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Research Article
Influence of Intellectual Capital Dimensions on Knowledge Process Capability and Organizational Performance

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Abstract

Background and Objective: Intellectual Capital IC has been much studied in developed nations, but less considered on developing countries. This study was conducted in the context of a developing country like Pakistan to discover its impact on organizational performance. This study aimed to develop a conceptual model and to measure the individual dimensional effects of intellectual capital (human, structural, relational and technological capital) on knowledge process capability as well as organizational performance in the context of a developing country. **Methodology:** The survey was conducted with 267 respondents from the textile industry in Pakistan. This research used structural equation modeling with partial least squares regression. The structural equation modeling (SEM) is applied to run the multiple regression analysis and the analysis is performed with Warp partial least square (WarpPLS) software. **Results:** Results corroborate that all dimensions of intellectual capital have significant positive effects on organizational performance, except for structural capital. Similarly, knowledge process capability is partially mediated with relational, human and technological capital. **Conclusion:** This study presents implications for human resource managers and policy makers by examining the various dimensions of intellectual capital on organizational performance in the context of a developing country. This study offers selected relevant intellectual capital dimensions in workplace settings and suggests the importance of knowledge process capability in an organizational context.

Key words: Human capital, structural capital, relational capital, technological capital, knowledge process capability, organizational performance

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INTRODUCTION

Intellectual capital (IC) has been argued as one of the key elements for organizational value creation and has brought drastic productive changes in a competitive business environment[1-3]. However, in a quickly changing competitive market, merely owning knowledge resources does not ensure competitive advantage of the organization given that changes can be disruptive and uncertain. Accordingly, a careful approach is required to directly measure IC and performance[4,5]. The theory of knowledge-based view (KBV) considers knowledge process capability to be the key source for leveraging knowledge resources and performances[5-7]. The IC focuses on new methods to create value and the knowledge management process provides the needed inputs for the knowledge flow. The effective use of these two can bring success and viability for any organization[8,9].

The IC is explained with various conceptualizations and its effect on performance. Most of the scholars explained IC in three dimensions, namely, human capital, structural capital and relational capital[10-13]. Moreover, the current study considers technological capital as a separate construct of IC. Bueno *et al.*[14] used technological capital as a subpart of structural capital but did not test this criterion empirically.

The concept of knowledge management has been used and defined in various disciplines as well as contexts. However, a general consensus that knowledge management creates knowledge that ultimately add and generate values to the organization exists[15,16]. Knowledge process capability is significantly important for organizational success[7,17]. Hence, IC utilizes such knowledge management processes to improve organizational performances[18].

Despite the vital significance of IC and its role on organizational performance, empirical research exploring the individual dimensional effect of IC on organizational performance remains scarce[1,19]. Investigating how such relationships differ from developed to developing economies is also interesting[1,20]. Similarly, imperative relations exist between IC and knowledge process capability, but inconsiderable empirical studies are conducted. How various aspects of IC influence knowledge process capability should be further explored[5,18].

Accordingly, understanding the individual elements of IC and its relationship to organizational performance is crucial. This study contributes to the field of IC and knowledge process capability development for the following reasons. First, the individual dimensional effect of IC (human capital, structural capital, relational capital and technological capital) to organizational performance is explored. Second, the mediating role of knowledge process capability is also determined with IC and performance. Third, this study contributes to IC development application in a developing economy.

Human capital is the central and pivotal component of IC[21,12]. This criterion improves the economic values in an organization's settings by skills, knowledge and experiences[22,23]. Human capital is defined as knowledge, skills, expertise, as well as capabilities in employees and are employed for organizational value creation[3,21]. Apart from tangible assets, employers should invest on such complex and inimitable intangible resources by giving quality training to employees and motivating them to share knowledge as well as experiences, which ultimately leads to organizational competitiveness[24,25]. Managers regularly mobilize and shape the collective talent, knowledge, brainpower and the eagerness of the employees for organizational challenges as well as opportunities[26]. A number of studies have asserted that human capital has positive effects on organizational performance in developed economies[24,27,28]. However, in developing economies, results are fairly satisfactory. Khalique *et al.*[20] studied small and medium enterprises (SME's) in Pakistan and confirmed the negative effect of human capital on organizational performance. Therefore, the current study will determine the effect of human capital on a large textile sector.

Structural capital fully belongs to organizations. This criterion includes all the processes, procedures, data bases and manuals that support organizational value creation[12,27]. An employee may have a good level of understanding or intellect, but the overall IC will not reach the highest level unless the organization improves its poor systems and procedures. This improvement can be attained only if an organization applies structural capital, which motivates employees to learn, apply new ideas and re-learn when they fail[29]. Basically, structural capital is a platform for employees to be creative in the organization and, compared with human capital, this criterion belongs totally to organizations. It provides an environment for organizational innovative learning, codification of information to knowledge and knowledge growth, which leads to highly productive firm performances.

Relational capital covers the relations that a company maintains with customers, suppliers and stakeholders[29]. Such relations develop knowledge capability[30], which, in turn, contributes to organizational performance[31]. Relational capital connects organizations with the external environment and obtains information regarding customer's needs and wants. Further, long-term and strong networks with clients boost customer loyalty toward organizations and help to inform

organizations about their competitors' capabilities[32]. According to Bontis[29], this capital holds half of the business because companies gain knowledge from customers' buying behavior. Managers should have a keen and sharp view on such capital. Therefore, this study explains relational capital as a cooperative relationship with customers, suppliers, stakeholders, governments and other agencies.

Among the other dimensions of IC, technological capital is also essential for organizational value creation. Scholars define the concept with different attributes, i.e., as a process of research and development (R and D)[20], technological knowledge storage[33] information and communication technology (ICT) knowledge, as well as operation and infrastructure. Further, Bueno *et al.*[14] explained it as a set of ICT intangible formed by technical process innovation. Among various conceptualizations, this study proposes technological capital as ICT knowledge, (research and development) (R and D) and technological operations as well as infrastructure, which create competitive advantages for organizations[20,34].

IC can be a productive tool for the organization to make knowledge available for the internal and the external environment[35]. Such a tool provides a learning platform for organizations to improve its process, procedures and system to enhance growth as well as successive relationships with customers and suppliers. However, many developing countries still lack such knowledge technology. According to McNamara[36], technology shortage results from various factors, such as budget constraint, lack of technological knowledge as well as awareness, incompatible system and low level of IT equipment. Accordingly, this research utilizes the benefits of technological knowledge to envisage its growth in a developing economy.

Knowledge is considered as something broader, richer, as well as deeper than data and information. Davenport and Prusak[37] defined knowledge as framed experiences, values, information and knowledge, which is available not only in repositories, but also in organizational processes, procedures, routines and norms. Organizations that have not developed their knowledge assets fail to survive[38].

Knowledge process capability is a multi-faceted concept defined with different approaches and disciplines. Gold *et al.*[39] defined knowledge process capability as knowledge acquisition, knowledge conversion and knowledge application. However, Filius *et al.*[40] explained knowledge process capability in 5 sub segments: Knowledge acquisition, documentation, transfer, creation and application. Workforce obtains knowledge from the internal and the external environment as well as attains solutions through brainstorming meetings. Moreover, such sessions bring changes in procedures, policies and constructive knowledge for employees. In an organization, knowledge creation takes place through problem-solving and allocating new projects to employees. Lastly, knowledge is implemented by utilizing employees and customer experiences[39,40].

Organizational performance has been explained in various perspectives. Moreover, organizational performance has been evaluated with different techniques in different studies and the operationalization as well as the conceptualization of such a concept is still progressing[41,42]. In the present study, organizational performance is measured by the management's perception on internal sales, export growth, profitability and export profitability[42-44]. In addition, this study also gauges output per worker, value added per worker, cost of production and new product development[45-47]. This research conceptual model is grounded on the theoretical perspectives of resource-based view (RBV) and knowledge-based view (KBV). According to Barney[48] the resource-based theory provides a sustained competitive advantage, which is produced by organizational distinctive resources. Such resources ought to be valuable, rare, inimitable and non-substitutable. Resource-based view theory explains that all resources may not lead to organizational performance simultaneously and that resource utilization may differ across organizations and firms. In such case, the major challenge of organizations is to notify those resources that directly influence organizational performances[49,50]. According to Wernerfelt[51], resources include not only products, but also tangible and intangible assets. Apart from the traditional tangible resources, numerous scholars investigated the intangible resources, such as IC (human, structural, relation and technological capital) and their effects on organizational performance[27,29,52]. Therefore, the current study used RBV as one of the base theories to depict the relationship between IC dimensions and organizational performances.

Furthermore, KBV theory considers knowledge as one of the most strategic resources of organizations[7,53]. Sustained competitive advantage can be achieved from such knowledge resources, which are difficult to imitate, considerably complex, heterogeneous and immobile. According to KBV theory, compared with tangible assets, knowledge-related resources highly contribute to attaining improved organizational performances[7,53]. Kianto *et al.*[54] and Chen *et al.*[55] expressed their opinion that organizations with productive background of IC can utilize their benefits with the proper usage of knowledge management processes and such knowledge management processes lead to improved organizational performances[16,56]. Therefore, this study utilized KBV theory to examine the indirect impact of IC on organizational performance (Fig. 1).

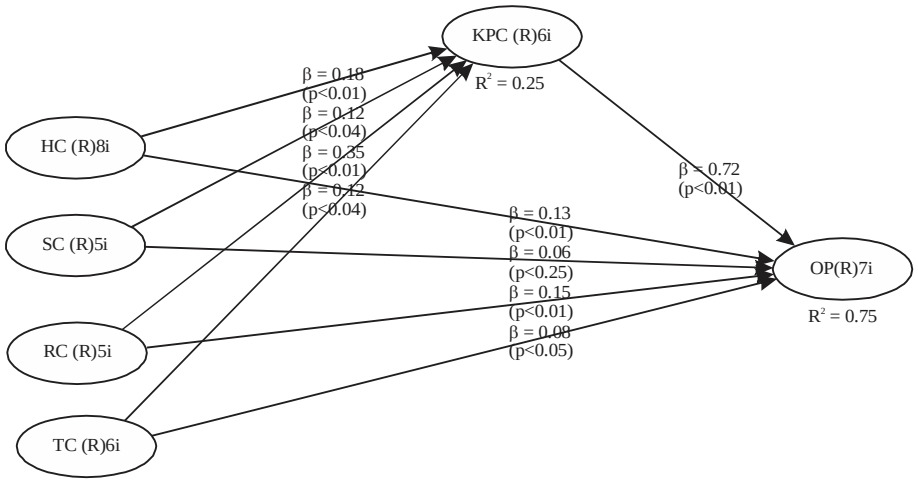

Fig. 1: Research Theoretical framework

The most central and essential dimension of IC is human capital. Human capital with its inimitability elements brings competitive advantage in organizations[24]. The effective utilization of such valuable assets enhances creativity, which, in turn, brings improved organizational performances[27,57]. Employees need a sound working environment and management support to motivate them to complete their tasks efficiently and effectively. Among the dimensions of IC, structural capital serves as non-human knowledge resources to sustain and improve performances in a competitive business environment[13,29,58]. According to Zangoueinezhad and Moshabaki[59], companies with conducive structural facilities communicate knowledge to employees, which help them perform well for organizational success.

Similarly, customers and suppliers are indirectly linked to businesses and this relationship is also as important as the other assets. Cousins *et al.*[60] as well as Dewhurst and Navarro[61] postulated that, by enhancing relations with customers and suppliers, companies gain promising ideas as well as experiences. On the other hand, Garcia-Merino *et al.*[32] as well as Andreeva and Garanina[1] portray the negative effects of relational capital on performance. They added that building relations with customers and suppliers takes time, thus, such capital has a delayed effect on performance. Subsequently, cultural effects also matter given that certain countries have already developed such capital that no longer brings competitiveness.

Lastly, technological capital plays an important role in organizations. Increasing business practices as well as improving efficiency and competitiveness have become a primary requirement for businesses[20,62]. However, such technology may differ in a different culture and also depends on the technology's availability as well as usage[36].

Accordingly, on the basis of the above analysis, authors have proposed the following hypotheses to show that, in a developing country perspective, a strong relationship exists between IC dimensions and organizational performances.

H1: Human capital has a strong positive effect on organizational performance
H2: Structural capital has a strong positive effect on organizational performance
H3: Relational capital has a strong positive effect on organizational performance
H4: Technological capital has a strong positive effect on organizational performance

Knowledge is a pivotal need for todays' knowledge-based companies. Knowledge process capability needs an input, such as IC, to work in parallel and boost its utilization in organizations. IC and KM may be viewed as referring to knowledge stocks and processes, respectively[63]. Kianto *et al.*[54] elaborated on the IC and KM relationship and how these 2 concepts are interlinked to support organizational performances.

Human capital plays a lead role to process such knowledge[64]. Jaw *et al.*[28] elucidated that knowledge flow through human capital boosts organizational performances. The capabilities as well as teaching and leadership quality of senior managers should be used to produce an open-mind and conducive learning environment to encourage employees to complete their tasks. Similarly, companies' structural reform helps knowledge creation. According to Nonaka *et al.*[65], managers should create a learning environment by giving time, space and attention. Organizations can provide a good working space, a good database to reduce work hours and

platforms for interaction to discuss common organizational goals. Such structural facilities promote prevailing knowledge and influence innovation in the organization[3,58].

Moreover, relational capital is fairly important in the knowledge flow of organizations. Carmeli and Azeroual[30] asserted that knowledge leads to constructive benefits for organizational performance. Moreover, customers and suppliers have wealth of knowledge and their efficient as well as effective utilization supports the organizations to accomplish the desired objectives[29].

Currently, the role of technological capital is highly important in competitive and knowledge-based business organizations. Such technological capital promotes organizational effort for knowledge processes, i.e., knowledge acquisition, creation, integration and use[66]. Lopez *et al.*[67] verified that ICT are positively associated with knowledge process capability. To apply such technology, firms must develop a knowledge strategy to provide the basis for the information technology strategy. In addition, Perez-Lopez and Alegre[16] confirmed that IT plays a dominant role to enhance management processes, which leads to improved organizational performances. Accordingly, the following hypotheses are derived from the aforementioned conceptual model.

H5: Knowledge process capability mediates the relationship between human capital and organizational performance

H6: Knowledge process capability mediates the relationship between structural capital and organizational performance

H7: Knowledge process capability mediates the relationship between relational capital and organizational performance

H8: Knowledge process capability mediates the relationship between technological capital and organizational performance

MATERIALS AND METHODS

Measurements: A five-point Likert scale is applied for variable measurement, ranging from (1) = strongly disagree to (5) = strongly agree. A nine-item measurement of human capital was adopted form Bontis[29] and Subramaniam and Youndt[3]. Structural capital was measured with 6 items developed by Bontis *et al.*[27] and Roos *et al.*[12]. The remaining IC dimensions, such as relational capital and technological capital, were measured with 5 and 6 items, respectively. The items of both constructs are based on the works of previous researchers[20,27,34,68]. Knowledge process capability was measured with 6 items adopted from Filius *et al.*[40]. Finally, organizational performance was measured with 7 items[42,44,47].

The present study is based on perceptual measures in collecting data for analysis. Kannan and Aulbur[69] extensively discussed IC's role in perceptual research. They asserted that such perceptual measures are crucial for employees' performance, human capital development and overall organization's performance. Furthermore, various studies have also used the perceptual measurement of IC and organizational performance[52,70].

Sampling and data collection: This study is based on the textile industry in Pakistan, which has a tremendous contribution in the country's exports. Furthermore, the textile sector accounts for 46% of the total manufacturing sector[71]. Large companies were selected for this study because such companies are more focused on knowledge and emphasized on IC. The survey data has been collected from January-June, 2017.

The respondents of this study are managerial level employees, distributed 525 questionnaires. The self-administrated and surface mail method was used for data collection. After discarding unusable responses, we used 267 usable responses in this study, with a response rate of 50.85%.

Statistical analysis: The SPSS software version 22 was used to find out the value of mean and standard deviation.

RESULTS AND DISCUSSION

For the measurement of measure, multiple regression analysis, warp partial least square (WapPLS) (version 0.5) was applied. Warp partial least square is Robust software of structural equation modelling that simultaneously deals with measurement and structural models. Moreover, WapPLS has the ability to automatically deal with missing data and applies different quality fit indices[72].

Measurement model: The measurement model examined construct validity (convergent validity and discriminant validity) and reliability. Convergent validity was measured with factor loading (FL) and average variance extracted (AVE). Similarly, square root of AVE was checked to measure discriminant validity. Composite reliability and Cronbach alpha were used to measure reliability. Finally, block variance inflation factor was used to measure multicollinearity. The SPSS software was used to find out the value of mean and standard deviation. The value of mean ranged from

Table 1: Descriptive statistics and discriminant validity coefficients

Variables	Mean	SD	1	2	3	4	5	6
Human capital	4.148	0.892	(0.841)					
Structural capital	4.102	0.618	0.100	(0.715)				
Relational capital	4.058	0.887	0.317	-0.014	(0.768)			
Technological capital	3.782	1.060	0.273	0.019	0.198	(0.855)		
Knowledge process capability	4.144	0.862	0.246	0.163	0.389	0.199	(0.834)	
Organisational performance	4.058	0.887	0.367	0.061	0.464	0.253	0.794	(0.800)

Diagonal in parentheses represents the square root of AVE while the other entries represent correlations

Table 2: Factor loading and reliability

Constructs	Loadings	AVE	CR	Cronbach's α	Full collinearity VIFs
Human capital		0.707	0.951	0.941	1.262
HC1	0.818				
HC2	0.862				
HC3	0.857				
HC4	0.829				
HC5	0.831				
HC6	0.85				
HC7	0.841				
HC8	0.84				
Structural capital		0.511	0.839	0.759	1.058
SC1	0.762				
SC2	0.706				
SC3	0.753				
SC4	0.726				
SC6	0.62				
Relational capital		0.59	0.878	0.826	1.332
RC1	0.803				
RC2	0.75				
RC3	0.782				
RC4	0.737				
RC5	0.765				
Technological capital		0.73	0.942	0.926	1.117
TC1	0.796				
TC2	0.811				
TC3	0.898				
TC4	0.844				
TC5	0.876				
TC6	0.897				
Organisational performance		0.64	0.925	0.905	3.169
OP1	0.709				
OP2	0.727				
OP3	0.832				
OP4	0.83				
OP5	0.832				
OP6	0.857				
OP7	0.801				
KPC		0.695	0.932	0.912	2.842
KPC1	0.825				
KPC 2	0.842				
KPC 3	0.811				
KPC 4	0.785				
KPC 5	0.875				

CR: Composite reliability, AVE: Average variance extracted

3.782-4.148. All construct mean values were above a midpoint of 2.5. The standard deviation values ranged from 0.618-1.060, respectively. These values are reported in Table 1. The square root of AVE measures correlations among constructs and a construct has good discriminant validity if respondents fully understand questions related to a construct[73]. Table 1 shows the constructs in diagonal values, which refer to the square root of AVE and that all the diagonal constructs were greater than off-diagonal values. Accordingly, these results confirm that this study achieved discriminant validity.

Table 2 reports FL, AVE, composite reliability, Cronbach alpha and full collinearity variance inflation factors. The results

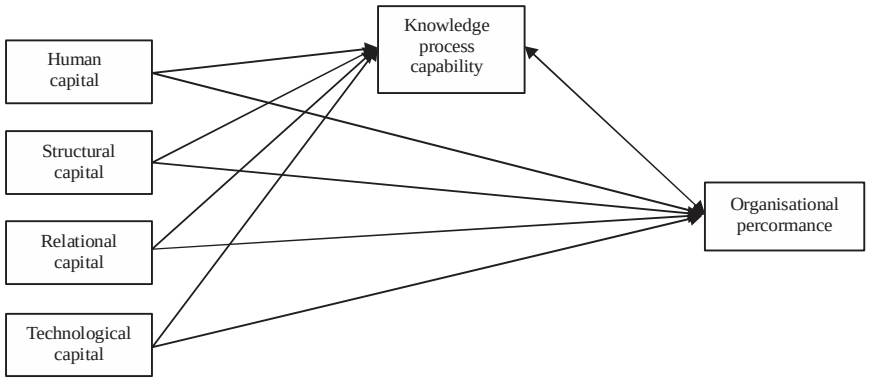

Fig. 2: Estimated Model

Table 3: Results of direct hypothesis testing (IC and organizational performance)

Hypothesis	Paths	Standardized estimates	p-value	Effect size	Decision
H1	HC-OP	0.195	0.002	0.075	Supported
H2	SC-OP	0.022	0.410	0.002	Not supported
H3	RC-OP	0.426	0.000	0.218	Supported
H4	TC-OP	0.206	0.000	0.065	Supported

Table 4: Mediation analysis (indirect effects) of model

Hypothesis	Paths	Direct estimates	Indirect estimates a*b	p-value	Effect size	Decision
H5	HC-OP	0.134		0.000	0.052	Supported
	HC-KPC-OP		0.130	0.005	0.050	
H6	SC-OP	0.061		0.251	0.004	Not supported
	SC-KPC-OP		0.09	0.052	0.007	
H7	RC-OP	0.148		0.000	0.075	Supported
	RC-KPC-OP		0.253	0.000	0.130	
H8	TC-OP	0.076		0.047	0.024	Supported
	TC-KPC-OP		0.087	0.038	0.028	

of FL ranged from 0.620-0.898, which fulfill the accepted criteria >0.5[74]. However, 2 items (HC 9 and SC5), which did not fulfill the criteria, were deleted. The AVE values ranged from 0.511-0.707, achieving the cut-off value of 0.5. The composite reliability ranged from 0.839-0.951 and Cronbach alpha, from 0.759-0.941. All latent variables are within the acceptable satisfactory level of 0.7. The WarpPLS 5.0 also computes the vertical and lateral collinearity simultaneously among the constructs. The results ranged from 1.058-3.169, which fulfill the accepted criteria of below 3.3 Kock[72].

Assessment of the structural model: The hypothesized relationships among latent variables were discussed in the structural model (Fig. 2). Path coefficients and p-values were also calculated. The hypothesized model showed a model-data fit for all suggested indices. The values of average path coefficient were (APC) = 0.213, p = <0.001, average R-squared (ARS) = 0.503, p = <0.001, and average adjusted R-square (AARS) = 0.493, p = <0.001. The value of average block variance inflation factor (AVIF) was 1.154 (acceptable if <= 5, ideally <= 3.3) and Tenenhaus goodness of fit (GoF) = 0.570 (small >= 0.1, medium >= 0.25, large >= 0.36).

Table 3 exhibits the direct effects and Table 4 reports the mediation effects. The direct effect between human capital and organizational performance (β = 0.195, p = 0.002) was significant, thereby accepting H1. Moreover, the direct effect between relational capital and organizational performance (β = 0.426, p = 0.000) as well as technological capital and organizational performance (β = 0.206, p = 0.000) were significant, thereby supporting H3 and H4, respectively. The effect between structural capital and organizational performance were insignificant, thereby rejecting H2.

Table 4 shows the mediation analysis is shown. Boot strapping was applied for testing the mediation effect[75,76]. The indirect effect of human capital to organizational performance was (β = 0.130, p = 0.005), thereby accepting H5. The indirect effect of relational capital and organizational performance (β = 0.253, p = 0.000) as well as technological

capital and organizational performance (β = 0.087, p = 0.038) were significant, thereby supporting H7 and H8, respectively. Lastly, the indirect effect of structural capital and organizational performance was insignificant, thereby rejecting H6.

This study tested a conceptual model by examining the different elements of IC, i.e., human, structural, relational and technological capital on knowledge process capability as well as organizational performance of textile companies in Pakistan. The outcome shows how intangible assets with knowledge process capabilities are able to generate organizational performance in developing economies, such as Pakistan.

This research inferred that the employees' capability for organizational success is as important as other physical assets. Our results confirm the significant direct relationship between human capital and organizational performance and these findings are consistent with Bontis *et al.*[27], who conducted a study in Malaysia and asserted that human capital is a strategic source for organizational success. Further, these results are also consistent with Felicio *et al.*[77] and Wang *et al.*[57]. However, this result is not aligned with Khalique *et al.*[20] outcome that shows a negative effect between human capital and organizational performance. One of the possible reasons is the difference in the industry type, where compared with SMEs, large companies have substantial setup and budget for human resource development. Similarly, the indirect relationship between human capital and organizational performance exists through knowledge process capability. These results are consistent with previous studies of Jaw *et al.*[28] that managers should invest in human capital, which allows employees to absorb the importation of knowledge. In addition, such knowledge makes employees considerably knowledgeable for completing specific tasks. The owners and top management should also provide a learning and trustful environment that enables employees to share as well as apply their experiences for value-added product development and then improve the overall performance of the organization.

However, the direct and indirect relationships between structural capital and organizational performance are positive but non-significant. The outcomes of this study are aligned with Leitner[78] research outcomes. While organizations in the developed countries have systematic organizational structures, organizations in developing countries, such as in Pakistan, lack databases, operating processes and procedures. Effective organizational design is needed to complete all structural requirements, which are obligatory in today's competitive and technological environment.

Relations with customers, suppliers and other stakeholders enhance organizational performance. This result is aligned with Hormiga *et al.*[31], which explained that companies should develop customers' loyalty and good reputation. Such factor portrays a decisive role for the companies' growth. Furthermore, knowledge process capability partially mediated between relational capital and organizational performance. The empirical results of Chen *et al.*[55] also support the relationship between relational capital and knowledge process or transfer. Accordingly, relational capital through the partner's involvement will strengthen the organization by implementing effective knowledge transfer activities. The outcome of the Carmeli and Azeroual[30] study also supports the link of relational capital to knowledge combination capability (especially knowledge creation), which leads to organizational performance.

Finally, the role of technological capital is pivotal for organizational success. Similarly, knowledge process capability is equally important to boost up technological knowledge for organizational growth. The results of Perez-Lopez and Alegre[16] also back the current study by proving the indirect effect of knowledge process capability between technological capital and organizational performance. Their results corroborate that the sole involvement of ICT is insufficient for organizational performance rather these technologies should be used to support the development of knowledge management processes which leads to better performance. Finally, the result of this study depicts that, similar to the developed countries, technological capital is equally important in developing countries, such as Pakistan, given that this criterion becomes an essential tool for organizations to deal with internal and external networks and knowledge.

Furthermore, IC has been the focus of researchers and practitioners. The past literature shows the competitiveness of IC and its effect on organizational performance. However, from the theoretical perspective, current study added new understanding by proposing imperative dimensions in IC, which is estimated to have significant values in the textile industry in Pakistan. Previous studies focused on the limited aspects of IC and their relationship with organizational performance (human capital, structural capital and relational capital), but the current study added knowledge in the literature by adding technological capital as a part of IC, which has been considered important by researchers. In addition, this research has empirical contribution by discussing about knowledge process capability as a mediating variable. Knowledge process capability shows significant outcomes, which indicates its importance in textile companies in Pakistan.

Similar to other studies, the present study has several limitations. First, the present study is cross-sectional and data are collected at a specific point in time. Second, this study is based on a single industry, future studies can include different industries and comparisons can be made. Third, the measurement instrument is a surveyed questionnaire and the results are based on the opinion and perception of informants. Although studies support perceptual measurements, they are highly susceptible to bias. Future studies can apply both measurements (perceptual and objective) and compare the results with the current study.

CONCLUSION AND DIRECTIONS FOR FUTURE RESEARCH

The present study tested a conceptual model to show the link among IC dimensions, i.e., human, structural, relational and technological capital with knowledge process capability as well as organizational performance. Using SEM for empirical analysis, this study supports the conceptual model with the following results: all dimensions of IC have significant positive relations with organizational performance, except for structural capital. Similarly, knowledge process capability partially mediated with relational capital, human capital and technological capital. These outcomes may be useful in developing countries, particularly in the context of Pakistan. Further, the results prove that knowledge-related resources have significant effects on companies in Pakistan and that further efforts could provide significant outcomes.

SIGNIFICANCE STATEMENT

This study added a new dimension of IC, the technological capital that has not been tested empirically. The results reveal that technological capital has significant positive relation with knowledge process capability and organizational performance. The findings of this study further confirm that IC has never been discussed in textile sector of Pakistan. The combination of various dimensions of IC provides new knowledge to the managers and policy makers to make better decision in textile and other manufacturing sectors.

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