International Journal of
Management Research and
Emerging Sciences

Volume 6 Issue 1 (2016) PP. 51-70

Intellectual Capital and Organizational Performance: Mediating Role of Entrepreneurial Orientation in SMEs Sector of Pakistan

Chaudhry Abdul Khaliq[1], Muqqadas Rehman[2], Hassan Mobeen Alam[3]
Munazza Amin[4], Nauman Aslam[5]

Abstract

The emergence of modern societies has created many challenges for organizations to counter hyper competition in the market. In this regard, firms that are innovatively using their intellectual resources have not only preeminent chances to grow and sustain in intensive competitive milieu but also reap significant performance in the marketplace. Therefore, the main endeavor of this study is to investigate the impact of intellectual capital on organizational performance of small and medium enterprises of Pakistan. Further, the mediating role of entrepreneurial orientation which is recently recognized as the most crucial factor in ameliorating firm performance is also empirically tested in the model. The study has employed structural equation modeling (SEM) and principle component analysis (PCA) to test the mediating model. It has been found that human capital and relational capital have direct and indirect effect on organizational performance while structural capital does not show any direct relationship with organizational performance. The findings of this research facilitate the policy makers, practitioners and entrepreneur's/owner mangers of Pakistan in particular and other developing country in general to formulate strategies that can accelerate performance and strengthen SMEs operations across borders.

Keywords: *Intellectual capital, Organization performance, Entrepreneurial orientation.*

1. Introduction

Intellectual capital is becoming the preeminent resource for creating economic wealth. Initially, conventional physical assets were considered to be the dominant components for enhancing the performance of any economic activity but the current progression in the field of science, technology and most importantly knowledge based economy increased the importance of intangible resources (Melnikas, 2011). This shift in the pattern of intangible resources includes knowledge, expertise, skills, practices and relations with the stakeholders which can be collectively described as intellectual capital (Ahangar, 2011).Similarly, a nation's sustainable economic development and growth are enormously based on the continuous growth of entrepreneurial ventures (Minai, Lucky and Olusegun, 2011). Entrepreneurial orientation is a main factor of firm's success (Runyan, Droge, & Swinney, 2008). Entrepreneurial orientation consists of willingness to innovate, seek for risk, take autonomous actions, and be proactive rather than being aggressive than rivals towards new market opportunities for an effective change (Wiklund & Shepherd, 2003). Entrepreneurial orientation is considered a new branch of

[1] Assistant Professor, Hailey College of Commerce, Lahore, Pakistan, cakm786@yahoo.com
[2] Assistant Professor, Hailey College of Commerce, Lahore, Pakistan, muqqadasrehman@hcc.edu.pk
[3] Dean, Hailey College of Commerce, Lahore, Pakistan, dean.commerce@pu.edu.pk
[4] Visiting Lecturer, University of education, Lahore, Pakistan, munaza.amin@yahoo.com
[5] Lecturer, Superior University, Lahore, Pakistan, naumanaslam91@yahoo.com

entrepreneurship and it refers to all actions, methods, procedures, activities, decision making processes that caused to enter in new business and support and encourage entrepreneurial activities (Shiri, Mohammadi, and Hosseini, 2012). Therefore, it is important to study such resources which cannot be easily emulated by other firms such as intangible resources (intellectual capital) of the firms and firms' entrepreneurial orientation. That's why, companies are trying to improve and modify their resources (tangible and intangible resources) accordingly.

These entrepreneurial ventures are majorly comprised of small and medium enterprises (SMEs) that are playing a vital role in the economic development of the country (Kachembere, 2011; Beck, Demirguc-Kunt & Levine, 2005) as compared to large scale industries. Literature revealed that the contribution of SMEs in the GDP and employment generation of high income economies is 55% and 65% respectively. However, the SMEs are accounted for over 60% of the total GDP and over 70% of the total employment in low income economies and it is almost contributing 70% to the total GDP and 95% to the total employment of middle income economies (Subhan, Mehmood and Sattar, 2013). Hence, it can be concluded that SMEs is the only sector that is playing a significant role in the transition of agricultural based countries to industrial based economies that ultimately help the country to achieve sustainable competitive advantages (Kachembere, 2011).

The existing study will be a pioneer in its nature as to date no empirical research has been conducted in the context of SMEs sector of Pakistan that will examine the mediating role of entrepreneurial orientation between firm's intellectual resource and organization performance. Even many studies have discussed intellectual capital and firm performance relationship (Vissa and Chacar, 2009; Wang, 2008; Chen, 2007).But I hardly find a study which actually tries to examine the mediating mechanism of entrepreneurial orientation between intellectual capital and organization performance. Therefore, the present study is intended to study the mediating mechanism of entrepreneurial orientation between intellectual capital and organization performance using SEM (structural equation modeling) analysis.

2. Literature Review

2.1 Intellectual Capital

According to the resource base theory, the main source of enhancing business performance is the intellectual capital (Ditillo, 1997). Research agrees that the organizations that considered the intellectual capital as the most important intangible asset and the major principle of value creation will definitely grow higher in today's century. As twenty-first century is based more on knowledge, the intellectual capital becomes more important than

physical capital. John Kenneth Galbraith, the first economist who introduced the term Intellectual capital in 1969, describes the differentiation between organization's market value and books value.

Iswatia & Anshoria, (2007) defined intellectual capital as it is the intellectual material such as information, knowledge, intellectual proprietary, concepts and experience which is actually creating wealth. According to Santoso (2011), intellectual capital is important to organizations and positively influences the business performance. Intellectual capital is the summation of all knowledge and information that is possessed by all individual in an organization and provide competitive advantage to organization when used correctly.Hsu and Fang (2009) stated that intellectual capital created competitive advantage by including process, strategy, knowledge, culture, communication network and other intellectual properties to help organization to achieve their goals. Akdemir and Akpinar (2003) defined intellectual capital as it is the sum and synergy of company's experience, knowledge, relationship, discoveries, processes market presences, innovations and community influence. It encompasses much more than the company patents, copyrights, concepts, manuals and other forms of intellectual property. Prior researchers have their own classification on intellectual capital due to back ground and research subject and there seems to be no consistency among evaluation of intellectual capital methods (Leif Edvinsson & Michael S. Malone, 1997).

But with the increasing discussion of intellectual capital, most of the researchers follow the study proposed by researchers(N. Bontis, 1999)(Leif Edvinsson & Michael S Malone, 1997)(Akdemir & Akpinar, 2003) and follow the human capital, relational capital and structural capital as the dimensions of intellectual capital.Miller et al., (1999) explore the measures of intellectual capital by approaching the view point of managers regardless of company type by mean of interview and concluded that knowledge base organizations heavily influence on intellectual capital as compared to the capital intensive companies. The development of intellectual capital theory has basically been guided by the ideas and thoughts of Leif Edvinsson & Michael S Malone (1997)

Ali & Ali (2010) stated that intellectual capital is the foundation of competitive advantage or consistent growth researcher uses exploratory approach to develop model and found positive association between three dimensions (human, organizational and relational capital) by adopting Structural equation modeling technique to test the hypotheses (Marr, 2005)which investigated the strength of intellectual capital in publically traded company and found the significant positive relationship between knowledge management and organizational performance.

Another prominient research by Lev (2001) says the organizations which valued the intangible asset will maximize their organizational performance and he further said that intellectual capital claimed the future benefits. Furthermore, Bueno et al., (2004) andLeif Edvinsson & Michael S Malone (1997) argued that society is rapidly changing from industrial to social; intellectual capital is most important intangible asset for the growth of organization in knowledge based economy.

Value creation is the key factor of the strategic management and the intellectual capital proves it true by having the ability to create value. This argument clearly facilitates that intellectual capital helps to develop a strategy. Heidarzadeh (2006) argues that intellectual capital has to be identified as a primary factor and resource of organizational survival and value creation. The prior research seems to be no stability in the classification of intellectual capital previous researchers has their own way to classify the intellectual capital.

However, in knowledge based economy, intellectual capital is much studied and most research follows the pattern of Roos, Roos, Dragonetti, & Edvinsson (1998, N. Bontis (1999) andBozbura (2004). In this century, human, structural and organizational capital play a vital role in fuelling the survival and success of a company and it will be determined how right the intellectual and physical capital mixed to satisfy the stakeholders- customer, employee, union, shareholder, communities, creditors, and supplier (Zohar & Marshall, 2004).

2.2 Entrepreneurial Orientation

The term "Entrepreneurship" has been defined in different prospective over the period of 200years (Hébert & Link, 1988). Entrepreneurship has a profound impact on organizational performance and is considered as a key ingredient of a firm's success. It is considered as important factor that leads the firm to survival and improves its performance.

The term Entrepreneurial orientation is commonly referred to the combination of psychological traits, attitudes, values and attributes that are strongly associated with the strong motivation to engage in entrepreneurial activities (Covin & Slevin, 1991)(Cooper, Woo, & Dunkelberg, 1988).

According to Lim (2002),entrepreneurial orientation includes five dimensions: pro-activeness, competitive aggressiveness, innovation, autonomy and risk taking which positively influence on service firm's performance. He used questionnaire technique and chose mangers/owners as responded of services firm to prove his study.

Runyan, Droge & Swinney (2008) examined the entrepreneurial orientation and small business orientation and their influence on small and medium

business performance in the USA. The findings revealed that entrepreneurial orientation and small marketing orientation have not the same effect on small firm's performance. Only entrepreneurial orientation has positive influence on firm's performance.

Tajeddini (2010) in his study explored the effect of customer orientation and entrepreneurial orientation on innovativeness in hotel industry. He selected 156 people randomly from population and reported that entrepreneurial orientation helps the organization to measure its potential approach.

Hamel, (2000) in his study finds that the firm that really means to entrepreneurial orientation in today's business world would grow higher. So in current business environment, high growth would be a result of innovation, competitive aggression, risk taking oriented by the firm.

According to the study of G. T. Lumpkin & Dess (1996), entrepreneurial orientation includes five dimensions. These are innovation, autonomy, pro activeness, risk taking, and competitive aggressiveness.

2.3 Organizational Performance

For any enterprise, a good performance is always an important goal. In abroad, vision performance may be defined as an increase in efficacy, efficiency and working quality in an organization (Andrew D. Szilagyi & Wallace, 1980). In addition, performance can reveal the means by which a firm achieves its major goals and as a basis of direction in helping organizations to appropriate resource in the future.

Organizational performance includes two dimensions: Product performance and Customer performance. Product performance includes the company market share, company's sales and firm's ability to participate in new era. Customer performance includes: the rate of new customer acquisition, customer satisfaction of product and the company's efforts to preserve and maintain existing customers.

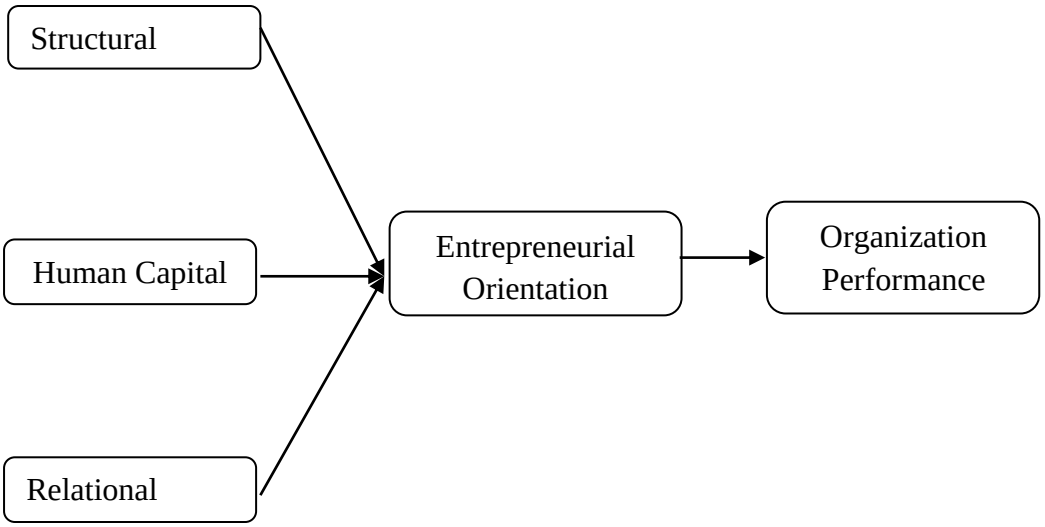
Hughes and Morgan (2007) stated in his study that business performance was operationalized through customer performance and product performance. Customer performance was measured by examining, how effective the firm had been at attracting, retaining and sustaining customers and gaining repeated orders. Product performance was evaluated based on the relative success of the firm's products in generating sales and achieving market share. He further argues that innovation has a positive and significance impact on product performance, but there was no significant relationship between innovation and customer performance.

Gilley et al., (2002) examined the impact of top management team (TMT) risk-taking propensity on firm performance. The data were collected from different 16 industries through questionnaire techniques and collected data

through e-mail survey and questionnaire was answered by top executive of small and large firms. Performance was operationalized through an extensive range of measures and came into the conclusion that a collective measure of product/ process and general risk-taking has an affirmative impact on performance.

G.T. Lumpkin and Dess (2001) investigated the impact of pro-activeness on firm performance in Southwestern USA. The study found that pro-activeness has a positive impact confirm performance (Lumpkin & Dess, 2001).

Figure 1. Hypothesized Conceptual Framework



3. Research Methodology

This study is an explanatory study in a nature that required primary data for analysis. Data were collected by means of self-administered survey questionnaire and response was mandatory on five point Likert scales. The population in this study was manufacturing SMEs units in Lahore region. A total of 300 managers from the sampling frame were sent with the questionnaire randomly and 218 usable responses were returned giving a response rate of 72.6% which was quite satisfactory and used for inferential analysis.

Questionnaire (appendix) consists of 36 questions related to intellectual capital, entrepreneurial orientation and organizational performance and four questions related to demographic. The questionnaire was based on the questionnaire used by Rudez and Mihalic (2007), Bontis (1999) and Moon and Kym (2006) to measure the variables of intellectual capital. This study was based on the study of Lumpkin & Dess (1996) to measure the

entrepreneurial orientations variables and was based on the work of Hughes and Morgan (2007) to measure the organizational performance.

Demographic section contains questions about respondents' gender, education, age of their firm and total number of products their company produces or manufactured. The reason for adopting this questionnaire is to study the impact of same variables as the proposed study was well tested on reliability and validity scales.

Questionnaire that was administered consisted of three intellectual capital variables which are Human capital (4 items), Structural capital (4 items), Relational capital (5 items), Risk taking (3 items), Innovation (3 items), Pro-activeness (3 items), Competitive Aggressiveness (3 items), Autonomy (6 items) and Organizational Performance (5 items).The questionnaire was well tested by researchers on internal consistency and other measures. The Likert scale is question type based on a rating scale designed to measure the attitude or reaction.

This research can be described as a quantitative study. Different statistical techniques are used to test the reliability and validity of data, scale and hypotheses. CFA along with regression analysis has been used to test the data reliability and statistical relationship of the variables.

3. Analysis and Findings

4.1 Reliability, Validity and Descriptive Statistics

Special care was taken in this study to ensure reliability and validity. To evaluate the descriptive statistics of the instrument, SPSS software has been used. Reliability test was conducted to determine the internal consistency of the measures used and SPSS and AMOS software. Table 1 lists descriptive statistics including means and standard deviation which indicate that the measurement has good reliability (Nunnally & Bernstein, 1978).

Table 1. Mean, SD, and Cronbach's Alpha of the Scale

Variables	Means	Standard Deviation
Human Capital	4.0998	0.52700
Structural Capital	3.9713	0.57103
Relational Capital	4.0211	0.51172
Entrepreneurial Orientation	3.9641	0.42155
Organizational Performance	3.9156	0.56620

Table 2 shows the results of factor analysis and reliability analysis, the values of factor loading and values of α depicts the Cronbach alpha obtained from reliability analysis of SPSS software. Item statements with significant

loading (.40) were retained and insignificant and negatively significant/insignificant statements (< .40) were removed from the respective scales and were not used for data analysis. Cronbach alpha greater than 0.5 indicates acceptable reliability of the data in social sciences.

Table 2 provides that all items belonging to all variables of investigation in the study obtained good results and data are reliable for using into further analysis. Similarly, the values of Cronbach alpha are also greater than 0.5; therefore, data are also satisfactory reliable.

Table 2. Factor Loading and Reliability Testing

	Items	Factor Loading	Alpha value
a.	**Human Capital**		
1.	The percentage of provisions of trainings is higher in my organization.	.962	.842
2.	The employees in our firm have higher degree (bachelor, engineer, masters, etc.) as compared to our counterparts.	.947	
3.	The employees have ample experience to perform assigned work satisfactorily.	.924	
4.	The employees have right mix of knowledge, skills, abilities that required in our industry.	.963	
b	**Structural Capital**		
5.	Our firm always tries to innovate and encourage the inception of new ideas.	.944	.812
6.	Our firm practices the ethos (beliefs, objectives, values) that added value in the organisational process.	.702	
7.	The higher management always encourages the participation of employees in effective decision making processes.	.807	
8.	In our firm, higher management always supports and leads the organisational processes.	.830	
c.	**Relational Capital**		
9.	The employees always encourage to involve our customers in providing solution	.932	.799
1(	Our firm has most strengthening relational base in the industry.	.982	
1	The employees always encourage to involve our	.927	

	suppliers in providing solution		
1	Our firm has one of the best pools of suppliers in the industry.	.971	
1	The employees always encourage to involve our allies in providing solution	.984	
	Entrepreneurial Orientation		
1	The conception of risk taking is always considered a positive element for the employees in our firm.	.769	.856
1	The employees are always encouraged to initiate new ideas with moderate risk orientation.	.903	
1	The focus of our firm is always towards exploiting and initiating prevailing opportunities in the industry.	.825	
1	Our firm always encourages in initiating modifications and creativity in the business.	.814	
1	Our firm uses innovative and creative methods to deal its operations.	.718	
1	Our firm usually tries to find innovative ways to complete activities	.825	
2	Our firm usually works as initiator in handling prevailing situation (e.g. counterpart's policies, new projects and working in teams).	.881	
2	Our firms always prefer to work on new opportunities.	.866	
2	Our firm usually works as pioneer in initiating any actions that bother other competitors as well.	.792	
2	Our firm is highly competitive and innovative.	.856	
2	Usually, our firm prefers to adapt aggressive strategies to compete with competitors.	.874	
2	Our firm prefers to maneuver the intensity of competition as much as it can.	.866	
2	The firm encourages employees to think out of the box without interfering in their ideas.	.710	
2	The higher management allows employees to introduce innovative of performing their jobs efficiently.	.807	
2	The higher management gives employees freedom to speech about introducing new ideas related to their work assignments.	.801	

2	The firm has open communication system that encourages employees to share their ideas.	.863	
3	The firm empowers its employee to act alone if it is in the good faith of business.	.840	
3	The employees have access to information they needed.	.854	
	Organizational Performance		
3	The firm is enjoying good profit margin from the sales of our competing products.	.940	.775
3	The firm has significant market share as compared to our competitors.	.947	
3	Our firm is focused and has ability to attract potential customer this year.	.824	
3	Our firm has ability to expand the volume of its existing customers this year.	.968	
3	Our firm has higher rate of customer retention	.903	

Figure 2. Structural Equation Model:

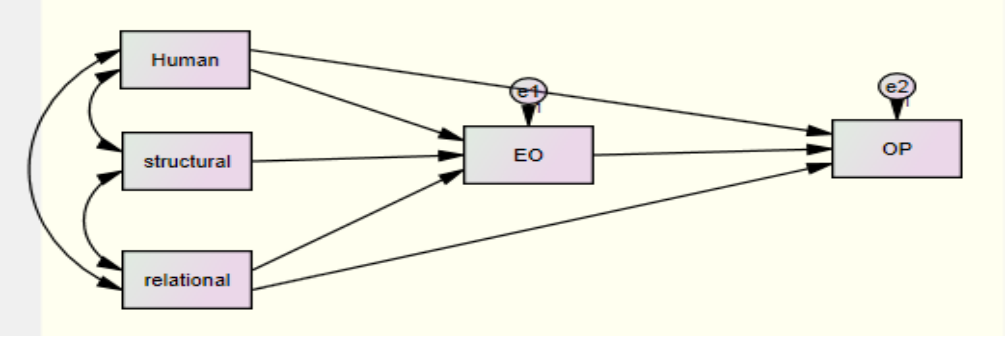


Figure 2 shows that human capital, structural capital and relational capital have associated with organisational performance through entrepreneurial orientations as mediation.

The model shows that human capital has a positive impact on entrepreneurial orientation so the first hypothesis (H_{1a}) is accepted. Human capital has positive impact on organizational performance so the fourth hypothesis (H_{2a}) is also accepted.

Structural capital has positive impact on entrepreneurial orientation so the second hypothesis (H_{1b}) is accepted. Structural capital has indirect impact on organizational performance so the fifth hypothesis (H_{2b}) is rejected.

Relational capital has positive impact on entrepreneurial orientation so the third hypothesis (H_{1c}) is accepted. Relational capital has positive impact on organizational performance so the sixth hypothesis (H_{2c}) is also accepted.

Entrepreneurial orientation has positive impact on organizational performance so the seventh hypothesis (H_3) is accepted.

The above SEM shows that the all the dimensions of intellectual capital have direct impact on the entrepreneurial orientation and structural capital has only indirect effect on organizational performance with the entrepreneurial orientation as mediating variable.

Table 4. Model Fitness Summary

Fit indices	Reference value	Model Value	Overall Model Fit
CMIN/DF	CMIN/DF<5	1.658	YES
RMR	RMR<0.5	0.001	YES
AGFI	AGFI≥O.9	0.945	YES
GFI	GFI closer to 1	0.997	YES
CFI	CFI closer to 1	1.000	YES
RMESA	RMESA≤0.1	0.550	YES
PCLOSE	PCLOSE≥0.05	0.312	YES

Degrees of Freedom (DF), Root mean square residual (RMR), Goodness of Fit Index (GFI), Adjusted Goodness of Fit Index (AGFI), Root Mean Square Error of Approximation (RMSEA)

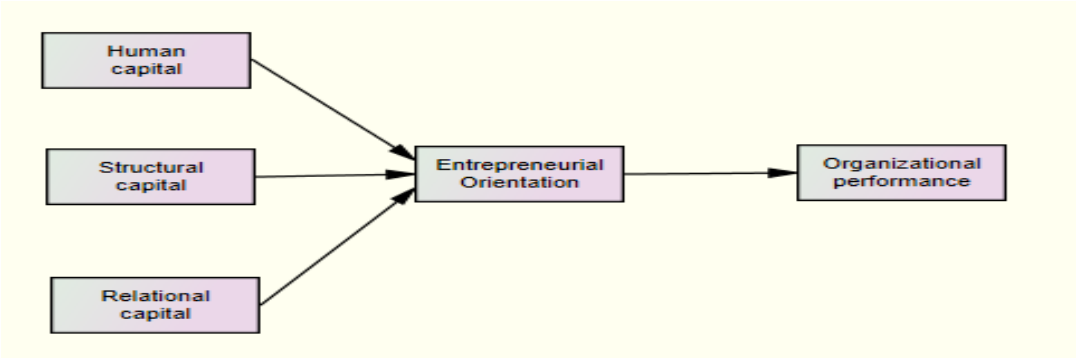
The above table value shows the goodness of fit test with the help of DF, RMR, GFI, AGFI, CFI, RMRSEA, PCLOSE values. Table 4.18 summaries the results and shows that all values of goodness of fit are supporting the model. This show model is fit.

Table 5. Estimated Coefficients in the Final Model

		Path	Estimate	S.E.	C.R.	P
EO	<---	Structural	0.803	.127	4.685	***
EO	<---	Human	0.790	.091	6.950	***
EO	<---	Relational	2.212	.201	9.085	***
OP	<---	Human	0.698	.106	7.099	***
OP	<---	Relational	0.877	.135	7.184	***
OP	<---	EO	0.438	.092	6.383	***

*** *Significant at α=0 .001 level*

The above table shows that the human capital, structural capital and relational capital have associated with organizational performance but



significant with full mediation of entrepreneurial orientation. All factors of intellectual capital are significantly related with organizational performance but structural capital has insignificant relationship with organizational performance but has direct impact on entrepreneurial orientation and indirectly influence on organizational performance. Human capital and relational capital have significant association with organizational performance (OP) at $p<0.001$ and has direct effect.

Thus it is concluded from the structural model and table shows that there is a positive and significant relationship between human capital and organizational performance with the SRW=0.698, $p<0.001$. With the value of SEW=0.877, $P<0.001$, there is positive and significant relationship between relational capital and organizational performance at the level of 1% significance between relational capital and OP at the level of 1% significance.

To further confirm the mediating effect of entrepreneurial orientations, we conduct a SOBEL test and found that entrepreneurial orientations mediate the relationship between intellectual capital and organizational performance at $p<0.00$.

Figure 3. Conceptual Frame Work

Figure 3 indicates whether or not intellectual capital affects business performance via mediating role of entrepreneurial orientation.

Table 6 shows the relationship between intellectual capital and organizational performance with the mediation of entrepreneurial orientation that was run through SOBEL test Calculator.

Thus SOBEL test concludes that entrepreneurial orientation mediates the relationship between intellectual capital factors and organizational performance at the $p<0.001$. So the H_{4a} ($t=4.434$, $p<0.001$) is accepted because entrepreneurial orientation mediates the relationship between human

capital and organizational performance. H_{4b} (t=9.271, p<0.001) is accepted because the hypothesis is entrepreneurial orientation which mediates the relationship between structural capital and organizational performance. SOBEL test supports the hypothesis H_{4c} (t=8.975, p<0.001) that entrepreneurial orientation mediates the relationship between relational capital and organizational performance.

Table 6. Sobel Test Values

Variables	Variable	T-value	Sig
Human Capital	Entrepreneurial orientation	4.434	**
	Organizational performance		
Structural Capital	Entrepreneurial orientation	9.271	**
	Organizational performance		
Relational Capital	Entrepreneurial orientation	8.975	**
	Organizational performance		

*** Significant at α=0 .01 level.*

4. Discussion and Implications

The study helps to explain the importance of the intellectual capital and its all factors on organizational performances in manufacturing sector. The importance of intellectual capital for organizational sustainable expansion cannot be over emphasized in today's self-motivated world. This specifically becomes more important in strong market competition where corporations strive to offer utmost value added good and services to its customers. Therefore, firms are considering intellectual capital special factor to enhance organizational performance. Based on theoretical background and conceptual model, this research examined the relationships among intellectual capital, entrepreneurial orientation and organizational performance in SMEs of manufacturing sectors in Pakistan. In this study, we found that intellectual capital both directly and indirectly through the entrepreneurial orientation influences organizational performance. Hence, entrepreneurial orientation plays a mediating role between intellectual capital and organizational performance.

This study explores the mediating effect of entrepreneurial orientation between intellectual capital and organizational performance. The multiple regression analysis proves that there is significance relationship between intellectual capital and organizational performance. The result of structural equation model shows that intellectual capital has a positive impact on entrepreneurial orientation.

As for the important effect of human capital on entrepreneurial orientation as the important predictor is concerned, it proves that good quality knowledgeable human resource can have an entrepreneurial intention in knowledge intensive industry.

Structural capital also significantly influences entrepreneurial orientation and gives importance in investing information technology and innovation that will definitely help a firm to utilize and take full advantage of knowledge value to get better its entrepreneurial orientation.

Relational capital, in this study, explained the relationship between customer and suppliers, where sustaining a good connection is essential. An organization should make good relationships with its stakeholder-customer, supplier and others to get better entrepreneurial orientation. Furthermore, our findings support a positive relationship between intellectual capital and performance. Intellectual capital is one of the major or important sources of gaining competitive advantages.

On the basis of resource base view, organizations gain competitive advantage and better performance through acquiring, maintaining and subsequently using tangible and intangible assets that are important for developing competitive advantage and achieving superior performance. The findings also support the previous studies by concluding that there is a positive association between entrepreneurial orientation and performance (Hughes & Morgan, 2007) and (Lumpkin, Cogliser, & Schneider, 2009).

This research also explores the association between intellectual capital and performance via mediating role of entrepreneurial orientations. The finding of this study shows that all the dimensions of intellectual capital influences organizational performance through entrepreneurial orientations. Therefore, entrepreneurs and mangers need to realize that if they really need to maximize their intellectual capital, it is mandatory to improve and enhance their entrepreneurial orientations because entrepreneurial orientation reflects up to what extent a firm is innovative and competitively aggressive. Entrepreneurial orientation helps organizational members to devote themselves to be more innovative and competitively aggressive, more proactive and more risk taker. These five dimensions evaluate that how much a firm is able to respond in intensive market and as today researchers agrees that in knowledge base economy, intellectual capitalism an important source of gaining competitive advantage. The findings of this research shows that we can say entrepreneurial orientation including risk, innovation, autonomy, competitive aggressive and pro-activeness which are the important keys to fully implement intellectual capital in organization in order to gain superior level of performance.

The results from the final structural model authenticate the relations between entrepreneurial orientations and firm performance. In other terms, organizational performance improves considerably by giving more attention to entrepreneurial orientation. The final structural model confirms the mediating role of entrepreneurial orientation in relationship of intellectual capital and organizational performance.

5.1 Implications

In accordance with the result of this study, the following suggestions are proposed for developing intellectual capital and entrepreneurial orientation. The component of intellectual capital should be strengthened. In order to strengthen the human capital, mangers should measure the level of staff competence including their knowledge, abilities and skills. In order to fortify the structural capital, managers should have greater focus on organisational culture, information technology and organisational processes. For this, firms hold short and long term teamwork training and encouragement of managers and employees to perform actively in group and perform effective activities and create supportive culture. Supportive culture can be proposed for designing incentive and reward system and reinforce innovation, re-engineering process and human resource to minimize cost, save time and improve quality. To strengthen the relational capital which includes customer loyalty, satisfaction and relationships with suppliers and other business partners, the firms need to improve the communication with customer and check their satisfaction level on continuous basis. For enhancing the growth of entrepreneurial orientation, the subsequent suggestions are presented. Firms have to design risky projects, commit part of their resources in these projects, and conduct training workshops for exchanging ideas to identify opportunity for creating innovative ideas.

References

Ahangar, R. G. (2011). The relationship between intellectual capital and financial performance: An empirical investigation in an Iranian company. *African Journal of Business Management*, *5*(1), 88-95.

Akdemir, A., & Akpinar, A. T. (2003). *Intellectual Capital. Management Review*, 332-340.

Ali, I., & Ali, J. F. (2010). Intellectual Capital and Organizational Performance. *Management Sciences.*

Andrew D. Szilagyi, & Wallace, M. J. (1980). Organizational behavior and performance. Goodyear, Santa Monica, CA.

Beck, T., Demirguc-Kunt, A., & Levine, R. (2005). *SMEs, growth, and poverty* (No. w11224). National Bureau of Economic Research.

Bontis, N. (1999). Managing organizational knowledge by diagnosing intellectual capital: framing and advancing the state of the field. *International Journal of Technology Management, 8*, 433–462.

Bozbura, F. T. (2004). Measurement and Application of Intellectual Capital in Turkey. *11*(4/5), 357 - 367.

Bueno, Eduardo, Salmador, Paz, M., Rodríguez, & Óscar. (2004). The role of social capital in today's economy: empirical evidence and proposal of a new model of intellectual capital. *Journal of Intellectual Capital, 5*(4), 556 - 574.

Chen Goh, P. (2005). Intellectual capital performance of commercial banks in Malaysia. *Journal of intellectual capital, 6*(3), 385-396.

Cooper, A. C., Woo, C. Y., & Dunkelberg, W. C. (1988). Entrepreneurs' perceived chances for success. *Journal of Business Venturing, 3*(2), 97-108.

Covin, J. G., & Slevin, D. P. (1991). A Conceptual Model of Entrepreneurship as Firm Behavior. *Entrepreneurship Theory and Practice, Waco, Spring.*

Davenport, T. H., & Prusak, L. (1998). Working Knowledge: How Organizations Manage What They Know. *Harvard Business School Press, Boston, MA.*

Ditillo, A. (1997). Intellectual Capital: Navigating the New Business Landscape. *Business Process Management Journal, 4*(1), 85 - 88.

Edvinsson, L., & Malone, M. S. (1997). Intellectual Capital: Realizing Your Company's True Value by Finding Its Hidden Brainpowe. *Harper business, New York.*

Gilley, K. M., Walters, B. A., & Olson, B. J. (2002). Top management team risk taking propensities and firm performance: Direct and moderating effects. . *Journal of Business Strategies, 19*(2), 95–114.

Hamel, G. (2000). Leading the Revolution. *Harvard Business School Press, Boston,MA.*

Hébert, R. F., & Link, A. N. (1988). The entrepreneur: mainstream views & radical critiques. *Praeger, New York.*(2nd ed).

Heidarzadeh, M. (2006). Evaluation the Role of Entrepreneurial Proclivity Organization Structure and Market Orientation on Business Performance. *Journal of Marketing's Management, 1*(0), 45.

Hsu, Y.-H., & Fang, W. (2009). Intellectual capital and new product development performance: The mediating role of organizational learning capability. *Technological Forecasting & Social Change*. 22, 313-326.

Hughes, M., & Morgan, R. E. (2007). Deconstructing the relationship between entrepreneurial orientation and business performance at the embryonic stage of firm growth. *Industrial Marketing Management, 36*, 651–661.

Iswatia, S., & Anshoria, M. (2007). The Influence of Intellectual Capital to Financial Performance at Insurance Companies in Jakarta Stock Exchange (JSE). *Asia Pacific Management Conference, Melbourne, Australia*, 1393-1399.

Kachembere, J. (2011), "SMEs hold key to economic growth", available at http://www.thestandard.co.zw/business/32203-smes-hold-key-to-economicgrowth.

Lev, B. (2001). Intangible: Management, Measurement and reporting. *Brookings Institution Press, Washington, DC*, 216.

Lim, S. (2002). Entrepreneurial Orientation and the Performance of Service Business. *St. Mary's University, One Camino Santa Maria, San Antonio, TX 78228*

Lumpkin, G. T., & Dess, G. G. (1996). Clarifying The Entrepreneurial Orientation Construct And Linking It To Performance. *Academy of Management Review, 21*, 37.

Lumpkin, G. T., & Dess, G. G. (2001). Linking Two Dimensions Of Entrepreneurial Orientation To Firm Performance: The Moderating Role Of Environment And Industry Life Cycle. *Journal of Business Venturing, 16*(5), 429-451.

Lumpkin, G. T., Cogliser, C. C., & Schneider, D. R. (2009). Understanding and measuring autonomy, An entrepreneurial orientation perspective. *Entrepreneurship Theory and Practice, 33*(1), 47-69.

Marr, B. (2005). Multidisciplinary Insights Into Management, Measurement, and Reporting. *Perspectives on Intellectual Capital Butterworth Heinemann*, 21-28.

Melnikas, B. (2011). The Global Transformations, Sustainable Development And The Knowledge Based Society Creation: The Perspective Theoretical Approach. *Transformation in Business & Economics*, *10*(2).

Miller, M., DuPont, B. D., Fera, V., Jeffrey, R., Mahon, B., Payer, B. M., et al. (1999). Measuring And Reporting Intellectual Capital From A

Diverse Canadian Industry Perspective. *OECD SYMPOSIUM, AMSTERDAM*.

Minai, M.S., Lucky, I.O.E. and Olusegun, A.I (2011).The moderating effect of culture on small firm performance: Empirical evidence. *European Journal Social Science*, 23(3): 418-431.

Mintzberg, H. (1973). The nature of managerial work. *New York: Harper & Row*.

Moon, Y. J., & Kym, H. G. (2006). A Model for the Value of Intellectual Capital. *Canadian Journal of Administrative Sciences, 23*(3), 253–269.

Nunnally, J. C., & Bernstein, I. (1978). Psychometric theory. New York: McGraw Hill,.

Roos, J., Roos, G., Dragonetti, N. C., & Edvinsson, L. (1998). Intellectual Capital: Navigating in the New Business Landscape. *Washington Square, New York: New York University Press*.

Rudez, H. N., & Mihalic, T. (2007). Intellectual capital in the hotel industry: A case study from Slovenia. *Hospitality Management, 26*, 188–199.

Runyan, R., Droge, C., & Swinney, J. (2008). Entrepreneurial Orientation versus Small Business Orientation: What are Their Relationships to Firm Performance? *Journal of Small Business Management, 46*(4), 567–588.

Runyan, R., Droge, C., &Swinney, J. (2008). Entrepreneurial orientation versus small business orientation: what are their relationships to firm performance? *Journal of Small Business Management*, *46*(4), 567-588.

Santoso, E. (2011). Intellectual Capital In Indonesia: The Influence On Financial Performance Of Banking Industry. 1-192.

Shiri, N., Mohammadi, D., &Hosseini, S. M. (2012). Entrepreneurial intention of agricultural students: effects of role model, social support,

social norms, and perceived desirability. *Archives of Applied Science Research*, *4*(2), 892-897.]

Subhan, Q. A., Mehmood, M. R., &Sattar, A. (2013, January). Innovation in Small and Medium Enterprises (SME's) and its impact on Economic Development in Pakistan. In *Paper was presented in 6th International Business and Social Sciences Research Conference* (pp. 3-4).

Tajeddini, K. (2010). effect of customer orientation and entrepreneurial orientation on innovativeness:evidence from the hotel industry in tourism management. *Department of Business Administration 31*(2), 221-231.

Vissa, B., &Chacar, A. S. (2009). Leveraging ties: the contingent value of entrepreneurial teams' external advice networks on Indian software venture performance. *Strategic Management Journal*, *30*(11), 1179-1191.

Wang, J. C. (2008). Investigating market value and intellectual capital for S&P 500. *Journal of intellectual capital*, *9*(4), 546-563.

Wiklund, J., & Shepherd, D. (2003). Knowledge-based resources, entrepreneurial orientation, and the performance of small and medium-sized businesses. *Strategic management journal*, *24*(13), 1307-1314.

Wikund, J., & Shepherd, D. (2003). Knowledge-Based Resources,Entrepreneurial Orientation, And The Performance Of Small And Medium-Sized Businesses. *Strategic Management Journal*, 1307–1314.

Zohar, D., & Marshall, I. (2004). Spiritual Capital: Wealth We Can Live By. *Bloomsbury Paperbacks*, *1*.