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IC in SMEs in Pakistan

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IC in SMEs in Pakistan

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Data were collected through a structured questionnaire from a sample of 150 respondents from Pakistani SMEs in Islamabad and Rawalpindi. Several tests were used to examine the reliability and validity of the research instrument. Finally multiple regression analysis was used to test the proposed research hypothesis.

Practical Implications

This research will lay valuable guiding path for entrepreneurs, executives, managers and policy makers in managing intellectual capital within unstable economy of Pakistan.

Originality/value

This empirical study is first of its kind over SMEs from multiple sectors operating in twin cities of Pakistan i.e. Rawalpindi and Islamabad.

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I. INTRODUCTION

Finance had remained a major source for businesses growth and survival for a long period. But in present scenario organizations are putting more emphasis upon intellectual skills for achieving their goals. Financial institutions are playing supporting role in acquiring and retaining intellectual skills. Aim of conducting this research is to systematically prove the influence of Intellectual capital upon organizational performance. Finding of published academic researches verify that intellectual capital has very positive influence on organizational performance (Muhammad Khaliq et al, 2015; Youndt and Snell, 2004;Ordonez de Pablos, 2004; Montequínet al., 2006; Kujansivu and Lönnqvist, 2007; Tovstiga and Tulugurova, 2007; De Castro and Sáez, 2008; St-Pierre and Audet, 2011). Opportunities such as growth of nations, individual's values and wealth of nations can be improved through knowledge (Bounfour and Edvinsson, 2005). Higher productivity of the firms is due to the enhanced and competitive knowledge (Imran Ali and Jaweria Fatima, 2013).

Intellectual capital's has significant role toward development of firms in developing economies. Its importance and practical role has attracted many academic researchers to understand this concept more

deeply. Till now many authors have contributed to this field of study but still it is on its evolving stage.

Concept clarification and practical implication of IC in developing nations has remained in embryonic stage. This research is of very first kind which is conducted on food restaurants in twin cities of Pakistan. Nick Bontis, Muhammad Khaliq et al. 2014 conducted similar research on Electronic SMEs of Gujranwala, Pakistan. Similar other kinds of studies are now growing in numbers to contribute more toward of concept of Intellectual Capital and eliminate ambiguities in its explanation.

This research would be very helpful for entrepreneurs while making plans and strategies for growth in food industry. SMEs dealing in this sector would be able to identify the significances of IC over Organizational performance. First section of paper would comprise of introduction to various food restaurants and their operations. It will follow proposed hypothesis, research methodology and empirical findings. Final section will include recommendations, conclusion and suggestion for future studies.

II. LITERATURE REVIEW

Intellectual Capital (IC) is the primary force behind effective and efficient knowledge management. Both IC and Knowledge Management (KM) are achieved at successful management and implementation of each other (Alka Bramhandkar, Scott Erickson and Ian Applebee). Many multinationals recognize IC as key tactic for getting competitive advantage. It is one of the most crucial intangible assets which require careful handling and expertise. In many corporate companies top management is now considering IC management very seriously. Multiple researches have revealed that humane capital; Customer Capital, Structural Capital, Organizational Culture and Relational Capital are in fact the subcomponents of Intellectual Capital (Imran Ali and Jaweria Fatima, 2013). Hence, organizations indirectly manage IC by managing all its elements.

Businesses can use frameworks like Balanced Score Card, Performance prism and IC Index as guider for practices of IC. IC is closely associated with epistemological viewpoint of individual and groups as well (Thomas A. Stewart). Optimum level of Value Creation and competitive advantage can be attained if human resources, stakeholders relationship and organizational resources are mixed correctly (Imran Ali and Jaweria Fatima, 2013). Experts will now visualize

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impact of IC upon strategic objectives of the organization. On the basis of this vision, corporate level managers will move to path designing for achieving targeted level of IC (Janine Nahapiet; Sumantra Ghosha; 1998).

In present scenario of fierce competition, strategic activities are shifting toward identification and implementation of internal superior assets (tangible or intangible) for leading in the market (Mei-Fen Wu et al.; 2012). Until 1980s, firms used to consider internal intangible assets as inferior and attention was diverted to acquiring external resources, capabilities, and innovations for becoming the market leader. New economy changes and policies also played a vital role in evolution of IC. E-Business platform in today's corporate world is prevailing only on the basis efficient modern communication structure (Nick Bontis et al., 2015).

a) *Sub-Components of Human Capital*

Human capital is a major component of intellectual capital which consist of educational competitiveness, attitudes and cognitive abilities of individuals (Bontis, 1998; Tovstiga and Tulugurova, 2007). Customer capital is sum total of delivery network, brand value, satisfaction, loyalty and all have quite significant impact over organizational performance. (Ismail, 2005; Kim and Kumar, 2009). Structural capital is also one of the critical components of intellectual capital. It mainly discussed as systems, procedures, communication network and channels, internal settings of offices and staff positioning (Khalique et al., 2011a). Ethics, CSR, honesty and fairness in decision making, transparency of data and decisions, relationships among employees and employee-employer relations are discussed under social capital. (Bueno et al., 2004; De Castro and Sáez, 2008; Lesser and Prusak, 1999). Technological capital emphasizes efficiency of systems, research and development. Spiritual capital is defined on the basis of religious teachings and preaching. It mainly includes all basic guidance given in all big religions of the world.

Intellectual capital is the modern philosophy which combines many intangible assets of the organization (Bontis et al., 1999). In this study organizational culture is one of the major contributors towards concept of IC and its particle implications. Human capital, technological capital, relational capital, structural capital, social capital, organizational capital and organizational culture are key elements identified in measurement of Intellectual Capital (Chaminade and Roberts, 2003). Generic culture and organizational culture around the globe impact differently upon IC.

IC is composed of resources used in businesses operations to generate revenue yielding activities and economic benefits. Intellectual capital has no status in balance sheet of the company but it is a very strong intangible asset which ultimately enhances

organizational performance (Dr. Nick Bontis, 2000). Best achievement a company can get through IC is competitive advantage. IC is totally knowledge bases and works much smoothly if supported by skills and expertise (Dr. Jyotirmayee Choudhury, 2010). External, internal, individual and combined knowledge leads to collective intellectual capital.

Concept and definition of IC is still under developing stage. This blur image of IC is also a very big question mark for thinkers, researchers and authors. Most widely IC has been identified as an intangible asset which produces significant impact on financial and non-financial performance any business. Many studies have classified non-physical assets and resources as key components of IC. Human capital, relational capital and customer capital are major one used in many research models. Key elements of IC are HC (knowledge, skills, expertise), SC (databases, organizational charts, executive instructions, strategies etc.). Concept of IC can't be bounded with in phase of HC, SC, RC or CC, it is a far broader concept which encompasses many complexities and relations to almost all intangible assets of the business. In short IC is like the strategic tool of boosting performance of any business.

III. THEORETICAL FRAMEWORK AND RESEARCH HYPOTHESIS

Conceptual frame work used in research is based upon many theories of Intellectual Capital. This frame work is used by Nick Bontis, M. Khalique et al 2014; and the theory used as a base was defined and explained by Mr. Muhammad Khalique et al 2013. Frame work is used by Imran ali and Fatima 2013; Nick bontis 2003; and is very much effective for evaluating impact of IC on organizational performance. Framework also states that there is a very positive relationship exists between sub-components of Intellectual capital and organizational performance.

Based upon the chosen framework following hypothesis have been formulated:

- H1. Intellectual capital has a positive effect on the organizational performance of SMEs in Pakistan.
- H2. Human capital has a positive effect on the organizational performance of SMEs in Pakistan.
- H3. Customer capital has a positive effect on the organizational performance of SMEs in Pakistan.
- H4. Structural capital has a positive effect on the organizational performance of SMEs in Pakistan
- H5. Social Capital has a positive effect on the organizational performance of SMEs in Pakistan.
- H6. Technological capital has a positive effect on the organizational performance of SMEs in Pakistan.
- H7. Spiritual capital has a positive effect on the organizational performance of SMEs in Pakistan.

In conceptual framework sub-components of IC and Organizational Performance are also mentioned separately for better understanding to readers. Conceptual framework has been used with complete reference from Nick Bontis, M. Khaique et al 2014; along

with some other sound resources. Intellectual capital as united force has positive impact upon organizational performance (Figure 1: Conceptual Framework). Each sub-component of intellectual capital also influences positively sub-component of organizational performance.

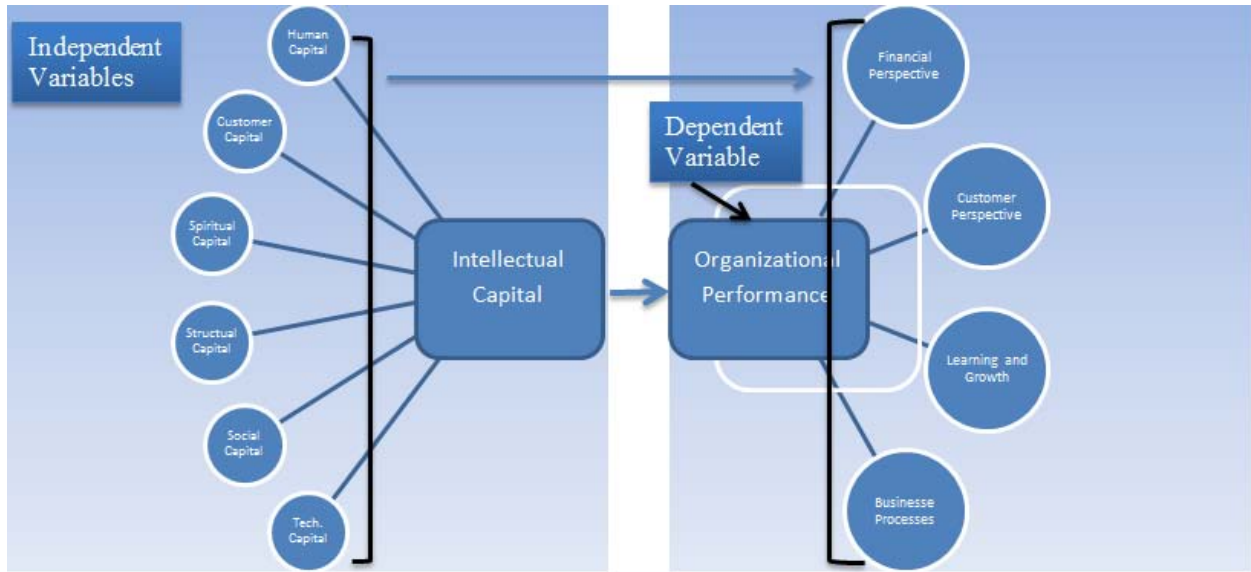


Figure 1 : Conceptual Framework

Resources: Bontis (1998); Stewart (1997); Bueno et al. (2006); Edvinsson and Malone (1997); Guthrie and Petty (2000); Ismail (2005); Kaplan and Norton (1992, 1996); Tovstiga and Tulugurova (2007; Nick Bontis, M. Khaique et al (2014).

IV. RESEARCH METHODOLOGY

In this research we have used multiple regression analysis to check hypothesis. All components of Intellectual Capital, mainly Human Capital (HC), Customer Capital (CC), Structural Capital (STC), Social Capital (SC), Technological Capital (TC) and Spiritual Capital (SPC) were entered in a single step. All these independent variables were selected on the basis of Literature Review. All these independent variables were measured by using a 5 point Likert Scale from (1=strongly Agree) to (5=Strongly Disagree). Instrument used was consist of 35 items which were selected on the basis of extensive literature review. All 35 components were effective enough to grasp the perception of management of different SMEs in Pakistan.

Human capital is measured with 4 items i.e. knowledge, attitude, intellectual agility and expertise. In case of Customer Capital items like customer loyalty and satisfaction, networking and state support for effectively meeting customer’s demand. Structural capital was tested through dimensions of systems, infrastructure, policies and procedures. Relationships, cultural exchange and cooperation were main items used to test the social capital. Technological Capital encompasses IT knowledge, Research and Development and availability of latest technology. Finally, spiritual capital is tested by using religious and

ethical items. All these items were selected on the basis of literature review. Organizational performance is the dependent variable and is measured by using financial perspective, employees’ perspective, structural perspective, businesses process, growth and development, customer satisfaction and loyalty perspective.

a) Sampling

Rawalpindi chamber of commerce and Islamabad chamber of commerce comprises membership of organizations which are large in size. There is no specific publication exists containing detail of all SMEs in Pakistan. In twin cities of Pakistan, we created list of SMEs with the help of local Market Chambers. All SMEs were classified on the basis of their worth of the business. These directories proved to be quite valid as these were created by making financial data a sound base.

Rawalpindi and Islamabad are not recognized due to any special kind of business. Rather there exists great diversity of enterprises which includes furniture, food restaurants, clothing, chemical products, grocery, and many local and international brands etc. A valid sample was created from the directory which included enterprises from many industries. This was very effective sample because it contained data of SMEs from more than one sector. Hence, this contributed more toward the factual results.

For this research SMEs with range of 1 to 200 employees were selected. Employees which were targeted for the study were CEO, CFA, CMO, Middle Managers, Branch Managers, Operational Managers, Training Officers, senior technicians and staff. In short data was collected from employees who were playing their role in decision making either directly or indirectly.

Questionnaire was consists of 35 items and a total of 150 questionnaires were distributed. Out of 150, 34 questionnaires were rejected based upon their invalidity or wrong entrance of data. It was targeted to include a minimum sample of 130 respondents from 70 SMEs. Finally, 116 respondents were included from 50

different SMEs. These responses were collected through physical instruments. No email or Google docs were used to collect data. Response rate was 77% which is more than satisfactory for this study.

V. RESULTS

SPSS version 16 was used to generate different results. Multiple tests had been applied in order to measure the impact of Independent variables over dependent variable. ANOVA table was generated which showed regression analysis along with degrees of freedom, F-test and level of significance.

Table 1 : ANOVA table

ANOVA^b

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	543.318	6	90.553	28.122	.000 ^a
Residual	350.983	109	3.220		
Total	894.302	115			

a. Predictors: (Constant), spiritual capital, Customer Capital, Human Capital, structural capital, technological capital, social capital

b. Dependent Variable: organizational performance

Second most important table generated was table of correlations. In final results this table shows acceptance of all proposed hypothesis. There was existing positive relationship among all component of Intellectual Capital and Organizational Performance. All instruments collected from different SMEs and from respondents at different managerial levels showed positive impact of contents of IC over OP. Human Capital and Organizational performance has weaker positive relation. Customer Capital has weaker relation with dependent variable while structural capital has strong positive relation with OP. Organizational Performance also has strong impact by social capital. Technological and Spiritual capital has strong positive relation with organizational performance that is above 0.6.

Correlations								
		organizational performance	Human Capital	Customer Capital	structural capital	social capital	technological capital	spiritual capital
Pearson Correlation	organizational performance	1.000	.339	.272	.545	.505	.675	.667
	Human Capital	.339	1.000	.425	.454	.471	.191	.350
	Customer Capital	.272	.425	1.000	.442	.325	.086	.249
	structural capital	.545	.454	.442	1.000	.507	.417	.453
	social capital	.505	.471	.325	.507	1.000	.561	.601
	technological capital	.675	.191	.086	.417	.561	1.000	.622
	spiritual capital	.667	.350	.249	.453	.601	.622	1.000
Sig. (1-tailed)	organizational performance		.000	.002	.000	.000	.000	.000
	Human Capital	.000		.000	.000	.000	.020	.000
	Customer Capital	.002	.000		.000	.000	.180	.004
	structural capital	.000	.000	.000		.000	.000	.000
	social capital	.000	.000	.000	.000		.000	.000
	technological capital	.000	.020	.180	.000	.000		.000
	spiritual capital	.000	.000	.004	.000	.000	.000	
N	organizational performance	116	116	116	116	116	116	116
	Human Capital	116	116	116	116	116	116	116
	Customer Capital	116	116	116	116	116	116	116
	structural capital	116	116	116	116	116	116	116
	social capital	116	116	116	116	116	116	116
	technological capital	116	116	116	116	116	116	116
	spiritual capital	116	116	116	116	116	116	116

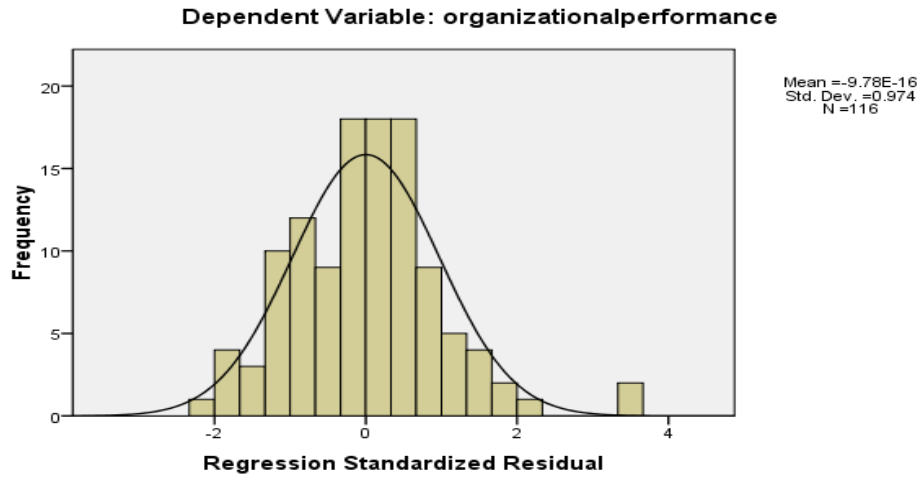
In table III Values of Beta, T- test, Significance level and Standard error are presented in this table. Beta value of independent variables was positive except social capital. Beta reflects the nature of impact of independent variable over dependent variable. Social

capital has stronger positive relation with organization performance. In table below (-0.109) mean social capital has weaker negative impact over organizational performance bur there exist positive correlation among both based upon data collected from all respondents.

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-1.597	1.408		-1.134	.259
	Human Capital	.060	.073	.060	.814	.417
	Customer Capital	.088	.101	.062	.870	.386
	Structural capital	.248	.093	.210	2.673	.009
	Social capital	-.109	.125	-.075	-.869	.387
	Technological capital	.608	.124	.410	4.898	.000
	Spiritual capital	.451	.118	.326	3.840	.000

Histogram



Graph 01 : Histogram showing frequencies of IV over DV

VI. DISCUSSION

All selected components of intellectual capital were expected to have positive impact over organizational performance. In this study data collected from 116 respondents has proved that all independent variables have positive correlation with organizational performance.

All of the components of intellectual capital are very crucial for a combine effect over organizational performance. Social capital beta value is in negative which signals a very weak impact of this IV over organizational performance. All other components had positive beta values. Beta is a very important statistical tool because it always has impact over total value and can bring change in the complete notion. Social capital has Correlation of 0.505 which is above average but its beta value is -0.075. This mean a very slight negativity of beta is supporting that in few SMEs social capital has a weaker impact of Organizational performance.

VII. CONCLUSION

Findings of this research support the assertion that selected components of intellectual capital have significant positive impact on organizational performance of SMEs in Pakistan. Social capital has comparatively weaker impact but it has over all strong positive influence over dependent variable.

Further, this study supports role of Human Capital, Structural Capita, Social Capita, Technological Capital, Spiritual Capital and customer capital have strong influence over organizational performance of SMEs operating in Rawalpindi and Islamabad. Findings of this research also match those which were observed in previous studies. This study has significant

contribution towards the theory development, practical implication and strengthening the concept of Intellectual Capital.

VIII. LIMITATIONS

There are several limitations to this study. First, intellectual capital is a complex phenomenon and respondents' perception may have led to misunderstandings of items asked in instrument. Second, generalizability of this study is limited with in geography of Pakistan. As cultural diversity around the globe can produce significant changes in the results if same study is conducted in any other country. This is due to great variation of prevailing business environment from one nation to another. Finally, it can be related to a one specific time as it is not a longitudinal study.

IX. FUTURE RESEARCHES

Future studies can continue with the same concept of intellectual capital but as a longitudinal study. This study is of exploratory in nature which has several limitations that can be removed in experimental or longitudinal study. Moreover, future studies can also be conducted over controversial role of Financial Capital versus Intellectual Capital for operating SMEs in a developing country like Pakistan.

REFERENCES RÉFÉRENCES REFERENCIAS

1. Dr. Jyotirmayee Choudhury, 2010 "Performance Impact of Intellectual Capital: A Study of Indian it Sector" International Journal of Business and Management, Vol. 5, No. 9.
2. Alka Bramhandkar, Scott Erickson and Ian Applebee "Intellectual Capital and Organizational

- Performance: an Empirical Study of the Pharmaceutical Industry" Ithaca College, USA.
3. Bontis, N. (1998), "Intellectual capital: an exploratory study that develops measures and models", *Management Decision*, Vol. 36 No. 2, pp. 63-76.
 4. Bounfour, A. and Edvinsson, L. (2005) *Intellectual Capital for Communities*. Oxford: Butterworth-Heinemann.
 5. Bueno, E., Salmador, M.P. and Rodriguez, O. (2004), "The role of social capital in today's economy: empirical evidence of new model of intellectual capital", *Journal of Intellectual Capital*, Vol. 5 No. 4, pp. 556-574.
 6. Chaminade, C. and Roberts, H. (2003), "What it means is what it does: a comparative analysis of implementing intellectual capital in Norway and Spain", *European Accounting Review*, Vol. 12 No. 4, pp. 733-751.
 7. De Castro, G.M. and Sáez, P.L. (2008), "Intellectual capital in high-tech firms the case of Spain", *Journal of Intellectual Capital*, Vol. 9 No. 1, pp. 25-36.
 8. Dr. Nick Bontis, 2000, "Assessing Knowledge Assets: A Review of the Models Used to Measure Intellectual Capital" Queen's Management Research Centre for Knowledge-Based Enterprises.
 9. Imran Ali and Jaweria Fatima (2013), *Comsats institute of information technology Lahore, Pakistan*.
 10. Ismail, M.B. (2005), "The influence of intellectual capital on the performance of Telekom Malaysia", PhD thesis, Universiti Teknologi Malaysia, Johor Bahru.
 11. Janine Nahapiet; Sumantra Ghoshal, "Social capital, intellectual capital, and the organizational advantage" *The Academy of Management Review*; Apr 1998; 23, 2; ABI/INFORM Global pg. 242.
 12. Khalique, M., Shaari, J.A.N.b. and Isa, A.H.B.M. (2011a), "Intellectual capital and its major components", *International Journal of Current Research*, Vol. 3 No. 6, pp. 343-347.
 13. Kim, D.Y. and Kumar, V. (2009), "A framework for prioritization of intellectual capital indicators in R&D", *Journal of Intellectual Capital*, Vol. 10 No. 2, pp. 277-293.
 14. Kujansivu, P. and Lönnqvist, A. (2007), "Investigating the value and efficiency of intellectual capital", *Journal of Intellectual Capital*, Vol. 8 No. 2, pp. 272-287.
 15. Lesser, E. and Prusak, L. (1999), *Communities of Practice, Social Capital Organizational Knowledge*, IBM-Institute Knowledge Management, Cambridge, MA.
 16. Mei-Fen Wu, Yu-Je Lee and Gao-Liang Wang; 2012 "To Verify How Intellectual Capital Affects Organizational Performance in Listed Taiwan IC Design Companies with Considering the moderator of Corporate Governance", *The Journal of Global Business Management*, Volume 8, Number 1.
 17. Montequín, V.R., Fernández, F.O., Cabal, V.A. and Gutierrez, N.R. (2006), "An integrated framework for intellectual capital measurement and knowledge management implementation in small and medium-sized enterprises", *Journal of Information Science*, Vol. 32 No. 6, pp. 525-538.
 18. Muhammad Khalique, Nick Bontis, Jamal Abdul Nassir bin Shaari Abu Hassan Md. Isa ,(2015)"Intellectual Capital In medium and small enterprises in Pakistan" Vol. 16 Iss 1 pp. 224 – 238.
 19. Ordóñez de Pablos, P. (2004), "The importance of relational capital in service industry: the case of the Spanish banking sector", *International Journal of Learning and Intellectual Capital*, Vol. 1 No. 4, pp. 431-440.
 20. St-Pierre, J. and Audet, J. (2011), "Intangible assets and performance: analysis on manufacturing SMEs", *Journal of Intellectual Capital*, Vol. 22 No. 2, pp. 202-223.
 21. Thomas A. Steward; *Intellectual Capital*, Published by Q Finance.
 22. Tovstiga, G. and Tulugurova, E. (2007), "Intellectual capital practices and performance in Russian enterprises", *Journal of Intellectual Capital*, Vol. 8 No. 4, pp. 695-707.
 23. Youndt, M.A. and Snell, S.A. (2004), "Human resource configurations, intellectual capital, and organizational performance", *Journal of Managerial Issue*, Vol. 16 No. 3, pp. 337-360.



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