**	0.758**
Interaction with the external environment	0.802**	0.698**	1	0.662**	0.640**
Dialogue	0.668**	0.690**	0.662**	1	0.712**
Participative Decision making	0.617**	0.758**	0.640**	0.712**	1
N	158	158	158	158	158

\*\* . Significant at 0.01

The Pearson correlation test was carried out to analyse the relationships between the dimensions of organizational learning capability .Table 6 indicates that there is significant positive relationship among all the five dimensions of organizational learning capability. The most significant relationship was between experimentation and interaction with external environment ( $p < 0.01$ ,  $r=0.802$ ) followed by risk taking

with participative decision making ( $p < 0.01$ ,  $r=0.758$ ) , dialogue with participative decision making ( $p < 0.01$ ,  $r=0.712$  ) and then interaction with external environment with risk taking ( $p < 0.01$ ,  $r=0.698$ ) and then between participative decision making and interaction with external environment ( $p < 0.01$ ,  $r=0.640$ ).All other relationships were also positive but highly moderate. Hence, the results revealed that there was a significant positive linear relationship between all variables. Thus, the relationship among the dimensions differs between 0.617 and 0.802.

### Relationship between dimensions of organizational learning capability and demographic variables

According to results of t test there is no statistically significant relationship between marital status of groups of participants and dimensions of OLC.

**Table 7. Relationship between gender and dimensions of OLC (t test)**

Dimensions of OLC	Gender	Mean	Sd	T	P
Experimentation	Male	2.599	1.124	2.039	0.044
	Female	2.426	0.968		
Participative Decision Making	Male	2.782	0.938	2.018	0.046
	Female	2.624	0.806		

According to results of t test analysis there is a statistically significant relationship between gender of participants and experimentation dimensions of OLC ( $t = 2.039$ ;  $p < 0.05$ ). In addition, there is a statistically significant relationship between gender of participants and participative decision making dimension of OLC ( $t = 2.018$ ;  $p < 0.05$ ). There is no statistically significant relationship between gender of participants and other dimensions of OLC.

**Table 8. Relationship between Education and dimensions of OLC (t test)**

Dimensions of OLC	Gender	Mean	Sd	T	P
Dialogue	Graduate	2.342	1.289	2.980	0.037
	Post Graduate	2.782	1.389		
Interaction with external environment	Graduate	2.583	1.237	2.359	0.041
	Post Graduate	2.942	1.682		

According to results of t test analysis there is a statistically significant relationship between education of participants and dialogue dimensions of OLC ( $t = 2.980$ ;  $p < 0.05$ ). In addition, there is a statistically significant relationship between education of participants and interaction with external environment dimension of OLC ( $t = 2.359$ ;  $p < 0.05$ ). There is no statistically significant relationship between education of participants and other dimensions of OLC.

In order to research relationship between age groups and dimensions of (OLC) F test was carried out. Results of F test are indicated in Table 9.

**Table 9. Relationship between dimensions of OLC and age groups**

Age groups/ Dimensions of OLC		Sum of the squares	Mean Square	F	P
Experimentation	Between groups	10.358	3.452	2.810	0.036
	Within groups	189.248	1.228		
	Total	199.606			
Risk taking	Between groups	11.798	3.933	2.967	0.034
	Within groups	204.213	1.326		
	Total				

According to F test results there is a statistically significant relationship between experimentation dimension of OLC and age groups ( $F = 2.810$ ;  $p < 0.05$ ). Moreover, there is a statistically significant relationship between age of participants and risk taking dimension of OLC ( $F=2.967$ ;  $p < 0.05$ ). There is no statistically significant relationship between age group of participants and other dimensions of OLC.

Table 10. indicates the relationships between position of participants and dimensions of OLC.

**Table 10. Relationship between dimensions of OLC and organizational positions**

Position/ Dimensions of OLC		Sum of the squares	Mean Square	F	P
Experimentation	Between groups	11.133	3.711	3.190	0.018
	Within groups	179.111	1.163		
	Total	196.244			
Risk taking	Between groups	10.467	3.489	2.736	0.043
	Within groups	196.400	1.275		
	Total	206.867			

According to F test results there is a statistically significant relationship between experimentation dimension of OLC and respondents position ( $F = 3.190$ ;  $p < 0.05$ ). Moreover, there is also a statistically significant relationship between respondents position and risk taking dimension of OLC ( $F=2.736$ ;  $p < 0.05$ ). There is no statistically significant relationship between position of participants and other dimensions of OLC.

**Table 11. Relationship between dimensions of OLC and departments**

Departments/ Dimensions of OLC		Sum of the squares	Mean Square	F	P
Experimentation	Between groups	14.133	4.711	3.520	0.008
	Within groups	206.108	1.338		
	Total	220.241			
Dialogue	Between groups	12.238	4.079	2.930	0.042
	Within groups	214.472	1.392		
	Total	226.710			
Participation in decision making	Between groups	12.398	4.133	3.237	0.021
	Within groups	196.629	1.277		
	Total	209.027			

The findings of F test shows that there is statistically significant relationship between departments of participants and experimentation dimension of OLC ( $F= 3.520$ ;  $p< 0.05$ ). Moreover, there is also a statistically significant relationship between departments of participants and dialogue dimensions of OLC ( $F= 2.930$ ;  $p< 0.05$ ). There is also statistically significant relation between departments of participants and participation in decision making dimension of OLC ( $F = 3.237$ ;  $p< 0.05$ ). Nevertheless, there are no statistically significant relations between departments of participants and other dimension of OLC.

**Table 12. Relationship between dimensions of OLC and years of experience**

Experience/ Dimensions of OLC		Sum of the squares	Mean Square	F	P
Experimentation	Between groups	10.894	3.631	2.688	0.039
	Within groups	208.112	1.351		
	Total	219.006			
Dialogue	Between groups	8.929	2.978	2.387	0.015
	Within groups	192.341	1.248		
	Total	201.270			

In the findings of F test it is revealed that there is a statistically significant relationship between years of experience of participants and experimentation dimension of OLC ( $F = 2.688$ ;  $p< 0.05$ ). There is also relationship between years of experience of participants and dialogue dimension of OLC ( $F = 2.387$ ;  $p< 0.05$ ). However, there is no relationship between years of experience of participants and other dimensions of OLC.

## Discussion

On the basis of our analysis and interpretations all the dimensions of OLC were found significant in their relationships in selected small and medium sports manufacturing enterprises. The results of our study are consistent with the results of study conducted by Mete et al (2013) in public university hospitals in Turkey. However, few dimensions were showing varied results with respect to demographic and organizational variables. In our study the most significant relationship was between experimentation and interaction with external environment ( $p < 0.01$ ,  $r=0.802$ ) followed by risk taking with participative decision making ( $p < 0.01$ ,  $r=0.758$ ) and interaction with external environment along with risk taking ( $p < 0.01$ ,  $r=0.698$ ) and the relationship among other dimensions differs between 0.617 and 0.802. In the past studies of Mete et al (2013) the most powerful relationships was between experimentation and participative decision-making ( $r=0.627$ ) and other relationship among the dimensions differs between 0.533 and 0.627.

With respect to few demographic variables and dimensions of OLC the results of our study were not consistent with the previous study of Mete et al (2013). In our study the relationship between marital status and dimensions of OLC had no statistically significant relationship. However, Mete et al (2013) found significant relationship between marital status of participants and experimentation and dialogue dimensions of OLC. Further, a statistically significant relationship was found between gender of participants and experimentation as well as participative decision making dimension of OLC in our study, but in the previous study of Mete et al (2013) no statistically significant relationship was found between



gender g of participants and dimensions of OLC. Moreover, in our study age variable was found related with experimentation and risk taking as similar with the association of experimentation alone in the past study. In our study we additionally considered the individual variables of education (dialogue and interaction with external environment) and years of experience (experimentation and dialogue) along with organizational variables of department (experimentation, dialogue and participation in decision making) and organizational positions (experimentation and risk taking) for analyzing their association with dimensions of OLC. Moreover, in relation to other demographic variables and dimensions of OLC the previous study of Mete et al (2013) also described the association of profession (experimentation, interaction with external environment, and dialogue) and income level of respondents (interaction with external environment and dialogue).

### **Conclusion**

The analysis of our study states that all dimensions of OLC have a positive and significant relationship with each other. The results show that the most powerful relationship is between the OLC dimensions of experimentation and interaction with external environment. It reflects that the enterprises are conversant with demand and changes of the environment and incorporating the desired modifications with new technology and innovations to meet the demand of the customers. Our finding also indicates that some demographic variables have significant relationship with some dimensions of OLC. There is a positive and significant relationship between gender and experimentation and participative decision making dimension of OLC. We may conclude that gender of respondents will lead to desirability of experimentation and decision participation. A significant and positive relationship was seen between respondent's education level and dialogue and interaction with external environment dimension of OLC stating that high level of education leads to more awareness and communication efficiency.

There is also a positive and statistically significant relationship between age groups and position of respondents with experimentation and risk taking dimension of OLC. One can say that level of experimentations and risk taking changes according to position and age of the respondents. However, there are positive relationships between departmental functions of respondents and experimentation, participative decision making and dialogue dimensions of OLC. Finally, there are also positive relationships between years of respondents work experience and experimentation and dialogue dimensions of OLC. Our findings indicate that marital status of respondents does not have any effects on dimensions of OLC. As a conclusion, we can say that organizational learning capability is related with the conditions of promoting and developing new ideas, support for risk taking, larger and open participation in decision-making, and expanding free communication within the organization and been receptive as well as responsive to external environment. The organizational learning capability is not less than the capability of individuals of the organization upon which the learning process is imparted.

The limitation of our study holds on the fact that the study was carried in sports manufacturing units of Meerut city in Uttar Pradesh. The implication and generalizations are limited in their scope and relevance for other small and medium sized enterprises. However, our study facilitate in creating a strong platform for top management, key decision makers, business leaders and multilateral global funding agencies to identify issues of organizational learning capability common to SMEs. Thus, assessing organizational

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learning capability is crucial for ones business success, innovation and business performance in sports manufacturing firms in small and medium sized category.

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