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Organizational Learning Capability and its Impact on Firm Innovativeness

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Abstract

The purpose of this study was (1) to explore the levels and dimensions of Organizational Learning Capability (OLC) and Organizational Innovativeness (OI) and (2) to investigate the effects of OLC on OI. The data were collected from entry and middle level managers of firms, which are the members of Manisa Chamber of Commerce and Industry. The data were collected from 143 managers through survey (by web page and by personal visits). The analysis revealed that OLC had seven factor dimensions: knowledge sharing, dialogue, participative decion making, managerial commitment, experience and openness, knowledge transfer, and risk taking. The OI was measured by five dimensions including behavioral, product, process, market, and strategic innovativeness. The results indicate that OLC dimensions significantly influenced OI. In the conclusion, the study findings, implications, limitations and recommendations were stated.

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Keywords: Organizational Learning Capability, Firm Innovativeness

1. Introduction

Innovation is a major element that enhances firms' sustainability and success in today's competitive environment. Innovation literature reports that firm innovativeness is the key for achieving long term firm goals and objectives. In other words, as Balachandra and Friar (1997) states, bringing new products successfully to market is the lifeblood for most organizations. The term "innovation" is evidently linked to the research and development (R&D) associated with generating new products. Many researchers on innovation report that increased R&D efforts give rise to innovative products which faciliate companies to improve market shares and to gain competitive edge (Armbruster, Bikfalvi, Kinkel and Lay, 2008). Innovation requires successfully implementing creative ideas within an organization and it's considerably related to organizational learning.

Innovation is considered as an individual and collective learning process that tends to find new ways of solving problems. The precipitously changing business environment has induced managers and researchers search for new ways to improve organizational capability of predicting the need for change and the capability of continuous adaptation. Organizational learning promotes continuous adaptation and improvement of firms. Thereby, organizational learning has contained the imagination of managers seeking to survive the current complex operating

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Prior research suggests that organizational learning affects product innovation performance (Alegre, Pla-Barber, Chiva and Villar, 2012; Calantone, Çavuşgil and Zhao, 2002). Mckee (1992) reports that directing the organization towards learning encourages innovation effectiveness and efficiency. Wheelright and Clark (1992) recommend that organizational learning is the distinctive factor in new product development projects because new product must adapt to the rapidly changing environmental situations such as customer demand uncertinity, technological developments, and competitive market. From a strategic perspective, organizational learning has been regarded as a source for a possible competitive advantage (Gunsel, Siachou and Acar, 2011: 881; Slocum, Mcgill and Lei,1994: 38). The process of learning at organizational level include key components of knowledge productivity processes which described as the process by which new knowledge is created in order to contribute to innovation in the workplace (Kessels, 2001). Organizational learning literature generally focuses on normative models to create learning organizations. In this context researches has provided some pertinent insights but there are still certain aspects that have not been adequately investigated. The widely accepted idea that organizational learning is an essential element to successfully compete in a global marketplace, but there is a lack of evidence of empirical researches in the literature (Garvin, 1993; Jerez-Gomez, Lorente and Cabrera, 2005: 715; Prahalad and Hamel, 199).

Numerous case studies have devised constitutional complexity of the organizational learning construct comprehensively (Hult and Ferrell, 1997; Leonard-Barton, 1992). Developing quantitative instruments and empirically testing organizational learning scales may contribute to the study field and help to make more generalizable conclusions easily. For this reason, researchers need to take into consideration the multidimensionality of the organizational learning construct which recognized in various studies (Chiva, Alegre and Lapiedra, 2007; Goh and Richards, 1997; Jerez-Gomez et al., 2005; Tohidi, Seyedaliakbar and Mandegari, 2012).

Implementation of organizational learning is complicated by the lack of a methodical approach in the literature that includes the measurement of learning capability. There is a minority of empirical researches about organizational learning capability (OLC) concept in the literature. Organizational learning capability is a multidimentional construct that measures identifying and measuring the crucial organizational characteristics and practices that promote and faciliate organizational learning (Alegre and Chiva, 2008;Goh and Richards, 1997). Generally researches that conceptualized organizational learning capability have no consensus about the numbers of dimensions, such as 4 (Jerez-Gomez et al., 2005), 5 (Goh and Richards, 1997) or 6 (Bess, Perkins, and McCown, 2011) with different contents. Accordingly, understanding organizational learning capability concept and its effects on organizational innovativeness will contribute the theory and practices in this field of study. Our study focuses on conceptualization of organizational learning capability and effects of these capabilities on firms' innovativeness. In this respect, the study begins by a literature review of organizational learning capability and organizational innovativeness, then goes on to development of hypotheses. Research methodology, analyses, and results are discussed and recommendations are provided for managers and academician at the last section.

2. Literature Review and Hypotheses

2.1.Organizational Learning Capability

Organizational learning capability (OLC), as the source of the competitive advantage and a key to future organizational success, has been subject of some studies (Chiva et al., 2007; Hult and Ferrell, 1997; Jerez-Gomez et al., 2005). OLC is defined as the organizational and managerial characteristics, practices, skills or factors that facilitates the organizational learning processes (e.g., generating, acquiring, disseminating and integrating information/knowledge) or allows an organization to learn (Jerez-Gomez et al., 2005:716). Many studies conceptualize OLC as the multiple dimensions construct. We determined these distinct dimensions through literature review (Alegre and Chiva, 2008; Goh and Richards, 1997; Jerez-Gomez et al., 2005) and concluded that OLC may be operationalized as the 11 dimensions construct that are shortly explained below.

(1) "Openness and interaction with the external environment" refers as the extent of relationships with the external environment and a climate of openness that encourages the new ideas and points of views. The external environment of an organisation is defined as factors that are beyond the organisation's direct control of influence that determines its opportunities and risks. It involves industrial elements such as competitors and suppliers, and the economic, social, political and legal systems (Chiva et al., 2007; Jerez-Gomez et al., 2005; Leonard-Barton, 1992; Sinkula, Baker and Noordewier, 1997). (2) "Experimentation" refers the degree of freedom employees exploit in the pursuit of new ways

of doing the job and freedom to take risks and degree to which new ideas and suggestions are attended to and dealt with sympathetically (Chiva et al., 2007: 226; Goh and Richards, 1997). (3) "Managerial commitment" refers that managers recognize the relevance of learning for organizational success and they create a culture that reinforces the acquisition, creation, and transfer of knowledge as fundamental values (Jerez-Gomez et al., 2005). (4) "Participative decision making" described as the level of influence employees have in the decision-making process (Chiva et al., 2007). (5) "Leadership commitment and empowerment" described as the role of leaders in the organization with respect to helping employees learn and elicit behaviors that are consistent with an experimenting and changing culture (Goh and Richards, 1997). (6) "Clarity of purpose and mission" refers the degree to which employees have a clear vision/mission of the organization and understand how they can contribute to its success and achievement (Goh and Richards, 1997; Senge, 1990). (7) "Knowledge transfer and integration" consists of two closely linked processes, which happens simultaneously rather than sequentially: internal transfer and integration of knowledge. The efficacy of these two processes relies on the previous existence of absorptive capacity implying the lack of internal barriers that inhibit the transfer of best practices within the firm (Cohen and Levinthal, 1990; Jerez-Gomez et al., 2005). (8) "Teamwork and group-problem solving" refers the degree of teamwork possible in the organization to solve problems and create new and innovative ideas (Goh and Richards, 1997; Senge, 1990). (9) "Dialog" is defined as a sustained collective inquiry into the processes, assumptions, and certainities that make up everyday experience (Chiva et al., 2007; Isaacs, 1993;). (10) "Risk taking" is expressed as the tolerance of ambiguity, uncertainty, and errors. The organizations that assume risks and accept mistakes are likely to facilitate organizational learning. Accepting or taking risks incorporates the possibility of mistakes and failures happening (Chiva et al., 2007). (11) "System perspective" involves bringing the organization's members together around a common identity (Senge, 1990; Sinkula, Baker and Noordewier, 1997). The different individuals, departments, and areas of the firm should have a clear view of the organization's goals objectives and realize how they can help in their development (Hult and Ferrel, 1997; Jerez-Gomez et al., 2005).

2.2. Organizational Innovativeness

Organizational innovativeness (OI) is "an organisation's overall innovative capability of introducing new products and services to the market, or opening up new markets, through combining strategic orientation with innovative behaviour and process" (Wang and Ahmed, 2004:304). Wang and Ahmed (2004) suggest a five-dimensional classification model for assessment of organizational innovativeness. These five dimensions comprise the component factors of the OI construct. These dimensions are behaviour, product, process, market and strategic innovativeness. Behavioural innovativeness exists at different levels: individuals, teams and management. Assessing behavioural innovativeness cannot be achieved simply by examining casually innovative activities or creative properties of some groups in the organisation. Rather, the behavioural dimension should reflect the "sustained behavioural change" of the organization towards innovations, i.e. behavioural commitment (Avlonitis, Kouremenos and Tzokas, 1994: 12; Wang and Ahmed, 2004:305). Product innovativeness denotes to a perceived newness, novelty, originality, or uniqueness of products (Henard and Szymanski, 2001). Process innovativeness contains the introduction of new manufacturing methods, new management techniques, and new technology that can be employed to advance manufacturing and management processes. Market innovativeness embodies the newness of techniques or preferences that companies embrace to enter and exploit the targeted market (Wang and Ahmed, 2004: 305). Strategic innovation is about "a fundamental reconceptualisation of what the business is all about that, in turn, leads to a dramatically different way of playing the game in an existing business" (Markides, 1998 cited in Wang and Ahmed, 2004: 305). Strategic innovation occurs when a company explores gaps in industry positioning, goes after them, and the gaps grow to become the new mass market.

2.3. Organizational Learning Capability and Organizational Innovativeness Relationship

OLC supports OI by increasing employees' creativity and improving their knowledge. Knowledge sharing within organizations through communication and interaction establishes appropriate environment for the collective effort of organizational innovativeness (Jerez-Gomez et al., 2005). Further, firms adopting an OLC approach utilize external environment and collect timely and accurate information from outside the firm to develop new products, processes, and better management techniques (Akgün et al., 2013).

Hypothesis: The higher level OLC the greater the degree of organizational innovativeness.

3. Methodology

3.1.Research Goal and Instruments

Our aim of this study is to determine dimensions of OLC to assess the construct. To do so, first, we identified dimensions of OLC that are operationalized in the literature. Eventually, based on the literature (Goh and Richards, 1997; Jerez-Gomez et al., 2005; Chiva et al., 2007) we came up with eleven dimensions and 50 items to assess OLC. These dimensions are (1) openness and interaction with the external environment, (2) experimentation, (3) managerial commitment, (4) participative decision making, (5) leadership commitment and empowerment, (6) clarity of purpose and mission, (7) knowledge transfer and integration, (8) teamwork and group-problem solving, (9) dialog, (10) risk taking, and (11) system perspective.

Organizational innovativeness scale was adopted from Wang and Ahmed (2004). The scale has 20 items and 5 dimensions including market, product, process, behavioral and strategic innovativeness. The scale has been validated in previous studies and extensively used in the innovation literature.

Two academics translated both these instruments into Turkish. Back-translation was carried out by another expert who is a native speaker of English and has extensive industry experience overseas. After back translation, the translators worked together in the final translation process and agreed on wordings for the Turkish item that was mutually acceptable. Attention was paid to use of proper Turkish terms so that all managers understand the items in the same way. In the survey, demographic and organizational variables included gender, age, marital status, industry and organizational tenure, industry segment, department employed, and number of workers in the organization.

3.2.Sample and Data Collection

The data collection process took place with Manisa Chamber of Commerce and Industry's committee member firms which have at least 25 employees. The administrators of Manisa Chamber of Commerce and Industry contacted their members through emails and asked them to participate in the study. The questionnaire online form was announced on Chamber of Commerce and Industry web site to the committee member firms. In two weeks interval reminding emails sent to the firms' emails twice and finally 86 questionnaires received from web based electronic survey. About 20 firms were contacted by phone, and personal visits by the researchers enabled to get 57 more surveys to be filled out. The data collection was carried out from January to March 2014. The study received a total of 143 completed questionnaires which filled up by entry and middle level managers, 75 from manufacturing and 68 from service industries. The manufacturing industry represented in the sample by several areas such as construction materials production (6 surveys), plastic manufacturing (15 surveys), metal (19 surveys), packaging (14 surveys), food and beverage production (6 surveys), agricultural products processing (4 surveys) and others (11 surveys). The distribution of service industry sample consists of banks (44 surveys), insurance companies (9 surveys) and others (15 surveys).

4. Analysis and Results

4.1.Factor Analysis

Principal Components Analysis, with varimax rotation, was used to determine how the 50 organizational learning capability items were grouped. The Keiser–Meyer–Olkin (KMO) measure of overall sampling adequacy yielded a KMO measure of 0.845 (p<.000), which supported a factor analysis of the data. The analysis yielded seven factors with eigenvalues greater than one. As explained in the previous section we proposed 11 factor dimensions, but some of the items did not load together to form a factor (teamwork and group-problem solving) or proposed different factor items combined together (managerial and leadership commitment and empowerment). Table 1 shows the item loadings in each factor along with their respective eigenvalue, percent of variance explained, and reliability scores. Thirty-four of the 50 items loaded above .50 on a single factor. The seven factors explained over 70% of the variance among the data, and had internal reliability ranging from .720 to .905. As Table 1 indicates, the Knowledge Sharing factor comprised eight items and explained 14.36% of the variation in the data. Dialogue, six items, explained 12.53% of the variance. Participative Decision Making and Managerial Commitment emerged with four items and explained 10.93% and 10.27% of the variance, respectively. The fifth factor, Experimentation and Openness, include six items

and accounted for 8.77% of the variance. Knowledge Transfer holds three items and explained 6.62%, and the last factor, Risk Taking, contains three items and accounted for 6.60% of the variance in the data.

Table 1 - Fac	ctor Analysis Sco	res for Organizatio	nal Learning Ca	nabilities Dimensions
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Factors and Items	Item Loadings	Eigen value (Variance %)	Scale Alpha
Factor 1: Knowledge Sharing	V	5,025 (14.357)	.893
Policies are significantly influenced by the view of employees.	.698	. ,	
Errors and failures are always discussed and analysed in this firm, on all levels	s686		
New work processes that may be useful to the organization as a whole are	.673		
usually shared with all employees.			
I often have an opportunity to talk to other staff about successful programs or	.670		
work activities in order to understand why they succeed.			
Employees have the chance to talk among themselves about new ideas,	.657		
programs, and activities that might be use to the firm.			
Managers in this organization often provide useful feedback that helps to	.630		
identify potential problems and opportunities.			
Managers in this organization can accept criticism without becoming	.628		
overly defensive.			
The managers frequently involve their staff in important decision	.566		
making processes.			
Factor 2: Dialogue		4.385 (12.528)	.905
Cross-functional teamwork is a common practice here.	.802	(
This firm follows up what other firms in the sector are doing, adopting those			
practices and techniques it believes to be useful and interesting	.727		
Employees developed a common way of thinking through working together			
interactively	653		
Managers facilitate communication	615		
Employees are encouraged to communicate.	.597		
All parts that make up this firm are interconnected working together in a			
coordinated fashion	.592		
Factor 3. Participative Decision Making		3 827 (10 933)	842
From my experience, people who are new in this organization are encouraged		(
to question the way things are done.	.809		
People feel involved in main company decisions	747		
Innovative ideas that work are often rewarded by management	647		
We have opportunities for self-assessment with respect to goal attainment	562		
Factor 4: Managerial Commitment		3.596 (10.273)	.794
Senior managers in this organization resist change and are afraid of new ideas	(R).751		
Failures are seldom constructively discussed in our organization (R)	747		
I do not understand how the mission of the organization is to be achieved (R)	734		
In this firm teamwork is not the usual way to work (R)	672		
Factor 5: Experimentation and Openness	.072	3 070 (8 770)	853
I can often bring new ideas and share them in the organization	759	2.070 (0.770)	
This firm promotes experimentation and innovation as a way of improving	648		
the work processes	.010		
Part of this firm's culture is that employees can express their opinions and mak	ce 617		
suggestions regarding the procedures and methods in place for carrying out tas	sks		
People are encouraged to interact with the environment competitors custome	rs 551		
technological institutes universities and suppliers			
It is part of the work of all staff to collect bring back and report information	543		
about what is going on outside the company			
There are systems and procedures for receiving, collating and sharing	.520		

information from outside the company.			
Factor 6: Knowledge transfer		2.317 (6.620)	.720
Experiences and ideas provided by external sources (advisors, customers,	.728		
training firms) are considered a useful instrument for this firm's learning.			
The firm has instruments (manuals, databases, files, organizational routines)	.639		
that allow what has been learnt in past situations to remain valid, although			
the employees are no longer the same.			
The organization's mission statement identifies values to which all employees	.638		
must conform.			
Factor 7: Risk Taking		2.309 (6.598)	.786
People are encouraged to take risk to learn from their failures and mistakes.	.821		
People here often venture into unknown territory about their job.	.817		
Employees will take risky decisions to perform better in their jobs.	.724		
Total variance explained		(70.08)	
Notes: Principal Component Analysis, Kaisar Mayor Ollyin Massure of Sampling Adas		945 Varimov with V	Zoicor.

Notes: Principal Component Analysis Kaiser-Meyer-Olkin Measure of Sampling Adequacy= . ,845. Varimax with Kaiser Normalization. Bartlett's Test of Sphericity: p=.000 (Chi-Square 3631,3; df=595). R=Recoded.

4.2. Reliability Analysis of Innovativeness Dimensions

OI dimensions were subjected to reliability analysis and reliability scores of factors ranged from .723 to .876 (see Table 2). Then, four items in each were added up and be divided by four to derive the average score to represent each dimensions.

Tuble 2: Internal Renabilities of Innovativeness Dimensions								
Innovativeness Dimensions	Behavioral Innovation	Product Innovation	Process Innovation	Market Innovation	Strategic Innovation			
Cronbach's Alfa	,876	,826	,832	,739	,723			

Table 2. Internal Reliabilities of Innovativeness Dimensions

4.3. Correlation Analysis

Table 3 shows correlations of the OLC and OI factor dimensions. As can be seen from the table, correlations among OLC dimensions are all positively related and range from .17 to .68. The Knowledge Sharing and Dialogue factors had the highest correlation in this sample. That is, high values on Knowledge Sharing are associated with high values on Dialogue. Correlations among OI dimensions are all positively related and range from .48 to .74. Product Innovation and Process Innovation factors had the highest correlation. Correlations between OLC and OI dimensions are all positive and significant, range from .26 to 68: the highest correlation is between Managerial Commitment and Strategic Innovativeness. Thus, the results support the study hypothesis.

Table 3 Correlations of OLC and OI Dimensions

	1	2	3	4	5	6	7	8	9	10	11	12
1.Know sharing	-											
2.Dialogue	.68**	-										
3.Part Decision	.59**	.61**	-									
4.Mng Commit	.36**	.45**	.38**	-								
5.Experi Open	.56**	.65**	.59**	.36**	-							
6. Know Trans	.38**	.40**	.25**	.36**	.44**	-						
7. Risk Taking	.32**	.37**	.29**	.17*	.41**	.21*	-					
8.Behave Inno	.65**	.69**	.45**	.45**	.55**	.50**	.45**	-				
9.Product Inno	.48**	.53**	.44**	.62**	.42**	.55**	.12	.48**	-			
10. Process Inno	.59**	54**	.54**	.56**	.55**	.61**	.31**	.67**	.74**	-		
11.Market Inno	.51**	.52**	.49**	.52**	.45**	.50**	.17*	.57**	.70**	.70**	-	
12.Strateg Inno	.46**	.52**	.37**	.68**	.47**	.50**	.26**	.56**	.64**	.64**	.58**	-
$n**<0.01 \cdot n*<0.01$	05											

p**<0.01; p*<0.05

4.4.One-sample t-test

Analysis of the OLC and OI factor means reveals interesting insights. A one-sample t-test was used to explore whether organizational learning capability (OLC) dimensions and organizational innovativeness (OI) dimensions were different from neutral, the normal mean score of 4 (1 to 7 Likert-type scale). Except Participative Decision Making OLC dimension mean score, all means were significantly different from neutral point: five higher than 4 and one (Risk Taking) lower than 4. Knowledge Transfer factor had the highest mean score (5.33) and the mean differences ranged from .41 to 1,33. All OI factor means were significantly higher than neutral point; the mean differences ranged from .66 to 90. Although a statistically significant differences were found between the mean scores, one can easily conclude that to be practically significant in the real world the differences should make a sense or create a value.

Table 4.	One-samp	le t-test ((test va	lue 4)
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Variables	Mean	Std Dev.	t-value	Sig.	Mean difference
1.Knowledge Sharing	4,41	1,22	4,03	,000,	,413
2.Dialogue	4,99	1,26	9,39	,000,	,991
3.Participative Decision	3,88	1,52	-,924	,357	-,118
4.Mngr Commitment	4,96	1,38	8,29	,000,	,960
5.Experiment Openness	4,83	1,84	8,42	,000,	,835
6.Knowledge Transfer	5,33	1,07	14,92	,000,	1,33
7.Risk Taking	3,26	1,32	-6,66	,000,	-,736
8.Behavioral Innovation	4,78	1,29	7,26	,000,	,781
9. Product Innovation	4,90	1,28	8,39	,000,	,895
10.Process Innovation	4,66	1,33	5,94	,000,	,663
11.Market Innovation	4,65	1,02	7,69	,000,	,659
12.Strategic Innovation	4,68	,97	8,37	,000,	,680

N: 143; Note: 1 to 7 Likert-type scale

4.5. Regression Analysis

To assess the effects of OLC on OI, OLC dimensions were entered into the equation as a set for each OI dimensions, namely behavioural, product, process, market and strategic innovativeness. The beta for each OLC dimensions shows the significance and relative importance of that dimension in the equation. For behavioral innovativeness, organizational learning dimensions explained 63.9% of variance (F=31,106; p<.001). Knowledge sharing (Beta=.324, p<.001), dialogue (Beta=.323, p<.001), knowledge transfer (Beta=.197, p<.01) and risk taking (Beta=.185, p<.01) accounted for that 63.9%.

Organizational learning dimensions explained 57% of variance (F=25,586; p<.001) on product innovativeness. Managerial commitment (Beta=.390, p< .001), knowledge transfer (Beta=.316, p< .001) and risk taking (Beta=-.127, p< .05) accounted for that 57%.

For process innovativeness, organizational learning dimensions explained 66.3% of variance (F=34,806; p<.001). Knowledge sharing (Beta=.253, p< .001), participative decision making (Beta=.171; p<05), managerial commitment (Beta=.279, p< .001), and knowledge transfer (Beta=.341, p< .001) accounted for that 66.3%.

Organizational learning dimensions explained 51.3% of variance (F=17,421; p<.001) on market innovativeness. Knowledge sharing (Beta=.194, p<.05), participative decision making (Beta=.209; p<05), managerial commitment (Beta=.246, p<.001), and knowledge transfer (Beta=.291, p<.001) accounted for that 51.3%.

For strategic innovativeness, organizational learning dimensions explained 60% of variance (F=25,024; p<.001). Managerial commitment (Beta=.502, p<.001) and knowledge transfer (Beta=.228, p<.001) accounted for that 60%.

Dependent	Model	Predictors	Beta	t-	n-value	R-square	F	Sig F
Variables	Wieder	Treaterors	Deta	value	p value	(Adjusted)	change	change
v unuones				varae		(Prajustea)	enunge	enange
	Organizational					,639(,606)	31,106	,000
	Learning	Know sharing	,324	4,075	,000			
	capability	Dialogue	,323	3,697	,000			
Behavioral		Part decision	-,058	-,760	,449			
innovativeness		Mngr Commit	,073	1,149	,253			
		Experi open	,034	,429	,669			
		Know transfer	,197	3,113	,002			
		Risk taking	,185	3,128	,002			
	Organizational					,570(,548)	25,586	,000,
	Learning	Know sharing	,118	1,451	,149			
	capability	Dialogue	,150	1,650	,101			
Product		Part decision	,115	1,452	,149			
innovativeness		Mngr Commit	,390	5,955	,000			
		Experi open	-,039	-,469	,640			
		Know transfer	,316	4,780	,000			
		Risk taking	-,127	-2,034	.044			
Process	Organizational		,	,		.663(.632)	34.806	.000
innovativeness	Learning	Know sharing	.253	3.287	.001	, (,)	- ,	,
	capability	Dialogue	031	367	.715			
	••• P •••• J	Part decision	.171	2.335	.021			
		Mngr Commit	279	4 567	,000			
		Experi open	.064	.845	.400			
		Know transfer	.341	5.573	.000			
		Risk taking	.076	1.323	.188			
Market	Organizational	8	,	-,	,	513(468)	17 421	000
innovativeness	Learning	Know sharing	194	2.095	038	,010(,100)	.,,	,000
inno ran reness	canability	Dialogue	049	480	632			
	capaointy	Part decision	209	2 378	019			
		Mngr Commit	246	3 348	,017			
		Experi open	- 004	- 048	962			
		Know transfer	291	3 952	,000			
		Risk taking	- 078	-1 143	255			
Strategic	Organizational	Risk taking	,070	1,115	,200	600(563)	25.024	000
innovativanass	Learning	Know sharing	108	1 280	200	,000(,505)	25,024	,000
innovativeness	canability	Dialogue	,100	949	345			
	capaointy	Part decision	- 079	- 992	323			
		Mngr Commit	502	7 546	,525			
		Experi open	085	1 025	307			
		Know transfer	228	3 4 1 1	,007			
		Risk taking	030	480	632			

Table 5. Regression analysis results for the effects of OLC factors on OI dimensions

5.CONCLUSION

This study identified the following seven OLC dimensions: 1) Knowledge Sharing, 2) Dialogue, 3) Participative Decision Making, 4) Managerial Commitment, 5) Experimentation and Openness, 6) Knowledge Transfer, and 7) Risk Taking. Initially, 11 dimensions were proposed from the three studies (Alegre and Chiva, 2008; Goh and Richards, 1997; Jerez-Gomez et al., 2005) but items in the analysis did not form the following factor dimensions: systems perspective, clarity of purpose and mission, leadership commitment and empowerment, and teamwork and group problem solving. Three of these four factor items somehow loaded on related factors in the analysis but none of the teamwork and group problem solving factor items loaded on any single factor in this study. On the other hand, the factor analysis results indicated that the items explained over 70% of the variance in the data, and item loadings,

explained variance, and internal consistencies reveals promising psychometric properties for the OLC construct operationalization. Further, OLC dimensions significantly predicted OI. Thus, further studies may consider using 7-dimensions OLC instrument determined in this study.

The results of this study indicate that 6 out of seven OLC dimensions were significant predictors of OI. Except Experience and Openness dimension, all dimensions predicted some explained variance on OI. Managerial Commitment and Knowledge Transfer dimensions were noteworthy for the influences exerted on OI. The right set of OLC dimensions may help managers to improve organizational performance and to gain competitive edge.

Previous studies revealed that OLC has influence on product innovativeness (Alegre and Chiva, 2008) and business innovativeness (Akgün et al., 2013). But in this study the impacts of OLC on all 5 types of innovativeness were assessed. The regression analysis clearly indicates that OLC is distinct construct for innovativeness. Majority of the variances explained on innovativeness dimensions provides empirical evidence that OLC improves OI. Thus, these results support the study hypothesis: The higher level OLC the greater the degree of organizational innovativeness.

This study has implications for both researchers and practitioners. Researchers may use the instrument for further development to accurately assess the OLC. A seven-factor structure of OLC dimensions were identified that represents the critical OLC assessments that influence OI. Organizations can benefit from examining OLC; they can identify specific dimensions that are particularly important in shaping OI and organizational performance.

Although the study makes a number of contributions, it has some limitations. This study is limited to in a specific national context and Manisa province in particular. Generalising the results to different cultural context is limited. Cross-national studies may be conducted to compare the study results. The study measured the variables at the same points in time and the independent and dependent variables were answered by the same respondents raises questions for the common method bias. A longitudinal study or collecting data from different people for the variables may enrich the findings of the study.

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