

IMPACT OF STRUCTURAL CAPITAL AND INNOVATION CAPABILITY ON FIRM PERFORMANCE, (CASE STUDY OF PHARMA INDUSTRY IN KARACHI-PAKISTAN)

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IMPACT OF STRUCTURAL CAPITAL AND INNOVATION CAPABILITY ON FIRM PERFORMANCE, (CASE STUDY OF PHARMA INDUSTRY IN KARACHI-PAKISTAN)

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ABSTRACT

For firms, modifications and changes are quicker than their speed in obligation and the ability for adjustment. On this competitive world of technology and changes, firms are faced with possibilities and threats. Consequently, every invention and innovation causes alternate that may create possibility for employer. Having the right structural capital and innovation capability mind is very essential. Organizations should develop their new products and share clean vision to decorate the effectiveness in their new product improvement and performance. The objective of this research was to analyze the position of Structural capital and Innovation capability on company performance. The majority applicable SC & IC areas including Systems and Programs, R and D, Culture, Knowledge and environment, Along with IC areas Organizational and Employees innovation, Product innovation and launching have been selected for the research. The primary data were collected from 100 employees from different Pharmaceutical corporations in Karachi using closed ended questionnaire on 5 Likert scale. Secondary data was composed from the published reports, research articles and case studies. For the data analysis objective statistical tools, Descriptive analysis, Correlation and Regression were tested through SPSS. Results indicated that all SC & IC practices were strongly correlated with the Firm performance. This research designated that companies exercise these practices efficiently on a broader level produces top performance. To endure and maintain for the prospect expectations, it is vital that the Pharmaceutical industry be supposed to put these factors (Structural Capital and Innovation Capability) into a practice for the improvement of their performances.

Keywords: Structural Capital, Innovation Capability, Firm Performance, Pharmaceutical Industry

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INTRODUCTION

The shift closer to expertise-based totally societies might be a huge noted problem. During this competitive world with a lot of changes, managers should understand the most sources that power the overall performance and worth their organizations. Earlier than the shift towards knowhow-based totally economy systems, the maximum sources of value advent for firms had been tangible properties like assets, plant, equipment's, and uncooked materials (Carson et al., 2004). Currently, however, tangible property, structural capital procedures, and innovation capability (IC) collectively recognized because they are driving elements in aggressive advantage and well worth creation (Delios and thrilled, 2001; Conner and Prahalad, 1996; provide, 1996a; Quinn, 1992; Spender, 1996; Carmeli and Tishler, 2004).

Structural Capital embrace all reserves non-human records in addition to databases, organization & structure charts, and processes and operative procedures, strategies, action plans (Ross et al., 1997).

Chen and colleagues agree with that the structural capital refers to this commercial enterprise structure and strategies of the business enterprise. In their study, capital shape will additional sincerely classify as structure tradition, shape gaining knowledge of, operational strategies and data systems. Innovation talents and structural capital with interacting with each other will facilitate organizations to shape dress capitals and use and broaden them harmoniously (Chen, 2004).

In possibility phrases, its primary reason is to aid the conversion of human capital into intellectual capital. Not like human capital; structural capital is in hand by using the company and might as a result be listed. Literature conjointly refers thereto due to the fact the facts this is still within the firms on the tip of the operating and routine day (Edvinsson, 1996). It for this reason encompasses the strategies embedded

interior businesses, the collective ability that is same to live inside the shape workouts or guidelines (Nelson & iciness, 1982).

The survival of any business enterprise, especially within an ever increasingly more globalized world, depends in large part on its ability to innovate. Organizational intelligence, represented through statistics and expertise systems, the skills and competencies of employees, the first-rate of production techniques and customer service, each have an outstanding impact on its ability to innovate. To reach this context, or without a doubt continue to be possible, firms need to be revolutionary & innovative (Govindarajan and Trimble, 2005).

Innovation Capability(IC) implies the buildup, appearance or capability of a company's innovation regarding conceiving and implementing something new (Aramburu and Saenz 2011). As positive intangible infrastructure, Innovation Capability may be further appeared because the ability to mobilize the understanding, possessed by way of its employees, and combine it to create new information. facilitating diverse improvements consisting of new products or services, new software designs & techniques, new manufacturing manner era, new shape, new administrative device, and new organizational forms and work style (Calantone et al. 2002). Based totally on existing literature (Çakar and Ertürk 2010; Damanpour 1991; Davenport 1993; Liao et al. 2007; Liao et al. 2010; Lin 2007), we conceptualize Innovation Capability as the potential of understanding introduction and accumulation to institutionalize something new in a firm, and valuate it from the components of product, method and control. Product innovation manner providing differentiated or new merchandise/services inside the marketplace and obtaining delight from customers. Process innovation worries providing new manufacture or service operation apart from modern ones which will attain better overall performance. Management innovation is a capability that improves a company's performance via enforcing new managerial guidelines, systems, and techniques, etc.

The research concerned on structural capital has been growing speedy in last couple years, because of the goals of the companies to be competitive within the marketplace. The method of the structural capital is related to the annoying Impacts of the external environment and have to be designed a good way to facilitate market proportion growth of the business enterprise. Just the truth that structural capital has to adapt to the market's call for in the main entails flexibility, consequently can't give a widespread valid definition. This category labeled as "structural capital technique" is used by using a massive variety of researchers and corporations and is divided into the internal and external capital (Schneider and Smakin, 2007). The most effective way for an enterprise to acquire a competitive advantage is invariably improve its strategies and practices through innovation (Porter, 1990; Drew, 1997). Nevertheless innovation do not get direct rewards by means of using market, (Teece et al, 1997) and to reap first-mover advantages (Liberman& Bernard Law Montgomery, 1998) or react apace to sell adjustments & promote change (Cohen & Levinthal, 1990). The importance of innovation also can be ascertained and as examined by Fagerberg et al, 2004 that states the modern (developed) nations had higher levels of productivity and monetary benefit than much less-current ones. Innovation has been mentioned in numerous many alternative views by way of manner of numerous researchers.

Pharmaceutical sector is taking a part in an essential role within the increase of the economic system of Asian country. After service and agriculture; it's the third largest area of Asian continent. The proportion of manufacturing & pharmaceutical area in GDP of Asia is 18.7%. This deliberate increment in price addition can nice is attained with the help of innovation practices. The organizational researchers are of the view that adoption of innovation is a prime

vehicle for organizational version and exchange to beautify company common performance mainly under the situations like scarce resources, dynamic commercial enterprise environment, intense opposition and changing customer demands for higher & better quality(Jansen et al, 2006; Roberts & Amit, 2003). The objective of the research was to study whether structural capital and innovation capability significantly improves the association with organizational innovation after one and two-year interval elapses. Therefore, the research question for this study includes: Does structural capital have better impact on organizational innovation through time?

Problem Statement

Both Structural capital & innovation capabilities could lead the firm's reach an outstanding achievement internally & externally. Structural capital is an awful lot less apparent and further specialized than one kind factors of IC (Moon and Kym, 2006). Structural capital is the habitual know-how & routine knowledge, which includes the expertise stored in databases, strategies, guidelines, and organizational manner of existence, which creates value for the agencies (Kong, 2008). In different phrases, structural capital is the understanding this is attached in an organization's tactics, physical activities, practices (Jansen et al., 2009). Today's economy system machine is pushed & driven by what we should call the "innovation vital". As Bessant and Tidd (2007) factor out, the coolest judgment is pretty easy: if companies do not change what they provide to the sector (products and services) and the way they create and supply them, they hazard & are at risk of overtaken through others who being Consequently, the property of a hit innovation has become one of the vital demanding situations for educational researchers inside the organizations globally to assist companies achieve their goals & being healthful at the same time. Moreover, innovation lies at the middle of what is called

"dynamic capabilities". According to Teece (2007, 2009), the "dynamic capability" idea encompasses 3 first-level (i.e. Simpler) capacities. The first one is the potential to sense and form possibilities and threats. That is the brand new concept technology measurement of the innovation capability. The second one is the ability to capture opportunities. This refers to the selection of the brand new thoughts be addressed and to their subsequent development and fulfillment (i.e. Innovation task control). The final-noted refers to the corporation's ability to reinvent/ transform it and not die because of unfavorable path dependencies generated by past achievement (i.e Trade potential). With this in thoughts, the goal of this paper is to analyze the effect of various organizational enablers - i.e. "structural capital" & "innovation capability- on firm performance and normal industry effectiveness via better structural capital & creativity abilities. The size technique is based upon on perception measures of both SC and organizational innovation. consistency among supervisor's reviews of standard overall performance and objective measures has evidenced (E.G.Venkatraman&Ramanujam, been 1986). The study looked and focused on the problems that could rise if the companies are lacking the structural capital & innovation capability practices, including;

Success of (1) new product & offerings improvement; (2) New techniques of producing; (3) new distribution techniques; (4) supporting sports activities for commercial enterprise operations; (5) different operational strategies; (6) new understanding control approaches; (7) new business employer practices for organizing strategies; (8) new approaches of organizing work obligations and selection making; (9) enormous changes in relational with others and different managerial tactics, (10) company increase, size & reputation within the society and so on. Decreased productivity and ordinary enterprise performance, loss of creativity and innovation sports,

less stakeholder satisfaction, everlasting resistance to this changing global & many more. The study problem can be perceived by having detailed and scientific answers to the different hypotheses of this research.

Research Objectives

The primary goal of the study was;

- To research & investigate the effect of structural capital on company performance.
- To study the position of innovation functionality on firm overall performance, within the Pharma enterprise of Karachi-Pakistan. And
- To develop comprehensive conclusion & provide feasible recommendations.

The research Hypotheses were;

- H1: Company's systems, programs & policies positively effects on firm Performance.
- H2: Research and Development (R&D) positively effects on firm Performance.
- H3: Culture, knowledge & environment positively effects on Firm Performance.
- **H4:** Organizational & employees' innovation positively effects on firm Performance.
- H5: Product innovation & launching positively effects on firm Performance.

LITERATURE REVIEW

Structural Capital

Structural capital consists of all the non-human storehouses of expertise in companies which encompass the databases, organizational charts, procedure manuals, techniques, physical manifest and something whose cost to the organization is higher than its material cost. Roos et al. (1997: forty-two) describe structural capital as "what stays in the organization while employees go home for the night". Structural Capital: Is the hardware, software, databases, organizational form, patents, emblems and the whole thing that helps personnel' productivity. Structural capital is the supportive infrastructure that enables human capital to feature (Bontis et al., 2000). It describes the internal form of

an organization, together with its techniques, middle talents and lifestyle this is typically context precise. Structural capital is owned by using using a corporation and remains with an company even though the human beings leave. Edvinsson and Malone (1997), in addition divide structural capital into organizational capital, method and innovation capital.

From the individual character & point of view, Collis and Bernard Law Montgomery (1995) point out that the significance of Structural capital relies upon on the degree to which it contributes to the creation of a competitive advantage. From a financial factor of view, transaction-expenses suggest that firm profits a competitive advantage once they personal companyunique assets that cannot be copied by their opponents & rivals in the market place. As a consequence, as the distinctiveness of structural capital will increase, firm have incentives to make investments resources into its control and the purpose to lessen dangers and capitalize on productive potentials. Consequently, individuals need to decorate their competency skills in order to be aggressive in their companies.

The Structural capital concept has gone through a fast improvement. Within its improvement, more interest has been paid to R&D, Organizational charts and so on. & related components of SC and IC as nicely. That is plenty associated with the character angle. Structural capital funding is any interest which improves the best (productiveness) of the worker & the firm.

- Organizational capital comprises the business enterprise composure, philosophy and device for influencing the employer's functionality.
- Procedure capital consists of the strategies, tactics and applications that carry out and decorate the transport of products and services.
- Innovation capital contains human capital properties and intangible belongings. They are

covered by business rights together with permissions, symbols and logos.

Structural capital is referred to as the conversion of knowledge from non-public and tacit understanding to public and codified expertise captured in databases, patents, manuals, organizational systems, processes, and facts systems (Subramaniam&Youndt, 2005). One of the elements of structural capital is understanding knowledge accumulated by the firm via the shape of software and databases (Stewart, 1997).

This research study conceptualizes SC in form of technology (IT) and business processes. Because of collective learning, routines represent firm – specific knowledge (Fernandez, Castilla, & Moore, 2000), which contributes to the firm's memory and simplifies coordination and supports efficiency (Leitner, 2011).

Innovation Capability

Due to fierce competition and the opposition within the market, globalism and a detonation of advanced technologies in current years, innovation and differentiation are taken into consideration as a necessity for every enterprise. At the identical time, to reap marketplace success and preserve a competitive benefit, businesses want to make the maximum new opportunities, enlarge merchandise. service offerings and markets (Tajeddini, 2010: 221). Innovation is concluded as "implementing new ideas that create value". This regular description refers to the extraordinary styles of innovation along with product development, the deployment of new method technologies, and also controls practices. This means the adoption of recent products and techniques to grow and increase competitiveness and ordinary profitability, primarily based on customer demands & necessities (Leskovar, 2007: 535). The Oslo guide (2005: 51) has given a massive amount vicinity to the definitions about innovation and the kinds of innovation. In those definitions, four forms of innovation are discussed especially; product innovation, process innovation, & marketing & advertising innovation and firm/organizational innovation.

Enzing et al. (2011) observe famous that organizational practices influence the extent of innovation within the organization. Furthermore, the researchers explored that enterprise's unique practices consequences in product and manner innovation through dealing with the assets. Walker (2004) concluded that innovation kinds influence each distinctive and they want to be executed in conjunction. Staropoli (1998) emphasized that technical innovation may be more advantageous by means of the use of cooperative organizational rearrangements and adjustments techniques. Similarly, decided Germains (1996) the organizational restructuring as a predictor for technique innovation which offers the means of relationship amongst organizational innovation and gadget innovation. Walker over again in 2008 introduced that advertising marketing & advertising, product organizational improvements are inter-associated and that the extra studies are recommended to clean the findings.

Firm Performance

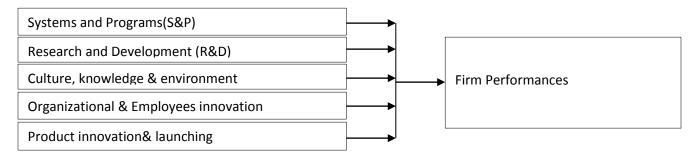
Firm performance may be frequently measured in a very variety of methods, together with economic overall performance (e.g, profitability, ROI), product performance (e.g, product reliability & duty, form of splendid product competencies), and market average performance (e.g., market share value, customer satisfaction) (Jones, Lanctot and Teegen, 2000: 263).

For commercial corporation groups, business monitoring and control may also feature a foundation for standard performance evaluation, they're growth measures such as income increase, and profit

measures together with ROA or and return on sales (ROS). The previous is indicative of the manner efficaciously a company can open new markets or increase in current markets. The latter suggests the performance of its operation (Li and Ye, 1999: forty-five).

A few empirical proofs indicate that in fine instances each inner and outside technology acquisition want to cause progressed enterprise performance, along numerous average performance measures. Zahra (1996) studied the relationship amongst firm financial performance generation and strategy determined that while external generation sourcing is regularly beneficial, its effect on corporation financial usual overall performance was moderated by means of the company's operating surroundings and became negatively related to financial ordinary performance in sturdy and homogeneous environments (Jones, Lanctot and Teegen, 2000: 263).

The organizational literature (e.g. Miles and Snow), SC & IC shows and suggested that improved business usual overall performance needs for an organizational shape, informational systems and control style which may be associated with a specific-firm technique (Miles and Snow, 1994). in-spite the difficulties in explaining the contribution of records technology to the organization's overall performance, a few researches have concluded on the importance of the alignment amongst industrial agency technique, statistics era, and company performance. An observer of enterprise overall performance, Bergeron and Raymond (1995) used each on goal (ROI) and a subjective measurement (tool of Venkatraman, 1989b); in every case, the results acquired have been similar, giant & great (Croteau and Bergeron, 2001: 81).



Independent Variable

Figure 1: Conceptual Framework

METHODOLOGY

This study aimed to test the impact of structural capital and innovation capability on company overall performance. The study used a quantitative approach. Primary data was collected using questionnaires with a number of employees working in different organizations in Pharmaceutical industry in Karachi. A questionnaire was designed in the perspectives for employees. The target population was different level of employees working in various pharmaceutical organizations based in Karachi. But due to shortage of time and resources it was limited to the sample size of this study. The sample size involved a total of 130 Employees were selected with the fair of gaining completion of at least 100 questionnaires. For analysis, cross-sectional

Test 1: Structural Capital and Firm Performance

Table 1: Case Processing Summary

expressive research plan is used. Data were accumulated through organized questionnaires from various employees. Microsoft Word/Excel and SPSS were used to analyze data collected through questionnaire.

Dependent Variable

RESULTS

Reliability test was done using SPSS so that we could check whether the data was accurate and could go ahead with further analysis. We tested the reliability within two different parts;

- Reliability of (Structural capital with firm performance)
- Reliability of (Innovation capability with firm performance)

Below are the results;

		N	%
Cases	Valid	98	98.0
	Excluded ^a	2	2.0
	Total	100	100.0

a. Listwise deletion based on all variables in the procedure.

Table 2: Reliability Statistics

Cronbach's Alpha	N of Items
.849	20

Interpretation: Cronbach's Alpha showed the reliability of the data. If it is greater than .7, it indicates the accuracy of the respondents' responses.

In this table it showed Cronbach's Alpha value was .849 which was acceptable and reliable as well for further analysis

Test 2: Innovation Capability & firm performance,

Table 3: Case Processing Summary

		N	%
Cases	Valid	98	98.0
	Excluded ^a	2	2.0
	Total	100	100.0

a. Listwise deletion based on all variables in the procedure.

Table 4: Reliability Statistics

Cronbach's Alpha	N of Items
.853	20

Interpretation: Cronbach's Alpha showed the reliability of the data. If it is greater than 0.7 it indicates the accuracy of the respondents' responses.

In this study it is showed Cronbach's Alpha value was 0.853 which was acceptable and reliable as well for further analysis

Table 5: Demographics of the Respondents
Statistics

		SC1	IC1	FP1
N	Valid	100	100	100
	Missing	0	0	0
Mea	an	2.18	2.24	1.94
Std.	Deviation	.881	.933	.802
Min	imum	1	1	1
Max	ximum	5	4	4

Interpretation: Responses of respondent's showed in this model that independent variable innovation capability (IC) was with the highest mean (2.24). It was rated highest. On second rating Structural capital (SC) had a mean of (2.18). On third priority Firm performance (FP) was with a mean of (1.94).

Standard deviation of the IC was the highest in this model which was (.933). Other variables also had standard deviation but IC was the highest which indicated that role and impact of the Innovation capability in firm performance in pharmaceutical industry of Karachi was low compared to the other variable.

Table 6: Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	66	66.0	66.0	66.0
	Female	34	34.0	34.0	100.0
	Total	100	100.0	100.0	

Interpretation: The research conducted had 66% of male and 34% of female. Hence, this research showed

that there was more male-oriented culture in Pharmaceutical organizations of Karachi.

Table 7:Age

_		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	20-30	46	46.0	46.0	46.0
	31-40	41	41.0	41.0	87.0
	41-50	11	11.0	11.0	98.0
	60 and above	2	2.0	2.0	100.0
	Total	100	100.0	100.0	

Interpretation: This table showed that out of 100 respondents, 46% of the respondents were 20-30 years of age, while 41% were between 31-40 years,

11% were between 41-50 years, whereas, 2% were at the age of 60 years and above.

Table 8: Education

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Matric	7	7.0	7.0	7.0
	Graduation	50	50.0	50.0	57.0
	Masters	42	42.0	42.0	99.0
	Others	1	1.0	1.0	100.0
	Total	100	100.0	100.0	

Interpretation: This table showed that out of 100 respondents, 50% of the respondents were Graduation or Bachelor degree holders, while 42%

were master degree holders, 7% of the respondents were matric pass, whereas, 1% of the respondents were other than that.

Correlations

Table 9: Correlations^c

		Structural capital	Innovation Capability	Firm performance
Structural	Pearson Correlation	1	.566**	.455**
capital	Sig. (2-tailed)		.000	.000
Innovation	Pearson Correlation	.566**	1	.226*
Capability	Sig. (2-tailed)	.000		.024
Firm	Pearson Correlation	.455**	.226 [*]	1
performance	Sig. (2-tailed)	.000	.024	

^{**.} Correlation is significant at the 0.01 level (2-tailed).

Interpretation: the correlation matrix above showed the relationship between Structural Capital, Innovation Capability with Firm Performance, The values of correlation coefficient showed that variables were correlated with each other & the strength of correlation was around 45% and 26. % respectively which is a positive correlation, however the correlation was significant showing the p-value of 0.000 which was much less than 0.05

^{*.} Correlation is significant at the 0.05 level (2-tailed).

c. List wise N=100

Table 10: Regression

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	Structural capital, Innovation capability ^b		Enter

- a. Dependent Variable: Firm Performance
- b. All requested variables entered.

Table 11: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.499ª	.249	.234	.702

a. Predictors: (Constant), Structural capital, Innovation capability

Interpretation: In this model R showed the coefficient of correlation which showed that the relationship of the two variables. R value (.499a) showed that there is a positive relationship between SC & IC (independent variables) with FP (Dependent variable).

The R Square Showed Coefficient of Determination defines the square Coefficient of Correlation. In this analysis R square was .249 which indicated 24% reliable to be used for estimation of population. Difference between R and R square was the R change

Table 12: ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	15.864	2	7.932	16.104	.000 ^b
	Residual	47.776	97	.493		
	Total	63.640	99			

- a. Dependent Variable: Firm performance
- b. Predictors: (Constant), Structural capital, Innovation capability

Interpretation: This model ANOVA showed the model fit, as F statistics was .000 which was less than the value of 0.05, in this model total Sum of squares showed the complete variability near to mean. The sum of residual mean, the sum of squared error in prediction, Sum of square Regression indicates the improvement in prediction by using the predicted value of (Y). Df means the degree of freedom which is

linked to the variance. Degree of freedom is the total number of respondents minus 1.

F value indicated the total model fit. It showed that IV (independent variable) had predicted DV (dependent variable) accurately or not. Upper than (7) indicated model was good and independent variable had predicted on dependent variable well. In this model F is 16.104 which are acceptable.

Table 13: Coefficients^a

	Unstandardized Coefficients		Standardized Coefficients			
Model	В	Std. Error		Beta	t	Sig.
1 (Constant)	.661	.250			2.640	.004
Structural capital,	.443	.090		.437	4.953	.001
Innovation capability	.163	.068		.213	2.412	.018

a. Dependent Variable: FP1

Interpretation: the coefficient table showed the individual significance of the variables included in the model, the independent variable of structural capital has a positive significant and impact on firm performance as the value of β eta coefficient is .433 which is a positive and the value of T statistics is greater than 2 meaning a positive significant impact.

CONCLUSION & RECOMMENDATIONS

Structural capital and Innovation capability implementation play an important role in the development and growth of every firm. These arrangements and practices are vital for companies in guiding to the right path and support employees with the structures and innovation functionality they need to perform well for achieving the company's strategic aim. It is obvious, from the evidence given in this study that structural capital and innovation capability, affords organizations with treasured possibilities and tools for achieving sustainable competitiveness and extended first mover benefit in today's dynamic and competitive market. The efficient implementation & control of these factors (SC & IC) is very crucial, because it guarantees that an enterprise's specific, effectiveness and efficient processes methodologies are appropriately leveraged to relaxed marketplace function and the customer base system which increases firm profitability and growth.

The research study focused on two main objectives;

- To examine & investigate the impact of structural capital on firm performance
- To study the position of innovation capability on firm's overall performances, within the pharmaceutical companies of Karachi

The study also covered that there is a positive relationship between the independent & dependent variables, indicating that structural capital & innovation capability have significant effect on firm performance.

The survey covers the gap of same research in Pharmaceutical sector in Karachi as there was no apparent work witnessed before. Furthermore, because this study was only focused on PHARMA industry in Karachi, it is recommended for further enlargement (longitudinal study) of such research towards other sectors and industries as well.

The concept of SC & IC is a newly emerging challenge, and until now, it has no longer been completely understood with the aid of maximum groups, mainly pharmaceutical corporations in Karachi. This study offers primary contributions in promoting this idea within the business community of Karachi. At last, there's a pressing and instant need for PHARMA industry to begin taking on the voluntary disclosure of SC &IC signs. Without right evaluation and proper functioning of those factors, having a healthy commercial performance including profitability, productiveness and growth is arguably not possible. The present study was a useful eye-opener especially for academicians, practitioners and decision makers to inquire for the logical elements which can show motives of existence perfect relationship between the performances of Karachi pharmaceutical firms with their SC& IC additives.

According to the result of this study, following recommendations for implications were suggested;

- Decision-makers, especially those in such u knowledge-based industries, must become privy or interested to the significance of SC & IC as key elements that effect firm's potential for retaining aggressive function inside local and global Markets.
- It is encouraged that firms must perceive key human resource and educates them to deliver high structural capital performance.
- Managers should develop leadership programs by focusing on SC dimension and control.
- Setting out an express and organization wide shared innovation method with the intention to develop the innovation functionality of their firms and to transform this capability into performance.

- Leaders should support & guarantee that the firm structure is completely in place to put into effect a well-articulated innovation strategy.
- Developing outside innovation networks (e.g. cooperating with external agents) is very vital.
- Promoting, upgrading & hiring expert development rules that try and beautify knowledge sharing and innovation related competences (particularly, recruiting professionals with innovation understanding and precise training in research activities – i.e. people that include PhD holders etc., something that is not very common in the country.
- Firms should pay extra attention to organizational innovation because it not best substantially

- relates with different innovation types consisting of; marketing, production, procedure innovation and so forth, but also has a stronger effect & impact on overall performance of the organization.
- Generating more value for their clients whilst thriving to reduce costs and increase their productiveness to sustain a competitive advantage in the marketplace.
- Business leaders of the pharmaceutical firms must give extra importance to exclusive varieties (different types) of innovations for attaining excessive organizational performance.

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