

THE IMPACT OF INTELLECTUAL  
POTENTIAL ON THE PERFORMANCE OF  
TELECOMMUNICATION SECTOR OF  
PAKISTAN WITH THE MEDIATING ROLE OF  
STRATEGIC KNOWLEDGE MANAGEMENT



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## CERTIFICATE

This is to certify that this thesis entitled: **“The Impact of Intellectual Potential on the Performance of Telecommunication Sector of Pakistan with the Mediating Role of Strategic Knowledge Management”** submitted by Ms. Shah Zaib Sattar is accepted in its present form by the Department of Business Studies, Pakistan Institute of Development Economics (PIDE), Islamabad as satisfying the requirements for partial fulfillment of the degree of **Master of Philosophy in Business Economics**.

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All praise and glory be to Allah Almighty the most Merciful the most Magnificent and then our Holy Prophet MUHAMMAD (May peace be upon him) whose life is an example that one can achieve anything with hard work and dedication and no endeavor is impossible if done with commitment and integrity.

Then my greatest gratitude to my supervisor Dr. Nadeem Ahmad Khan, I am highly indebted to my supervisor. Without his intellect, wisdom, guidance and patience I would not have been able to complete this research endeavor. He provided unreserved help and guidance to complete my thesis step by step.

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*Shahzaib Sattar*

## **DEDICATION**

This thesis work is dedicated to my husband, Syed Waqar Ali Shah, who has been a constant source of support and encouragement during all time of research. I am truly thankful to having you in my life because it is impossible for me to complete my thesis without your support.

## ABSTRACT

The purpose of this study was to analyze the impact of Intellectual potential of Human capital on the telecom companies of Pakistan with the mediating role of strategic knowledge management. Due to the emerged knowledge economy, now the organizational performance is evaluated through employees' skill, talent, experience, competency, creativity and knowledge. Therefore, the role of people has redefined due to Knowledge economy and many organizations have realized that employees are a valuable asset. Thus, the potentially competent managers have drastic impact on the strategic management of the organization by creating, developing and implementing policies, new ideas and practices that will improve the organizational performance. In current study, the impact of intellectual potential has tested on the performance of telecom companies of Pakistan. This study also tested the mediating role strategic knowledge management between intellectual potential and organizational performance. Data was collected through online questionnaire form 150 employees of different telecom companies in Pakistan. Data has been analyzed using software SMART PLS. Findings of the study supported the model as results showed that there are significant relationships among the variables while partially mediating with strategic knowledge management. In the end, discussion and directions for future research has been presented. While in conclusion, it has been suggested that the collective efforts of highly competent, skilled, capable, creative, motivated and well-informed people play a significant role in creating and delivering a competitively superior value to its firm. The current study has been proved that intellectual potential can play a significant role in increasing the organizational performance of telecom companies. Moreover, a strategy can significantly mediate between IP and OP.

**Key words: Intellectual Potential, Strategic Knowledge Management, Organizational performance, Intellectual Capital, Knowledge Management.**

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## **LIST OF ABBREVIATIONS**

CFA	Confirmative Factor Analysis
DV	dependent variable
IV	Independent Variable
IN	Intellectual Capital
IP	Intellectual Potential
KM	knowledge management
OP	organizational performance
SKM	Strategic Knowledge Management

# **CHAPTER 01**

## **INTRODUCTION**

### **1.1 Introduction:**

The beginning of the 21<sup>st</sup> century has revealed new approaches and transformations to the definition of organizational performance and the economy. With the transformation, a new concept emerged which was called “Knowledge economy” as a dynamic system of organizational progress which confirms that the current economic development will not be based on the traditional methods and material supply in the future but the latest knowledge and information. The industrial revolution laid the foundation for the transformation of agriculture to the industry which converted hand tools into the machine. The knowledge economy revolution, combined with empirical knowledge and enhanced experience, altered systemic use of intellectual potential into individual creative activity. It should be recognized that without this potential it is practically impossible, to find out the real productive forces and production relations. The noticing consequence of these both revolutions is that providing the basis for another type of revolution which is the intellectual one.

Knowledge regarding the economy was upheld as a key factor of future progress in 1990 by the policymakers. While the growth in cognitive demanding, well paid works compensation for the loss of skilled blue-collar jobs that had taken place in the age of globalization (Reich 1992; Giddens, 2013). As the phrase of knowledge economy was originated in the 1960s and 1970s when the theorists of management took initiative to compare manual workers involved in physical labor for the production of goods and services with the knowledge workers who were engaged in intellectual labor for

generating ideas and information (Drucker,1967; Bell,1976). In the New “weightless” business models where personnel and institutional knowledge were considered as the assets of the company rather than plant and machinery. Therefore, the emergence of the sectors from marketing to finance, presenting the worth of knowledge workers for the economy (Quah, 1997; Coyle,1999). In the Knowledge economy, knowledge- intensive sectors such as information technology, manufacturing and biochemical engineering are considered as crucial for prosperity (Powell & Snellman, 2004; Stevens, 1996).

So, the progress of the human and knowledge into the economic activity appeared as the need for transformation of the cognitive process. According to Soliman & Spooner (2000), some analysts consider information technology as a key driver for knowledge management while many believe that knowledge management is about people, not technology. Therefore, the importance of the human in the economic system requires attention not only as a key element of the process of production and management but also as a prominent and powerful element that has huge potential for progress and development. Roos & Roos (1997) stated that human capital is the set of intangible assets that are implanted in the organizations. These resources can be of three main types comprising competencies (skills and know-how), attitude (motivation and leadership qualities of the top management) and intellectual agility (the ability of organizational members to be prompt on their intellectual and innovation, having ability to adapt and cross-fertilize). Hence, the shift from manufacturing work to knowledge work-induced most of the companies to plan for reshaping their management and adjusting with the knowledge economy. For achieving competitive advantage businesses transform their strategies from labor to knowledge worker for survival in ever-changing circumstances.

This research paper studies the impact of Intellectual potential on the performance of the telecommunication sector in Pakistani companies with the mediating role of strategic knowledge management. Intellectual capital is one of the important factors in the knowledge economy and researchers have categorized it differently. But the main focus of this study is human capital because the intellectual potential of humans referred to them who are a part of a firm, the knowledge these persons have commonly.

Therefore, this study focused on the IP of the human capital and discarded the relation and structural capital. As Pulic (1998) defined that for value creation we need physical capital and intellectual potential in a knowledge-based economy. He further elaborated that employees are the actual persons who represent the intellectual potential of any company as it is the ability of the employees to do their daily routine work for creating value. According to him, there are two main differences between IC and IP. First, IC has been divided into human, structural and customer capital while neither structural nor customer capital could work without the employees. Second, IC is indicated to be subjective but the calculations of IP are based on the real, objective market results and these are the points where the main difference exists.

Nilsson & Ford (2004) defined the concept of intellectual potential as further development of intellectual capital and they introduced the intellectual potential as a management tool for value creation which can be seen as an illustration in the case of Alfa Laval. This suggests that these two components of IC cannot be considered strictly as human aspects although they are generative activities of the human being (Bontis, 1998). Therefore, this study emphasized only intellectual potential (human capital) instead of the other factors of IC e.g. relational and structural capital.

The Strategy is defined as the key factor in the capability of an organization because it gives guidance to the organization to complete its mission and achieve its vision by recognizing the conditions for creating competitive advantages (Lampaki & Papadakis, 2018). While the intellectually potential employee has a very effective impact on the strategic management of the organization as they have skill, knowledge, and experience which can be transferred to the management planning through proper strategic management of any organization. Nowadays, managers seem to be very concerned with the adoption of proper knowledge management. That is why in this study, strategic knowledge management is presented as a mediator that how it acts between the intellectual potential and organizational performance. On the other hand, it is also investigated how the intellectual potential impact strategic knowledge management to affect the performance of any organization. Wu & Lin (2009), found a positive correlation between organization knowledge and management strategy. They also found positive correlation between knowledge management strategy and knowledge management implementation. The actual objective of a strategy is the adoption of the roadmap which shows the interrelation between the organization's knowledge and strategic management.

The knowledge management strategy has been categorized as a knowledge source and knowledge focused on prior research. As Choi et al., (2008) have classified the knowledge-focused category into implicit and explicit oriented strategies. According to Zack (1999), in an explicit oriented strategy, the knowledge is transferred by codifying it through IT infrastructures and records while tacit knowledge is the exchange of knowledge by the person to person contact. Moreover, Choi & Lee (2002) divided the knowledge source category into two types such as internal and external oriented strategy. In this study, the main focus is on the internal and tacit oriented strategy as it

is related to the skill, knowledge, and experience of the workers who can share and transfer their knowledge through these strategies. Human capital is considered as a strategic asset that can promote organizational strength to its core competitive advantage. Therefore, the management of IC has been well recognized as a strategic tool of organizations these days.

According to the World Bank (2007), if the industrial economy needs energy and machinery, the knowledge economy requires brains as an asset of intellectual capital. Additionally, it requires research, technical, and consulting support in this era of knowledge. Since intangible human expertise, intellect and trade secrets are the intellectual assets for shaping a knowledge-based economy. The Organization for Economic Co-operation and Development (OECD) defines a country with a knowledge-based economy that uses technology and information in production, as a key to economic activity and sustainable growth (The Organization for Economic Co-operation and Development OECD,2001).

The telecommunication sector is one of the fastest developing sectors in Pakistan that includes mobile, telephone (landline) and internet markets of Pakistan. The development of this industry is mainly based on perfect competition and innovation which is due to the intellectual potential of the talented, skilled, competent, experienced and knowledgeable workers. Therefore, for this study, the telecom sector has been selected to investigate its performance. Nsour (2001) stated that technological advancement in communication technologies and computational power is converting the nature of knowledge, skills, talents and the expertise of the individuals. This transformation of knowledge has altered the requirement of worker. Now, global

market demands a different type of worker with intellectual potential, approaches, and competencies to systematic and critical thinking.

## **1.2 Problem statement:**

In prior research, numerous studies have shown the impact of IC on OP and knowledge management (Sevibly; Edvinson; Stewart, 1997). But the existence of different approaches and categories of IC leads to the problem of the appropriate definition and management of IP. The intellectual potential is one of the important components of IC which is related to human potential. So, it is needed to obtain an idea regarding the link between the intellectual potential of human capital with organizational performance and how that intellectual potential in the workforce impacts the strategic management of the organizations to achieve goals. Moreover, there is not much information available in the literature about the treatment of strategic knowledge management as a mediator. In this regard, the relationship of intellectual potential and perceived organizational performance in the telecommunication sector required this study because in countries like Pakistan the sector of telecommunication needs to know more about the contribution of the different factors which can impact its performance. Wright et al., (1994) mentioned that the telecommunication industry plays a very crucial role in the progress of economic and social development of any country and he described it as an engine of the economic development in any country. Therefore, the present research paper investigates the impact of intellectual potential on the strategic knowledge management and performance of the telecom sector in Pakistan with the mediating role of strategic knowledge management.

## **1.3 Research Gap:**



After studying the prior literature, it has been found that in the emerging knowledge-based perspective of the economy and business, the IP is the most important category which has been confused with intellectual capital (Pulic.,1998). The concept of IC which was presented by many researchers (Stewart,1997; Seville,1997) completely dominated by IC division into three parts: human, structural, and customer capital but Pulic (1998) argues that neither structural nor customer capital can function without employees or human capital.

However, the main focus of the previous researches was on IC but not the intellectual potential related to that human power. So, there was a gap to be filled by studying the impact of IP on human capital. Whereas, IC should be measured beyond the accounting methods. It might be good to move towards complementary methods of measuring IC and its components. As (Dumay,2009) stated that different methods of assessing IC within organizations should provide the chance to escape accountingisation. Pulic (1998) has introduced VAIC method to measure IC and its components.

Therefore, Kianto et al., (2018) suggested that a comprehensive type of assessment permits the use of quantitative direction to define the inter-relationship of IC and its assets. While different models presented by (Kianto et al.,2014) related to possible interactions of the intellectual capital and its assets with Knowledge management practices. Which requires further study in different kinds of contexts. So, there is a need to study strategic knowledge management as a mediator between intellectual potential and organizational performance. The telecommunication sector is one of the fastest developing sectors in Pakistan. The development of this industry is mainly based on perfect competition and innovation. This is the reason, why for this study the telecom sector has been selected to investigate its performance.

#### **1.4 Research Questions:**

Following are the research questions:

**Research Question 1:** What is the relationship between intellectual potential and organizational performance?

**Research Question 2:** What is the relationship between Strategic Knowledge management and organizational performance?

**Research Question 3:** Does strategic knowledge management mediate between intellectual potential and organization performance?

#### **1.5 Research Objectives:**

**Research Objective 1:** To determine the impact of intellectual potential on strategic knowledge management.

**Research Objective 2:** To determine the impact of Intellectual potential on organizational performance.

**Research Objective 3:** To examine the mediating role of strategic knowledge management between Intellectual potential and the organizational performance.

#### **1.6 Significance of the study:**

This research paper has several important implications that can contribute not only on the theoretical grounds but also provide useful guidelines on practical grounds to the managers. On theoretic grounds, the study is supportive in providing a model that shows relationship of IP and OP with the mediating role of SKM in the telecom sector of Pakistan. While the practical contribution of this research is the findings of how IP is

linked with the management of strategic knowledge in the telecom sector. which will help to realize that the companies or organizations need to invest more in their potentially competent workforce. As IP is not related to the common workers or employee's knowledge and skills rather it is related to the highly skilled, educated, experienced and smart human power because such kind of human power has a drastic impact on the performance of high-tech organizations like telecom industry. Since, there was a little literature available on the research related to IP, this paper is an addition to that. There was a misconception about the IP and IC as many previous literatures and researches considered it same and confused both concepts. In fact, both concepts are not same. Moreover, the significance of this paper is also adopting the quantitative way of research instead of accounting methods or VAIC model etc.

## **CHAPTER 02**

### **LITERATURE REVIEW**

The following chapter comprises the literature review which is based on the prior research. The literature review explains the study variables and the relationship between those variables. It also elaborates the theoretical framework and research hypothesis based on available literature.

#### **2.1 Definition of the study variables:**

##### **2.1.1 Intellectual potential:**

Intellect is a term that means the ability of the human mind to draw a correct decision or conclusion about true and false or how to solve problems. That's why a person who uses intelligence or analytical reasoning to any personal or professional activity is referred to as intellectual. While potential generally refers to a currently unrealized ability or showing the capacity to develop into something in the future. Therefore, the collective intellectual potential meaning is the ability or capacity of the human brain to decide the future by using his/her skill, experience, knowledge, and intellect powers. So, the intellectual potential is one of the crucial components of IC in the knowledge economy. In the prior literature, both of the terms were taken as the same and many researchers confused it with each other.

Human capital is a comprehensive concept that comprises different components but predominantly defines the quality of the workforce. There are three ideas expressed in the concept of human capital. The notion of human capital is that people have experience, skills, and knowledge that contribute to the economic value of firms

(Schultz, 1960). He further defined that the outcome of human capital is the investment that enhances the physical strength as well as personal intelligence for improvement of knowledge and skills (Schultz,1961). Thus, various researchers argued that skilled workers have more potential to embrace technological change than unskilled workers (Chao & Kozlowski, 1986; Nelson & Phelps, 1966). As in the prior literature, the difference between intellectual capital and intangible assets was inexplicit. But various contemporary schemes have redefined the distinction by apportioning the intellectual capital into categories such as human capital, customer capital and structural capital (Stewart,1997; Edvinson & Malone,1997).

Roos et al., (2005) stated that human capital is the set of intangible assets that are implanted in the contributors of the organization. A complication related to the increased complexity categorization is that traditional accounting methods do not offer the measurement of new intangibles of knowledge-based organizations (Guthrie et al.,1999). Cohen & Levinthal (1990) stated that good quality employees are the source of generating internal knowledge and to develop efficient training programs for improving the performance of the organization. Bontis (2002) observed that human capital implies the combined human factors as intelligence, skills, and expertise that employees take with them on leaving the organization. Nilsson & Ford (2004) introduced the concept of the development of intellectual capital directly linked with intellectual potential. They stated that the concept of IP is a tool for strategically managing intangible assets of an organization for generating capabilities to surge its long-standing revenue. For this purpose, they illustrated with the case of Alfa Laval that how IP is a valued management tool.

Subramaniam & Youndt (2005) referred to human capital as a basic strategic resource that is essential for success because employee's knowledge and skills are crucial and significant in the context of a quickly fluctuating business environment. As efficient use of human capital weighs the knowledge and skills of individuals, that enhanced their cognitive ability for making them more efficient.

As in knowledge management literature, much of the research studies concentrated on technological issues. But over time the human dimension has got important since it has been realized that only technology is not as effective as anticipated (Afiouni,2007; Haesli & Boxall,2005). According to Oltra (2005), human resource management is more effective in the case of knowledge management as they both focus on knowledge and people. Many researchers referred human capital as people of a firm, especially having the knowledge that is referred as tacit knowledge, such as expertise, skills, education and devotion that is possessed by every employee of the firm (McGregor et al., 2004; Tsui et al., 1995).

Ting and Lean (2009) wrote that human capital includes knowledge, previous experience, teamwork, creativity, ability to tolerate uncertainty, motivation, academic competency, formal education, training, and loyalty. Halim (2010) thinks that human capital is the central component of intellectual capital which mobilizes professional competence, leadership ability and employee motivation. Baron (2011) suggests that human resources include knowledge, creativity, skills and development ability of employees in an organization. Micah et al. (2012) presented human resources like skills, talent, and knowledge, that are required to produce goods or to offer services. While Chahal & Bakshi (2015) defined human capital as the capacity of an organization to

add value by the usage of education, experience, skills learning, proficiency and creativity of the employees.

### **2.1.2 Strategic Knowledge Management:**

Knowledge is an abstract concept that has been defined in various ways (Nonaka & Takeuchi, 1995). Generally, knowledge is categorized into two main types such as tacit and explicit. Tacit knowledge dwells in the human mind, performance and perception as it is intellect based. It transfers from people's collaborations. While skills, experience and practices are the requirement of tacit knowledge (Nonaka & Takeuchi, 1995; Martensson, 2000). Whereas explicit knowledge is documented, public, fixed-content and externalized (Duffy, 2000). Although, KM methods are explicit oriented and tacit oriented (Choi & Lee, 2003). Based on explicit and tacit oriented, this study focuses on Tacit oriented KM strategy because it is related to human intellect. Furthermore, KM strategy can also be divided into integral and external knowledge strategy (Lee et al., (1999). So, the internal oriented strategy is another category that has been focused on in the current study as it is also related to internal management.

Hansen et al., (1999) divided the KM methods into personalization and codification. The codification strategy stresses knowledge transmission through documents and records whereas the personalization approach to KM depends on the expert's collaboration. The focus on personalization strategy is actually the sharing of tacit knowledge and interpersonal experience. This is the reason that managing knowledge is a significant element for achieving competitive advantage.

Hence strategic perspective considers KM as the main source of strategic decision which allows creation, sharing, safety, and application of the firm's knowledge (Zack 1999). Intellectual capital along with knowledge management both are essential in

research for addressing the knowledge-based problems in the organization (Grant,1996). However, previous literature describes several forms of organizational knowledge, the most recurrently used context is that which contrasts tacit and explicit knowledge (Hussi,2004; Spender,1996). While much organizational knowledge is tacit and regarded as a key source of economic advantage (Ambrosini & Bowman,2001).

Knowledge management cannot exist on its own. The key driver of the way knowledge is shared and used to produce results in an organization is people. The attitude and sheer will for an organization's personnel to manage knowledge well for best results are critical in the try to achieve the ultimate goal of better performance. Organizational agility, the ability to respond to a rapidly changing environment, is exclusively influenced by people (Jackson & Johansson, 2003).

Kaufman et al., (2003) added that change is taking over the world very rapidly which leads to change in the working and living of the people but people are still clinging to old methods. For problem-solving, people have to reflect strategically using society as a monitor to resolve problems and do the right decisions. To achieve the long-term objectives of the business, strategic knowledge management plays a significant role. Yang (2010) stated that strategy is the overall guideline to enhance and leverage knowledge for achieving many business goals and objectives. The idea of SKM consists of formulating, implementing along evaluating the decisions conducted by the management over time (Stukalina, 2014).

For business organizations, SKM is the formal process, combining the various departments like management, finance, accounting, and information system as well (McKiernan et al., 2006). It is a common notion that strategic practices are based on strategic objectives, defined by top-level management. While taking the long-run



challenges into account, business organizations have to work in short term through tactical planning (McKiernan, 2006; Lari et al., 2017). To implement a planned strategy, business firms need strategic leadership that provides present and future directions. It is observed that SM practices will only be significant when they are applied as per the desired situation. Organizational success is linked to the situation where it overcomes different risks to create better decisions more effectively way. According to (Heisig et al., 2016) KM needs to relate to business strategy.

Wee & Chua (2013) mentioned that the knowledge, experience, and skills of people are crucial for success of any organization rather than its physical and financial capital. Despite the various definitions presented for KM, it comes to an agreement that efficient KM is essential for organizational progress (Lin, 2014).

Human capital empowers KM because people have the ability to develop applicable KM processes in the organization (Argote et al., 2003). People also contribute to any achievement of their work through their ideas, judgment, and interaction with other persons. Humans are flexible and also have the ability to influence other workers to undertake a task at hand. A workforce that is more alert is more able to troubleshoot problems by using the knowledge they have amongst themselves. In this process, knowledge sharing is extremely critical to the overall success (Erande & Verma, 2008). For example, technology firms face increasing amounts of pressure to remain relevant since innovations are always changing from day to day. For this purpose, an agile organization is necessary. But, it's far important to observe that human sources play a major position in all organizational techniques, both immediately and ultimately. The improvement of human beings or personnel regularly interprets organizational productiveness and development.

Intellectual capital is interconnected to KM. This outcome has the reliability mentioned by Hsu & Sabherwal, (2012) and they conceptualize that IC has a positive influence on KM. This implies since human capital is reflected as the constructing block for all categories of knowledge and a foundation of intellect, knowledge and invention, thereby representing that the existence of human capital is necessary for developing, maintaining and distributing knowledge. Jordão et al., (2017) stated that it is very crucial to maintain and create a competitive advantage, and for this purpose, knowledge management has to be aligned with the strategic objectives of the firm.

### **2.1.3 Organizational Performance:**

Organizational performance as a dependent variable from a management perspective is one of the most examined variables. In previous literature, several indicators of OP have been described, perceptual measures of OP were employed by Delany & Huselid (1996). While sales or value-added of the organization per employee were applied by Black & Lynch (2001). Although profit and financial ratios were used as financial measures by Terpstra & Rozell (1993). For the current paper, perceived OP has been measured in which managers are required to benchmark their OP with the previous year's performance for perceived organizational and employee performance, and financial performance indicators were calculated from data of published financial reports.

Bornemann (1999) in his paper showed the correlation of Intellectual Potential and Economic Performance, suggesting that the management of Intellectual Potential is an efficient way to enhance a company's economic performance. According to Campbell et al., (2012) effective decision-making aptitudes and exceptional problem-solving

abilities that represent human capital can increase and improve quality to improve organizational performance.

People and human capital, are the foundation of competitive advantage in many of the present-day organizations. Smart workers (ones with more human capital) possess the capability to potentially improve an organization's functioning by both improving customer benefits and by declining costs of production and service delivery. For instance, human capital can decrease the costs of production or service delivery by using innovations in the process that replace costly steps, and decrease inputs, increase utilization, and so on. However better human capital is a way forward to smart planning, troubleshooting, and problem-solving. All of these factors most likely cause better production and efficient service delivery and thereby, decreased organizational costs. Human capital is instrumental in improving benefits for the customer. Organizational performance points out the progress of an organization (Koochang et al.,2017).

## **2.2 Hypothesis development:**

### **2.2.1 Relationship of Intellectual Potential and Organizational Performance:**

Durrani & Forbes (2003) stated that the success of an organization is linked with human capital and information technology. However, Riahi Belkaoui (2003) has tested the relationship between IC and the performance of multinational companies of the USA, and a positive relationship between IC and financial performance was found.

According to (Hayton, 2005) intellectual capital provides a potential basis of competitive advantage to technological improvement and economic growth. It is argued that IC assets in high technology new ventures (HTNVs) offer an exclusive source of advantage to entrepreneurship by decreasing the risk and increasing the returns from

investment in innovation. In this study, it is found that the top management team of these firms with their human capital diversity and organizational reputation are of the greatest significance for their performance.

According to Juma (2006), human capital is a crucial part of IC while examining the performance of high-tech ventures whereas intellectual property is the vital element for forecasting market-based progress. Muhammad & Ismail (2009) stated that knowledge, human capital and relational capital are important factors of IC to achieve success for the firm, and these factors are found to be significantly related to firm performance. Phusavat et al., (2011) studied the impact of intellectual capital, and its fundamental components e.g. human capital, structural capital and innovation capital on the industrial operations and performance of manufacturing firms. They concluded a significant relationship between IC and manufacturing firm's performance.

Sharabati et al., (2013) studied the influence of Intellectual Capital on the performance of Jordanian telecommunication corporations. They found a positive significant effect of IC on the functioning of firms and organizations. Thus, the empirical findings also show a strong interrelationship among elements of IC. According to Nimtrakoon, S (2015) that value can be created by intangibles, which are not described in the financial statements. This study inspects the efficiency of IC and its performance of companies of Malaysia. Whereas the findings of that study revealed that IC has relatively more important in the banking sector. Moreover, it was found that there a positive relationship between IC and company performance by profitability and Return on Assets.

Clearly & Quinn (2016) has explored and compared the intellectual capital and its four components among ASEAN countries. They examined the relationship between a

firm's IC, market value, and financial performance. The results indicate the positive relationship between IC and market value. Likewise, a positive relationship between IC and financial performance is confirmed. They have suggested that SMEs focus on IC to achieve superior performance and profitability because SMEs have limited resources to invest intangible assets.

Vidotto et al., (2017) suggested that knowledge is the main factor of human capital which can be divided into two forms such as explicit and tacit. They argued that human capital dimensions – leadership and motivation, qualification, satisfaction and creativity contribute to the human capital measurement setting. Xu et al., (2019) examined the impacts of IC components, including Structural capital (SC), relational capital (RC), and Human capital (HC) on technological innovation and performance of corporates. The findings show that HC and SC have a positive impact on the performance of a firm while RC shows a negative impact.

Khan et al., (2019) examined the impact of internal capabilities namely Intellectual capital, information technology capability, and entrepreneurial orientation on the financial and non-financial performance of SMEs that function in the emergent markets of Pakistan. The results show intellectual capital, IT capability and entrepreneurial orientation have a significant effect on both financial and non-financial performance.

Vaid & Honig (2020) examined the relationship between KM of entrepreneurial multitasking and the performance of firms. The findings of the study revealed that the relationship of KM and firm performance for high innovation firms were more positive than for low innovation firm. While the correlation between the top manager's human capital and firm performance is more positive for small firms as compared to large firms. Hence, based on above literature hypothesis can be developed as:

*H1: Intellectual Potential has a positive impact on Organizational Performance.*

### **2.2.2 Relationship between Intellectual Potential and strategic knowledge management:**

The literature context of the relationship between IP and SKM of knowledge is very limited. However, few studies have provided a significant contribution in this context. For instance, (Cabrilo & Dahms, 2018) have studied the moderating effect of the SM of knowledge on the connection between IC and market performance. It has been observed that the combination of intellectual capital and its components can lead to a higher level of innovation in the market and improved organizational performance as well. The key contribution of the study indicates the collective impact of IC and SKM with competency in the field of management sciences. Some other studies like (Kianto et al., 2014) have explained the fact that KM and IC need significant attention for their conceptual and empirical association. It is observed that to maintain the business firm, there is a causal association between IC and KM. When a business firm aligns its strategy for KM with the business strategy provides direction which postulates competitive advantage. During the past few years, this idea has gained significant strength. Intellectual potential in the business refers to the capabilities of core employees covering the title like skills of employees, their competencies, core expertise, valuable knowledge, and other abilities, through which business can get a competitive advantage. Some other studies have also examined the strategic management of knowledge. In this regard (Choo & Bontis, 2002) have examined the idea of SKM and IC of the business firms while addressing a range of issues. They have claimed the fact that business organizations are dealing with the explicit and implicit type of knowledge for which strategic management is very necessary. Besides, they

claim that intellectual capital is a key source through which business firms get the advantage over its rivals in the market place. However, further classification of intellectual capital like Intellectual Potential provides another discussion. Hsu & Sabherwal, (2012) concluded that intellectual capital shows a positive relationship with knowledge management. Human capital enables KM by the development of the right KM process (Argote et al.,2003).

Hamadamin & Atan (2019) examined the influence of strategic human resources management practices on the achievement of competitive advantage with the mediating role of human capital development and the commitment of employees in an academic environment. In this study, findings revealed a linear and positive influence of the SHRM on the sustainability of competitive advantages. It was found that SHRM has a positive influence on human capital and employee commitment. Therefore, it can be hypothesized that there is a positive relationship between IP and SKM.

*H2: intellectual potential has positive impact on strategic knowledge management*

### **2.2.3 Relationship between Strategic Knowledge Management and Organizational Performance:**

As Zack (1999) revealed that due to the absence of incorporation of Strategic knowledge management initiatives in the strategies of firms, the term knowledge strategy refers to the firms' business strategy which has intellectual skills. SKM manage gaps in knowledge to augment organizational performance. Thus, SKM comprises all the techniques that organizations use to align the skills and intellectual potentials of their human resources with their strategic goals. According to Wu & Lin (2009), the link between business strategy and knowledge management has been ignored in

practice. Though KM is complex in nature and it is also difficult to directly translate a firm's competitive strategy into some specified knowledge management activities. After all, the final goal of knowledge management lies in the recognition of firm performance. Thus, this study examines a complete model with four elements of strategic implementation practices and firm performance. The results have shown a positive relationship between any two consecutive components.

Yang (2010) examined the impact of knowledge management strategy on the performance of Chinese high-tech firms. The results proposed that both performance-driven strategies and knowledge management-based strategies must be considered for the implementation of knowledge management. The strategic fit theory was adapted by Chen & Liang (2011) to examine different knowledge evolution strategies that would impact organizational performance in fluctuating circumstances. The concept of natural evolution is used to define knowledge strategies. Based on that concept they divided it into two knowledge evolution strategies: knowledge mutation which depends on internal knowledge sources and knowledge crossover that related to external sources as online communities and consultants. The results revealed that both knowledge strategies have impacts on various aspects of organizational performance.

Juma et al., (2016) investigated the impact of strategic thinking in organizational performance and revealed that the environment of the organization and characteristics of the employees are important for the development and performance of the organization. By depending on all those factors, organizations pay heed to the necessities of all subordinates and attempt to grab opportunities for growth, promotion and personal development, as strategic thinking is the foundation of improved performance. Alatailat et al., (2019) investigate the relationship between strategic



thinking and organizational performance through the moderation role of high-performance work practices.

Thus, it can be concluded that former literature supports the concept that is a resource-based view, that strategic knowledge management implementation can contribute positively to the performance of a firm. Therefore, the research hypothesis proposed in the following terms:

*H3: strategic knowledge management has positive impact on organizational performance*

#### **2.2.4 Strategic Knowledge Management mediates between Intellectual**

##### **Potential and Organizational Performance:**

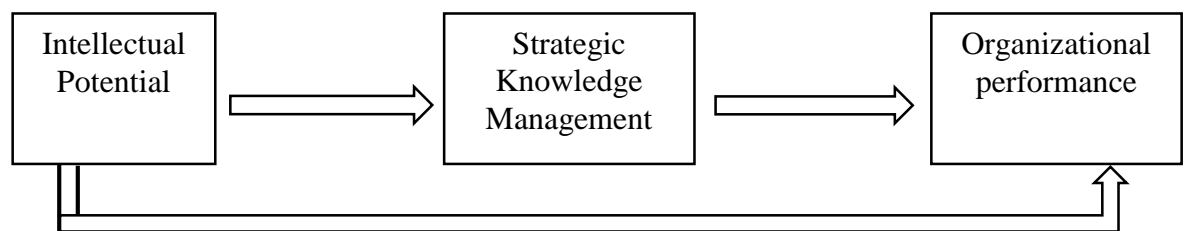
Hsu & Sabherwal (2011) argued that the knowledge management capabilities of a firm play a very important role as negotiator between IC and the corporation's achievement and variation. While IC have no direct impact on a corporation's achievement in their study. Results of their research revealed that knowledge management capabilities mediate between the IC and firm performance. Cisneros & Hernandez-Perlines (2018) tested the alliance between IC components and the performance of the organization in the small and medium enterprises in the manufacturing sector of Mexico. The results showed that the four components of IC have a positive impact on Organizational performance. While further results revealed that Knowledge management negatively moderates between intellectual capital and OP.

Anwar et al., (2018) examine the influence of venture internal capabilities including IC and entrepreneurial strategy on the performance of a new venture by taking competitive advantage as a mediator. The consequences of the study revealed that the philosophical

capital, entrepreneurial strategy and competitive advantage have a significant positive impact on modern endeavor performance. Moreover, assertive advantage fully intercedes the association between intellectual capital and new adventure performance. Alnoor (2020) examined the effect of human capital magnitude on firm survival and the conclusions suggest the positive effect of HC on the survival of the corporation. Moreover, the results also concluded the arbitrated role of expertise management on the relationship of HC dimensions such as skills, education, and training on corporate survival. Hence, it can be hypothesized that SKM mediates between IP and OP.

**H4:** *Strategic knowledge management mediates between IP and OP.*

### 2.3 Theoretical Framework:



### 2.4 Hypothesis:

**H1:** Intellectual Potential has a positive effect on OP.

**H2:** Intellectual potential has a positive effect on strategic knowledge management.

**H3:** Strategic management of knowledge has a positive evocative outcome on organizational accomplishment.

**H4:** Strategic knowledge management has positively mediated between IP and OP.

## **CHAPTER 03**

### **METHODOLOGY**

#### **3.1 Introduction:**

The following chapter includes research methodology which comprised of research design, population, sampling questionnaire and statistical analysis:

#### **3.2 Research Methodology:**

In a research context, a research design is an outline to provide a guideline to the experimenter, regarding the measuring variables, investigation to solve the research problem and collection of data (Sekaran & Bougie, 2016). Therefore, the researcher picks a relevant research design for analysis which is more related to the problem for explaining it in a superior way (Salkind,2010).

##### **3.2.1 Model of the Study:**

Current research is quantitative where data collected from primary resources were analyzed. As many types of study such as exploratory, descriptive, causal and case study exist in research content. But it is depending on the research goals and prior literature to choose what type of study is best suitable to the problem (Sekaran & Bougie, 2016)? Sekaran & Bougie (2016) stated that the researcher has limited knowledge about the problem, he conducted exploratory research. While elaborating the attributes of the variables of a given state the researcher opts for descriptive study. So far, for checking empirical verification about the relationship of various variables, she/ he performs causal research (Sekaran & Bougie,2016).

### **3.2.1.1 Study Design:**

Most of the research studies for an organization's performance are conducted in a working environment. But some of the studies require special settings outside the working environment. Sekaran & Bougie (2016) mentioned that field studies are those where experimenters analyze the connection of variables. The current study also comprises a field study as data was collected from different telecom companies. The primary data have been collected from telecom sector companies in Pakistan through an online questionnaire while the study is a cross-sectional study.

### **3.2.1.2 Time Horizon:**

Different time frames can be used to collect data for research purposes. When research data is collected at a one-time point, called cross-sectional data. When it is collected in more than one-time point, the researchers conducted the longitudinal study (Sekaran & Bougie, 2016). The data in the current study is cross-sectional in nature and collected over an estimated time of two to three months and to complete the study within a given time.

### **3.2.1.3 Unit of Analysis:**

Unit of analysis defined the required degree from where data is gathered for analysis and measurement. As a unit of analysis is required individuals who deliver data for desired research (Sekaran & Bougie, 2016). In the present study, the paramount unit of measurement is workers of management level or in HRM.

### **3.2.2 Population:**

The population is the group of individuals or events from which the experimenter selects a batch of people, goods of interest, or occasions of study (Sekaran & Bougie, 2016). The population of this present study is comprised of the workers of telecom in Pakistan. Since telecom is a vast center for employment and innovation in Pakistan. This research was conducted in many cities of Pakistan. The target population of the consent was solicited for feedback on a non-random basis to diminish common biasness, before giving the data to respondents, all the significant and necessary information was dispersed, and 150 questionnaires were sent to a reasonable sample size.

### **3.2.3 Sample:**

The sample is an important part of the population selected by the experimenter for the research purpose. Since it is time-consuming and expensive for researchers to conduct research on the whole population. Therefore, researchers take a sample that is embraced by a part of the population (Sekaran & Bougie, 2016). Purposive sampling is a form of non-probability sampling that was used and the reason for using this purposive sampling is that the respondents of this study were not common workers, rather they were workers of managerial positions in HRM departments. This study is based on the quantitative method while the quantitative method used numbers. The total number of respondents are 150.

### **3.2.4 Sampling Techniques:**

The purposive sampling technique was used in this study due to limited time. The data was collected from employees of telecom companies located in major cities of Pakistan. According to Hair et al., (2011) if the research objective is the prediction or development of a theory, then the suitable technique is PLS-SEM. The SEM (Structural equation modeling) technique of SMART PLS (Partial Least Square) has been used in this research. SEM is a variable statistical analytical technique that is used to analyze the structural relationships of constructs. This technique is the combination of multiple regression analysis and factor analysis which can be used to check the relationship between latent constructs and measured variables. In such type of analysis, two types of variables are used such as exogenous and endogenous variables.

### **3.2.5 Data Collection:**

Through an online research instrument that was in the form of questionnaires, I collected data to check the relationship of selected variables.

#### **3.2.5.1 Response:**

For collecting data through an online questionnaire, respondents were taken from all telecom companies. The minimum criteria of employment in such an organization is graduation which revealed that respondents understand the English language and can easily fill the questionnaire. Thus, the questionnaire was not translated into the local native language. Data collected from the employees of telecom companies that are located in different cities of Pakistan.

### **3.2.5.2 Scales and Measurement:**

To fulfill the requirement of this study and data collection, the responses were collected through online questionnaires which were developed by different scholars in the previous studies. For Intellectual Potential, a scale of 14-item was adopted based on a previously used scale by Bontis et al., (1998). The strategic knowledge management (SKM) scale was adopted from Choi & Lee (2003) which is based on a five-item scale for tacit knowledge and for internal oriented knowledge scale was adopted from Lee et al., (1999) was also based on five items. For perceived organizational performance, the scale was adopted from Delaney & Huselid (1996) based on 10 items.

The study used hypothesis testing to check the relationship between intellectual potential and organizational performance with strategic knowledge management as a mediator. The questionnaires consisted of demographic variables such are respondent profile (gender, age, organization, city, etc.). The questionnaire was sub-divide into two sections which are A and B. (A) comprised of company and personal information that is based on ordinal and nominal scaling, while section (B) contained questions relating to Intellectual Potential, Strategic Knowledge management, and the organizational performance. The responses were measured on a 5-point Likert scale which are 1=strongly disagree, 2=Disagree, 3=Neutral, 4=Agree, and 5=Strongly Agree.

### **3.2.5.2 Exogenous Variable:**

There is only one exogenous variable in this study which is Intellectual potential.

### **3.2.5.3 Endogenous Variable:**

There is only one endogenous variable and that is organizational performance.

#### **3.2.5.4 Mediator:**

There is only one mediator which is strategic knowledge management.

#### **3.2.5.5 Measure of Intellectual Potential:**

I used a scale of 14-item, developed by Bontis (1998) to measure the intellectual potential based on 5-point scale (Strongly disagreed =1 to strongly agree =5).

#### **3.2.5.6 Measure of Mediator (Strategic Knowledge Management):**

The strategic knowledge management (SKM) scale was based on a five-item scale adopted from Choi & Lee (2003) for tacit knowledge and for internal oriented knowledge was adopted from Lee et al. (1999). This is also based on a 5-point scale (Strongly disagreed =1 to strongly agree =5).

#### **3.2.6 Measure for organizational performance:**

For perceived organizational performance, the scale was adopted from Delaney & Huselid (1996). This is also based on a 5-point scale (Strongly disagreed =1 to strongly agree =5).

#### **3.2.7 Data Analysis:**

Correlation and Regression Analysis by Smart PLS has been used for variations and correlations independent and dependent variables if any. The PLS has been used as it ensures factor certainty by directly estimating potential variable scores, which is determined by introducing a flexible residual covariance structure, and most importantly, robust prediction of hierarchical models. (Wetzels, Odekerken-Schröder & van Oppen, 2009). By using the software Smart PLS (Version 3) applied 1000



replicated nonparametric bootstraps and a path weighting ecosystem for an internal approximation to calculate the level of significance. (Hair; Ringle & Sarstedt, 2013).

# CHAPTER 04

## RESULTS AND ANALYSIS

The following chapter consists of results and analysis. The data collected from 150 respondents and interpret through SMART PLS software. The required analysis is correlation analysis, reliability analysis, multiple regression analysis like mediation.

### 4.1 Confirmatory Factor Analysis (CFA):

In Smart PLS, Confirmatory factor analysis (CFA) assesses the reliability and validity of the constructs in the model which is the pre-requisite for hypothesis testing. This analysis consists of different types of analysis within CFA such as reliability, convergent validity, and discriminant validity. Convergent reliability consists of three further categories like factor loadings, composite reliability (CR), and average variance extracted (AVE).

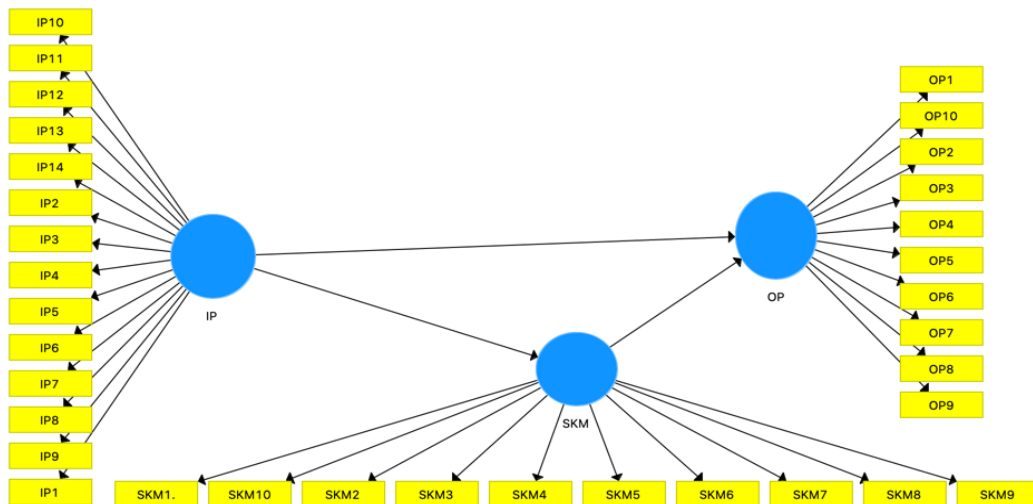
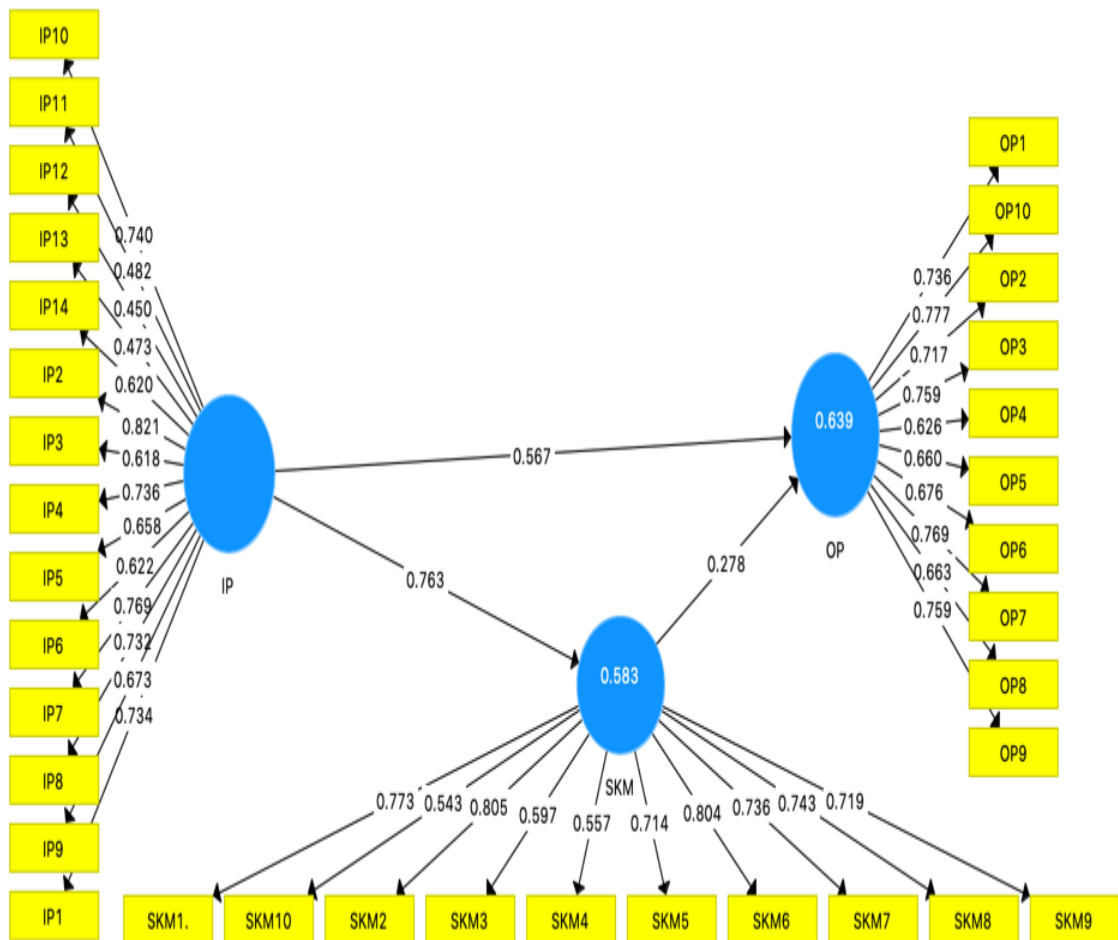


Figure 1: Confirmatory Factor Analysis

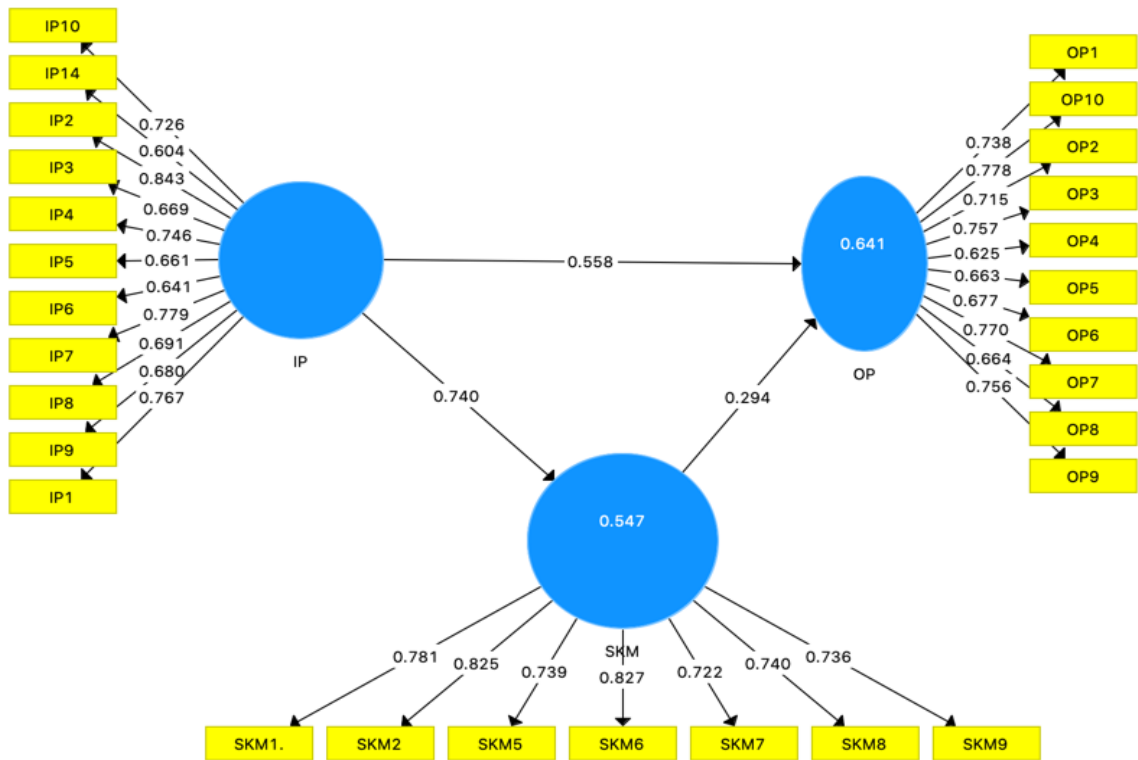
### 4.1.1 CFA 1st Level:

For factor loading, the value should be greater than 0.6 but if in any well-proven scale, it can be less than that. Apply the PSL logarithm factor for calculating the factor loading.



**Figure 2: CFA 1<sup>st</sup> Level**

After deleting the items which have less value than 0.6 and repeat the same process to calculate the 2<sup>nd</sup> level of CFA. After that use the remaining values for further analysis.



**Figure 3: (CFA 2nd Level)**

Above figure shows the 2<sup>nd</sup> level of CFA and the factor loadings of each indicators of the construct after deleting some items.

**Table 1: Reporting CFA**

		<b>Convergent Validity</b>			
<b>Constructs</b>	Items	Cronbach's alpha	Factor Loadings	Composite Reliability (CR)	Average Variance Extracted
<b>Intellectual Potential</b>	IP1		0.767		
	IP2		0.843		
	IP3	0.902	0.669	0.918	0.508
	IP4		0.746		
	IP5		0.661		
	IP6		0.641		
	IP7		0.779		
	IP8		0.691		
	IP9		0.680		
	IP10		0.726		
	IP14		0.604		
<b>Strategic Knowledge Management</b>	SKM1		0.781		
	SKM2		0.825		
	SKM5		0.739		
	SKM6	0.884	0.827	0.909	0.590
	SKM7		0.722		
	SKM8		0.740		
	SKM9		0.736		
<b>Organizational Performance</b>	OP1		0.738		
	OP2		0.715		
	OP3		0.757		
	OP4	0.894	0.625	0.913	0.513
	OP5		0.663		
	OP6		0.677		
	OP7		0.770		
	OP8		0.664		
	OP9		0.756		
	OP10		0.738		

The above table 1 shows the confirmatory Factor Analysis. In this table, Cronbach' alpha shows the consistency of variables because the value of Cronbach's alpha should be greater than 0.6 which has been proved here. The reliability of data shows the internal consistency of variables.

Average Variance Extracted (AVE) is used to measure the errors in data and its value should be 0.5 or above but if the value of AVE is less than 0.5 and the reliability of data is greater than 0.6 then AVE is valid and acceptable.

#### **4.2 Discriminant validity and correlations:**

The discriminant validity leads to better construct validity and also called vertical collinearity. The discriminant validity shows the level to which the items are differentiated among the constructs. It ensures that items belong to different and non-overlapping constructs (Fornell & Larker, 1981).

The value of discriminant validity should exceed the value of the AVE of each dimension. As a general rule, if the diagonal values exceed all the other values in the rows and columns of the matrix then discriminant validity is acceptable.

**Table 2: Discriminant validity and correlation**

	<b>IP</b>	<b>OP</b>	<b>SKM</b>
<b>IP</b>	0.713		
<b>OP</b>	0.776	0.716	
<b>SKM</b>	0.740	0.707	0.768

The above table 2 shows the results of discriminant validity and diagonal values manifest the discriminant validity.

**Table 3: Reliability Analysis**

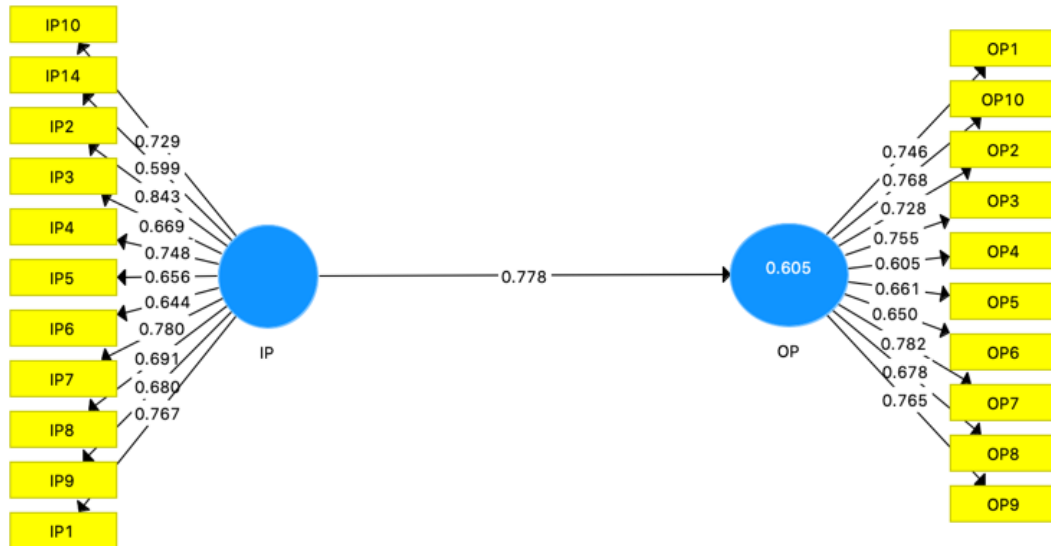
<b>Name of Variables</b>	<b>Reliability</b>	<b>No. of Items</b>
<b>Intellectual Potential</b>	0.918	14
<b>Strategic-Knowledge Management</b>	0.913	10
<b>Organizational Performance</b>	0.909	10

The above table 3 shows the reliability analysis results of 3 variables with 34 items and 150 samples. The results of the above table 4.3 show that all variables are having reliability and acceptable because Cronbach's alpha values are greater than 0.6 which is the requirement of reliability. whereas in the table, the IP scale has a reliability of 0.918 and the number of items is 14, strategic knowledge management has a reliability of 0.913 and the number of items is 10, another variable is an organizational performance with a reliability value of 0.909 and 10 items.

#### **4.4 Structural Equation Modeling:**

SEM using PLS was performed to test the hypothesis including direct effect and indirect or mediating effect.

#### 4.4.1 Direct Effect of IV-DV:



**Figure 4: Direct Effect of IV on DV**

Above diagram shows the direct effect of IV on DV. After applying the factor loading the regression analysis of IV on DV appeared which shows the beta value ( $\beta$ ) 0.778 and R-square  $R^2$  value 0.605.

#### 4.4 Regression Analysis:

In regression analysis to check the variables in which proposed model. Regression analysis includes multiple regression, moderation and mediation regression analysis.

The regression analysis results are below in the following.



**Table 4: PLS Regression**

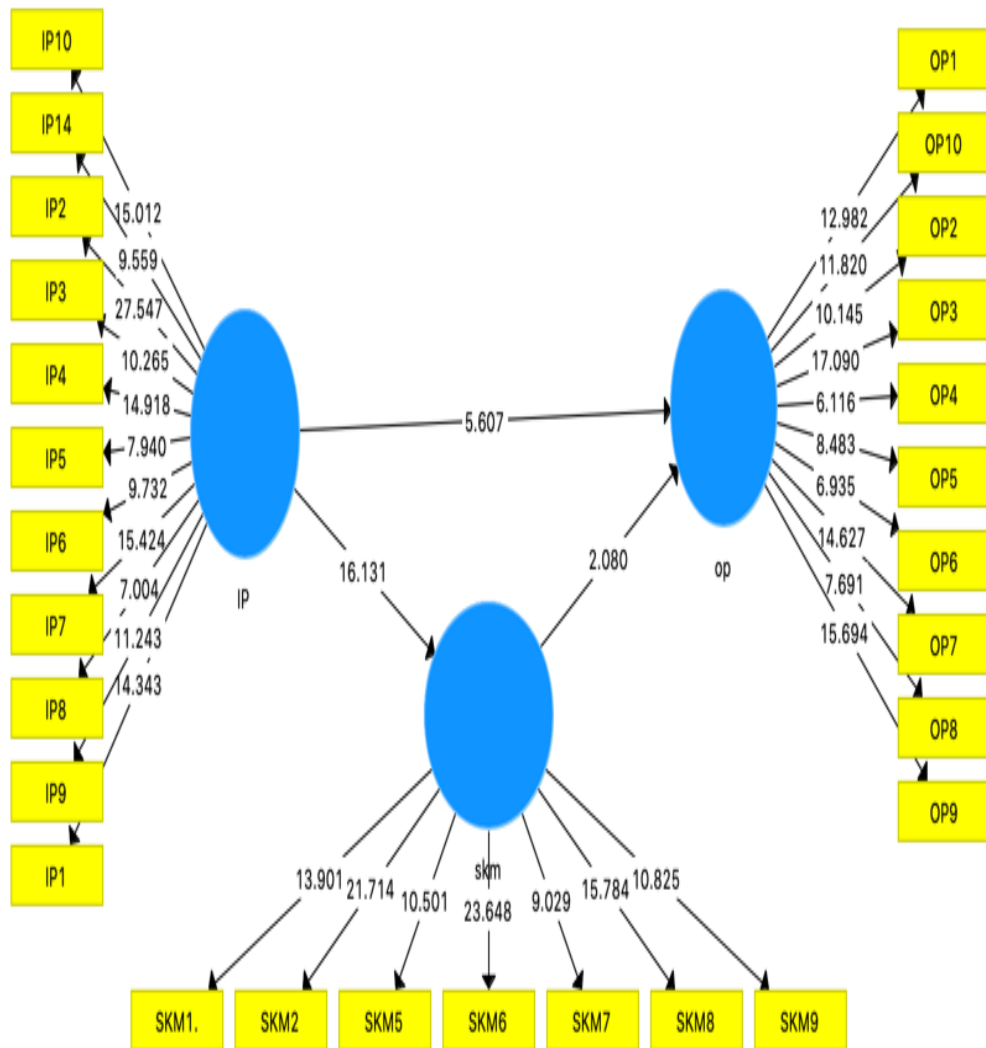
<b>Direct effect of IV on DV</b>				
	<b>Beta</b>	<b>R Square</b>	<b>Adjusted R</b>	<b>P value</b>
<b>Intellectual Potential</b>	0.778	0.605	0.601	0.000

DV= Organizational Performance (OP)

The table shows the Direct effect of IV on DV, where Beta ( $\beta$ ) =0.778 shows one-unit change in DV due to the IV. R-square  $R^2$  value = 0.605 shows the total change in DV due to IV. While adjusted R-square shows the actual change in DV due to IV. Thus, the results of direct effect depicted that in the table 4.4 H1 is accepted and the relationship between IP and OP is significant and positive.

#### **4.5 Mediation Effect:**

If both IV and mediator are positively related to DV then partial mediation is supported (Barron & Kenny,1986; Hayes & Scharkow, 2013). Hence, this study concludes the partial mediation of strategic knowledge management between IP and OP.



**Figure 5: (Path co-efficient)**

**Table 5: Mediation (Path co- efficient)**

	<b>Original Sample</b>	<b>Sample mean</b>	<b>Standard deviation</b>	<b>t-statistics</b>	<b>P-value</b>
<b>IP-&gt; OP</b>	0.566	0.581	0.101	5.607	0.000
<b>IP-&gt;SKM</b>	0.740	0.752	0.046	16.131	0.000
<b>SKM-&gt;OP</b>	0.284	0.276	0.137	2.080	0.038

**Table 6: Total indirect Effect (Bootstrap results)**

	<b>Original Sample</b>	<b>Sample mean</b>	<b>Standard deviation</b>	<b>t-statistics</b>	<b>P-values</b>
<b>IP-&gt; OP</b>	0.210	0.208	0.106	1.987	0.047
<b>IP-&gt;SKM</b>	0.000	0.000	0.000	0.000	0.000
<b>SKM-&gt;OP</b>	0.000	0.000	0.000	0.000	0.000

**Table 7: Specific indirect Effect**

	<b>Original mean</b>	<b>Sample mean</b>	<b>Standard deviation</b>	<b>t-statistics</b>	<b>p-value</b>
<b>IP-&gt; SKM-&gt; OP</b>	0.210	0.208	0.106	1.987	<b>0.047</b>

Above table 4.7 shows that there is partial mediation exists as the P-value is 0.047 which is less than 0.05 and shows that the indirect effect of mediation is found here while there is no total mediation. Because the existence of SKM as a mediator has not diminished the impact of IP on OP which is a direct impact. Thus, the results depicted that H2, H3 and H4 are accepted because SKM has a significant relationship with IP and OP.

**Table 8: Hypothesis Acceptance /Rejection**

<b>Hypothesis</b>	<b>Statements</b>	<b>Results</b>
<b>H1</b>	Intellectual potential has positive impact on Organizational performance	<b>Accepted</b>
<b>H2</b>	Intellectual Potential has positive impact on strategic knowledge management	<b>Accepted</b>
<b>H3</b>	Strategic knowledge management has positive impact on organizational performance	<b>Accepted</b>
<b>H4</b>	Strategic knowledge management mediates between intellectual potential and organizational performance	<b>Accepted</b>

## **CHAPTER 05**

### **DISCUSSION, FUTURE RESEARCH DIRECTION AND CONCLUSION**

In this chapter, results have been discussed. Furthermore, an overview of limitations for future research directions and conclusion was added.

#### **5.1 Discussion of results:**

Findings of the four hypotheses are formulated in this study, all hypothesis tested against the variables. In the above study, the independent variable is Intellectual Potential while organizational performance was the dependent variable and SKM plays the role of mediator between IP and OP.

##### **5.1.1 Intellectual Potential and Organizational performance:**

The first hypothesis of this study predicted that Intellectual potential will positively influence organizational performance and the findings of this study support this hypothesis. Hence, it has been found that Intellectual potential has significant impact on the organizational performance. Thus, the telecom sector can improve its performance by their experienced, talented and skilled workers. Since it's the requirement of the current complex and dynamic environment of the organizations. Bozbura (2004) studied the relationship between the components of IC and market to book value ratio. He concluded that human capital and relational capital have a positive and significant relationship to market ratio. Zeghal & Maaloul (2010) studied the impact of IC on the economic and financial performance of the companies in the UK and the results of their study show that IC has a positive impact on the economic and

financial performance of the companies. Furthermore, there is a significant association between IC and stock market performance but for high tech companies.

Wang (2011) revealed that IC is positively related to market capitalization and return on assets. He further suggests that companies should focus on the delivery of internal information to achieve a competitive advantage.

### **5.1.2 Intellectual Potential and Strategic knowledge management:**

The second hypothesis of this study predicted that Intellectual potential will positively influence strategic knowledge management and the findings of this study support this hypothesis. Organizations perform well and create value when they implement the right strategy. Therefore, the proper implementation of the knowledge management is the key to enhance performance and potentially competent managers can play a strategic role to create and implement policies, systems and strategies that can boost the organizational performance. For example, Skaggs & Youndt (2004) find in their study that certain combinations of strategic positioning and human capital have a strong relationship and result in superior performance. Kong & Thomson (2009) argues that IC, SHRM and HRM are closely related while IC plays a key role in Strategic management of the human resource. furthermore, they suggest that the strategic connections among these concepts required strong support to measure IC correctly. Because these are all interconnected.

### **5.1.3 Strategic Knowledge Management and Organizational performance:**

The third hypothesis of this study predicted that strategic knowledge management positively influences organizational performance and the findings of this study support this hypothesis. Filius et al., (2000) defined knowledge management in the organization

as an assessment of the employee's performance and as a discussion related to the organizational problems and failures, innovating new ideas into product development and learning. He further elaborated that strategic KM emphasis on alignment of knowledge strategy with organizational business and performance. In this context, it is obvious that skilled and experienced employees create new and innovative ideas while support other employees to enhance and implement these new ideas in process development. Therefore, now organizations are involved in implementing the strategic knowledge management to achieve and sustain competitive advantage for its performance. Abusweilem & Abualoush (2019) found a positive relationship between the KM process and organizational performance in their study.

#### **5.1.4 Strategic knowledge management mediates between IP and OP:**

The fourth hypothesis of this study predicted that strategic knowledge management mediates between IP and OP. The results support the partial mediation of SKM between IP and OP. Hsu and Sabherwal (2011) suggest that KM capabilities mediate the impact of IC on firm performance. Specifically, their study of 533 Taiwanese publicly listed companies demonstrated that the impact of organizational capital and social capital on innovation was fully mediated by knowledge enhancement and knowledge utilization capabilities. Also, Chien and Chao (2011) found a mediating effect of cross-functional integration and co-production on IC and sale performance. George & Venkatapathy (2018) examined the role of KM as a mediator in the relationship between spiritual intelligence and employee engagement in the information services industry. The results showed that KM is a mediator between spiritual intelligence and employee engagement and it is also noted that complete mediation exists between these constructs. Barkat & Beh (2018) conducted research to test the potential effect of IC in a developing country.

While the main objective of this study is to test the mediation effect of knowledge process capability between intellectual capital and organizational performance. The results revealed that knowledge process capability mediates between intellectual capital and organizational performance.

## **5.2 Implications:**

### **5.2.1 Theoretical and practical implications:**

This study has some important implications for theory as well. As theoretically it has been discussed in many studies and empirically proven that individuals who are skilled, experienced, competent and knowledgeable have a positive impact on the performance of any organization. Moreover, there is little literature available about the SKM as a mediator but this study added that SKM can be partially mediated between IP and OP.

This study not only added in the theory but also provide practical implications as well. Managers can use the findings of this study to introduce the strategies which can enhance organizational performance if they are skilled, experienced and competent since these are the abilities of intellectually potential employees. This IP model will allow more detailed knowledge of strategic management which is going to help the managers in their task of valuing and increasing activity and efficiency. The findings of this study encourage the decision-makers and HR executive officers to implement more comprehensive strategies by considering the intellectual potential of the employees into consideration at the organizational level. Furthermore, it is suggested that executives and other decision-makers regard the intellectual potential as an investment which is capable of yielding a long-term competitive advantage for organizational performance. The practical implications will not only help the managers



or decision-makers of the private sectors but also help the policymakers of public sectors. As in this emerging knowledge management paradigm, intangible values and knowledge has become the main source of competitive advantage for organizational performance either related to the private sector or public. Since the public sector is facing tough performance challenges and if these elements are managed properly, will ensure success in the public sector too. Hence, there is relatively little methods are introduced related to the strategic management of KM in perspective of IP, the proposed model can help the policymakers to value the selection of potentially competent people.

### **5.3 Limitations and Directions for future research work:**

Future studies can test the relationships proposed in this study with longitudinal design as the current study design was cross-sectional. This study focused on the telecom sector only but another sector can be tested. Future studies can also test the mediating impact of various other constructs such as innovation impact. Since in the current study, the private sector was tested but for future studies, the proposed relationship can be checked with public sector performance as well.

### **5.4 Conclusion:**

It has been argued that human capital was not paid much attention to the role of competitive advantage of business in the knowledge economy. Whereas, the early literature about knowledge management focused on technological issues. However, the importance of people management yet to be fully developed. Since, information technology is a key driver for knowledge management while many believe that knowledge management is about people, not technology.

Therefore, the main focus of this paper on IP of HC and SKM not on other assets of IC. Thus, a competent individual is key in a company's effort to realize and develop its business ideas. The collective efforts of highly competent, skilled, capable, creative, motivated and well-informed people play a significant role in creating and delivering a competitively superior value to its firm. The current study also provided a positive relationship among all variables of the model. Therefore, it has been proved that intellectual potential can play a significant role in increasing the organizational performance of telecom companies. Moreover, a strategy can significantly mediate between IP and OP. IP is one of the most important sources for sustainable competitive advantage in the companies whereas an important managerial responsibility is to manage and utilize the potential of the company in a better way. The growth and decline in the intellectual resources actually point towards the intellectual performance of the company. The crux is that it is individuals, not the company that owns and controls the topmost source of the competitive advantage. This is called the knowledge of organizational members. This is why the concepts like hidden assets, intangible resources, or intellectual potential often reveal more about the future earning capabilities of a company than any of the conventional performance.

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## APPENDIX

### **The Impact of Intellectual Potential on the Performance of telecommunication sector of Pakistan with the mediating role of Strategic Knowledge management**

Dear Madam/Sir,

This questionnaire contains the statements which are made to get the primary information about the constructs of my research topic. I request you to simply tick (✓) the appropriate answer from the choice given under each statement.

#### **Part (A)**

A. Employee's Personal Information:

Designation: \_\_\_\_\_

Age: \_\_\_\_\_

Gender: Female Male

City: \_\_\_\_\_

Organization: \_\_\_\_\_

**Part (B)**

Please tick (✓) the appropriate number against each statement, according to scale

below:

<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly Agree</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

**1. Intellectual Potential:**

1. Our employees are highly skilled.	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5
2. Our employees are widely considered the best in our industry.	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5
3. Our employees are creative and bright.	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5
4. Our employees are considered experts in their particular jobs and functions.	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5
5. Our employees are able to expect the influence of external change in the industry on the company and customers.	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5
6. Our employees develop new ideas and knowledge.	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5

7. Our employees are risk taker in order to achieve organizational goals.	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5
8. Our employees possess leadership abilities in their work.	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5
9. Our employees are able to focus on the quality of service provided.	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5
10. Our employees are educated and able to influence their managers.	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5
11. Our employees are able to work in integrated teams.	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5
12. Our employees are able to find simple solutions for more complex problems.	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5
13. Our employees possess a full understanding of the company and are able to integrate organizational knowledge across different areas in the company.	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5
14. Our employees are able to develop and maintain strong relationships with others.	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5

## 2.Strategic Knowledge Management:

1.Knowledge is easily acquired from experts and co-workers in my company.	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5
2. It is easy to get face-to-face advice from experts in my company	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5
3. Informal dialogues and meetings are important methods for knowledge sharing in my company	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5
4. One-to-one mentoring is frequently used for knowledge acquisition in my company	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5
5. Internal knowledge is important resource to create new knowledge in my company	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5
6. Internal knowledge is frequently used for developing knowledge in my company	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5
7. Internal knowledge is trustable resource for developing new knowledge in my company	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5
8. Internal knowledge is core resource to create new knowledge in my company	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5
9. The quantity and quality of knowledge created internally are superior to those of competitors for developing new knowledge	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5

10. My company prefers internal knowledge to external one in developing new knowledge	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5
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**3.Perceived organizational performance:**

1. Quality of our products/services has been improved.	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5
2. Development of new products or services is major activity in our organization.	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5
3. Organizational ability to attract employees has improved.	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5
4. Ability to retain employees is a major strength of our organization.	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5
5. Satisfaction of customers/clients is preferred concern of the organization.	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5
6. Management and employees are having trustful relationship with each other.	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5
7. Market Share of organization has been increased.	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5
8. Our company has better standing in the market now, as compared to last 3 years.	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5

9. Organizations' shares are improving in the stock exchange.	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5
10. My Organization sets SMART targets for the employees.	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5

**Note: All data collected is purely for educational purposes only.**

